Liontown

ASX : LTR | 13th May 2020

ASX ANNOUNCEMENT

# Strong gold, PGE, nickel and copper anomalism returned from initial fieldwork completed at 100%-owned Moora Project, WA

**Results validate prospectivity of the Moora Project (Project), which is located ~150km north-northeast of Perth in an emerging precious and base metal province**

## HIGHLIGHTS

- **Extensive areas of strong gold anomalism (up to 613ppb Au), with coincident elevated values of palladium, platinum, nickel and copper, defined by wide-spaced (400mx400m) auger sampling.**
- **The main geochemical anomaly is up to 3.5km long, 2km wide and spatially associated with large, coincident gravity and magnetic highs indicative of a mafic/ultramafic intrusive body immediately below the surface.**
- **Moora is located in the same geological terrain as the Julimar discovery, 95km to the south, where Chalice Gold Mines recently announced a significant Ni-PGE discovery hosted within a mafic-ultramafic intrusion (see ASX:CHN releases - 23rd March, 15th April & 11th May 2020).**

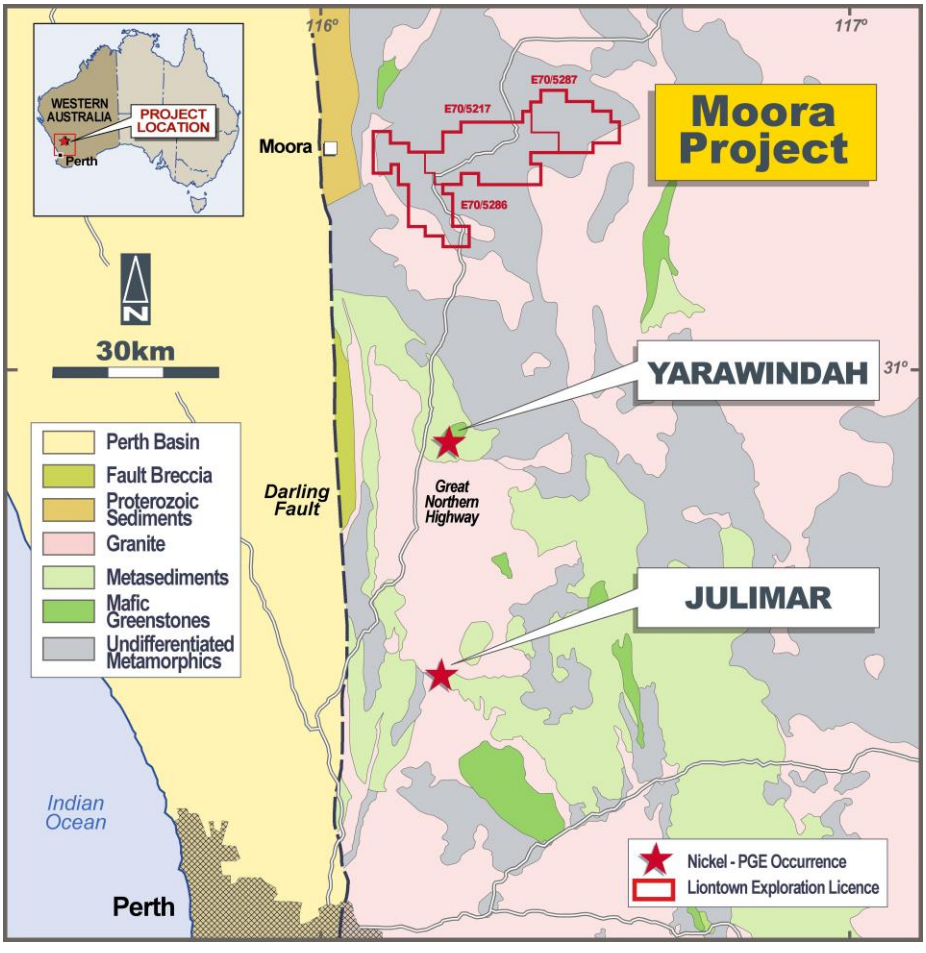


***Figure 1: Location and regional geology plan. (Geology derived from regional government survey mapping)***

Liontown Resources Limited (ASX: LTR, "Liontown" or "Company") is pleased to advise that it has received encouraging results from a recently completed combined gravity survey and auger sampling program at its 100%-owned Moora Project, located ~150km north-northeast of Perth in Western Australia (***Figure 1***).

The combined gravity/auger program was undertaken over two areas (***Figure 2***) to determine whether these techniques could effectively assess the larger Project area for intrusive mafic/ultramafic bodies that may be prospective for precious and base metal mineralisation.

The gravity survey defined a number of dense, discrete bodies spatially associated with magnetic highs, with the results indicating the presence of mafic/ultramafic intrusions significantly larger than indicated by the surface geology, which is typically obscured by strong weathering or transported cover.

Auger sampling has defined a number of strong multi-element (Au+Pd+Pt+Ni+Cu) anomalies in the western area which overlie, or are adjacent to, gravity and/or magnetic highs (***Figures 2, 3 and 4***).

The geochemical anomalies are defined by multiple sample points with values peaking at 613ppb gold, 50ppb palladium, 30ppb platinum, 492ppm nickel and 280ppm copper. The high Platinum Group Element (PGE) and copper values are interpreted to be indicative of possible sulphide-related mineralisation at depth.

Highly elevated nickel values (>1,000ppm) were also recorded in the eastern sampling area (***Figure 4***) coincident with mapped mafic/ultramafic outcrops.

Historic nickel/copper anomalies defined by previous explorers (***Figure 2***) have not yet been assessed by Liontown's field activities.

Given the success of the initial field program, Liontown will extend the 400m x 400m gravity surveying and auger sampling to the remainder of the Project area. The Company will also undertake in-fill auger sampling across the recently defined geochemical anomalies, with the results to be used to design Moving Loop Electromagnetic (MLEM) Surveys that can detect conductive sulphide-rich zones beneath the weathered regolith.

The timing of the next phase of work will be partially dependent on local cropping activities, which have recently begun on the underlying farms, and the negotiation of access agreements.

**Project Background**

The Moora Project comprises three contiguous, 100%-owned granted Exploration Licences (ELs) covering a total area of 467km$^2$ which the Company applied for in 2018 and 2019 as part of its generative exploration strategy.

The Project is located within the Western Gneiss Terrain of the Archaean Yilgarn Craton of south-west Western Australia and the prospective mafic/ultramafic bodies lie within the highly deformed Jimperding Metamorphic Belt, which also comprises high-grade metamorphic rocks of quartz feldspar composition with some amphibolite schist and minor banded iron formation.

The Belt is up to 70km wide and bounded to the west by the Darling Fault (and Perth Basin) and to the east by younger Archaean rocks. Bedrock geology is often obscured by lateritic duricrust and deep saprolitic weathering.

Historical surface sampling and shallow drilling within Liontown's central tenement (see ASX release dated 16th April 2020) defined strong Ni+Cu+PGE+Au anomalism (***Figure 2***); however, no deeper drill testing of the fresh bedrock was undertaken. There has been no prior effective exploration across Liontown's western tenement.

Field work commenced at Moora following the completion of resource definition drilling at the Company's flagship, world-class Kathleen Valley Lithium-Tantalum Project, where work has transitioned to Perth-based metallurgical test work and mining studies following the substantial upgrade to the Mineral Resource Estimate announced earlier this week

This announcement has been authorised for release by the Board.

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### Competent Person Statement

*The Information in this report that relates to Exploration Results is based on and fairly represents information and supporting documentation prepared by Mr David Richards, who is a Competent Person and a member of the Australasian Institute of Geoscientists (AIG). Mr Richards is a full-time employee of the company. Mr Richards has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activities being undertaken 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'. Mr Richards consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

### Forward Looking Statement

*This announcement contains forward-looking statements which involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.*

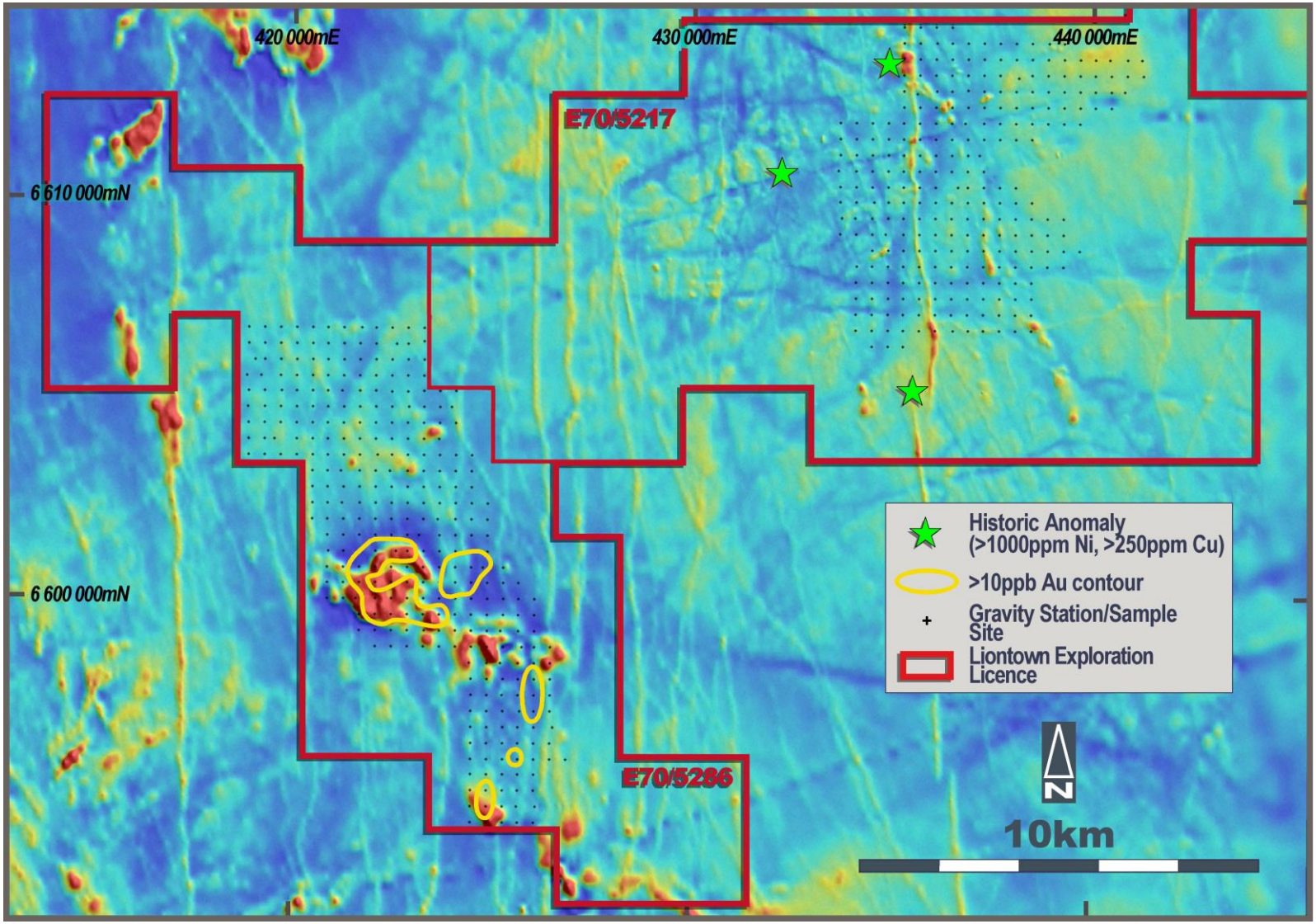


**Figure 2: Moora Project: Regional aeromagnetic image showing gravity stations and auger sample sites from recent field program. (Hot colours indicate possible mafic-ultramafic units).**

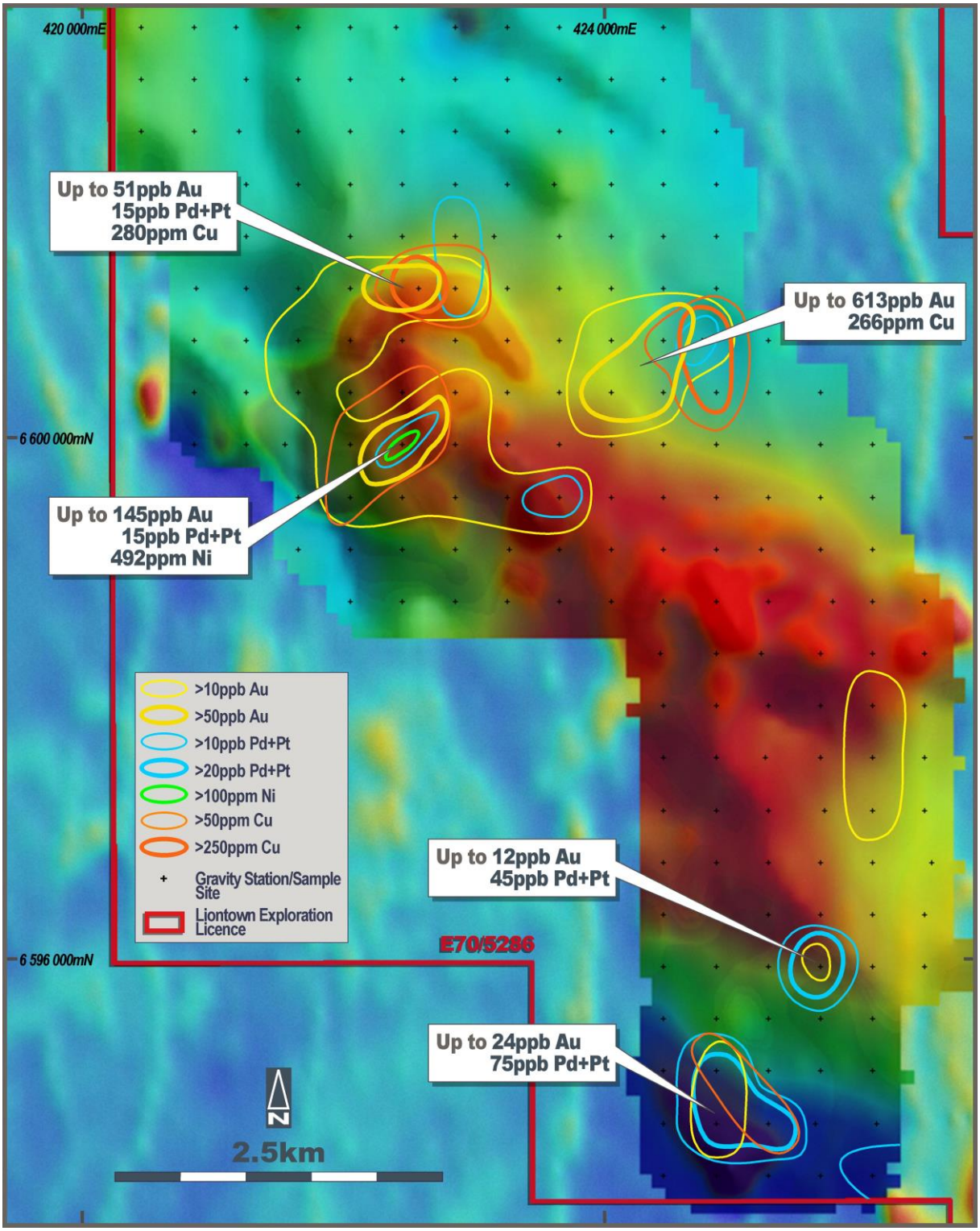


***Figure 3: Moora Project/Western area: Detailed gravity image over regional magnetic image showing geochemical anomalies defined by auger sampling.***

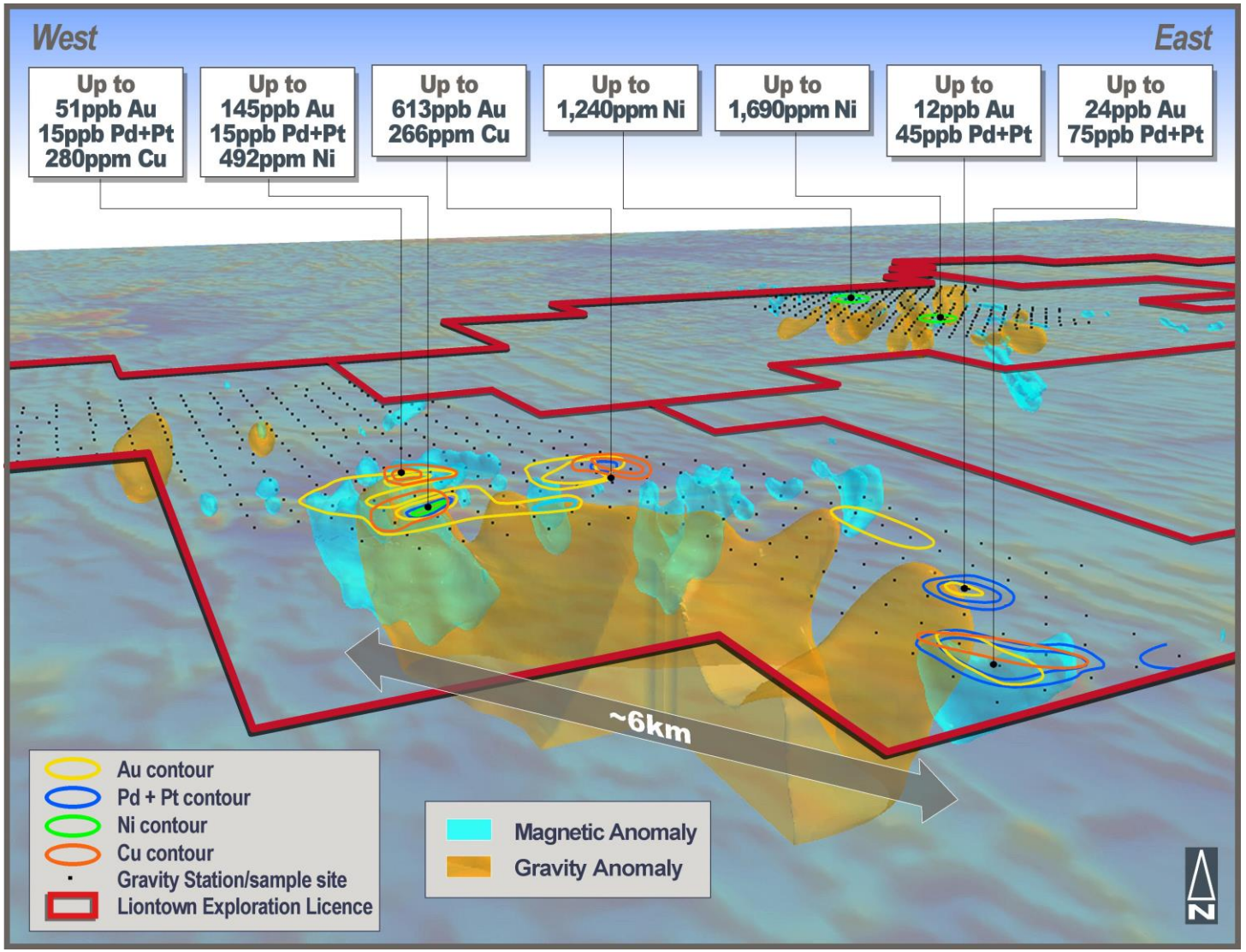


***Figure 4: Moora Project: Regional aeromagnetic image and geochemical anomalies superimposed on 3D perspective showing dense bodies modelled from gravity and aeromagnetic data.***

## Appendix 1 – Moora – JORC Code 2012 Table 1 Criteria

The table below summarises the assessment and reporting criteria used for the Moora Project and reflects the guidelines in Table 1 of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the JORC Code, 2012).

### Section 1 Sampling Techniques and Data

| 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.* | No drilling completed by Liontown.<br>Liontown auger samples collected from 0.8 -1m depth with 200-500g, -2mm material collected for assay. |
| | *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>*Aspects of the determination of mineralisation that are Material to the Public Report.*<br>*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.* | Entire sample is submitted for sample prep and assay. |
| ***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 oriented and if so, by what method, etc).* | No drilling completed by Liontown. |
| ***Drill sample recovery*** | *Method of recording and assessing core and chip sample recoveries and results assessed.* | No drilling completed by Liontown. |
| | *Measures taken to maximise sample recovery and ensure representative nature of the samples.* | No drilling completed by Liontown. |
| | *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 completed by Liontown. |
| ***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.* | No drilling completed by Liontown. |
| | *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* | No drilling completed by Liontown. |
| | *The total length and percentage of the relevant intersections logged.* | See above. |
| ***Sub-sampling techniques and*** | *If core, whether cut or sawn and whether quarter, half or all core taken.* | No core drilling completed. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***sample preparation*** | *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* | No drilling completed by Liontown. |
| | *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* | Sample preparation of Liontown samples follows industry best practice standards and is conducted by internationally recognised laboratories; i.e.<br>Oven drying, jaw crushing and pulverising so that 85% passes -75microns. |
| | *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* | Review of lab standards |
| | *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.* | Auger sampling completed on regular 400x400m grid to ensure representative sampling of area being assessed.<br>Entire sample submitted for assay. |
| | *Whether sample sizes are appropriate to the grain size of the material being sampled.* | Sample size (200-500g) accepted as general industry standard. |
| ***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.* | Assay and laboratory procedures have been selected following a review of techniques provided by internationally certified laboratories.<br>Liontown samples are submitted for multi-element analyses by Bureau Veritas aqua-regia techniques following mixed-acid digest.<br>The assay techniques used are 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.* | None used |
| | *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* | No QC protocols adopted at this stage due to early nature of exploration.<br>Lab standards checked for accuracy and precision. |
| ***Verification of sampling and assaying*** | *The verification of significant intersections by either independent or alternative company personnel.* | None undertaken |
| | *The use of twinned holes.* | None drilled. |
| | *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* | All field data is manually collected, entered into excel spreadsheets, validated and loaded into an Access database.<br>Electronic data is stored on the Perth server. Data is exported from Access for processing by a number of different software packages.<br>All electronic data is routinely backed up.<br>No hard copy data is retained. |
| | *Discuss any adjustment to assay data.* | None required |
| ***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.* | All samples collected are located using a hand held GPS. |
| | *Specification of the grid system used* | The grid system used is GDA94 Zone 50 |
| | *Quality and adequacy of topographic control.* | Nominal RLs based on regional topographic datasets are used initially; however, these will be updated if DGPS coordinates are collected. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Data spacing and distribution*** | *Data spacing for reporting of Exploration Results.* | LTR auger samples collected on 400x400m grid. |
| | *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.* | MRE not being prepared. |
| | *Whether sample compositing has been applied.* | None undertaken. |
| ***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.* | Not known at this early stage of exploration. |
| | *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.* | None observed. |
| ***Sample security*** | *The measures taken to ensure sample security.* | Senior company personnel supervise all sampling and transport to assay laboratory in Perth. |
| ***Audits or reviews*** | *The results of any audits or reviews of sampling techniques and data.* | None completed. |

## Section 2 Reporting of Exploration Results

| 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 Moora Project comprises 3 granted exploration licences (E70/5217, E70/5286 and E70/5287). The tenement package forms a contiguous, 467km$^2$ area located ~150km NNE of Perth, Western Australia.<br><br>All ELs are held by ERL (Aust) Pty Ltd, a wholly owned subsidiary of Liontown Resources Limited.<br><br>Liontown has agreed to pay Armada Exploration Services:<br>• $1,000,000 cash; and<br>• a 0.5% NSR<br><br>if it discovers an economic mineral deposit (and makes a decision to mine) within the above tenements or any subsequent tenements acquired within an Area of Influence around the current tenements.<br><br>The Moora Project is largely underlain by freehold properties used for broad acre cropping and livestock rearing. Liontown has negotiated access agreements over 5 of the larger properties which cover the main geophysical anomalies and is in discussions with other landowners.<br><br>Liontown has signed a Heritage Agreement with the South West Aboriginal Land and Sea Council Aboriginal Council who act on behalf of the Yued Agreement Group. |
| | *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.* | All tenements are in good standing. |
| ***Exploration done by other parties*** | *Acknowledgment and appraisal of exploration by other parties.* | Previous exploration for magmatic Ni-Cu-PGE sulphide mineralisation has been carried out over the central part of the Moora Project area by Poseidon |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | NL (1968), Palladium Resources (1999 – 2001) and Washington Resources (2004 – 2009).<br><br>This work included geophysical surveys, surface geochemistry and shallow drilling. Anomalous Ni±Cu±PGE±Au was defined within the shallow, weathered regolith.<br><br>There has been no prior drill testing of the primary, unoxidised bedrock. |
| ***Geology*** | *Deposit type, geological setting and style of mineralisation.* | The Moora Project area is located within the >3Ga age Western Gneiss Terrain of the Archaean Yilgarn Craton of southwest Western Australia.<br><br>The prospective mafic/ultramafic bodies lie within the highly deformed Jimperding Metamorphic Belt which locally comprises high grade metamorphic rocks of quartz feldspar composition with some amphibolite schist and minor banded iron formation. The Belt is up to 70 kilometres wide and bounded to the west by the Darling Fault (and Perth Basin) and to the east by younger Archaean rocks. Regionally the geological trend is north-westerly with moderate to steep north-easterly dips.<br><br>NNE and NNW trending, Proterozoic dolerite dykes also intrude the geological sequence.<br><br>Outcrops are rare and bedrock geology is largely obscured by lateritic duricrust and deep saprolitic weathering. The clearing of farm land and related agricultural practices have further contributed to the masking of the bedrock.<br><br>The intrusive mafic/ultramafic units are interpreted to form concordant, layered igneous complexes at least 50m thick; however, the true dimensions are difficult to determine due to the limited outcrop. |
| ***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:*<br>• *easting and northing of the drill hole collar*<br>• *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*<br>• *dip and azimuth of the hole*<br>• *down hole length and interception depth*<br>• *hole length.* | No drilling results being reported |
| ***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.* | No drilling results being reported |
| | *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.* | None reported |
| | *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | None reported |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Relationship between mineralisation widths and intercept lengths*** | *These relationships are particularly important in the reporting of Exploration Results.*<br>*If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>*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').* | No drilling results being reported |
| ***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.* | See Figures in body of report |
| ***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.* | Results for all sampling reported are shown on diagrams included in the ASX report. |
| ***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 and material data reported |
| ***Further work*** | *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* | • Infill auger sampling.<br>• Extend regional gravity surveying and first pass auger sampling.<br>• Ongoing access negotiations with land owners. |