AUSMEX
MINING GROUP LTD

9th April 2019

ASX RELEASE

LARGE CONDUCTIVE "PLUMES" IDENTIFIED BELOW KNOWN COPPER MINERALIZATION AT BURRA, SA

- **Initial higher resolution 5 km spaced grid Audio-Magnetotelluric (AMT) survey interpretation has been completed over the first of three recently defined priority targets (Figure 2),** (Refer ASX release 4th February 2019).
- **Large conductive structures, up to 15 kms in width have been identified by Ausmex under known copper mineralisation – Burra Monster Mine and Burra West Mine (Figure 1).**
- **The initial 2D AMT Inversion models identify potential conductive 'plumes' that are similar in nature to those evident below Olympic Dam, Carrapateena and other IOCG deposits in the Gawler Craton (**ASX release 13th March 2018).
- **39 AMT sites were completed at 5 kms spacings over high priority conductive structures which were identified by Ausmex from the previous 10 km spaced MT survey grid (Figure 2),** (Refer ASX release 4th February 2019).

Ausmex Mining Group (ASX: AMG) ("Ausmex" or "The Company") is pleased to announce the completion of the initial field component of a 5 km spaced grid-based Survey using Audio-Magnetotellurics (AMT) at Burra. The 5 km AMT initial survey is focusing on two of the seven targets defined by AMG's earlier 10km regional MT grid (Refer ASX release 4th February 2019) with data from 39 stations collected (Figure 2 below).

This Survey was designed to increase the data resolution from the initial regional 10 km spaced MT Survey completed in October 2018 and focus on the surface to 2000 m depth, progressing the conductive zone to exploration and drill targets.

The Initial 2D Inversion Modelling by Zonge Engineering and Research Organisation (Aust) Pty Ltd (Zonge) is very encouraging, defining greater clarity in the top 2000 m. Initial results have identified shallow to mid crustal conductive zones with distinct plumes that lead up to the surface under known mineralization around Burra, SA (Figure 1 below). The potential mineral plumes are up to 15 km in width.

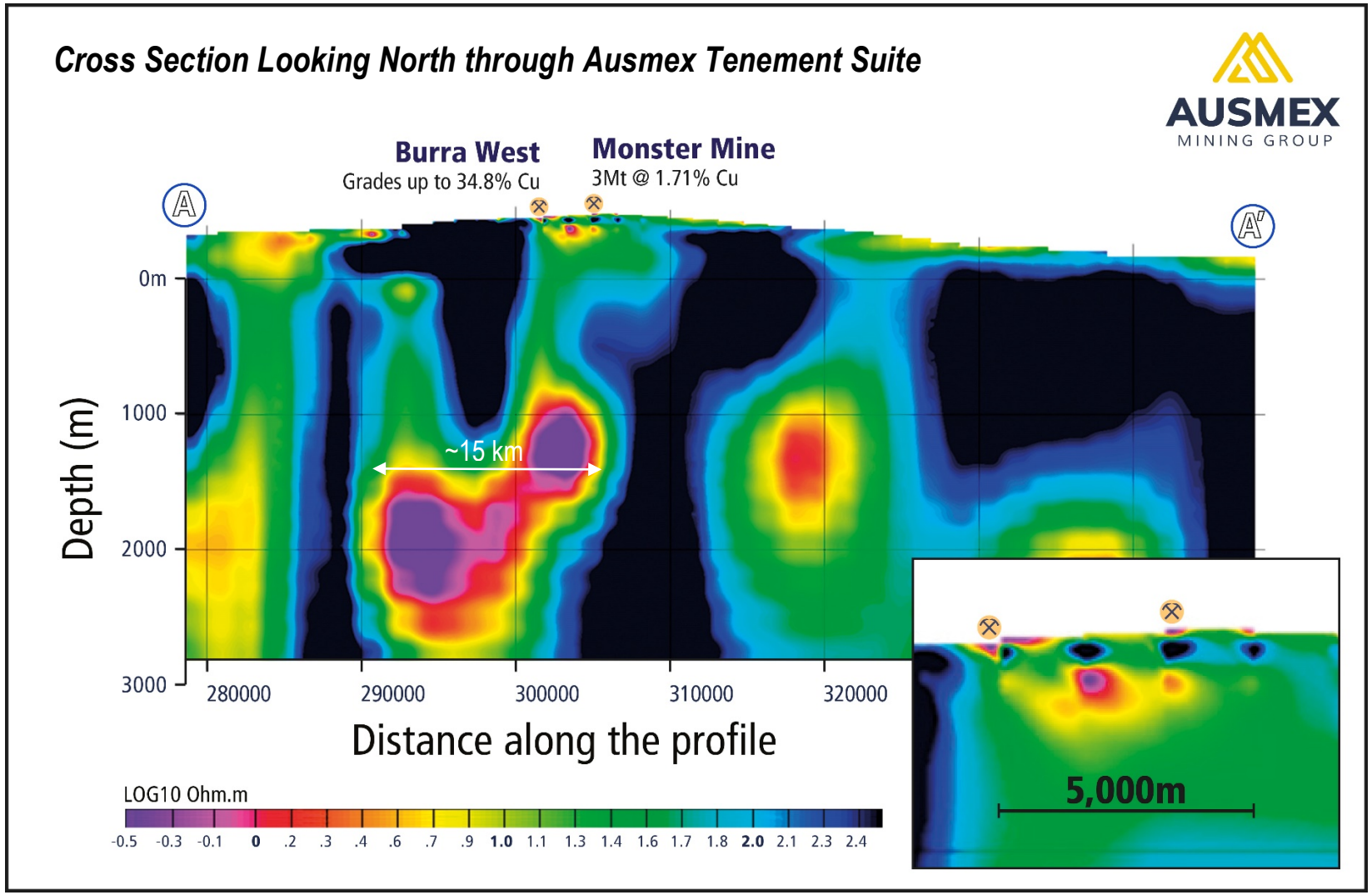

Figure 1. **Cross-section 6,270,000mN** preliminary 2D inversion model shows perspective conductive 'plumes' leading to surface from mid crustal conductive zones beneath known copper mineralization – Monster Mine and Burra West Mine. Refer Figure 2 below for location. (Source: SARIG 2019, Department of Energy and Mining.

Additional Modelling and Interpretation

Zonge will continue to complete the remaining modelling over the priority targets that remain, with the aim of identifying potential mineralised plumes and fluid pathways suitable for drilling targets.

The Company is targeting potential large, IOCG style mineralisation of similar scale and mineralogy to Olympic Dam, Carrapateena, and Prominent Hill, as previously defined by Independent Expert Emeritus Professor Kenneth D Collerson (Refer ASX release 4th October 2018).

Key findings to date at Burra include:

- Hydrothermal fluid compositions at Burra are similar to those for Olympic Dam and the Idaho Cobalt Belt in the USA.
- The AusLAMP conductivity domain identified below Burra is similar in scale and character to the large MT conductive anomaly below BHP's Olympic Dam.
- As with Olympic Dam, the Burra Conductivity anomaly is interpreted to image the metal migration region involved in formation of the mineral system.

AusLAMP is the Australian Lithospheric Architecture Magnetotelluric Project, which allows geoscientists to understand the deep geology of the crust, including signatures of world-class mineral deposits.

Magnetotellurics (MT) is defined by Geoscience Australia as a passive geophysical method which uses natural time variations of the Earth's magnetic and electric fields to measure the electrical resistivity of the sub-surface.

Audio-Magnetotellurics (AMT) is defined in Geoscience Australia's documentation as "The Audio-Magnetotelluric method (AMT) samples signal frequencies in the range of 20k Hz down to ~1Hz and provides data pertaining to the upper few kilometres of the Earth' crust."

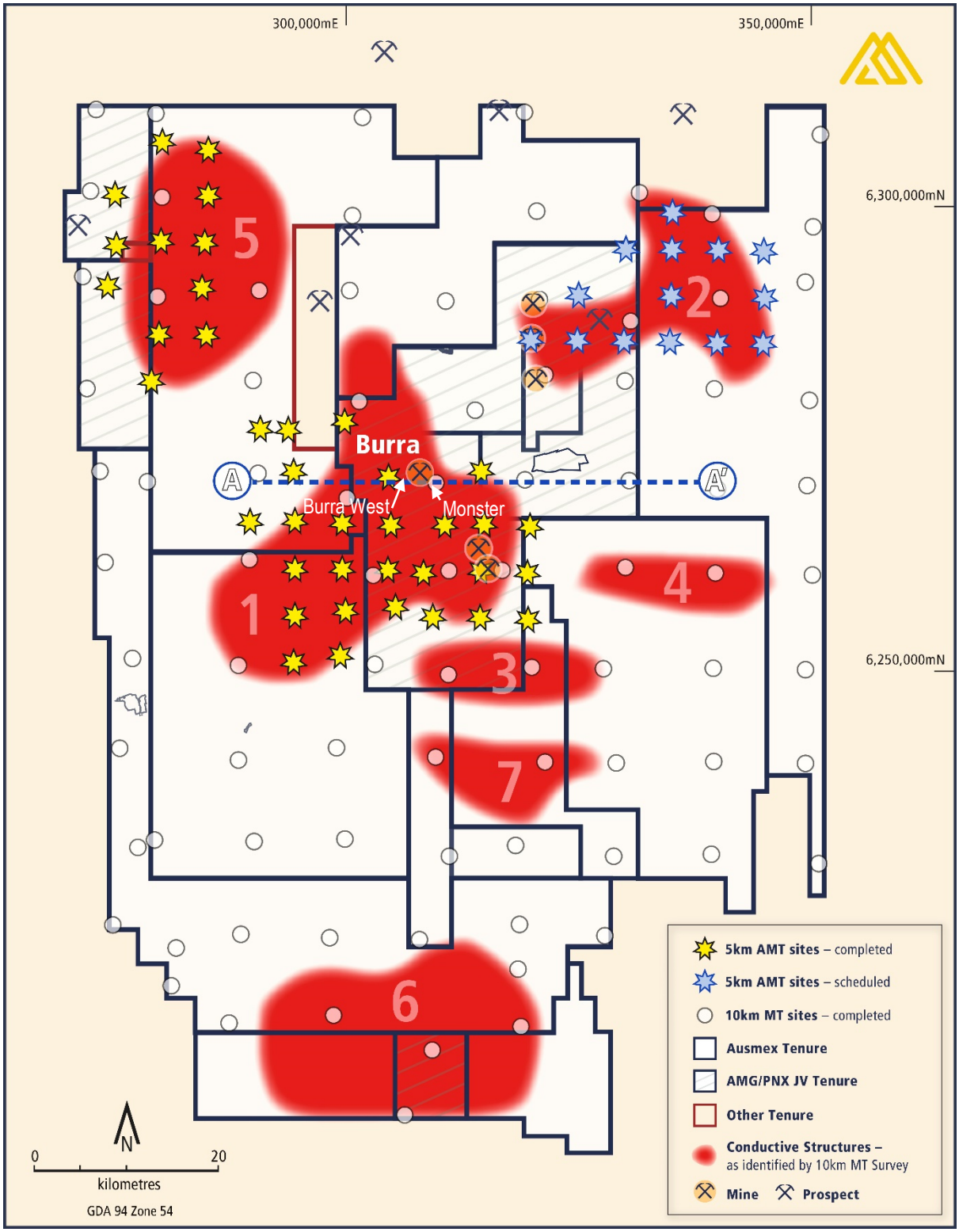

Figure 2 – **Plan over the Burra Region** showing the 5 km spaced grid focussing in on the priority conductive structures identified by the Company's previous 10 km grid MT survey. (Refer ASX release 4th February 2019). Conductive Zones 1 and 5 completed March 2019.

Forward Looking Statements

The materials may include forward looking statements. Forward looking statements inherently involve subjective judgement, and analysis and are subject to significant uncertainties, risks, and contingencies, many of which are outside the control of, and may be unknown to, the company.

Actual results and developments may vary materially from that expressed in these materials. The types of uncertainties which are relevant to the company may include, but are not limited to, commodity prices, political uncertainty, changes to the regulatory framework which applies to the business of the company and general economic conditions. Given these uncertainties, readers are cautioned not to place undue reliance on forward looking statements.

Any forward-looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or relevant stock exchange listing rules, the company does not undertake any obligation to publicly update or revise any of the forward-looking statements, changes in events, conditions or circumstances on which any statement is based.

Competent Person Statement

Statements contained in this report relating to exploration results and potential are based on information compiled by Ms Nicole Galloway Warland, who is a member of the Australian Institute of Geoscientists (AIG). Ms Galloway Warland is a consultant Project Manager of Ausmex Mining Group Limited and Geologist who has sufficient relevant experience in relation to the mineralization styles being reported on to qualify as a Competent Person as defined in the Australian Code for Reporting of Identified Mineral resources and Ore reserves (JORC Code 2012). Ms. Galloway Warland consents to the use of this information in this report in the form and context in which it appears.

AUSMEX MINING GROUP LTD

Section 1 Sampling Techniques and Data

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

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 (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.*	• Magnetotelluric Survey with stations arranged on 5km x 5km spaced grid. • MT Survey was conducted by Zonge Engineering and Research Organisation. • Readings/Measurements recorded over 24hour period. MT Equipment used: • Receivers: Broad band Phoenix Geophysics MTU-5A receivers, featuring 5 input channels and capable of recording in 10kHz-DC frequency range with 24-bit resolution and up to 24000 samples per second. • Timing accuracy - +-100ns, with oven-controlled crystal oscillator synchronized to GPS. • Magnetic Coils: Induction Coil Magnetometer MTC150L coils with 10kHz-10000s range and 25mv/nT sensitivity • Electrodes: Pb-$PbCl_2$ - copper sulphate ceramic pots for electric field, low noise, nonpolarizing. Calibration: • Each unit is synchronized with universal time clock trough the GPS PPS signal Readings: • Recording Unit: Recording at 10000 Hz Simultaneous recording of 2, 3, or 5 channels per instrument (electric, magnetic, or both) • Magnetic Coils: Frequency Band --> 0.0001 - 10000 Hz • Electrodes: non polarised Pb-$PbCl_2$
Drilling techniques	• *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*	• No drilling is being reported

Criteria	JORC Code explanation	Commentary
	oriented and if so, by what method, etc).	
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 is being reported
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.*	• Not Applicable - No drilling is being reported • Readings/measurements collected over 24hour period per site.
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.*	• Not applicable – not reporting drilling results. • Remote/base site established for program; with continuous readings for program duration • Readings/measurements recorded over 24-48hours per site – appropriate for Survey.
Quality of assay data and laboratory tests	• *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.*	MT Equipment used: • The receiving equipment is Phoenix Geophysics MTU5A receivers, featuring 5 input channels and capable of recording in 10kHz-DC frequency range with 24-bit resolution and up to 24000 samples per second. Timing accuracy - +-100ns, with oven-controlled crystal oscillator synchronized to GPS. • Sensors: copper sulphate ceramic pots for electric field, low noise, nonpolarizing. Phoenix MTC-150L coils, with 10kHz-10000s range and 25mv/nT sensitivity. • The receivers have their own built-in GPS receivers, which can be used for both timing synchronization and positioning information. Coordinates get recorded in WGS84 system with accuracy of around 5 meters. An additional DGPS with decimetre accuracy was used to collect coordinates of all 5 pots on every site (4 pots for actual E-field electrodes and one extra local pot).

Criteria	JORC Code explanation	Commentary
		Those coordinates are in WGS84 coordinate system with UTM projection used
Verification of sampling and assaying	• *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.*	• Not applicable - not reporting on drilling results. • All data is electronically stored, with peer review of data processing and modelling.
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.*	• Each sample site has a Trimble GPS Bullet III antenna for receiving the GPS signal, • +/- 2-5 m accuracy range per sample site depending on Satellite numbers • WGS84 coordinate system with UTM projection used
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.*	• MT Survey was completed on 5km x 5km spaced grid. This spacing is optimal for level of exploration results reported.
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.*	• Not applicable - not reporting on drilling results. • MT Survey sites extend over target area at 5km x 5km spaced grid to achieve unbiased sampling.
Sample security	• *The measures taken to ensure sample security.*	• All readings/geophysical measurements collected and stored on computer USB and transported by Zonge personnel from collection sites to Adelaide office for processing modelling.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Data collection, processing and modelling protocols aligned with academic and industry best practice.

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*	• The MT Survey was carrying over 7 exploration licences located in the Burra region of South Australia within the Adelaide Geosyncline

Criteria	JORC Code explanation	Commentary
	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.*	• EL6102, EL6103 and EL6201 are 100% owned by Ausmex Mining Pty Ltd (a wholly owned subsidiary of Ausmex Mining Group Limited AMG). • EL5557, EL5918, eL5382 and EL5874 are held by PNX Metals Ltd – Ausmex Mining Pty Ltd (a wholly owned subsidiary of Ausmex Mining Group Limited) currently has the right to farm in for 60% and ultimately 90% JV with PNX. • The geophysical survey was completed on freehold pastoral land; Native Title extinguished. Notice of Entry with continuous communication served to all landholders. • Current land use is agriculture and grazing.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Exploration over the tenure has been conducted by several companies exploring for copper and/or gold in the area since 1845. • PNX Metals (Phoenix Copper Limited) have held a significant portion of the ground since 2004. • Princess Royal: PNX Metals Ltd compiled JORC 2004 Inferred Mineral Resource in 2011 based on drilling completed between 2009-2011. Copper Range held the ground 2007-2009.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• AMG is primarily exploring for intrusive copper-cobalt -gold style mineralization in the Adelaide Geosyncline, South Australia.

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.*
		• Not Applicable - No drilling is being reported.
		• MT geophysical survey.

Data aggregation methods	• *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.* • *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*	• Not applicable - not reporting drilling assays results. • MT Geophysical Survey - 5km x 5km grid. • MT readings/measurements collected over 24hour period per site.

AUSMEX MINING GROUP LTD

Criteria	JORC Code explanation	Commentary
	typical examples of such aggregations should be shown in detail. • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	
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 (eg 'down hole length, true width not known').*	• Not applicable - not reporting drilling results. • The MT Survey was completed on a 5km x 5km grid over all AMG controlled tenure.
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.*	• MT Survey location map showing AMG tenure and results are provided in presentation
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 practiced to avoid misleading reporting of Exploration Results.*	• MT measurements were recorded for all sites reported. • Reporting is considered to be balanced
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.*	• Relevant geological information is reported in this announcement • Very broad-spaced (AusLAMP) MT survey indicates a deep conductive zone in the broad project area
Further work	• *The nature and scale of planned further work (eg 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.*	• The next phase of exploration will be continuation of MT processing and modelling, closer 1km spaced MT over areas of interest, reanalysis and integration of regional geophysics and geology with MT data, with follow up geochemical sampling and infill ground geophysics. • Diamond Drilling planned in the near future on targets generated by this and future geophysical surveys