Geophysics and Drilling Collaborations Program 2021

'Resourcing the Territory'

EL32282 and EL32296 Gravity Survey Report, Georgina Basin, NT

Knox Resources Pty Ltd

Northern Territory Geological Survey

Report prepared by

SRK Consulting (Australasia) Pty Ltd

Tenements:	EL32282 and EL32296
Holder:	Knox Resources Pty Ltd
Map Sheets:	250K: Tennant Creek and Alroy
	100K: Barkly, Gosse River and Favenc
Datum, Zone:	GDA94, Zone 53S

Date:	**21 December 2021**
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Project:	**KNX001**

Abstract

Knox Resources Pty Ltd (Knox or the Company) applied for and was successful in seeking exploration grants with the Northern Territory Geological Survey (NTGS) as part of the Round 14 of the 2021 Geophysics and Drilling Collaboration and the Northern Territory Government's four-year 'Resourcing the Territory' initiative. The co-funding grant was applicable to Exploration Licence (EL) 32282 and EL32296 located within the Georgina Basin, Northern Territory, to acquire a ground gravity survey based on a spacing of 1 km × 1 km grid.

Both titles are held by Knox on a 100% basis. Knox is a wholly owned subsidiary of Greenvale Mining Limited, a public listed company on the Australian Securities Exchange (ASX) with ticker code GRV. Both titles were granted on 23 September 2020.

Improving the resolution of the ground-based gravity data will assist when interpreting stratigraphic units and structures, particularly in areas that are magnetically 'quiet' and, in EL32282 particular where only sparse 4 km × 4 km spaced gravity data were previously available. The regional area has been historically explored for phosphate and iron oxide copper gold (IOCG) style mineralisation; however, a review of open file historical data and exploration reports suggests no previous mineral occurrences have been recognised in the area covering EL32282 and EL32296, largely reflecting the extensive Georgina Basin cover within this area. Pre-competitive geoscience studies in the area by Geoscience Australia and NTGS, and a recent Geoscience Australia IOCG 'Prospectivity' map (Skirrow et al., 2019) highlighted the area as being highly prospective for Tennant Creek-style IOCG mineralisation.

Atlas Geophysics Pty Ltd (Atlas) undertook the gravity survey over EL32282 and EL32296 from 24 July 2021 to 26 August 2021. Gravity stations were acquired using 1 km × 1 km grid using a helicopter-borne gravity method and utility terrain vehicles (UTVs) for 200 m × 200 m detailed grid configurations. Field data were processed, and inversion modelling undertaken by Resource Potentials Pty Ltd (Resource Potentials) in Perth, with the geological interpretation, 3D modelling and drill hole targeting undertaken by SRK Consulting (Australasia) Pty Ltd (SRK).

The acquisition of the detailed gravity over EL32282 and EL32296 has greatly added to the NT regional gravity datasets, with the work already completed from these datasets further highlighting the greenfields prospectivity of the East Tennant region. These data provided a better understanding of important structural corridors, distribution and architecture of prospective geological horizons and potential fluid sources and provided greater confidence for drill targeting across the project areas. Four preliminary drill holes (also referred to as the Twin Peaks targets) were designed to test these zones. The magnetic and gravity data indicate high magnetic bullseye targets with coincidental gravity anomalies.

Knox is currently undertaking a diamond drill hole program in EL32282 and EL32296. Hole KNRDD002 (West) was drilled to 796.6 m and diamond drilling is underway at the second hole, KNRDD004 (East) based on the results of the acquired ground-based gravity and airborne magnetic surveys.

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Supplied Separately

Gravity Survey Digital Dataset will be provided separately in appropriate format/s.

Disclaimer

The opinions expressed in this Report have been based on the information supplied to SRK Consulting (Australasia) Pty Ltd (SRK) by Knox Resources Pty Ltd (Knox). The document has been written by Carl D'Silva for submission to the Northern Territory Geological Survey as part of the co-funding requirements.

SRK has exercised all due care in reviewing the supplied information. While SRK has compared key supplied data with expected values, the accuracy of the results and conclusions from the review are entirely reliant on the accuracy and completeness of the supplied data. SRK does not accept responsibility for any errors or omissions in the supplied information and does not accept any consequential liability arising from commercial decisions or actions resulting from them. Opinions presented in this Report apply to the site conditions and features as they existed at the time of SRK's investigations, and those reasonably foreseeable. These opinions do not necessarily apply to conditions and features that may arise after the date of this Report, about which SRK had no prior knowledge nor had the opportunity to evaluate. Any information included in the Report that originates from historical reports or other sources is listed in Section 7 (References). All relevant authorisations and consents have been obtained. Carl D'Silva authorised the NTGS to copy and distribute the Report and associated data.

Useful Definitions

This list contains definitions of symbols, units, abbreviations, and terminology that may be unfamiliar to the reader.

%	per cent
ca.	circa; approximately
EL	Exploration Licence
IOCG	iron oxide copper gold
k	thousand
km	kilometres
km^2	kilometres squared
m	metres
Ma	million years ago
NDI	National Drilling Initiative
NTGS	Northern Territory Geological Survey
SRK	SRK Consulting (Australasia) Pty Ltd.
UTV	utility terrain vehicle

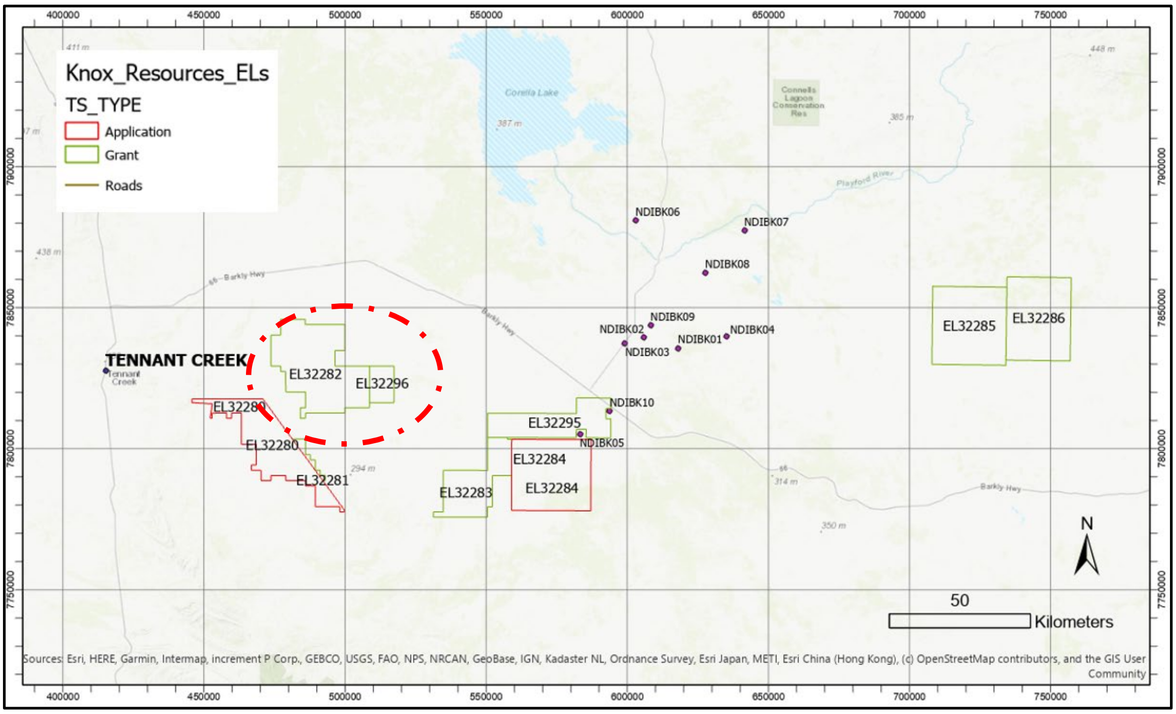
1 Introduction

Knox holds seven granted exploration licences over four distinct locations covering some 4,523 km^2. The licences are situated between the historical Tennant Creek and Mount Isa IOCG provinces. EL32282 and EL32296 were granted to Knox on 23 September 2020.

Knox is the tenement holder of adjoining licences EL32282 and EL32296, which form part of the Company's Georgina Basin project (Figure 1-1). Both EL32282 and EL32296 are located between 60 km and 150 km east of the Tennant Creek township. The tenements are accessible by road and tracks using a 4WD vehicle. All land access arrangements with the landowners were made prior to the commencement of the ground-based gravity survey.

Recent data released from the ten deep diamond drill holes drilled under the MinEx CRC National Drilling Initiative (NDI) across the Barkly Tableland, east of Tennant Creek, provided new insights into the mineral potential of this area. The drilling was designed to test the potential of basement rocks in the East Tennant area which are known to host gold and copper-rich deposits similar to those in the world-class Tennant Creek mineral field.

Figure 1-1: Knox's Georgina Basin project tenements and MinEx CRC NDI drill hole locations



Source: SRK Consulting

2 Regional Context

2.1 Regional geology

The Barkly Tableland area east of Tennant Creek township is a focus of substantial exploration interest in the NT. A number of companies have commenced exploration activities following up encouraging results from the collaborative pre-competitive geoscience studies in the area by Geoscience Australia and NTGS (Skirrow et al., 2019).

High-grade deposits of copper and gold mineralisation associated with magnetite- and/or hematite-bearing ironstones hosted within the Warramunga Formation have been mined in the Tennant Creek Inlier since the 1930s. The Warramunga Formation is characterised by turbiditic felsic volcanic-derived sediments and felsic tuffs (deposited about 1862 Ma) that have been deformed during major north–south-directed compression, basin inversion and bedding-parallel thrusting about east–west axial planes. Basin dewatering during early orogenesis leached the sediments of iron and redeposited the iron as hematite and/or magnetite within planar shears or by selective replacement of bedding-parallel thrusts in the hinge zones of folds. Syn-tectonic intrusive rocks of the Tennant Creek Suite comprising granites and quartz porphyries and lesser mafic to intermediate intrusions focused along pre-existing structures (1,851–1,847 Ma).

Knox's Georgina Basin project covers part of the interpreted eastern extension of the highly prospective Warramunga Province under Georgina Basin cover sequences (Figure 2-1). The area comprises metasediments and metavolcanics interpreted to be probable equivalents of the Warramunga Formation and Ooradidgee Group, intruded by felsic intrusions. Major east-west-trending shear zones divide the area into several structural blocks of tightly folded strata.

Exploration is primarily focused on targeting IOCG-style mineralisation in the Warramunga Province basement, as well sediment-hosted copper and/or zinc in Palaeo-Mesoproterozoic basin successions. Due to the Georgina Basin cover sequences, detailed geophysical methods are required to better understand the distribution and architecture of the prospective Warramunga sequences.

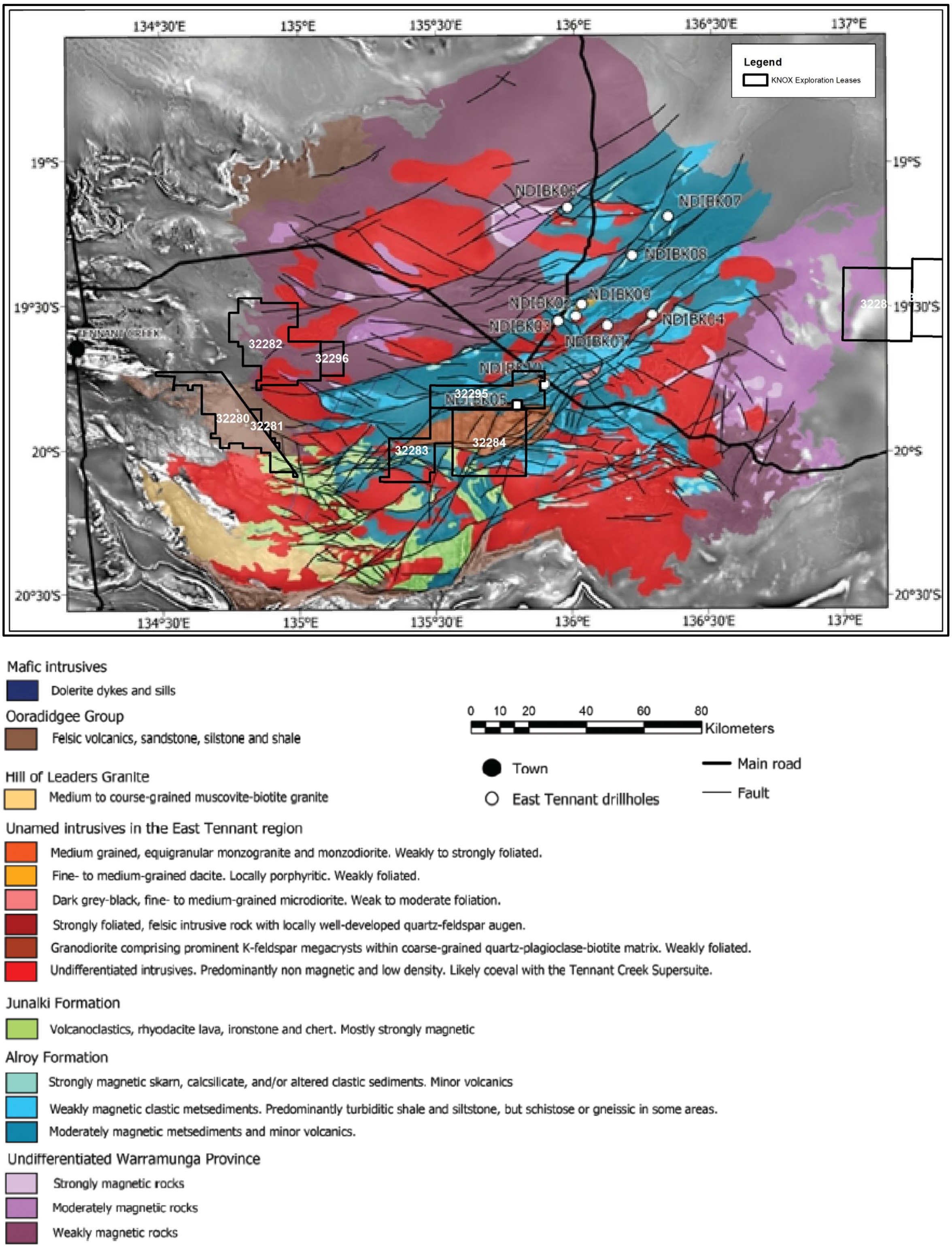
2.2 Local geology of EL32282 and EL32296

2.2.1 Warramunga Formation

The Warramunga Formation and correlative Junalki Formation and Woodenjerrie Beds represent the oldest rocks in the Warramunga Province, deposited ca. 1,860 Ma (Ahmad and Munson, 2013; Donnellan, 2013; Maidment et al., 2013). The Warramunga Formation has no exposed base and is mostly composed of weakly metamorphosed turbiditic greywacke, locally tuffaceous, with lesser siltstone, shale and argillaceous ironstone, referred to in the literature as 'haematitic ironstone' (Donnellan, 2013; Huston et al., 2020 and references therein).

The Warramunga Formation and its equivalent sequences were affected by the tectono-magmatic ca. 1,860–1,850 Ma Tennant Event (Donnellan and Johnstone, 2004). This event resulted in extensive syn- to post-tectonic magmatism (Tennant Creek Supersuite) and regional D_1 shortening of the crust, expressed as the east- or east–northeast-trending upright F_1 folds and low-grade metamorphism (Donnellan, 2013). The ca. 1,850–1,840 Ma Tennant Creek Supersuite (Wyborn et al., 1998) comprises mainly granitic intrusions with lesser granodiorite, tonalite, felsic porphyry and dolerite, as well as extrusive felsic volcanic rocks (Donnellan, 2013). The Tennant Event folded and thrusted the sedimentary sequences and ultimately exhumed the entire package. This resulted in an erosional angular unconformity between the pre-Tennant Event rocks (Warramunga Formation, Junalki Formation and Woodenjerrie Beds) and the overlying volcano-sedimentary successions of the Ooradidgee Group (Donnellan, 2013).

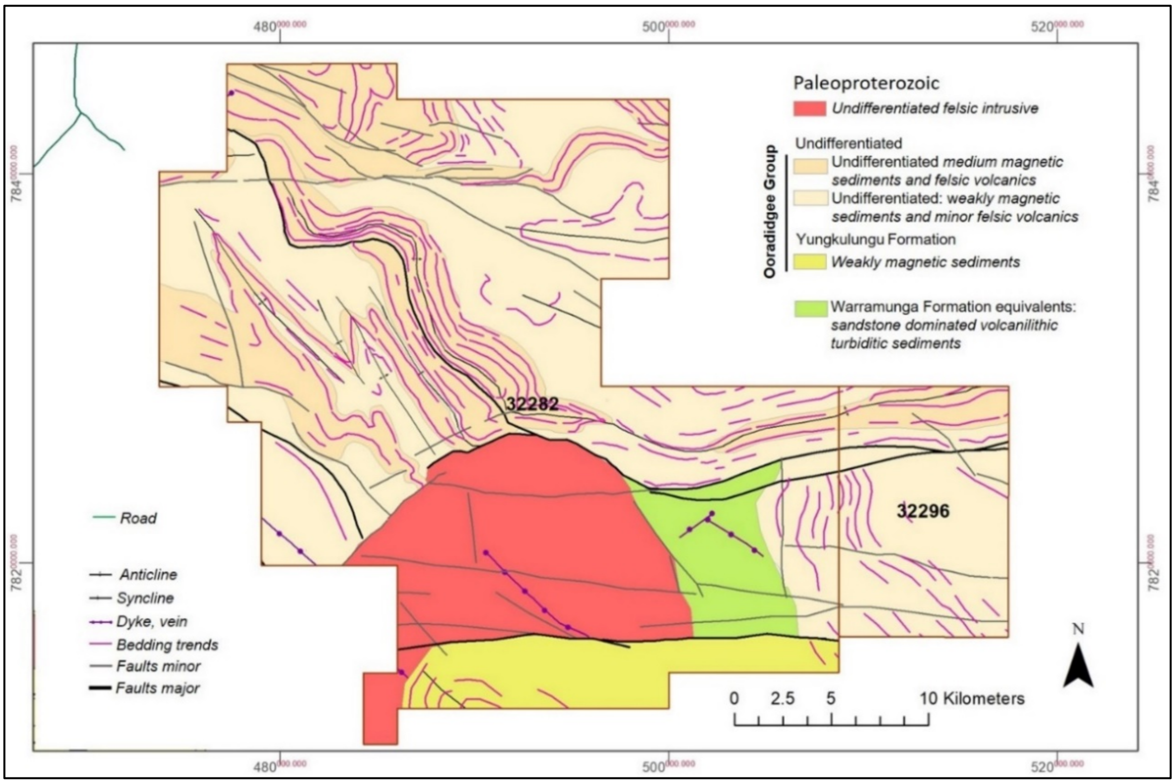
Figure 2-1: Palaeoproterozoic bedrock geology, Knox's licences and locations of NDI drill holes in the East Tennant region



Source: Stewart et al., (2020)

Note: Interpreted Palaeoproterozoic bedrock geology, location of NDI drill holes and Knox Exploration's leases in the East Tennant region overlain on an image of the first vertical derivative of total magnetic intensity.

Figure 2-2: Interpreted basement geology and structure of EL32282 and EL32296



Source: SRK Consulting

2.2.2 Tennant Creek Suite

Deposition of the Warramunga Formation was closely followed by intrusive and extrusive felsic magmatism of the Tennant Supersuite, as well as deformation and Tennant Creek-style IOCG mineralisation associated with the 1,860–1,845 Ma Tennant Event. This event is defined as D_1 across the Tennant Creek region (Donnellan, 2013; Maidment et al., 2013). The syn-tectonic intrusive rocks of the Tennant Creek Suite comprise granites and quartz porphyries as well as lesser mafic to intermediate intrusions. Intrusion of this suite is interpreted to have exploited pre-existing structures between 1,860 and 1,840 Ma.

2.2.3 Ooradidgee Group

Unconformably overlying the Warramunga Formation are volcano-sedimentary rocks of the ca. 1,845–1,840 Ma Ooradidgee Group (Maidment et al., 2013). Early sequences of the Ooradidgee Group (such as the Monument and Yungkulungu formations) are interpreted to overlap in time with the intrusion of the Tennant Creek Suite and the main sulphide mineralisation event within Tennant Creek (Houston et al., 2020).

The Ooradidgee Group comprises dominantly extrusive volcanic (and volcaniclastic) rocks intercalated with sedimentary sequences that vary upward from deep-water to sublittoral/littoral and finally fluviatile facies. Donnellan (2013) recognised three volcanic episodes in the Ooradidgee Group. The oldest, at ca. 1,850 Ma, is represented by the Monument Formation and Yungkulungu Formation, and the mafic Edmirringee Volcanics; a second event, bimodal, at ca. 1,840 Ma, is represented by the Epenarra Volcanics and the Bernborough Formation; and a third event, at ca. 1,814 Ma, is represented by the Treasure Volcanics.

The Davenport Event resulted in the folding of Ooradidgee Group and most likely overprinted the Tennant Event deformation in the Warramunga Formation (Donnellan, 2013). This phase of deformation is interpreted to be broadly coeval with emplacement of the ca. 1,710 Ma Devils Suite and correlative with tectonism and magmatism of similar age in the Aileron Province (McGloin et al., 2020). The Devils Suite granites are associated with tungsten-tin-tantalum-molybdenum and gold mineralisation in the Davenport Province, which lies to the south of the Warramunga Province (Skirrow et al., 2019).

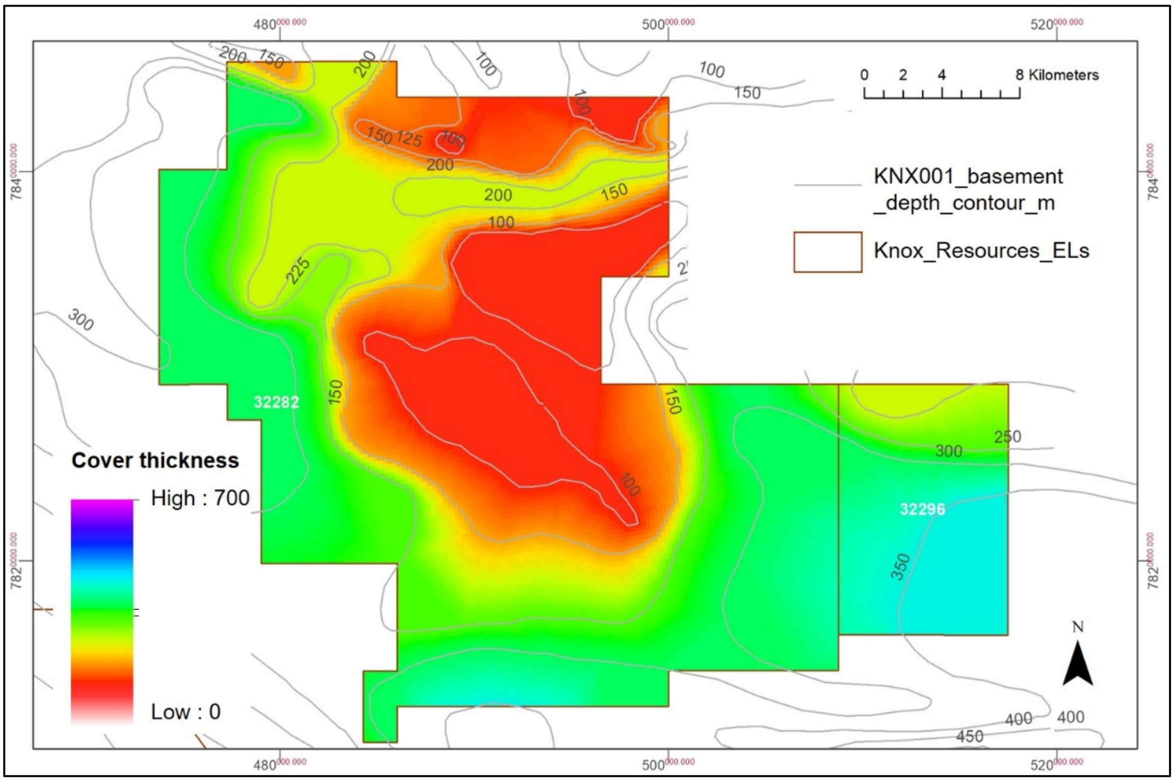
Two phases of concentric folding overprint the Ooradidgee Group (Blake et al., 1987): a first folding event that resulted in northwest-trending folds, which was superimposed by a second event with northeast-trending folds.

2.2.4 Georgina Basin sediments

The Georgina Basin is a widespread intra-cratonic basin covering over 325,000 km^2 within Australia and includes rocks of Cryogenian to Devonian age (Khan et al., 2007). Rocks of the Georgina Basin vary compositionally from east to west with a gradual shift from predominantly siliciclastic to more carbonate-rich components. These compositional changes reflect a palaeogeographic setting shift, which varied from a marine slope, ramp-dominated facies to sabka-type, supratidal depositional settings.

Sedimentary rocks of the Georgina Basin overlie most of the Proterozoic sequences within Knox's tenure, forming a cover sequence of typically less than 300 m (Figure 2-3).

Figure 2-3: Interpreted thickness of cover over Palaeoproterozoic basement in EL32282 and EL32296



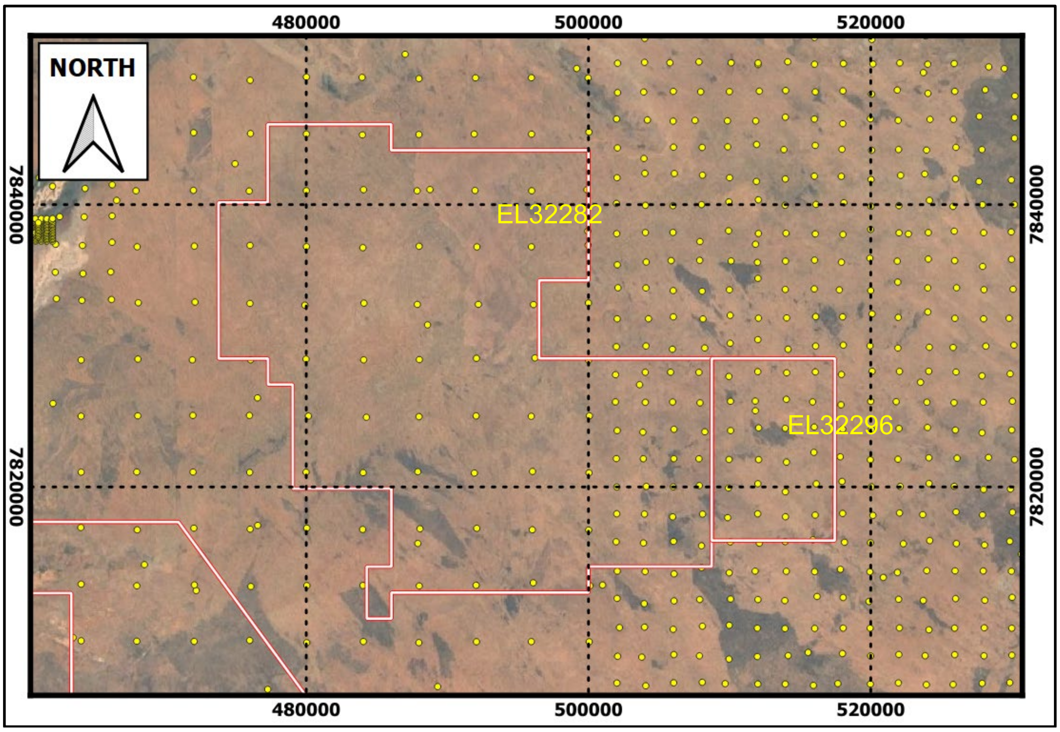
Source: SRK Consulting

3 Previous Exploration

The regional area has previously been explored for phosphate and IOCG-style mineralisation; however, a review of open file historical data and exploration reports suggests no previous mineral occurrences have been recognised in the area covering EL32282 and EL32296, largely reflecting the extensive Georgina Basin cover within the permit areas. Prior to 2021, the ground-based gravity survey coverage within EL32282 and EL32296 was relatively sparse; most of the tenement area was only covered by gravity data acquired using a 4 km × 4 km station spacing undertaken as part of Tennant Creek 2001 NTGS survey (Figure 3-1). A small region in the east of EL32282 and all the area of EL32296 are covered by ground-based gravity stations spaced on a 2 km × 2 km regular grid (Barkly 2009 and East Tennant Creek 2019 surveys).

Following the grant of EL32282 and EL32296, Knox completed a high-resolution extensive airborne geophysical survey using a fixed-wing platform (airborne magnetic, radiometric and digital elevation model (DEM)) across its western and south-eastern tenements, with a total of 15,261 line kilometres in December 2020. Three key granted tenements, namely EL32282, EL32296 and EL32295, are covered on 100 m traverse line spacings (Table 3-1).

Figure 3-1: Historical sparse coverage of ground-based gravity stations in EL32282 and EL32296



Source: SRK Consulting

Table 3-1: Available airborne magnetic survey data in EL32282 and EL32296

Tenement	Traverse line spacing (m)	Traverse line direction (degrees)	Tie-line spacing (m)	Tie-line direction (degrees)	Sensor height (m)	Total line kilometres
EL32282/ EL32296	100	015-195	1,000	105-285	30	10,349
EL32295	100	000-180	1,000	090-270	30	4,912

Sources: Knox Resources Pty Ltd

3.1 Exploration model – IOCG deposits

The Barkly Tableland area east of Tennant Creek is a focus of substantial exploration interest. Several companies have commenced exploration by following up encouraging results from the collaborative pre-competitive geoscience studies in the area by Geoscience Australia and NTGS (Skirrow et al., 2019). Knox is primarily targeting mineralisation in Proterozoic basement underlying Cambrian cover of the Georgina Basin, with key targets being IOCG mineralisation in Warramunga Province, and sediment-hosted copper and/or zinc in Palaeo-Mesoproterozoic basin successions.

IOCG deposits are an important and highly valuable global source of copper, gold and uranium, as well as having the potential to host other minerals, including silver, bismuth, molybdenum, cobalt and rare earth elements.

IOCG deposits generally show a strong magnetic and/or gravity response, with a strong association noted with iron-rich host sequences in the Tennant Creek region lending to this geophysical character. In addition, major structures are recognised to act as important fluid flow conduits for tapping fertile fluid sources at depth. Granites additionally play a key role in fluid and heat source dynamics for IOCG mineral systems in this region and are an important element for targeting in the region. Due to the extensive cover in Knox's project area, geophysical tools such as magnetics and gravity remain critical tools for understanding of the key mineral systems elements and target vectoring.

3.2 Main targets

Knox is primarily targeting mineralisation in Proterozoic basement underlying Cambrian cover of the Georgina Basin, with key targets being IOCG in Warramunga Province, and sediment-hosted copper and/or zinc in Palaeo-Mesoproterozoic basin successions.

A review of the mineral systems of Tennant Creek was conducted to better understand the local IOCG systems and broader IOCG mineralisation model. This work sought to break the underlying mineralisation model into mappable components inclusive of the fluid source, fluid pathway and fluid traps.

The system elements of the project were broken down as follows:

- Fluid source: favourable intrusives (such as the Tennant Creek suite granites)
- Fluid pathway: major faults and minor faults
- Fluid trap: host rocks (such as the Warramunga Formation and potentially early Ooradidgee Group sequences), ironstones (indicated by presence of favourable alteration/gravity highs).

3.3 Exploration rationale

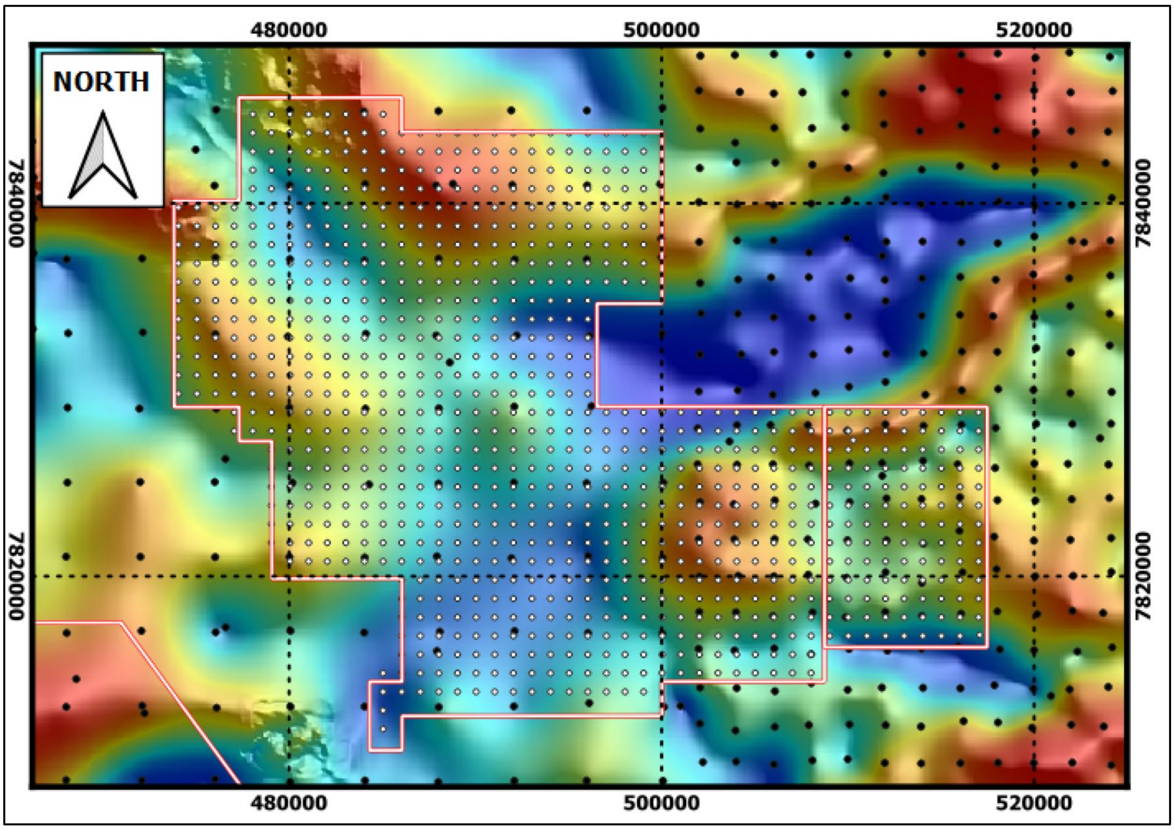
Given the extensive cover over the East Tennant region, detailed magnetic and gravity datasets are required to define the key mappable IOCG targeting elements within EL32282 and EL32296. The acquisition of detailed gravity data across the tenements will further assist in understanding important structural corridors, distribution and architecture of prospective geological horizons, potential fluid sources and will provide greater confidence for drill targeting across the project area.

4 Ground-Based Gravity Program Details

Knox applied for and was successful in seeking exploration grants with the NTGS as part of Round 14 of the 2021 Geophysics and Drilling Collaboration and the NT Government's four-year 'Resourcing the Territory' initiative. The co-funding grant was applicable to EL32282 and EL32296 located in the Georgina Basin, NT, to acquire a ground-based gravity survey based on a spacing of 1 km × 1 km grid. The proposed stations (white dots) shown in Figure 4-1 are overlain on a filtered gravity anomaly image that was generated by Resource Potentials Pty Ltd (Resource Potentials) using the historical available gravity data (black dots).

Improving the resolution of the ground-based gravity data will assist when interpreting stratigraphic units and structures within EL32282 and EL33296, particularly in areas that are magnetically 'quiet' and, in EL32282 particular where only sparse (4 km spaced) gravity data were available.

Figure 4-1: 2021 ground-based gravity survey design over EL32282 and EL32296



Source: Resource Potentials Pty Ltd

Note: Proposed program shown as Resource Potentials Pty Ltd white dots overlain on a filtered gravity image generated using the available regional gravity data (black dots).

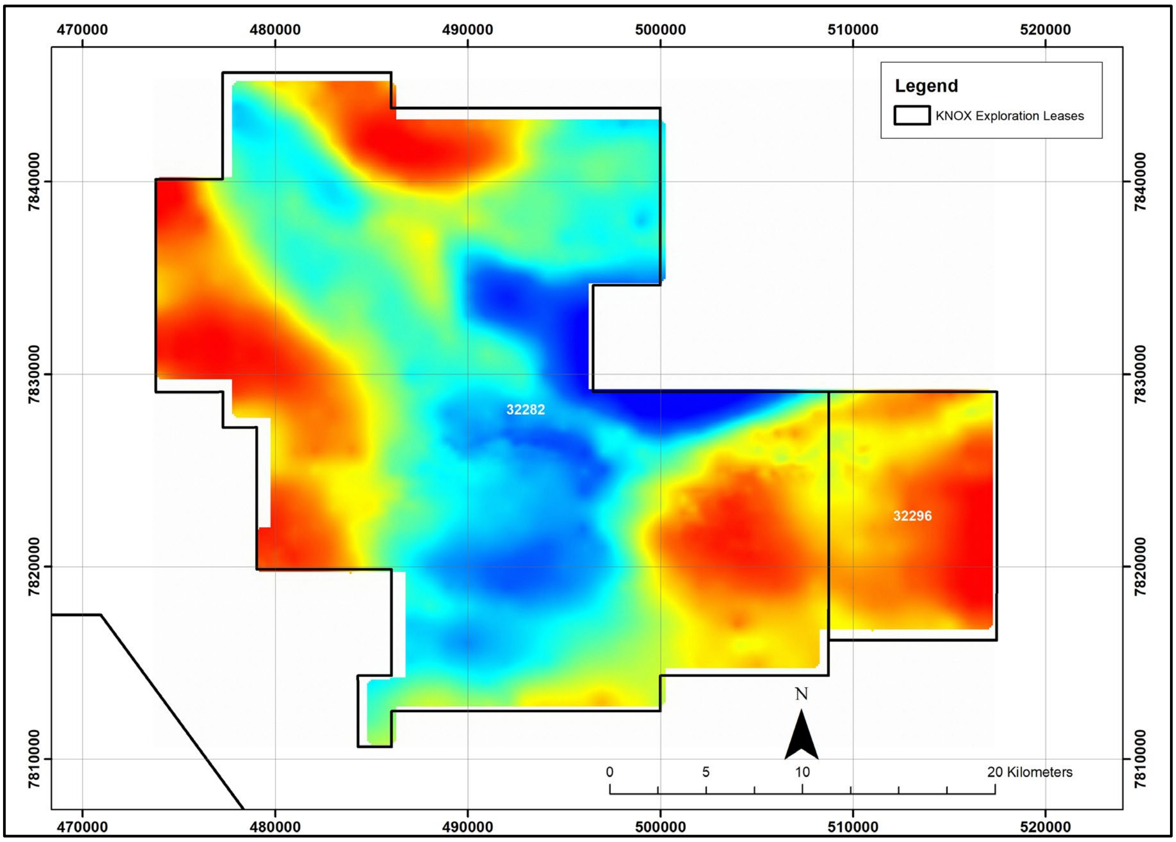
4.1 Survey details

Atlas was commissioned by Knox to undertake the ground-based gravity survey over EL32282 and EL32296. Field acquisition for the ground gravity survey commenced on the 24 July 2021 and was completed on 26 August 2021. The gravity survey was completed in 25 days of acquisition, with an average rate of circa 110 stations per day of production. Details of the acquisition parameters and field survey report are included in Appendix A.

Collection of the 1 km × 1 km data was completed using helicopter-borne gravity methods. Data from additional detailed 200 m × 200 m grids were collected over key target areas using UTV-borne gravity methods. The raw and processed data are included in Appendix B.

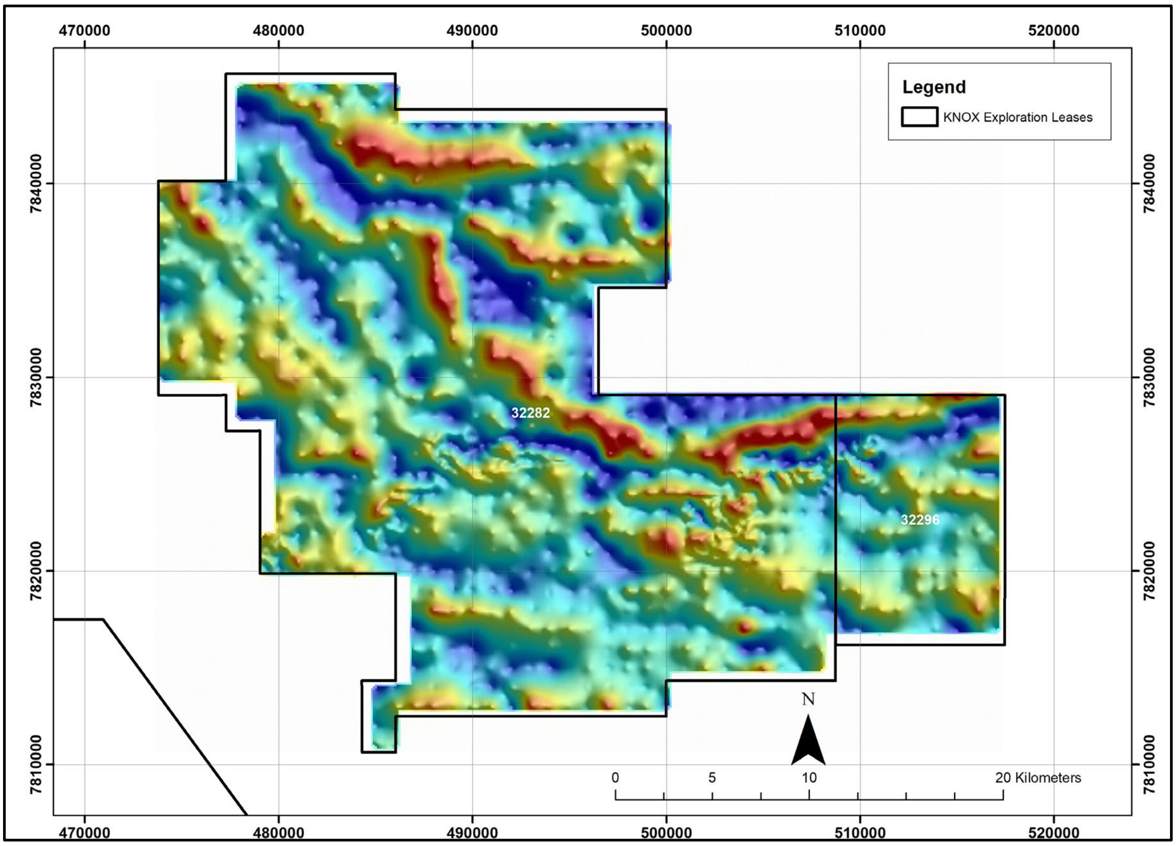
The processing of field data and inversion modelling was undertaken by Resource Potentials in Perth (Figure 4-2 and Figure 4-3). SRK undertook the geological interpretation, 3D modelling and drill hole targeting.

Figure 4-2: Processed Bouguer gravity imagery in EL32282 and 32296



Source: Resource Potentials Pty Ltd

Figure 4-3: Processed 2–5 km gravity high pass imagery in EL32282 and 32296



Source: Resource Potentials Pty Ltd

5 Results and Interpretation

Preliminary interpretations of Knox's exploration leases were conducted to define the geology and structure of the prospective Palaeoproterozoic, below younger Proterozoic strata, Cambrian sedimentary and volcanic rocks of the Georgina Basin and unconsolidated Cainozoic sedimentary cover.

These works were conducted using the following available geology and magnetic datasets:

- high-resolution aeromagnetic and regional gravity data
- outcrop data from the 1:100,000 Northern Territory geology maps
- Tennant Creek and Frew River solid geology maps
- drilling data where available.

The interpretation of the solid geology and structure was undertaken at a scale ranging between 1:25,000 and 1:50,000. Structures interpreted included faults, bedding trends, dykes and fold axes. The faults were subdivided into either major or minor where the former could be distinguished by displacements of several kilometres and expression in the regional gravity data. Detailed gravity data across the lease areas were subsequently acquired to assist in further refining the subsurface interpretations as well as assist in the definition of follow-up areas for drill targeting. Undifferentiated, folded and faulted Ooradidgee Group sediments and volcanics occur in both EL32282 and EL32296. A small zone of Warramunga Group equivalents has been interpreted within the central south of the lease adjacent to an undifferentiated felsic intrusive, potentially of Tennant Suite age (Figure 2-2).

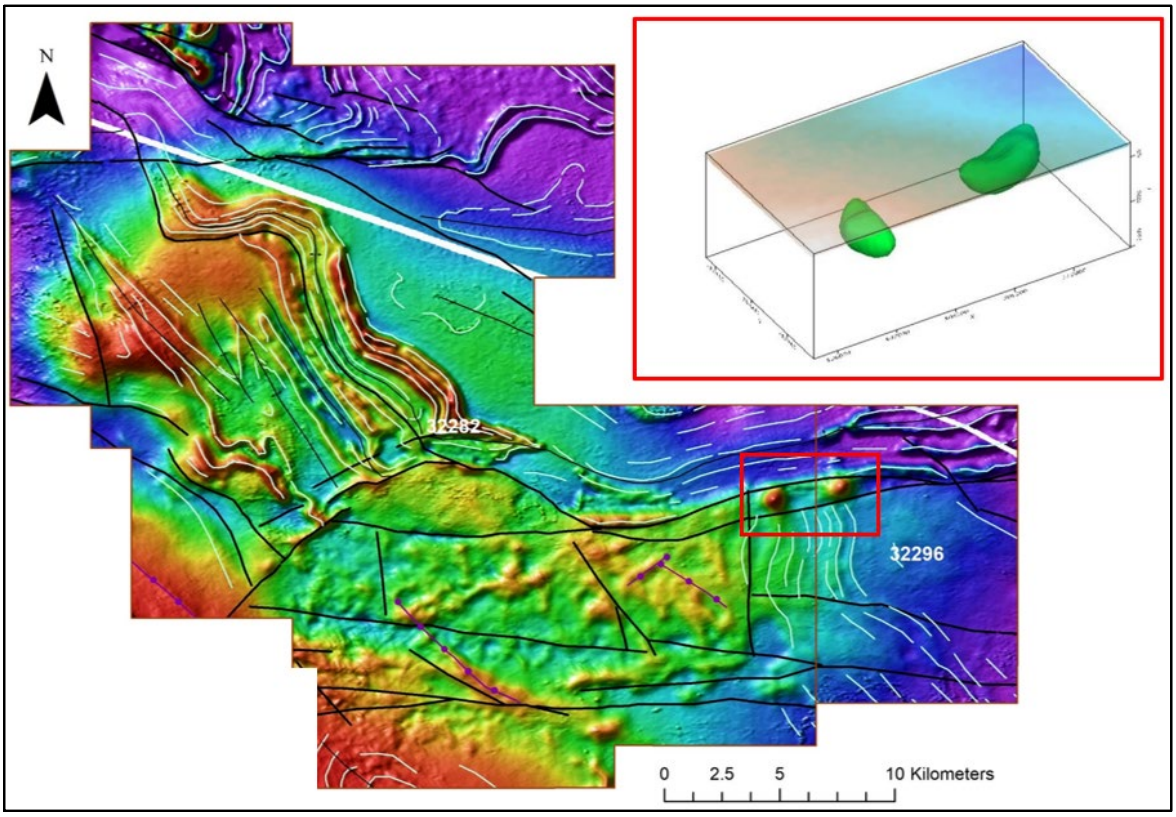
Exploration targeting was conducted using the magnetic and gravity data in conjunction with the solid geology interpretations in order to define potential Tennant Creek IOCG-style geophysical signatures. The concentration of magnetite and hematite (in addition to sulphide minerals) characteristic of Tennant Creek-style IOCG mineralisation may be expressed in gravity data as a weak high and in magnetic data as a magnetic high (magnetite) or magnetic low (hematite). Using the magnetic data, zones of magnetite destruction and enhancement were defined across EL 32282 and EL32296.

A number of areas of magnetite destruction were interpreted within these leases, typically located surrounding fault zones within magnetic host rocks, likely associated with hematite alteration. Areas of magnetite enhancement were defined and interpreted to represent addition of magnetite, potentially linked to hydrothermal fluids. Using the detailed gravity data, gravity highs were identified, interpreted to potentially represent ironstone bodies or alteration signatures. From this, several favourable target areas were identified for follow-up investigations (Figure 5-1).

Of these target areas, two priority targets (Twin Peaks) were defined, forming as two discrete magnetic highs with near-coincident gravity highs between two major regional fault structures (Figure 5-2). Magnetic inversion modelling of both the magnetic and gravity datasets enabled detailed drill targeting to be completed across the two targets areas (Figure 5-3 and Figure 5-4).

Four preliminary drill holes have been planned to test these zones; the magnetic and gravity data indicate high magnetic bullseye targets with coincidental gravity anomalies. Currently, KNRDD002 (West) has been drilled to 796.6 m and diamond drilling of KNRDD004 (East) is underway. Assay results are expected in January 2022 and the four-well drilling campaign is expected to be completed in mid-2022.

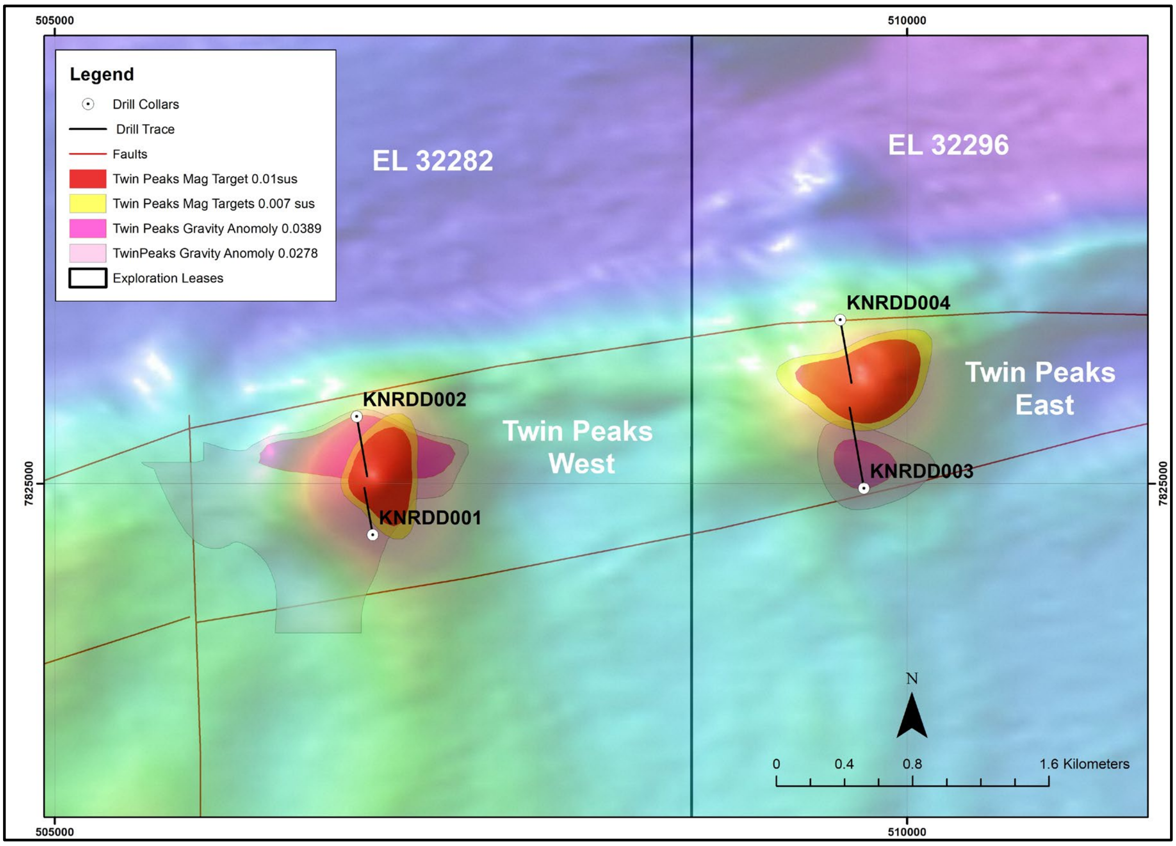
Figure 5-1: Total magnetic intensity reduced to pole (RTP-TMI) imagery and structural line interpretations – EL32282 and EL32296



Source: Resource Potentials Pty Ltd and SRK Consulting

Notes: High magnetic bullseye targets in red box across EL32282 and EL32296. Top right image shows an unconstrained 3D magnetic inversion model of bullseye anomalies and confirms occurrence at approx. 300 m depth below surface.

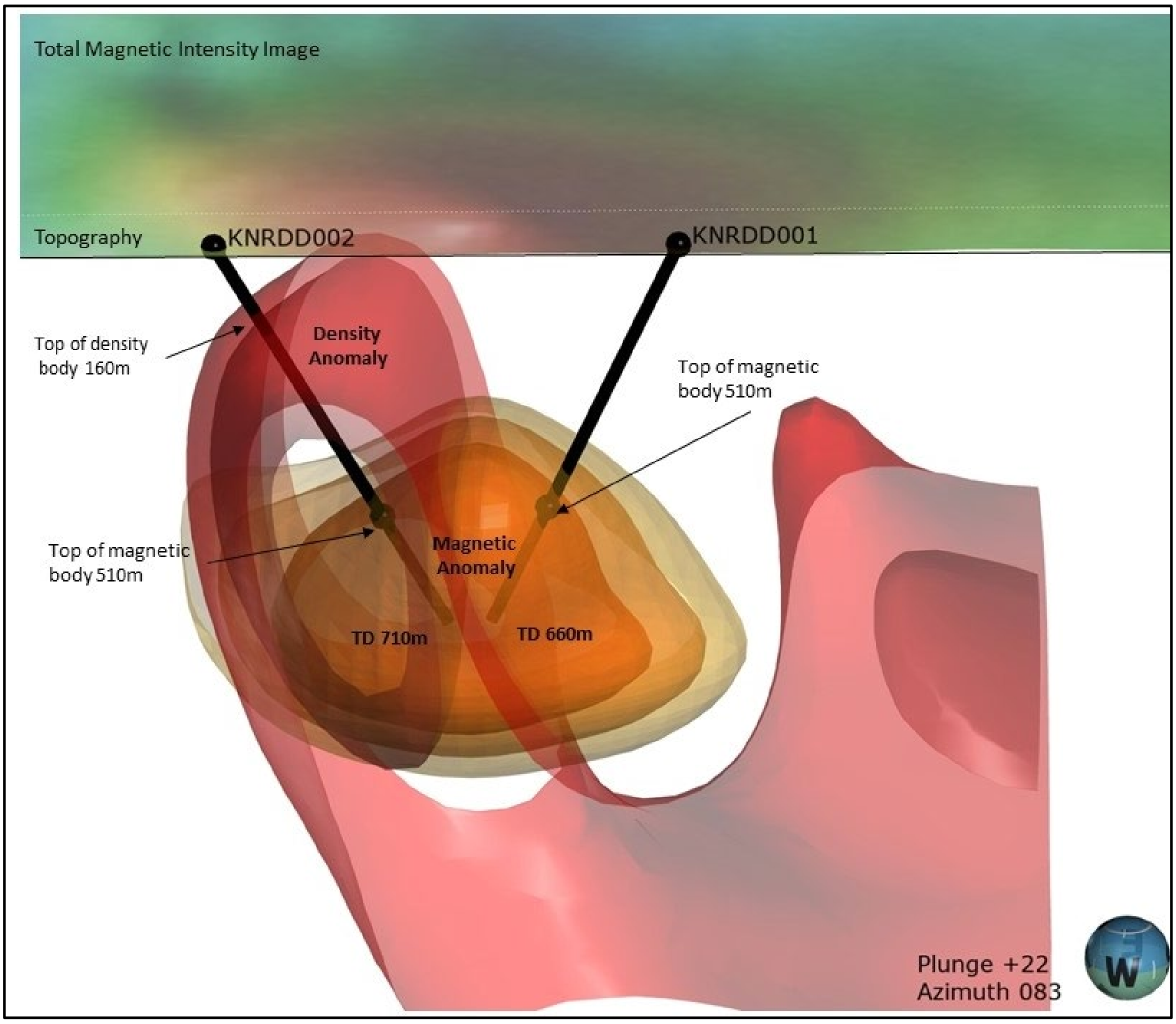
Figure 5-2: Map plan of proposed drill plan for Twin Peaks targets (KNRDD001–KNRDD004)



Source: SRK Consulting

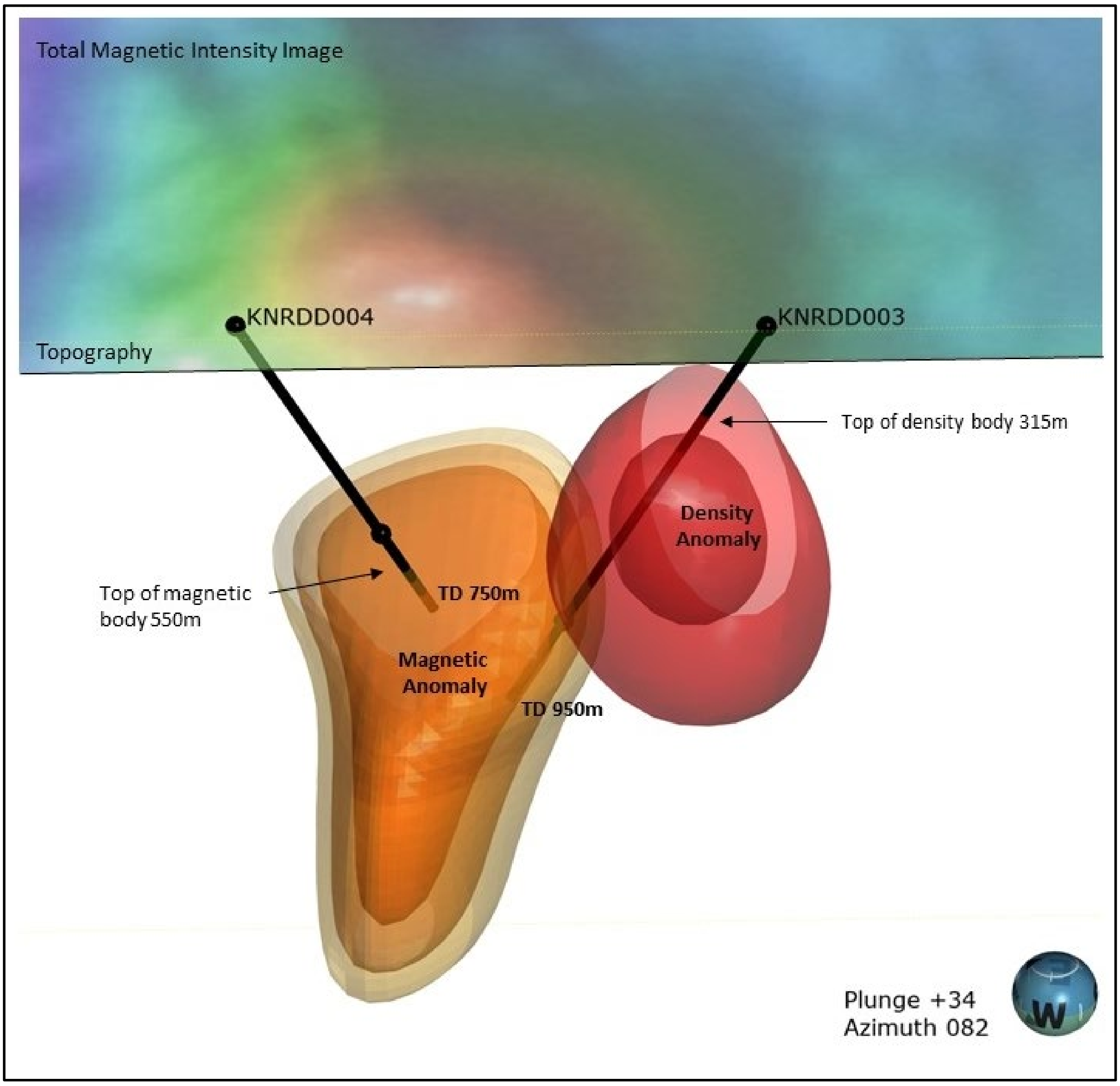
Note: Modelled gravity and magnetic bodies at depth are overlain on total magnetic imagery image with proposed drill plan.

Figure 5-3: 3D perspective view of Twin Peaks (West) target and planned drill holes



Source: SRK Consulting

Figure 5-4: 3D perspective view of Twin Peaks (East) target and planned drill holes



Source: SRK Consulting

6 Conclusions

The acquisition of the 1 km × 1 km ground gravity survey over EL32282 and EL32296 was co-funded through the Round 14 ‘Resourcing the Territory’ initiative’ and will greatly add to the NT’s regional gravity datasets. The work already completed from these data further highlight the prospectivity of the East Tennant region. The ground-based gravity datasets along with the airborne magnetics data have provided a better understanding of important structural corridors, distribution and architecture of prospective geological horizons, potential fluid sources and also provided greater confidence for drill targeting across the project area. The recently acquired ground gravity survey along with the previously collected airborne magnetic surveys has aided in the refinement of two priority target areas – the Twin Peak targets – and detailed drill targeting.

Several additional target areas have been identified from these data and represent secondary follow-up targets following the completion of Phase 1 drilling which is expected to be completed in early 2022. The geophysics co-founding initiative has proven an invaluable contribution to the geological understanding of EL32282 and EL32296, with Knox aiming for a successful discovery early in 2022.

7 References

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Appendices

Appendix A: Atlas Geophysics Memorandum (M2021124) Georgina Basin Gravity Survey Report

Atlas Geophysics Memorandum M2021124

Georgina Gravity Survey

KNOX RESOURCES LIMITED

Memo completed by:

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5th October 2021

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APPENDICES

1.0 Project Brief

Project P2021124 involved the acquisition and processing of **2,749** new gravity stations for Knox Resources Limited over two areas, one 62km east of Tennant Creek and one 160km east of Tennant Creek, just south of Barkly Roadhouse, in the Northern Territory of Australia (Figure 1).

Gravity stations were acquired using 1km x 1km and 200m x 200m grid configurations. Atlas Geophysics completed the acquisition of the 200m x 200m data utilising UTV-borne gravity methods and the acquisition of the 1km x 1km data utilising helicopter-borne gravity methods.

Acquisition for the projects commenced on the 24th of July 2021 and finished on the 26th of August 2021. Final data were delivered shortly after project completion.

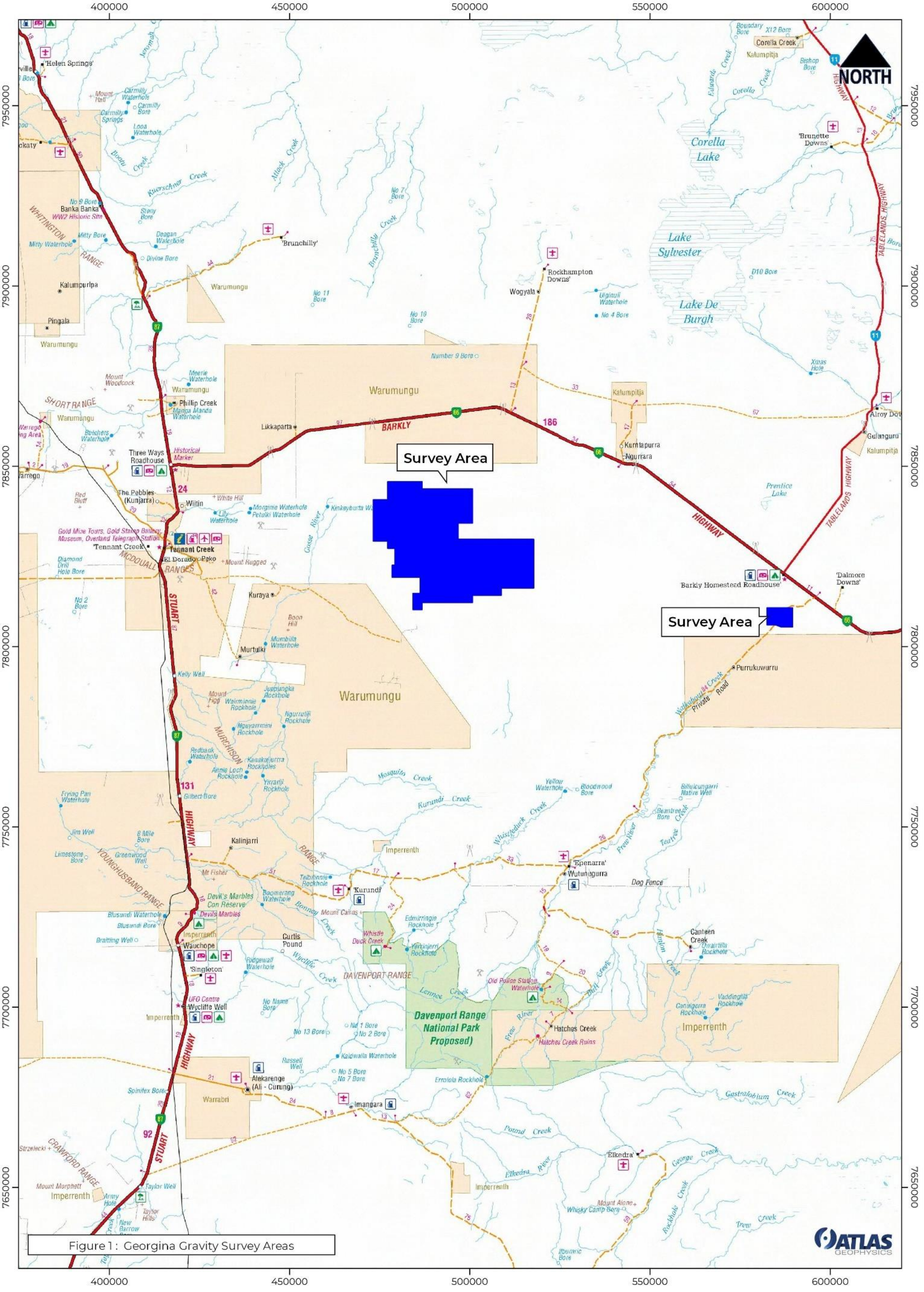


Figure 1 : Georgina Gravity Survey Areas

2.0 Equipment and Instrumentation

The following instrumentation was used for acquisition of the gravity data:

- One CG-6 Autograv Gravity Meter
  - (Serial Number: 21030333, SF: 1.000000)
- One ESVE300PRO GNSS Rover Receiver
- One ESVE300PRO GNSS Base Receiver

Ancillary equipment included:

- Laptop computers for data download and processing
- Garmin autonomous GPS receivers for navigation
- InReach personal satellite tracking units
- Iridium satellite phones for long distance communications
- Personal Protective Equipment for all personnel
- Batteries, battery chargers, solar cells, UPS System
- Survey consumables
- Tools, engineering, and maintenance equipment for vehicle servicing
- First aid and survival kits
- Tyres and recovery equipment

3.0 Calibration and Control

The gravity meter used for the survey had been recently calibrated on the Guildford Cemetery – Helena Valley Primary School calibration range (2010990117 - 2010990217) in Western Australia. The calibration process validated the gravity meter's scale factor to ensure reduction of the survey data produces correct Observed Gravities from measured dial reading values.

One new GNSS/gravity control station 202112400001 "Georgina" and one GNSS only control station 202112400101 "Georgina Temp GNSS Only BUB" were used to control all field observations throughout the project.

GNSS control was established at 202112400001 & 202112400101 by submitting three 10-hour sessions, where possible, of static data to Geoscience Australia's AUSPOS processing system, producing first-order geodetic coordinates. These coordinates are accurate to better than 10mm for the x, y and z observables.

Gravity control was established at station 202112400001 via two ABA tie loops with the project gravity meter to existing control station 201909000001 "Barkly Roadhouse Airstrip". Standard deviation of the gravity ties is 0.001mGal.

4.0 GNSS-Gravity Acquisition

Gravity data were acquired concurrently with GNSS data using a Scintrex CG-6 gravity meter. Data were acquired in single shifts of up to 12 hours duration, with each shift consisting of a single loop controlled by observations at the gravity control station. Each loop contained a minimum of two repeated readings so that an interlocking network of closed loops was formed. A total of **92** repeat readings representing **3.35%** of the survey were acquired for quality control purposes. Repeat readings were evenly distributed, where possible, on a time-basis throughout each of the gravity loops.

GNSS data were acquired with the rover receiver operating in post-process kinematic (PPK) mode with a GNSS rover sensor mounted to the UTV or helicopter. Static data were logged at the control station with a base receiver operating in post-process static (PPS) mode with the GNSS sensor mounted on a fixed tripod.

5.0 GNSS Processing and QC

The acquired GNSS raw data were processed daily using Novatel Waypoint GrafNav v8.90 post-processing software.

GrafNav was used to transform the GNSS-derived WGS84 coordinates to GDA94 coordinates for each gravity station location. MGA coordinates were then derived by projecting the GDA94 geodetic coordinates with a Universal Transverse Mercator (UTM) transform using the appropriate zone. It should be noted that WGS84 and GDA94 coordinates (x, y, and z) are no longer roughly equivalent, with a difference in horizontal coordinates of greater than 1.0m and a difference in elevation of 90-100mm. GrafNav produced GDA94 ellipsoidal heights for each gravity station location; and elevations above the Australian Height Datum (AHD) were modelled using the AUSGEOID09 geoid model, with separations (N values) added to GDA94 ellipsoidal heights.

The resulting GrafNav data (output in Atlas Geophysics standard format) were then imported into Atlas Geophysics Reduction and Interpretation Software (AGRIS) for QC and used in the reduction of the gravity data. A module built into AGRIS allows the user to examine data quality factors such as station repeatability between multiple control stations, coordinate velocity, dilution of precision, coordinate quality factor and standard error for each gravity station location. The procedure is carried out before merging the positional data with gravity data for final reduction to Bouguer Anomaly. Comprehensive statistics, repeatability analysis and histogram plotting are also performed.

QC procedures were applied to the GNSS data daily and any gravity stations not conforming to the quoted specifications were repeated by the company at no cost to the client.

6.0 Gravity Processing and QC

The acquired gravity data were processed using the company's in-house gravity pre-processing and reduction software, AGRIS. This software allows for full data pre-processing, reduction to Bouguer Anomaly, repeatability, and statistical analysis, as well as full quality control of the output dataset.

Once downloaded from the gravity meters, the data were analysed for consistency and preliminary QC was performed to confirm that observations meet specification for standard deviation, reading rejection, temperature, and tilt values. Once the data were verified the software averaged the multiple gravity readings and performed a merge with the previously QC-passed GNSS data. The software then applies a linear drift correction and earth tide correction. Any gravity stations not conforming to the quoted specifications were repeated by the company at no cost to the client.

The following corrections were further applied to the dataset to produce Spherical Cap Bouguer Anomalies on the GDA94 transform of the GRS80 ellipsoid and AAGD07 gravity datum. For legacy reasons, Geoidal Bouguer Anomalies on the Australian Height Datum (AHD) and ISOGAL84 gravity datum have also been calculated.

The formulae below produce data in μms^{-2} or gravity units (GU). To convert to mGal, divide by a factor of 10.

Instrument scale factor: This correction is used to correct a gravity reading (in dial units) to a relative gravity unit value based on the meter calibration.

$$r_c = 10 \cdot (r \cdot S(r))$$

where,

r_c	corrected reading in gravity units
r	gravity meter reading in dial units
$S(r)$	scale factor (dial units/milliGal)

Earth Tide Correction: The earth is subject to variations in gravity due to the gravitational attraction of the Sun and the Moon. These background variations can be corrected for using a predictive formula which utilises the gravity observation position and time of observation. The Scintrex CG-5 & CG-6 gravity meters automatically calculate ETC but use only an approximate position for the gravity observation so is not entirely accurate. For this reason, the Scintrex ETC is subtracted from the reading and a new correction calculated within AGRIS software.

$$r_t = r_c + g_{tide}$$

where,

r_t	tide corrected reading in gravity units
r_c	scale factor corrected reading in gravity units
g_{tide}	Earth Tide Correction (ETC) in gravity units

Instrument Drift Correction: Since all gravity meters are mechanical, they are all prone to instrument drift. Drift can be caused by mechanical stresses and strains in the spring mechanism as the meter is moved, knocked, reset, subjected to temperature extremes, subjected to vibration, unclamped etc. The most common cause of instrument drift is due to extension of the sensor spring with changes in temperature (obeying Hooke's law). To calculate and correct for daily instrument drift, the difference between the gravity control station readings (closure error) is used to assume the drift and a linear correction is applied.

$$ID = \frac{r_{cs2} - r_{cs1}}{t_{cs2} - t_{cs1}}$$

where,

ID Instrument Drift in gu/hour
r_{cs2} control station 2nd reading in gravity units
r_{cs1} control station 1st reading in gravity units
t_{cs2} control station 2 time
t_{cs1} control station 1 time

Observed Gravity: The preceding corrections are applied to the raw gravity reading to calculate the earth's absolute gravitational attraction at each gravity station. The corrections produced Observed Gravities on the AAGD07 and ISOGAL84 datums.

$$G_o = g_{cs1} + (r_t - r_{cs1}) - (t - t_{cs1}) \cdot ID$$

where,

G_o Observed Gravity in gravity units (ISOGAL84 or AAGD07)
g_{cs1} control station 1 known Observed Gravity in gravity units
r_t tide corrected reading in gravity units
r_{cs1} control station 1 reading in gravity units
t reading time
t_{cs1} control station 1 time
ID instrument drift in gravity units/hour

Theoretical Gravity 1980: The theoretical (or normal) gravity value at each gravity station is calculated based on the assumption that the Earth is a homogeneous ellipsoid. The closed form of the 1980 International Gravity Formula is used to approximate the theoretical gravity at each station location and essentially produce a latitude correction. Gravity values vary with latitude as the earth is not a perfect sphere and the polar radius is much smaller than the equatorial radius. The effect of centrifugal acceleration is also different at the poles versus the equator.

$$G_{t80} = 9780326.7715((1 + 0.001931851353(sin^2 l)/(SQRT(1 - 0.0066943800229(sin^2 l)))$$

where,

G_{t80} Theoretical Gravity 1980 in gravity units
l GDA94 latitude at the gravity station in decimal degrees

Theoretical Gravity 1967: The theoretical (or normal) gravity value at each gravity station is calculated based on the assumption that the Earth is a homogeneous ellipsoid. The 1967 variant of the International Gravity Formula is used to approximate the theoretical gravity at each station location and essentially produce a latitude correction. Gravity values vary with latitude as the earth is not a perfect sphere and the polar radius is much smaller than the equatorial radius. The effect of centrifugal acceleration is also different at the poles versus the equator.

$$G_{t67} = (9780318.456 \cdot \left(1 + 0.005278895 \cdot sin^2(l) + 0.000023462 \cdot sin^4(l)\right))$$

where,
G_{t67} Theoretical Gravity 1967 in gravity units
l GDA94 latitude at the gravity station in decimal degrees

Atmospheric Correction: The gravity effect of the atmosphere above the ellipsoid can be calculated with an atmospheric model and is subtracted from the theoretical gravity.

$$AC = 8.74 - 0.00099 \cdot h + 0.0000000356 \cdot h^2$$

where,
AC Atmospheric Correction in gravity units
h elevation above the GDA94 transformed GRS80 ellipsoid in metres

Ellipsoidal Free Air Correction: Since the gravity field varies inversely with the square of distance, it is necessary to correct for elevation changes from the reference ellipsoid (GDA94 transformed GRS80). Gravitational attraction decreases as the elevation above the reference ellipsoid increases.

$$EFAC = -(3.087691 - 0.004398\, sin^2 l) \cdot h + 7.2125 \cdot 10^{-7} \cdot h^2$$

where,
$EFAC$ Ellipsoidal Free Air Correction in gravity units
l GDA94 latitude at the gravity station in decimal degrees
h elevation above the GDA94 transformed GRS80 ellipsoid in metres

Geoidal Free Air Correction: Since the gravity field varies inversely with the square of distance, it is necessary to correct for elevation changes from the reference geoid (AHD). Gravitational attraction decreases as the elevation above the reference geoid increases.

$$GFAC = \left(3.08768 - 0.00440 sin^2(l)\right) \cdot h - 0.000001442 \cdot h^2$$

where,
$GFAC$ Free Air Correction in gravity units
l GDA94 latitude at the gravity station in decimal degrees
h elevation above the reference geoid (AHD) in metres

Spherical Cap Bouguer Correction: If a gravity observation is made above the reference ellipsoid, the effect of rock material between the observation and the ellipsoid must be considered. The mass of rock makes a positive contribution to the gravity value. The correction is calculated using the closed form equation for the gravity effect of a spherical cap of radius 166.7km, based on a spherical Earth with a mean radius of 6,371.0087714km, height relative the ellipsoid and rock densities of 2.67, 2.40 and 2.20 tm^{-3} (gm/cc).

$$SCBC = 2\pi G\rho((1+\mu)\cdot h - \lambda R)$$

where,
$SCBC$ Spherical Cap Bouguer Correction in gravity units
G gravitational constant = $6.67428\cdot10^{-11} m^3 kg^{-1} s^{-2}$
ρ rock density (2.67, 2.40 and 2.20 tm^{-3})
h elevation above the GDA94 transformed GRS80 ellipsoid in metres
R $(R_o + h)$ the radius of the earth at the station
R_o mean radius of the earth = 6,371.0087714 km (on the GDA94 transformed GRS80 ellipsoid)
μ & λ are dimensionless coefficients defined by:

$$\mu = ((1/3)\cdot \eta^2 - \eta)$$

where,
η h/R

$$\lambda = (1/3)\{(d + f\delta + \delta^2)[(f - \delta)^2 + k]^{\frac{1}{2}} + p + m\cdot ln(n/(f - \delta + [(f - \delta)^2 + k]^{\frac{1}{2}})\}$$

where,
d $3\cdot cos^2\alpha - 2$
f $cos\alpha$
k $sin^2\alpha$
p $-6\cdot cos^2\alpha\cdot \sin(\alpha/2) + 4\cdot sin^3(\alpha/2)$
δ (R_o/R)
m $-3\cdot k\cdot f$
n $2\cdot[sin\,(\alpha/2) - sin^2(\alpha/2)]$
α S/R_o with S = Bullard B Surface radius = 166.735 km

Geoidal Bouguer Correction: If a gravity observation is made above the reference geoid, the effect of rock material between the observation and the ellipsoid must be considered. The mass of rock makes a positive contribution to the gravity value. The slab of rock makes a positive contribution to the gravity value. Rock densities of 2.67, 2.40 and 2.20 t/m^{-3} (gm/cc) were used in the correction.

$$GBC = 0.4191\cdot \rho\cdot h$$

where,
GBC Geoidal Bouguer Correction in gravity units
ρ rock density (2.67, 2.40 and 2.20 tm^{-3})
h elevation above the reference geoid (AHD) in m

Ellipsoidal Free Air Anomaly: The Ellipsoidal Free Air Anomaly is the difference between the observed gravity and theoretical gravity that has been computed for latitude and corrected for the elevation of the gravity station above or below the reference ellipsoid.

$$EFAA = G_{oAAGD07} - (G_{t80} - AC) - EFAC$$

where,

$EFAA$	Ellipsoidal Free Air Anomaly in gravity units
G_o	Observed Gravity on the AAGD07 datum in gravity units
G_{t80}	Theoretical Gravity 1980 in gravity units
AC	Atmospheric Correction in gravity units
$EFAC$	Ellipsoidal Free Air Correction in gravity units

Geoidal Free Air Anomaly: The Geoidal Free Air Anomaly is the difference between the observed gravity and theoretical gravity that has been computed for latitude and corrected for the elevation of the gravity station above or below the reference geoid.

$$GFAA = G_{oISOGAL84} - G_{t67} + GFAC$$

where,

$GFAA$	Free Air Anomaly in gravity units
G_o	Observed Gravity on the ISOGAL84 datum in gravity units
G_{t67}	Theoretical Gravity 1967 in gravity units
$GFAC$	Geoidal Free Air Correction in gravity units

Spherical Cap Bouguer Anomaly: The Spherical Cap Bouguer Anomaly is computed from the Ellipsoidal Free Air Anomaly above by removing the attraction of the spherical cap calculated by the Spherical Cap Bouguer Correction.

$$SCBA = EFAA - SCBC$$

where,

$SCBA$	Spherical Cap Bouguer Anomaly in gravity units
$EFAA$	Ellipsoidal Free Air Anomaly in gravity units
$SCBC$	Bouguer Correction in gravity units

Geoidal Bouguer Anomaly: The Geoidal Bouguer Anomaly is computed from the Geoidal Free Air Anomaly above by removing the attraction of the slab calculated by the Geoidal Bouguer Correction.

$$GBA = GFAA - GBC$$

where,

GBA	Geoidal Bouguer Anomaly in gravity units
$GFAA$	Geoidal Free Air Anomaly in gravity units
GBC	Geoidal Bouguer Correction in gravity units

7.0 Gravity Results

The gravity survey was completed in **25** days of acquisition. An average acquisition rate of around **110** stations per day of production was achieved for the survey. The survey progressed well with no delays.

Final data have met and exceeded quoted project specifications. Repeatability of the data was excellent, with the standard deviation of the elevation repeats at **0.024m** and the standard deviation of the gravity repeats at **0.008mGal**. The production report contains summary statistics and histograms for repeatability.

8.0 Data Formats and Deliverables

Final reduced ASCII data for the project have been delivered in ASEG-GDF2 and standard Atlas format. Table 2 overleaf details the format of the final gravity database supplied. All fields are comma delimited.

Appendix B contains a plot of final station locations, images of GNSS Derived Elevation (GDA94 transformed GRS80), Spherical Cap Bouguer Anomaly and first vertical derivative of Spherical Cap Bouguer Anomaly.

All data, both raw and processed, have been supplied with this memorandum using a cloud-based service. Table 1 below summarises the deliverables. Should the reader require further copies of the deliverables, please contact Atlas Perth Operations.

Final Delivered Data	Format	Data
Gravity Database	Comma Space Delimited .csv	•
Gravity Database	Point located data ASEG-GDF2	•
Raw Positional Data	AGRIS format, comma delimited	•
Raw Gravity Data	Scintrex CG-5 format	•
Final Grids	ER Mapper Grids .ers	•
Final Images	GIS compatible Geotiff .tif	•
Acquisition Memo	PDF .pdf	•

Table 1: Final Deliverables

Field Header	Field Description	Format	Units
PROJECT	Atlas Geophysics Project Number	A9	None
STATION	Unique Station ID	I8	None
STATIONCODE	Unique Station Code	A13	None
LINE	Line ID	I8	None
TYPE	Observation Type : Base, Field or Repeat	A8	None
EASTING	Coordinate Easting UTM projection of the Geographic coordinates	F11.3	M
NORTHING	Coordinate Northing UTM projection of the Geographic coordinates	F12.3	M
ZONE	UTM Zone Number	F8.0	NA
LATITUDE	Coordinate Latitude (Refer DATUM column for Geographic Datum)	F15.10	DD
LONGITUDE	Coordinate Longitude (Refer DATUM column for Geographic Datum)	F15.10	DD
ORTHOHTM	Coordinate Elevation Orthometric (Refer GEOID column for Geoid used)	F9.3	M
ELLIPHTM	Coordinate Elevation Ellipsoidal	F9.3	M
N	Geoid Separation (Refer GEOID column for Geoid used)	F8.3	M
DATE	Observation Date	I8	None
TIME	Observation Time	I8	None
DIALMGAL	Gravity Dial Reading	F9.3	mGal
ETCMGAL	Earth Tide Correction (Longman)	F8.3	mGal
SCALE	Scale Factor Applied to Dial Reading	F9.6	None
OBSG84MGAL	Observed Gravity ISOGAL84	F11.3	mGal
OBSG84GU	Observed Gravity ISOGAL84	F11.2	Gu
OBSGAAGD07GU	Observed Gravity AAGD07	F13.2	Gu
OBSGAAGD07MGAL	Observed Gravity AAGD07	F16.3	mGal
DRIFTMGAL	Drift Applied to Dial Readings	F10.3	mGal
TGRAV67GU	Theoretical Gravity 1967	F11.2	Gu
TGRAV67MGAL	Theoretical Gravity 1967	F12.3	mGal
TGRAV80GU	Theoretical Gravity 1980	F11.2	Gu
GFACGU	Geoidal Free Air Correction	F8.2	Gu
GFACMGAL	Geoidal Free Air Correction	F9.3	mGal
GFAAGU	Geoidal Free Air Anomaly	F8.2	Gu
GFAAMGAL	Geoidal Free Air Anomaly	F9.3	mGal
GBC267GU	Geoidal Bouguer Correction 2.67 tm^-3	F9.2	Gu
GBC240GU	Geoidal Bouguer Correction 2.40 tm^-3	F9.2	Gu
GBC220GU	Geoidal Bouguer Correction 2.20 tm^-3	F9.2	Gu
GBC267MGAL	Geoidal Bouguer Correction 2.67 tm^-3	F11.3	mGal
GBC240MGAL	Geoidal Bouguer Correction 2.40 tm^-3	F11.3	mGal
GBC220MGAL	Geoidal Bouguer Correction 2.20 tm^-3	F11.3	mGal
GBA267GU	Geoidal Bouguer Anomaly 2.67 tm^-3	F9.2	gu
GBA240GU	Geoidal Bouguer Anomaly 2.40 tm^-3	F9.2	gu
GBA220GU	Geoidal Bouguer Anomaly 2.20 tm^-3	F9.2	gu
GBA267MGAL	Geoidal Bouguer Anomaly 2.67 tm^-3	F11.3	mGal
GBA240MGAL	Geoidal Bouguer Anomaly 2.40 tm^-3	F11.3	mGal
GBA160MGAL	Geoidal Bouguer Anomaly 1.60 tm^-3	F11.3	mGal
TGRAV80ACGU	Theoretical Gravity 1980 Atmospheric Corrected	F11.2	gu
EFACGU	Ellipsoidal Free Air Correction	F9.2	gu
EFAAGU	Ellipsoidal Free Air Anomaly	F8.2	gu
SCBC267GU	Spherical Cap Bouguer Correction 2.67 tm^-3	F10.2	gu
SCBC240GU	Spherical Cap Bouguer Correction 2.40 tm^-3	F10.2	gu
SCBC220GU	Spherical Cap Bouguer Correction 2.20 tm^-3	F10.2	gu
SCBA267GU	Spherical Cap Bouguer Anomaly 2.67 tm^-3	F10.2	gu
SCBA240GU	Spherical Cap Bouguer Anomaly 2.40 tm^-3	F10.2	gu
SCBA160GU	Spherical Cap Bouguer Anomaly 1.60 tm^-3	F10.2	gu
SCBA267MGAL	Spherical Cap Bouguer Anomaly 2.67 tm^-3	F12.3	mGal
SCBA240MGAL	Spherical Cap Bouguer Anomaly 2.40 tm^-3	F12.3	mGal
SCBA160MGAL	Spherical Cap Bouguer Anomaly 1.60 tm^-3	F12.3	mGal
TCINNERGU	Inner Terrain Correction	F8.2	gu
TCINNERMGAL	Inner Terrain Correction	F8.3	mGal
QFINNER	Quality Factor Inner TC	I2	None
TCOUTERGU	Outer Terrain Correction	F8.2	gu
TCOUTERMGAL	Outer Terrain Correction	F8.3	mGal
QFOUTER	Quality Factor Outer TC	F2	None
TCTOTALGU	Total Terrain Correction	F8.2	gu
TCTOTALMGAL	Total Terrain Correction	F8.3	mGal
CGBA267GU	Complete Geoidal Bouguer Anomaly 2.67 tm^-3	F11.3	gu
CGBA267MGAL	Complete Geoidal Bouguer Anomaly 2.67 tm^-3	F11.3	mGal
CSCBA267GU	Complete Spherical Cap Bouguer Anomaly 2.67 tm^-3	F12.2	gu
CSCBA267MGAL	Complete Spherical Cap Bouguer Anomaly 2.67 tm^-3	F12.2	mGal
DIFFEASTM	Repeat Error for Easting Observation	F8.3	m
DIFFNORTHM	Repeat Error for Northing Observation	F8.3	m
DIFFHTM	Repeat Error for Elevation Observation	F8.3	m
DIFFOBSGMGAL	Repeat Error for Observed Gravity	F8.3	mGal
DIFFOBSGGU	Repeat Error for Observed Gravity	F8.2	gu
METERSN	Serial Number of Gravity Instrument	I8	None
CLOSUREGU	Loop Closure in gu	F8.2	gu
CLOSUREMGAL	Loop Closure in mGal	F8.3	mGal
HDIFF	Horizontal Difference between Acquired and Proposed Station	F7.3	m
GRVBASE	Gravity Base	A11	None
GNSSBASE	GNSS Base	A11	None
DATUM	Geographic Datum	A10	None
GEOID	Geoid Model	A10	None
GRAVDATUM	Gravity Datum	A10	None

Table 2: Final Gravity Database Format

9.0 Project Safety

Prior to survey commencement, a Hazard Identification and Risk Assessment (HIRA) was carried out for all new tasks not covered under Atlas Geophysics Standard Operating Procedures (SOP's) or the company's Health Safety Environment (HSE) field manual.

APPENDIX A
Control Station Description

202112400001– Georgina

GEODETIC COORDS GDA94		GRID COORDINATES MGA Z53	
Latitude (DD MM SS)	19° 35' 57.99916"S	***Easting***	501,902.307
Longitude (DD MM SS)	135° 01' 05.30450"E	***Northing***	7,832,843.102
Ellipsoidal Height	288.339	***Orthometric Height (AUSGEOID09)***	253.783

OBSERVED GRAVITY		Established: 28/07/2021
gu AAGD07	9785277.78	

Occupation Method/Location Details

The GNSS control point consists of a steel star picket driven into the ground to a height of 15cm above ground level. This control station is witnessed by a star picket with a plaque. The gravity control point is located within 0.5m of the small picket.

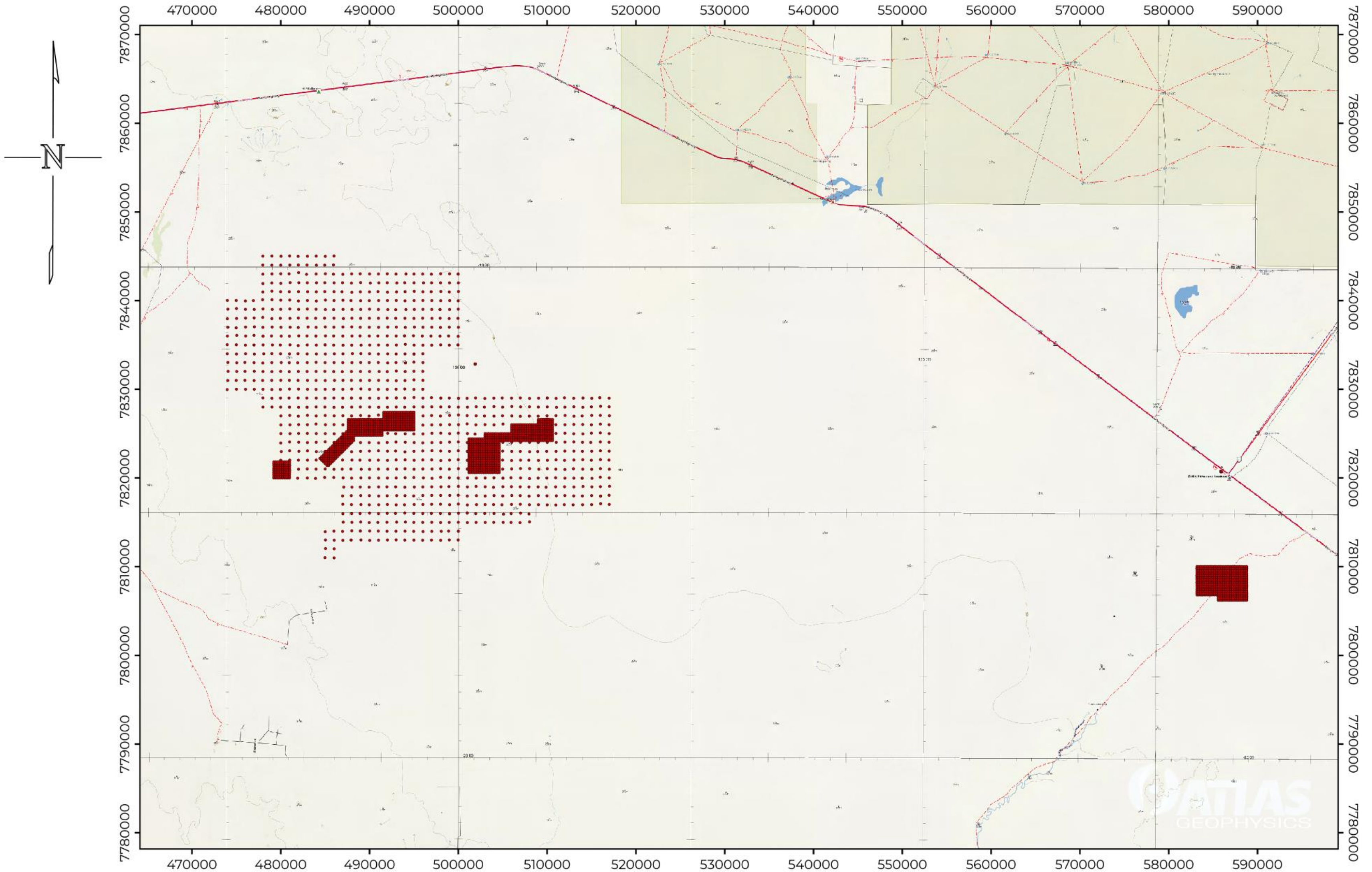
Gravity Control was established via two ABA tie loops with the project meter to existing control station 201909000001 “Barkly Roadhouse Airstrip”. Standard deviation of the gravity ties is 0.001mGal.

GNSS Control was established by submitting three 10-hour sessions of static data to Geoscience Australia’s AUSPOS processing system, producing first-order geodetic coordinates. These coordinates are accurate to better than 10mm for the x, y, and z observables

The control station can be reached by travelling north along the Stuart Highway from Tennant Creek for 25km then turning right on to the Barkly Highway and following it for 80km before turning right on to an unnamed track. Follow this track south for around 30km and the control station will be on the side of the track.

Photograph of Control Station 202112400001 and surrounds

APPENDIX B
Plots and Imagery



Scale: 1:600000

10000 0 10000 20000 30000

(Metres)

GDA 94 / MGA zone 53

KNOX RESOURCES LIMITED

P2021124 Georgina Gravity Survey

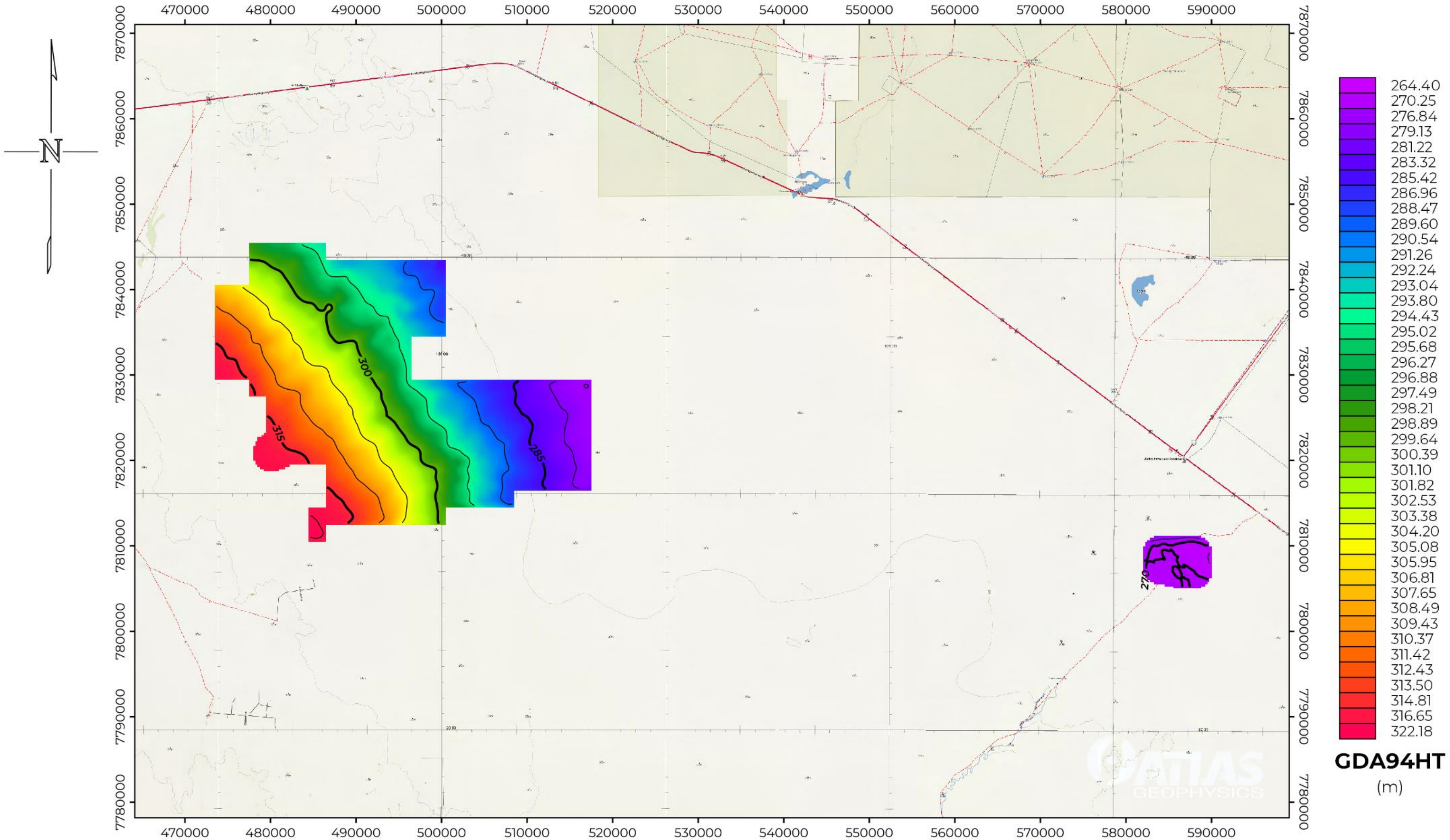
Plot of Gained Stations

ATLAS GEOPHYSICS PTY LTD

FINAL DATA

www.atlasgeo.com.au

drawn by: IC



Scale: 1:600000

10000 0 10000 20000 30000

(Metres)

GDA 94 / MGA zone 53

KNOX RESOURCES LIMITED

P2021124 Georgina Gravity Survey

Pseudocoloured Image of GNSS Derived Elevation (GDA94HT)

Shade = None, Contours = 5.00m, Histo = Equalised

ATLAS GEOPHYSICS PTY LTD

FINAL DATA

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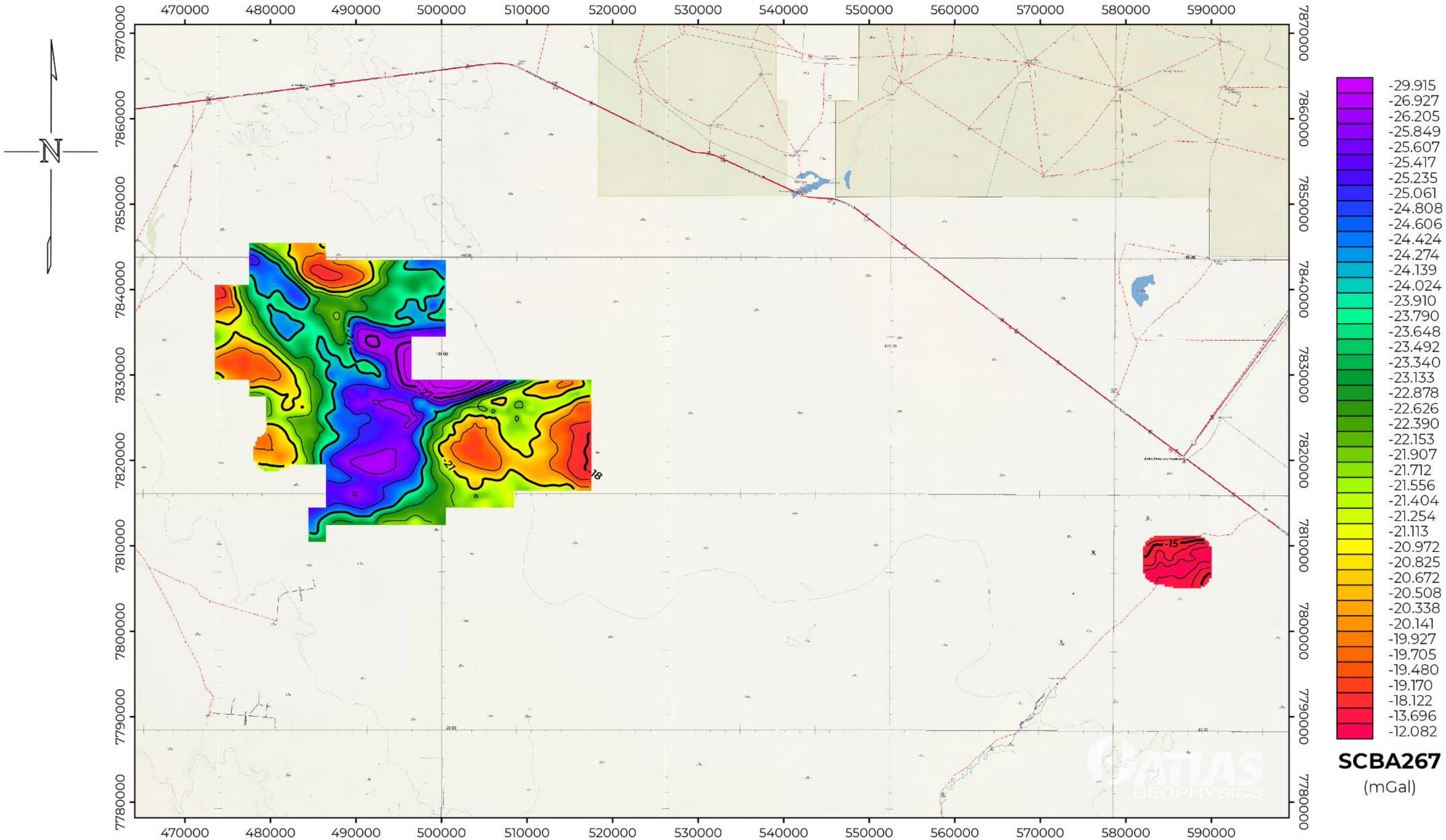
drawn by: IC



Scale: 1:600000

10000 0 10000 20000 30000

(Metres)

GDA 94 / MGA zone 53

KNOX RESOURCES LIMITED

P2021124 Georgina Gravity Survey

Pseudocoloured Image of SC Bouguer Anomaly (2.67gm/cc)

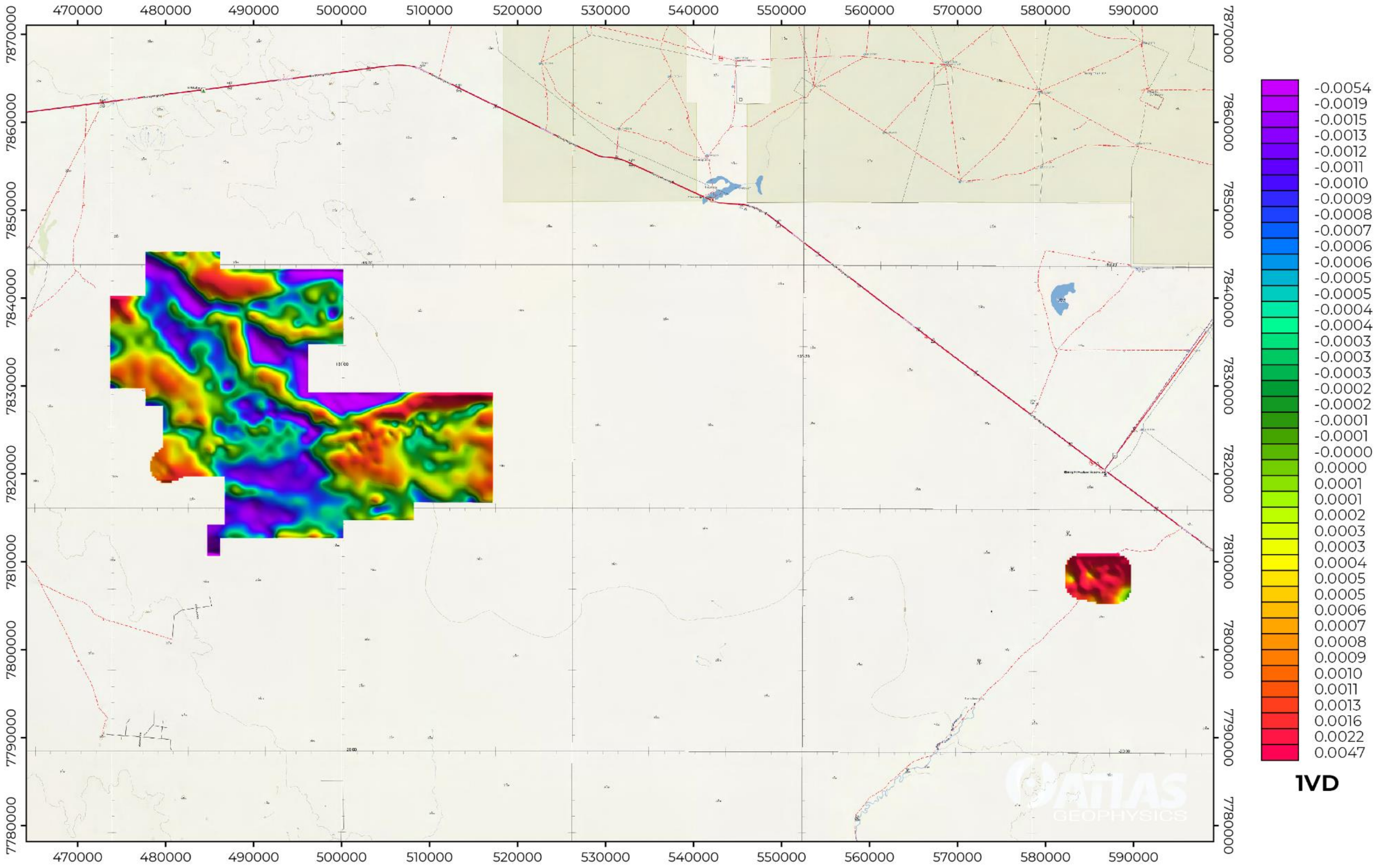
Shade = None, Contours = 1.00mGal, Histo = Equalised

ATLAS GEOPHYSICS PTY LTD

FINAL DATA

www.atlasgeo.com.au

drawn by: IC



Scale: 1:600000

10000 0 10000 20000 30000

(Metres)

GDA 94 / MGA zone 53

KNOX RESOURCES LIMITED

P2021124 Georgina Gravity Survey

Pseudocoloured Image of 1VD of SC Bouguer Anomaly (2.67gm/cc)

Shade = NE, Contours = None, Histo = Equalised

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FINAL DATA

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APPENDIX C
GNSS Control Information

202112400001 Georgina
0001 -19 35 57.99919 135 01 05.30450 288.341 253.785 GDA94
0001 -19 35 57.99913 135 01 05.30454 288.339 253.783 GDA94
0001 -19 35 57.99914 135 01 05.30449 288.338 253.782 GDA94

GDA94AVE
-19 35 57.99916
135 01 5.30450

-19.59944421
135.01814014

GDA94HT
288.339

AHDHT
253.783

N
34.556

MGA53
501902.307
7832843.102

AMG53
501773.461
7832672.734

202112400101 Georgina Temp GNSS Only BUB
0101 -19 35 58.01888 135 01 05.44252 289.029 254.473 GDA94
0101 -19 35 58.01886 135 01 05.44253 289.038 254.482 GDA94

GDA94AVE
-19 35 58.01888
135 01 5.44253

-19.59944969
135.01817848

GDA94HT
289.034

AHDHT
254.478

N
34.556

MGA53
501906.328
7832842.496

AMG53
501777.482
7832672.127