Gravity Survey and Mineralisation Targeting at the Orroroo Uranium Project

Date: 6th July 2023

ASX Code: NFL

Capital Structure
Ordinary Shares: 33,000,000
Unlisted Options: 9,490,000
Listed Options: 9,999,808
Performance Shares: 1,400,000
Current Share Price: 15c
Market Capitalisation: $4.95M
Cash: $3.41m (Mar 23 Quarter)
Debt: Nil

Directors
Ben Phillips
Executive Chairman

Leo Pilapil
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- **Norfolk Metals has completed the Gravity Survey at the Orroroo Project (Figure1).**
- **Successfully delineated paleochannel(s) with potential to host sandstone hosted uranium similar to other known South Australian deposits.**
- **Historical gamma logs, downhole well survey, REDOX interface model and Gravity Survey all support Norfolk targeting theory.**
- **Gravity Survey results continue to be interpreted with historical data with the objective of developing a proposed drilling plan.**
- **Norfolk Metals continues to progress engagements with stakeholders of the Orroroo Project.**

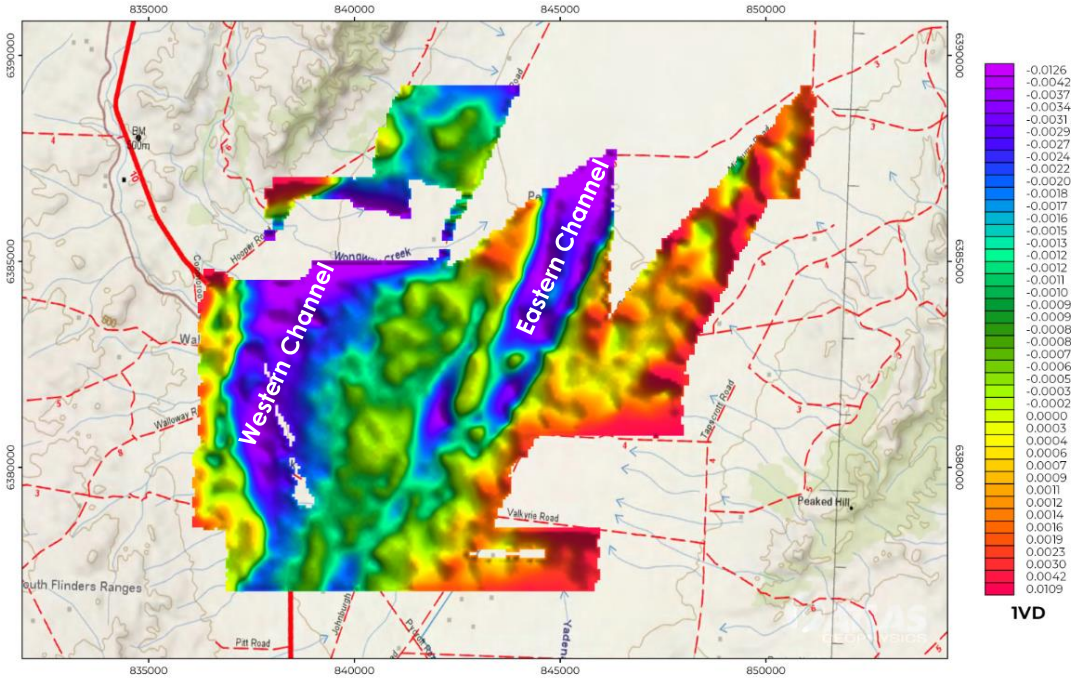

Figure 1. First Derivative (1VD) gravity survey displaying two distinct channels

Commenting on the Orroroo Project, Executive Chairman Ben Phillips states: "We are excited to confirm the Western Channel (paleochannel) as a preliminary targeted area for further exploration in the Walloway Basin. The continuity between historical drill logs, uranium confirmation via recent downhole geophysical programs and the latest data via gravity survey is very encouraging. The next stage of proposed drill targets will involve additional data modeling and stakeholder engagement along with all required permitting procedures."

Orroroo Project Update

Norfolk Metals (Norfolk or the Company) elected to contract Atlas Geophysics to conduct a gravity survey on 250m x 250m offset grid totaling up to 2,253 planned survey points in an effort to delineate the paleochannels within the Walloway Basin. The survey has now been completed with data collected over 1,596 stations**.** In addition, two passive seismic line surveys were conducted to determine the likely paleochannel and basin depths **(Figure 2)**

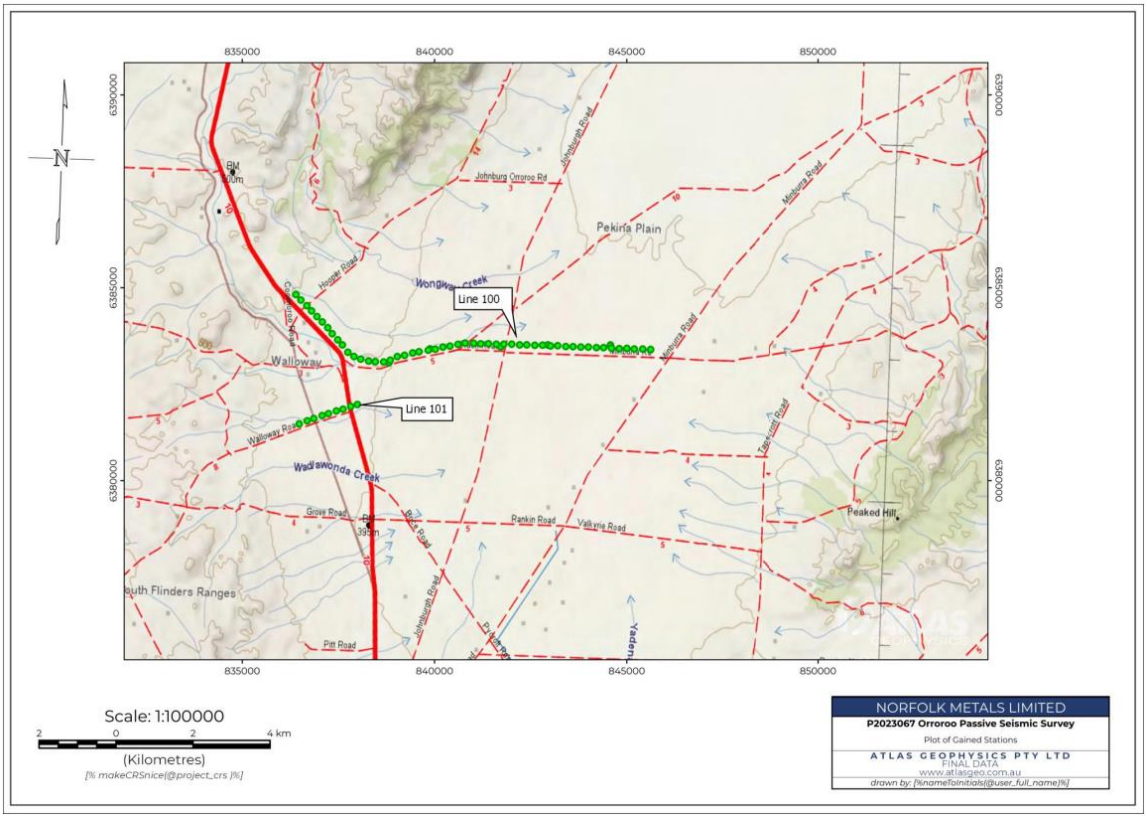

Figure 2. Atlas Geophysics Passive Seismic Stations EL6552

The successful delineation of two distinct channels is encouraging progress in the development of the Orroroo Project. Specifically, the Western Channel with sandstone hosted uranium potential modelled via three (3) primary datasets being;

1. Historical drilling information (gamma anomalies and stratigraphic records);
2. Recent downhole geophysics of historical wells confirming the presence of uranium; and,
3. Gravity data interpretation.

The gravity data suggests two distinct lows with paleochannel potentials existing within the basin, shown as a broader Western Channel and a narrower Eastern Channel. Geological logs and cross sections of available drill hole data suggest that the Western channel is a paleochannel characterized by a thick basal sandstone and coal horizon. The Western Channel displays a distinct REDOX Interface with similarities to the Yarramba paleochannel which is **host to the Honeymoon uranium deposit (Figure 5)**. Available information regarding the Eastern Channel does not delineate a paleochannel with equal attributes however this may be defined further with future exploration. The orientation passive seismic survey lines confirmed the depth of the basin however were not used to clearly define the Western and Eastern Channels as suggested by the gravity results due to the limited data set.

Geological Model

To define drill targets, a geological model has been proposed for the Walloway Basin based on the following:

• Sandstone-hosted uranium mineralisation has no geophysical signature, with exception of radioactivity. The uranium potential of the Walloway Basin is inferred by the wrap around gamma anomalies in historical coal exploration wells. The radioactivity of wells is rarely of use in surface surveys, due to the thickness of cover. Therefore, any attempt to remotely locate mineralisation must rely on changes in some physical property of the host rock assemblage.

• In uranium districts (e.g., Wyoming, USA), paleo-drainage is controlled by erosion and/or tectonic features in the basement. Ground gravity geophysical surveys were used to map the structural architecture of underlying basement rocks which influences sedimentation and paleochannels within the Walloway basin.

• Norfolk Metals completed a ground gravity survey within the Walloway Basin during June 2023. The survey defined two possible paleochannels termed the Western and Eastern Channels, which extend to the north and south as defined in regional 1st vertical derivative gravity data. **(Figure 1)**

• The most prospective location within a paleochannel is the **REDOX Interface**. Once defining the paleochannel sequence; alteration zoning within the prospective sandstone siltstone sequence is used to locate the REDOX surface.

REDOX Interface

Sandstone hosted uranium mineralisation develops in permeable stratigraphy due to the 'downward' migration of oxidized mineralised fluids saturated in detrital uranium sourced from erosional of granites or felsic stratigraphy. As a consequence, roll-front style uranium deposits are made up of a consistent anatomy of an 'oxidized tail', and 'ore zone' proximal to the redox interface (oxidized-reduced contact) and reduced unaltered sediments in front of the roll-front. This is shown schematically in **Figure 3.**

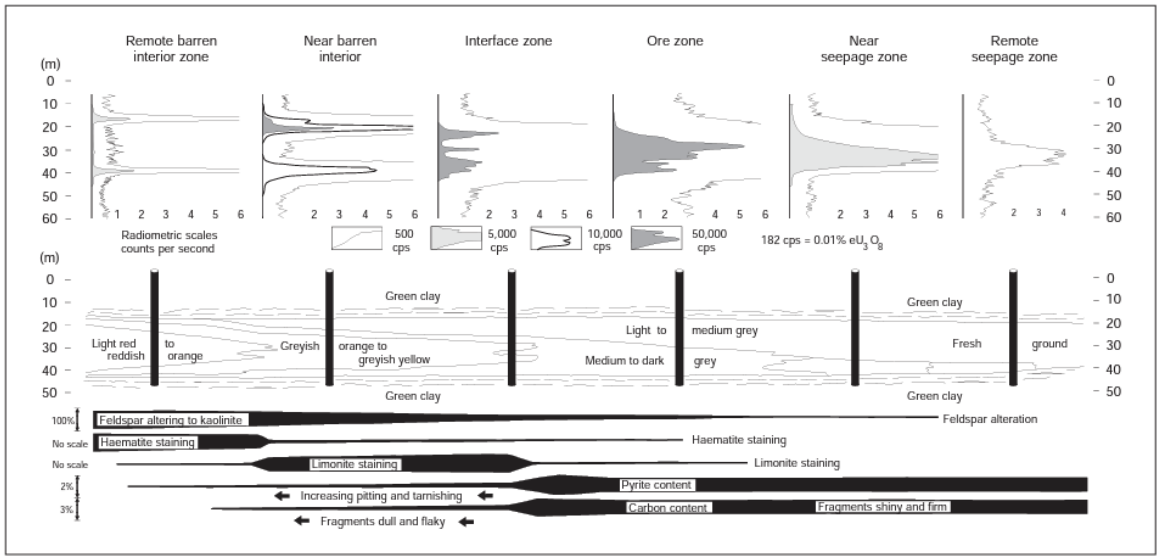

Figure 3. Schematic alteration fronts across uranium 'roll-front' mineralization

(Reference - Sandstone-type uranium deposits in South Australia and North America: A comparison of their geophysical characteristics Mike Dentith & Mark Randell https://www.tandfonline.com/doi/epdf/10.1071/ASEGSpec12_18?needAccess=true&role=button)

Downhole geological data from Linc Energy wells were reviewed to create a preliminary oxidation model (REDOX) for the Walloway Basin within the area of previous exploration drilling. Specifically, the colour of the basal Upper Tertiary sediments (typical host of gamma anomalies) was recorded spatially in GIS to create oxidation gradients and infer contacts between oxidized sediments and reduced equivalents **(Figure 4).** The trace of major basement bounding faults interpreted from gravity data are shown as dashed blue lines. The structures are thought to exert a fundamental control on the distribution and thickness of sediments within the Walloway basin, and control a deeper basal sandstone and coal horizon within the Lower Tertiary sediments**.**

Oxidized sediments contain hematite and goethite clay alteration, and typically red to yellow. Transitional sediments are pink, white and khaki typical of selective and or less intense oxidation. Reduced sediments lack oxidation and alteration clay minerals and are grey to dark grey.

Key observations from the integrated ground gravity, REDOX and stratigraphic studies include:

• Within the western channel, central historical well(s) are oxidized as shown by a predominance of yellow and red clay alteration minerals. Wraparound gamma anomalies are located on the northern (7), western (9) and southern (15) margin of the oxidized zone.

• The northern (7) and southern (15) anomalies are characterized by pink-white alteration minerals typical of transitional zones moving towards a theoretical mineralised roll-front. In both areas, potential exists for roll-front uranium mineralisation near the interface between the western and easter basin margins, as interpreted from the gravity data.

• The western anomaly (9) is characterized by yellow clay alteration minerals, which is similar to the redox environment for wells 7 and 15, however a theoretical roll-front is limited to the western margin of the channel.

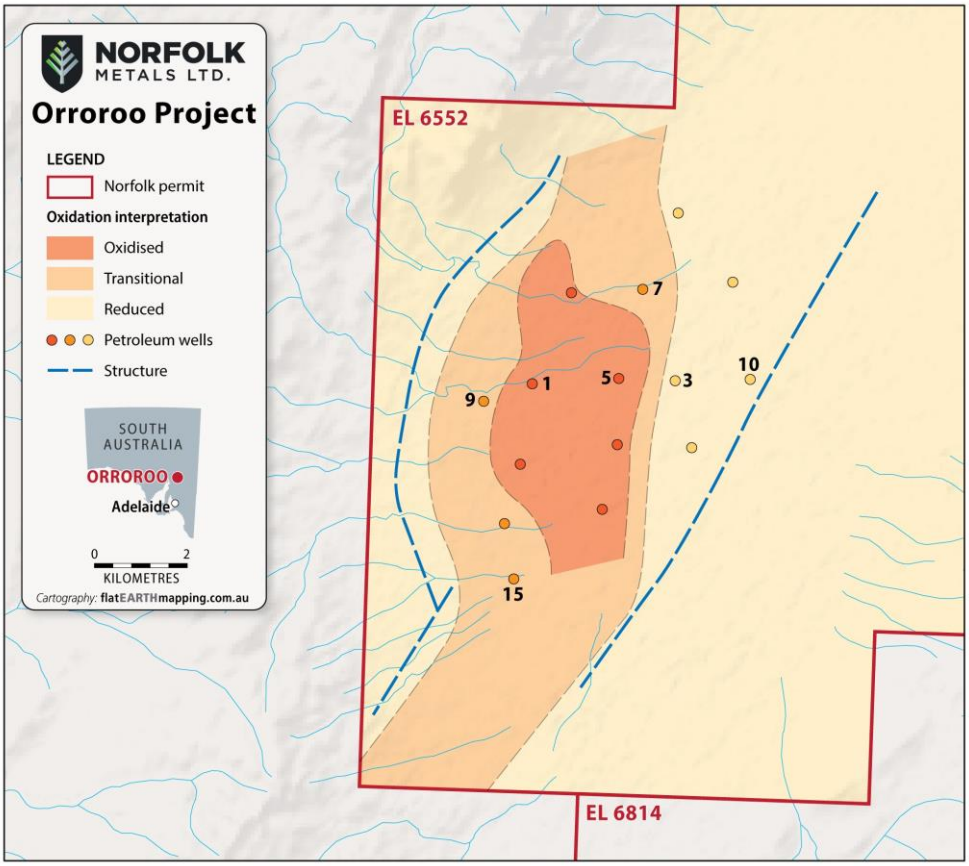

Figure 4. Schematic REDOX model – Walloway Basin

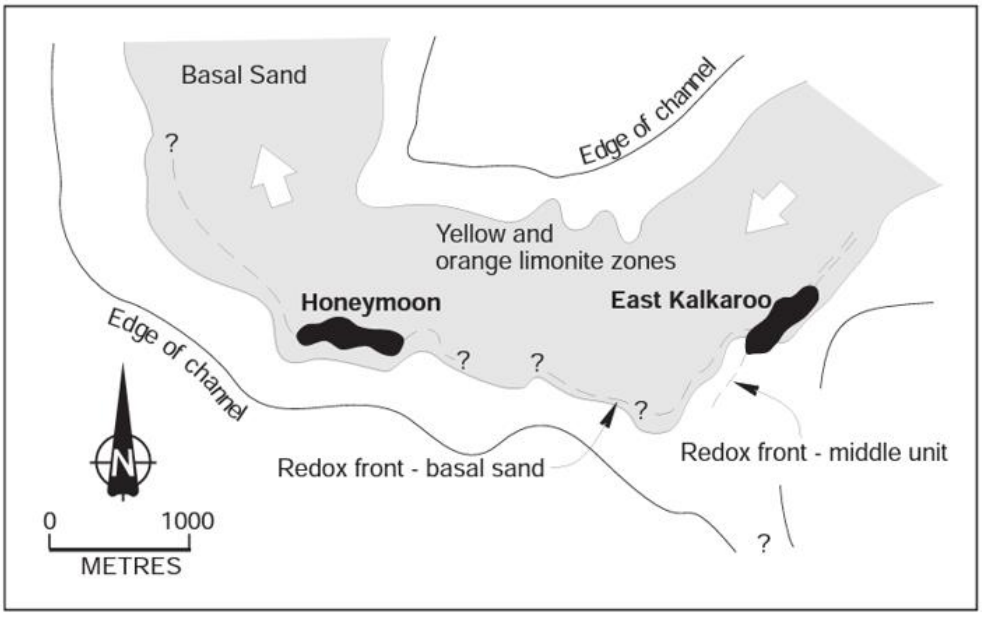

Figure 5. Schematic REDOX model – Yarramba Paleochannel

(Reference - Sandstone-type uranium deposits in South Australia and North America:
A comparison of their geophysical characteristics Mike Dentith & Mark Randell
https://www.tandfonline.com/doi/epdf/10.1071/ASEGSpec12_18?needAccess=true&role=button)

• It is interesting to note the similarities with the sedimentary architecture of the Walloway basin and the Yarramba paleochannel **(host to the Honeymoon uranium deposit)** with both channels containing basal sands. In the case of the Yarramba channel, all known uranium mineralisation occurs on the margins of the basal sand where oxidised fluids are juxtaposed against reduced siltstones (**Figure 5**). A similar environment could occur on the western margin of the Walloway basin, which to date remails untested by drilling **(Figure 6).**

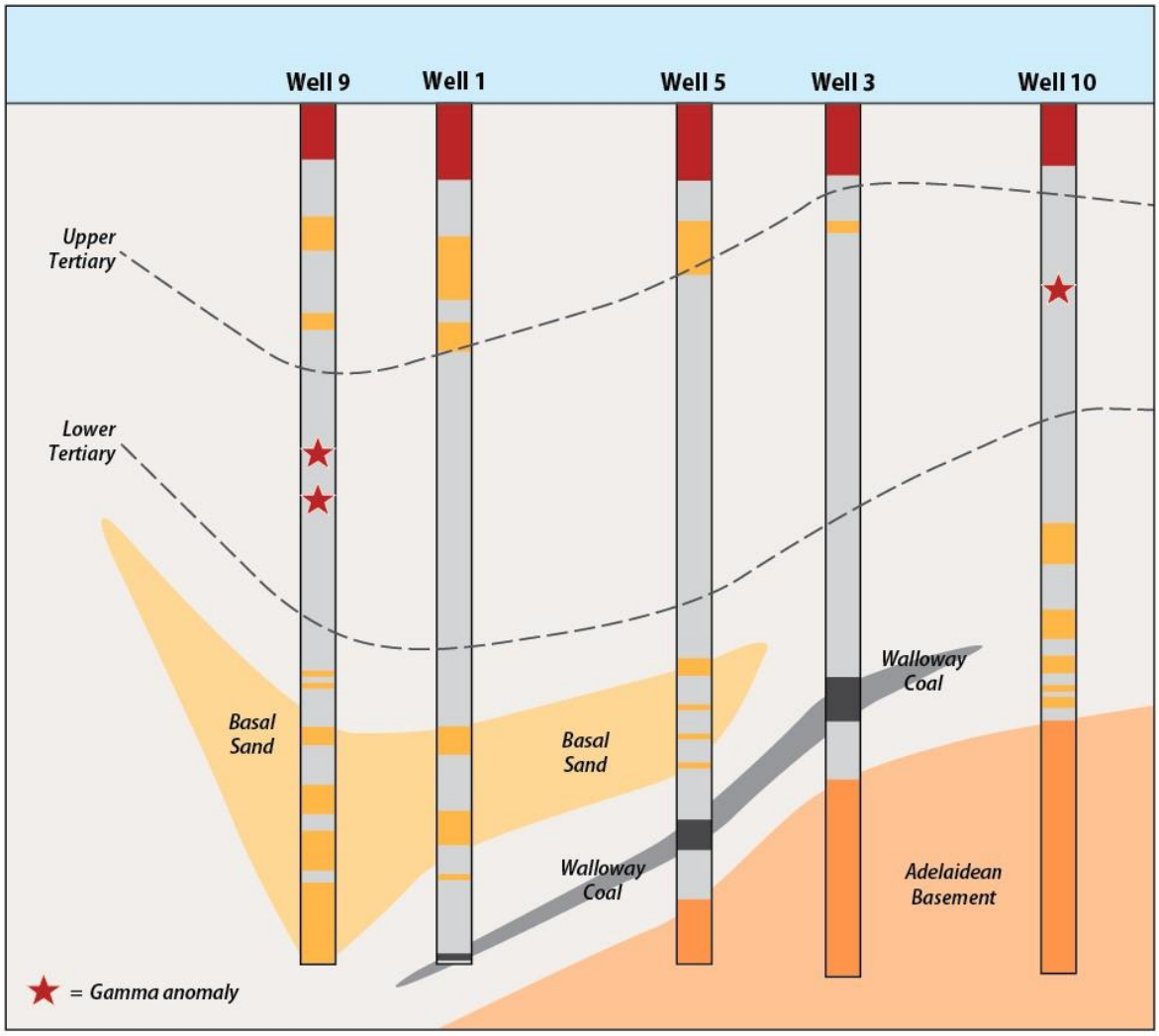

Figure 6. Stratigraphic log and cross-section through the Walloway basin

The Company will continue to assess the new data along with all available historical data to ascertain a preferred approach to drill test the above model. The proposed drill program will also involve consultation with all necessary stakeholders within the Orroroo region. The process of accessing land to conduct mineral exploration is an ongoing process and the Company wished to note the data from the recent gravity survey may be beneficial to both mineral exploration and agriculture.

END

This announcement has been authorized by the board of directors of Norfolk.

Competent Persons Statement

The information in this announcement that relates to Exploration Results, is based on, and fairly represents, information and supporting documentation prepared by Mr Leo Pilapil, a competent person who is a member of the Australasian Institute of Mining and Metallurgy. Mr Pilapil has a minimum of five years' experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a competent person as defined in the 2012 Edition of the Joint Ore Reserves Committee Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Pilapil is a related party of the Company, being the Technical Director, and holds securities in the Company. Mr Pilapil has consented to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

About Norfolk Metals

The Roger River Project comprises two granted exploration licenses, EL20/2020, and EL17/2021, which together cover 261km^2, located 410km northwest of the capital city of Hobart, Tasmania. The Project is prospective for gold and copper as indicated by the intense silicification, argillisation and diatreme breccias in close proximity to the Roger River Fault along with carbonate-rich host rocks.

The Orroroo Uranium Project comprises two granted exploration licenses, EL6552, and EL6814, which together cover 659km^2, located approximately 274km northwest of the capital city of Adelaide, South Australia within the Walloway Basin, which is an elongate Tertiary Basin approximately 50km long and up to 15km wide. It consists of Tertiary and Quaternary sediments unconformably underlain by Adelaidian basement.

For further information please visit www.norfolkmetals.com.au.

JORC Code, 2012 Edition – Table 1 Report Template

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code Explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	**Orroroo Ground Gravity Survey** • The gravity geophysical survey was conducted by Atlas Geophysics and 1,596 gravity stations were processed. Gravity stations were acquired using a 250m x 250m offset grid configuration. • The following instrumentation was used for acquisition of the gravity data: ▪ One Scintrex CG-5 Autograv Gravity Meter (Serial Number: 41478, SF: 0.999743) ▪ One ESVE300PRO GNSS Rover Receiver ▪ One ESVE300PRO GNSS Base Receiver **Orroroo Passive Seismic Survey** • Seismic Survey was conducted by Atlas Geophysics and 65 passive seismic readings were processed. • Two MoHO Tromino units were used for the acquisition of the passive seismic data.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• No drilling undertaken

Criteria	JORC Code Explanation	Commentary
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• No drilling undertaken
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• No drilling undertaken
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• No drilling undertaken
Quality of assay data and	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc,*	**Orroroo Ground Gravity Survey** • GNSS raw data were processed daily using Novatel Waypoint GrafNav v8.90 post-processing software • QC procedures were applied to the GNSS data daily

Criteria	JORC Code Explanation	Commentary
laboratory tests	*the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* ● *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	● Once downloaded from the gravity meters, the data were analyzed for consistency. Preliminary QC was performed to confirm that observations meet specification for standard deviation, reading rejection, temperature, and tilt values ● Once the data has been 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 **Orroroo Seismic Survey** ● The acquired raw Tromino data was downloaded in the field at the end of each shift using the Grilla 9.8.5 software package. Frequency domain data was exported from Grilla and analyzed into an Atlas Geophysics software package, Toasta, for QC and H/V peak determination. ● Atlas Geophysics checked the quality of each trace of final passive seismic HVSR data before converting peak frequency data to depth. ● Passive seismic HVSR data were amplitude normalised by applying a filter process that equalises variations in the HVSR peak amplitudes observed at individual station recordings. This amplitude normalisation allows for subtle peak frequency responses to be amplified and stronger amplitudes to become subdued, enhancing lateral continuity along a survey line and across the project area.
Verification of sampling	● *The verification of significant intersections by either independent or alternative company personnel.* ● *The use of twinned holes.*	**Orroroo Ground Gravity Survey** ● A total of 53 repeat readings representing 3.32% of the

Criteria	JORC Code Explanation	Commentary
and assaying	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	survey were acquired for quality control purposes. Repeat readings were evenly distributed, where possible, on a time-basis throughout each of the gravity loops **Orroroo Seismic Survey** • The 65 passive seismic stations were acquired in 2 days an average acquisition rate of around 32 stations per day. • Atlas Geophysics managed the HVSR passive seismic survey data processing daily and applied in-house quality control protocols. • All survey data was recorded by the field crew on the Tromino® seismometers and checked daily by Atlas. Manual filed logs were also kept to record soil and wind conditions.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Locations for the gravity survey data are provided in both geographical latitude and longitude and Universal Transverse Mercator metric projection coordinate systems. • WGS84 World Geodetic System 1994 • Coordinate Type Geographical • 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. • For the passive seismic, the location information were obtained using the Tromino in-built GNSS receivers with external antennas.

Criteria	JORC Code Explanation	Commentary
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	**Orroroo Ground Gravity Survey** • Gravity stations were acquired using a 250m x 250m offset grid configuration **Orroroo Seismic Survey** • 65 new passive seismic stations were acquired over 2 traverses along main roads at 200m spacing.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	**Orroroo Ground Gravity Survey** • The gravity lines were orientated east-west in order to cross known region structural trends • Interpretation of the gravity data appears to confirm known regional structural directions **Orroroo Seismic Survey** • Main traverse (Line 100) along the main track in east-west to north westerly direction. The 2nd shorter traverse (Line 101) in north east to south west orientation.
Sample security	• *The measures taken to ensure sample security.*	• Atlas Geophysics who collected the gravity and seismic data, are very experienced and reputable contractors who specialize in gravity and seismic survey.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Data is managed and processed by Atlas Geophysics. All data collected and interpretations are peer reviewed.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	**Orroroo Uranium Project:** • The Orroroo Project is located on exploration licenses EL6552 and EL6814 which are held 100% by Norfolk • Continual engagement with the Department of Mining and Energy in South Australia, local heritage groups and stake holders is required and overseen by Norfolk contract Land Access Manager and Tenement Manager.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	**Orroroo Uranium Project:** • Linc Energy drilled a series of wells exploring for coal and gas in the Walloway Basin (EL6552). The company used downhole wireline gamma spectrometry to determine locations of possible hydrocarbon traps.
Geology	• *Deposit type, geological setting and style of mineralisation.*	**Orroroo Uranium Project:** • Walloway Basin, which is an elongate Tertiary Basin approximately 50km long and up to 15km wide. It consists of Tertiary and Quaternary sediments unconformably underlain by Adelaidian basement. • Within the Tertiary two lithological units have been recognised, a lower interbedded fluvial sand, silt and clay, and an upper, more extensive and continuous lacustrine unit of grey, brown and black clay. Both consist of unconsolidated sediments and multiple aquifers, one of which may be artesian. The lower unit contains a known coal seam (Walloway Seam) of Lignite B rank. • The Walloway basin has no known uranium source defined in the nearby ranges and outcrops. However,

Criteria	JORC Code Explanation	Commentary
		the Walloway basin is underlain by granitic basement rocks which could possibly be the source of mobilized uranium.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		• No drilling undertaken

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No drilling undertaken
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole*	• No drilling undertaken

Criteria	JORC Code Explanation	Commentary
	length, true width not known').	
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Refer to Figure 1 in this announcement
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practised to avoid misleading reporting of Exploration Results.*	• The accompanying document is a balanced report with a suitable cautionary note.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• All meaningful information provided.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Norfolk to conduct subsequent data interpretation prior to ranking drilling targets based on prospectivity, access and safety. • Subsequent drilling will test for possible 'roll front' uranium mineralization.