

Copper Hosting Troughs defined by ANT Surveys

Alford East Copper-REE Project, South Australia

The directors of Thor Energy PLC ("Thor" or the "Company") (AIM, ASX: THR, OTCQB: THORF) are pleased to announce that the Ambient Noise Tomography ("ANT") Surveys by Fleet Space Technologies ("Fleet") are now complete at the Alford East Copper-REE Project in South Australia.

Highlights:

- The acquisition phase of the low-impact, ANT surveys are now complete at the Alford East copper-gold-REE Project, using EXOSPHERE BY FLEET® technology (**Figure 1 and Figure 3**)
- Preliminary ANT models clearly delineate low-velocity, weathered 'troughs' that host the oxide copper-gold-REE mineralisation within the Alford Copper Belt (**Figure 1 and 2**)
- Fleet is currently reviewing the ANT data, integrating the ANT results with Thor's 3D geological model using Artificial Intelligence ("AI") and Machine Learning ("ML") and generating an improved geological model for drill targeting extensions to the troughs that host higher-grade oxide copper-gold mineralisation (ASX/AIM: 4 September 23)

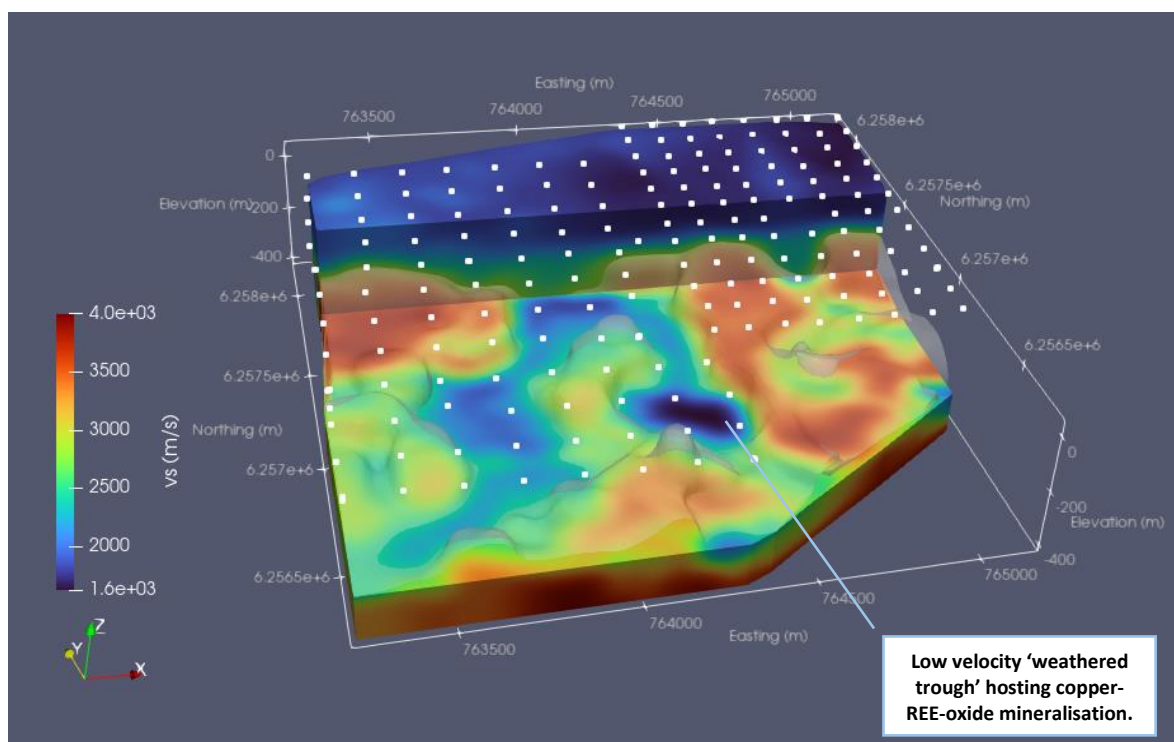


Figure 1: 3D velocity model showing low-velocity troughs (blue), overlaid by ANT surveys (white dots)

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Key Projects:
USA

Uranium / Vanadium
Wedding Bell, Colorado
Radium Mountain, Colorado
Vanadium King, Utah
Australia
 Gold
Ragged Range, Pilbara, WA
 Copper
Alford East, SA



Nicole Galloway Warland, Managing Director of Thor Energy, commented:

"Thor is very pleased with the progress made by Fleet Space Technologies, with the completion of the ANT surveys in a timely and efficient manner, and their preliminary models defining the low-velocity troughs."

"As part of the collaboration, Fleet is modelling the data using Thor's 3D geological model, resulting in a revised geological model to support drill targeting of higher-grade copper and REE mineralisation along strike of our mineral resource estimate and in new zones of the Alford Copper Belt."

"We look forward to keeping the market updated as the modelling and interpretation results continue to come in."

Next Steps:

1. Modelling of ANT results, incorporating Thor's 3D model and using AI to extrapolate controlling structures along the Alford Copper Belt (November - December 2023)
2. Target generation from the final 3D Model (November - December 2023)
3. Drill preparations and drilling (Q1 2024)



Photo 1: Low-impact nature of ANT surveys at Alford East Project

ANT Geophysics Surveys:

Two comprehensive ANT surveys were executed at the Alford East Project, covering the northern portion of the Mineral Resource Estimate Domains (**Figure 3**). The surveys were designed to delineate the low-velocity, weathered 'troughs' that are known to host the oxide copper-gold and REE mineralisation within the Alford Copper Belt (**Figure 3**). The oxide copper-gold and REE mineralisation within the Alford Copper Belt is associated with rocks that are significantly less dense with lower seismic velocity than the surrounding fresh units.



The surveys referred to as the East and West field surveys used a total of 96 Fleet's space-enabled geodes for each deployment. These surveys covered substantial areas, encompassing 1.13 square kilometres in the Eastern Field and 1.81 square kilometres in the Western Field.

The Eastern Field survey commenced on September 28 and concluded on October 5. Subsequently, the geodes were seamlessly transitioned to the neighbouring Western Field, where the survey operations began on October 6 and were successfully completed on October 17. In the Eastern Field, the inter-geode spacing was 150 metres in both the easting and northing directions, allowing for subsurface imaging down to a depth of 500 metres, with an impressive resolution of approximately 30 metres. Conversely, in the Western Field, the inter-geode spacing was 115 metres along the easting direction and 130 metres along the northing direction, providing the capability to image the subsurface down to a depth of 400 metres while maintaining a resolution of 36 metres.

The data collected from these two surveys was subject to extensive processing, leading to the development of a high-resolution 3D seismic velocity model of the subsurface. This model has revealed key features, such as regions with slower velocity within a high-velocity basement, inferring a 3D geometry of the interpreted variably weathered trough and a sheared metasedimentary basement, which is expected to host mineralisation (**Figure 1 and Figure 2**). This newfound understanding of the subsurface will play a pivotal role in guiding and optimising the upcoming drilling activities in the Alford East Copper project.

The survey will compare and integrate the subsurface ANT results with geological information (surface geochemistry, drilling, and historic geophysics) that has been compiled by Thor. The resultant 3D model will provide a refined targeted strategy, focusing future drilling on areas with potential high-grade oxide copper-gold and REE mineralisation.

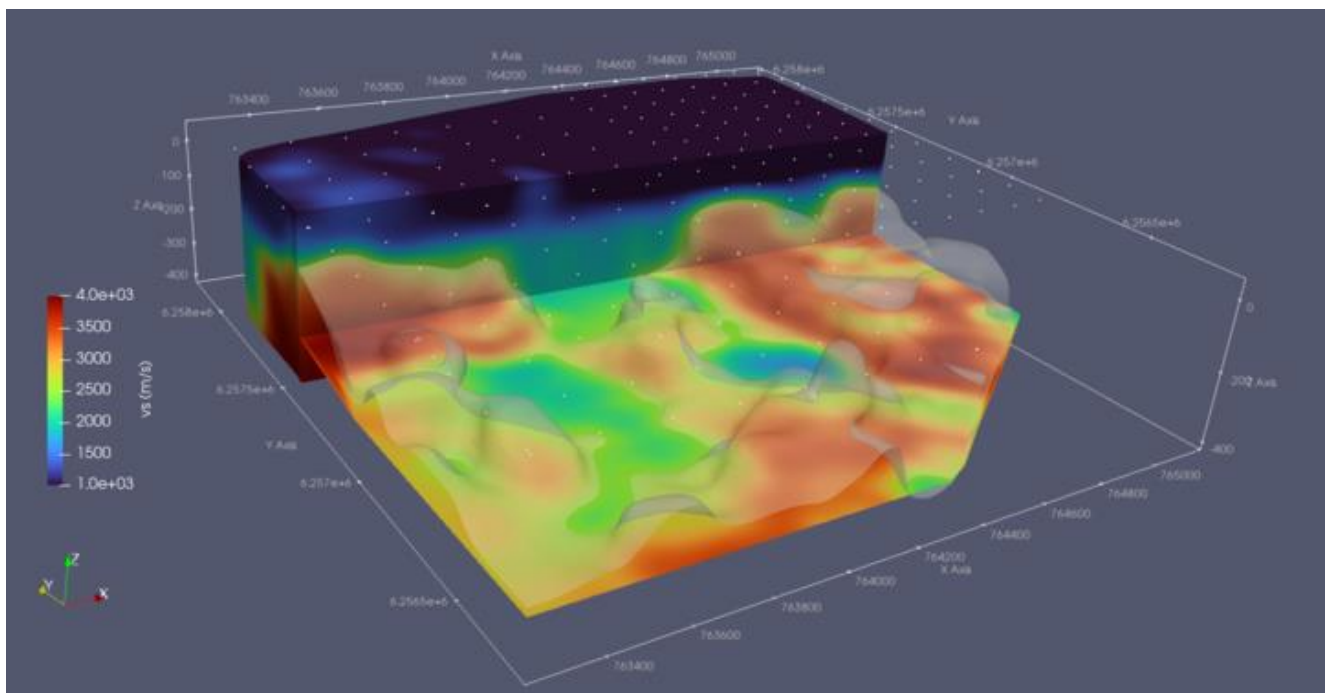


Figure 2: 3D model showing low velocity weathered troughs hosting oxide copper mineralisation

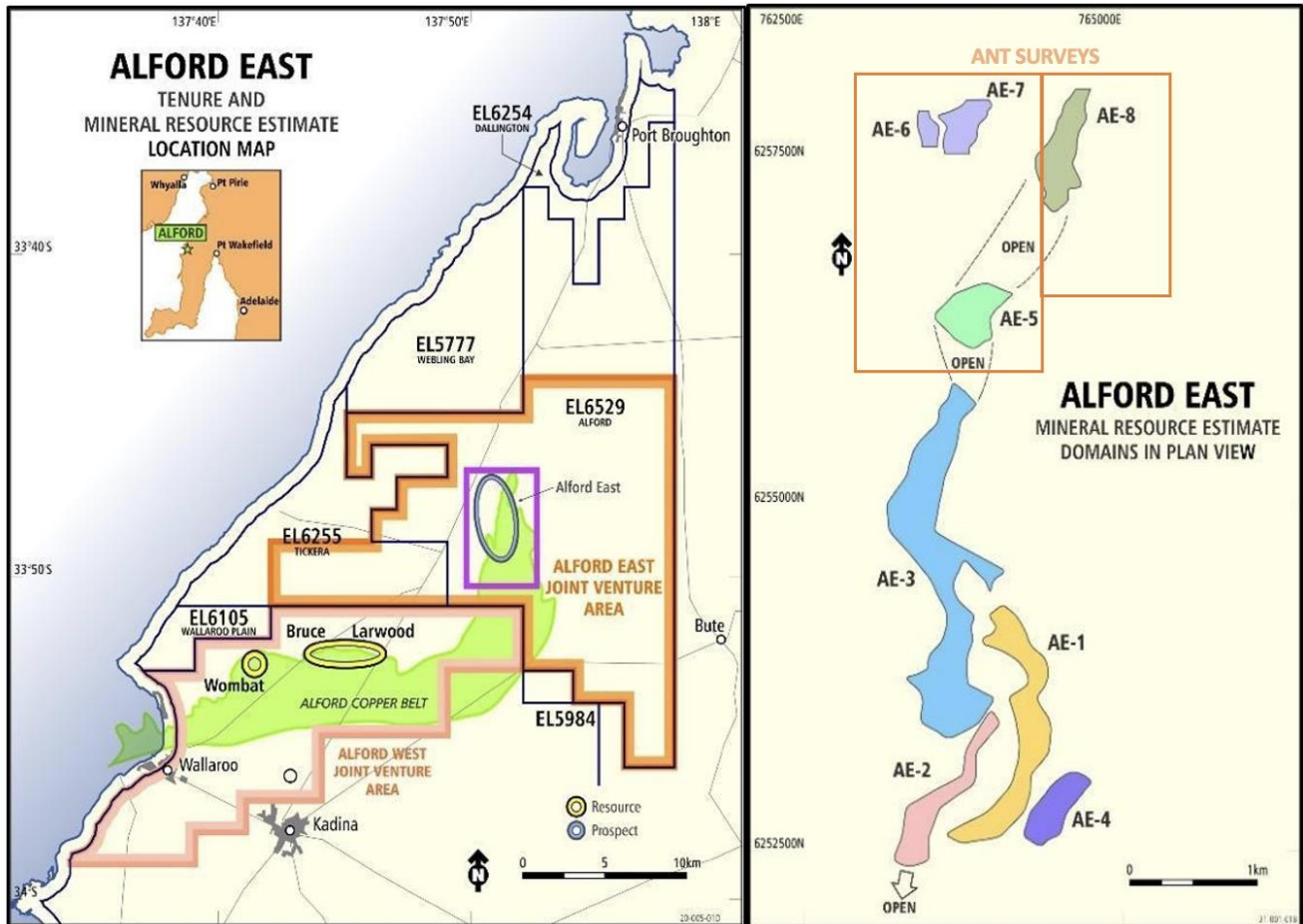


Figure 3: Alford East Location Map showing the lateral extent of the Alford Copper Belt (left), and the Alford East Mineral Resource Domains showing the area for initial ANT Surveys (right)

Alford East Project Background:

The Alford East Copper-REE Project is located on EL6529, where Thor holds an 80% interest from unlisted Australian explorer Spencer Metals Pty Ltd, covering portions of EL6255 and EL6529 (**Figure 3**) (ASX/AIM: 20 November 2020).

The Alford East Project covers the northern extension of the Alford Copper Belt, located on the Yorke Peninsula, SA. The Alford Copper Belt is a semi-coherent zone of copper-gold oxide mineralisation, within a structurally controlled, north-south corridor consisting of deeply kaolinised and oxidised troughs within metamorphic units on the edge of the Tickera Granite (**Figure 3**), Gawler Craton, SA.

Thor completed an inferred Mineral Resource Estimate ("MRE") by utilising historic drill hole information. **Table C -** (ASX/AIM: 27 January 2021):

- 125.6Mt @ 0.14% Cu containing 177,000t of contained copper
- 71, 500oz of contained gold

<https://thorenergyplc.com/investor-updates/maiden-copper-gold-mineral-resource-estimate-alford-east-copper-gold-isr-project/>



Table C: Alford East Mineral Resource Estimate as of 22 January 2021 – Figure 2 (ASX/AIM: 27 January 2021)

Domain	Tonnes (Mt)	Cu %	Au g/t	Contained Cu (t)	Contained Au (oz)
AE_1	24.6	0.12	0.021	30,000	16,000
AE_2	6.8	0.13	0.004	9,000	1,000
AE_3	34.9	0.09	0.022	33,000	25,000
AE_4	8.0	0.11	0.016	8,000	4,000
AE_5	11.0	0.22	0.030	24,000	11,000
AE-8 (NP)	31.3	0.19	0.008	61,000	8,000
AE-7 (LW_E)	7.7	0.14	0.025	10,000	6,000
AE-6 (LW_W)	1.3	0.13	0.011	2,000	500
Total	125.6	0.14	0.018	177,000	71,500

Note: MRE reported on oxide material only, at a cut-off grade of 0.05% copper which is consistent with the assumed In-Situ Recovery technique.

REE results were later reported from the 2021 diamond drilling program, with significant drill intercepts (>500ppm TREO¹) including (THR: ASX/AIM 26 April 2023):

- **21AED005:** 36.7m @ 1568ppm (0.16%) TREO & 1.2% Cu from 6.3m,
including 11.8m @ 2095 ppm (0.21%) TREO and 1.2% Cu from 10m, and
including 11m @ 2088ppm (0.21%) TREO and 0.8% Cu from 47m,
2m @ 5042ppm (0.5%) TREO from 47m
- **21AED002:** 11.6m @ 1699ppm (0.17%) TREO and 0.26% Cu from 30.4m
including 6.1m @ 2262ppm (0.22%) TREO from 34.0m
- **21AED001:** 16.8m @ 1721ppm (0.17%) TREO and 0.5% Cu from 91.4m

The Board of Thor Energy PLC has approved this announcement and authorised its release.

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¹ TREO = (Total Rare Earth Oxides) = (La₂O₃ + CeO₂ + Pr₆O₁₁ + Nd₂O₃ + Sm₂O₃ + Eu₂O₃ + Gd₂O₃ + Tb₄O₇ + Dy₂O₃ + Ho₂O₃ + Er₂O₃ + Tm₂O₃ + Yb₂O₃ + Lu₂O₃ + Y₂O₃)



Competent Person's Report

The information in this report that relates to exploration results is based on information compiled by Nicole Galloway Warland, who holds a BSc Applied geology (HONS) and who is a Member of The Australian Institute of Geoscientists. Ms Galloway Warland is an employee of Thor Energy PLC. She has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Nicole Galloway Warland consents to the inclusion in the report of the matters based on her information in the form and context in which it appears.

Updates on the Company's activities are regularly posted on [Thor's website](#) which includes a facility to register to receive these updates by email, and on the Company's X page [@thorenergyplc](#)

About Thor Energy Plc

The Company is focused on uranium and energy metals that are crucial in the shift to a 'green' energy economy. Thor has a number of highly prospective projects that give shareholders exposure to uranium, nickel, copper, lithium and gold. Our projects are located in Australia and the USA.

Thor holds 100% interest in three uranium and vanadium projects (Wedding Bell, Radium Mountain and Vanadium King) in the Uravan Belt in Colorado and Utah, USA with historical high-grade uranium and vanadium drilling and production results.

At Alford East in South Australia, Thor has earned an 80% interest in oxide copper deposits considered amenable to extraction via In Situ Recovery techniques (ISR). In January 2021, Thor announced an Inferred Mineral Resource Estimate¹. Thor also holds a 30% interest in Australian copper development company EnviroCopper Limited, which in turn holds rights to earn up to a 75% interest in the mineral rights and claims over the resource on the portion of the historic Kapunda copper mine and the Alford West copper project, both situated in South Australia, and both considered amenable to recovery by way of ISR.^{2,3}

Thor holds 100% of the advanced Molyhil tungsten project, including measured, indicated and inferred resources⁴, in the Northern Territory of Australia, which was awarded Major Project Status by the Northern Territory government in July 2020. Thor executed a A\$8m Farm-in and Funding Agreement with Investigator Resources Limited (ASX: IVR) to accelerate exploration at the Molyhil Project on 24 November 2022.⁶

Adjacent to Molyhil, at Bonya, Thor holds a 40% interest in deposits of tungsten, copper, and vanadium, including Inferred resource estimates for the Bonya copper deposit, and the White Violet and Samarkand tungsten deposits.⁵ Thor's interest in the Bonya tenement EL29701 is planned to be divested as part of the Farm-in and Funding agreement with Investigator Resources Limited.⁶

Thor owns 100% of the Ragged Range Project, comprising 92 km² of exploration licences with highly encouraging early-stage gold and nickel results in the Pilbara region of Western Australia.

Notes

¹ <https://thorenergyplc.com/investor-updates/maiden-copper-gold-mineral-resource-estimate-alford-east-copper-gold-isr-project/>

² www.thorenergyplc.com/sites/thormining/media/pdf/asx-announcements/20172018/20180222-clarification-kapunda-copper-resource-estimate.pdf

³ www.thorenergyplc.com/sites/thormining/media/aim-report/20190815-initial-copper-resource-estimate---moonta-project---rns---london-stock-exchange.pdf

⁴ <https://thorenergyplc.com/investor-updates/molyhil-project-mineral-resource-estimate-updated/>

⁵ www.thorenergyplc.com/sites/thormining/media/pdf/asx-announcements/20200129-mineral-resource-estimates---bonya-tungsten--copper.pdf



⁶ <https://thorenergyplc.com/wp-content/uploads/2022/11/20221124-8M-Farm-in-Funding-Agreement.pdf>

About Fleet Space Technologies

[Fleet Space Technologies](#), a leading Australian space company with a mission to connect Earth, Moon, and Mars, is revolutionising the mineral exploration, defence, and space exploration sectors through its ground-breaking products and connectivity solutions. Headquartered at a state-of-the-art facility in Adelaide, South Australia, Fleet has rapidly grown to over 100 employees and boasts a global presence, including a team in the US and offices in Canada, Luxembourg, and Chile.

Fleet created EXOSPHERE BY FLEET®, a solution for the mineral exploration industry providing lightning fast, 3D mapping of underground structures and providing increased accuracy in drilling targets. This cutting-edge technology is helping the world transition to clean-air mobility technologies by creating a faster, more sustainable, and less expensive route to finding critical mineral deposits. EXOSPHERE BY FLEET® is an end-to-end service offered to mineral exploration customers to decrease the time it takes to find a deposit. Fleet's sensors, the Geodes, are deployed in a survey area and leverage real-time passive seismic methods to 'scan' the subsurface. This is enabled through non-invasive Ambient Noise Tomography (ANT) which listens to seismic waves present on Earth. The data is rapidly processed and transmitted through Fleet's low power satellite network to create a 3D model of the area in near real time.

Since launching EXOSPHERE, Fleet Space has signed contracts with over 30 clients around the world including players such as Rio Tinto, Barrick Gold and Core Lithium. Fleet has conducted more than 150 ANT surveys on different commodity types and completed deployments in 5 continents. EXOSPHERE BY FLEET® is contributing to solve the pressing global priority to decarbonise mobility and find more than \$13trillion USD worth of minerals required for the energy transition to help meet global net zero priorities.

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1. 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (eg 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information. 	<p>No new drilling or surface sampling in this release.</p> <ul style="list-style-type: none"> THR is reporting the results of an ambient noise tomography survey conducted by Thor Energy Plc and Fleet Space Technologies which commenced on the 28 Sep 2023 and finished on the 17 Oct 2023. The Ambient Noise Tomography data was acquired using 96 Fleet Space Technology Geodes. The Geode specifications are as follows: <ul style="list-style-type: none"> - 1-component (vertical) 2Hz geophones - Sensitivity: 260 V/m/s - Sampling rate: 20Hz - Recording mode: continuous - Preamplifier gain: 32 (linear)
Drilling techniques	<ul style="list-style-type: none"> Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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). 	Not applicable – No drilling reported
Drill sample recovery	<ul style="list-style-type: none"> 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. 	Not applicable- No drilling reported
Logging	<ul style="list-style-type: none"> 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. 	Not applicable- No drilling reported



Sub- sampling techniques and sample preparation	<ul style="list-style-type: none"> 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. <p>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</p> <ul style="list-style-type: none"> 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. 	Not applicable- No drilling reported
Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> 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, 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. 	<p>No drilling reported.</p> <p>Fleet Space Technologies conducted the ANT survey.</p> <ul style="list-style-type: none"> The ANT data was acquired using 96 Fleet Space Technology Geodes The Geode specifications are as follows: <ul style="list-style-type: none"> - 1-component (vertical) 2Hz geophones - Sensitivity: 260 V/m/s - Sampling rate: 20Hz - Recording mode: continuous - Preamplifier gain: 32 (linear)
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	ANT - Data and model received is preliminary in nature and is being reviewed by Fleet Space Technologies.
Location of data points	<ul style="list-style-type: none"> 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. 	<p>No drilling reported</p> <ul style="list-style-type: none"> ANT - Data using a handheld GPS GDA94 Zone 53.
Data spacing and distribution	<ul style="list-style-type: none"> 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. 	ANT line spacing which is approximately 150 m and 130 m in the two surveys is appropriate for exploration purposes



Orientation of data in relation to geological structure	<ul style="list-style-type: none"> 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. 	ANT grid covers the roughly East-West trending weathered zone.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	No sampling reported
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	None undertaken
Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> 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. 	Exploration results are reported on EL 6529 in South Australia held 100% by Spencer Metals Pty Ltd. Thor holds 80 % interest in the Alford East Project. The tenement is secure under SA legislation and is in good standing.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	Primary deposits in the region are considered to be of Iron Oxide Copper Gold (IOCG) affinity, related to the 1590Ma Hiltaba/GRV event. Cu-Au-Mo-Pb mineralisation is structurally controlled and associated with significant metasomatic alteration and deep weathering or kaolinisation of host rocks.
Drill hole Information	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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 has been undertaken or reported



<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i> <i>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.</i> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated</i> 	Only field observations have been reported. There has been no data aggregation.
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i> 	No drilling has been undertaken or reported
<i>Diagrams</i>	<ul style="list-style-type: none"> <i>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.</i> 	See body of report
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i> 	ANT data is reported for Alford East.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <i>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.</i> 	All data have been reported
<i>Further work</i>	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step- out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	It is anticipated that the weathered zone identified from the ANT survey will be drill tested to evaluate hydrogeological parameters.