



## Initial assays of up to 2.5% copper and 1.1g/t gold from maiden drilling program at 100%-owned Moora Project, WA

Highly encouraging initial results with elevated nickel and platinum point to possible magmatic sulphides at depth, to be tested by RC drilling now underway

### HIGHLIGHTS

- Extensive copper-gold anomalism defined by shallow, wide-spaced aircore drilling at the Moora Project, located in the same geological terrain as the Julimar PGE<sup>1</sup>-nickel-copper-gold discovery. Intersections<sup>2</sup> include:
  - 10m @ 1.9% copper from 32m (to EoH<sup>3</sup>) including 4m @ 2.5% copper from 36m (MRAC0012); and
  - 12m @ 0.5g/t gold from 12m including 4m @ 1.1g/t gold from 20m (MRAC0012)
- Copper-gold mineralisation associated with elevated nickel and platinum, indicating possible magmatic sulphides at depth.
- Assays pending for 81 air-core holes.
- Ongoing and upcoming exploration activities include:
  - Reverse Circulation (RC) drilling – 12-15 hole/1,500-2,000m program in progress testing beneath better aircore results;
  - Aircore drilling – further 80-90 holes planned, scheduled to commence late January; and
  - Auger drilling – additional first-pass sampling in progress to evaluate priority geophysical targets, comprising ~1,100 samples.

<sup>1</sup> PGE – Palladium + Platinum

<sup>2</sup> Up to 4m composite samples/true widths unknown due to limited geological data

<sup>3</sup> End of hole

Liontown Resources Limited (ASX: LTR, “Liontown” or “Company”) is pleased to report highly encouraging initial assay results from a partially completed maiden aircore drilling program at its 100%-owned **Moora Project** in Western Australia including potentially ore grade copper and gold values.

The Moora Project is located 150km NNE of Perth, Western Australia in the same geological terrain as Chalice Mines Limited’s world-class Julimar PGE-nickel-copper-gold discovery (**Figure 1**).

The aircore drilling, which will resume in late January 2021, is designed to provide initial bedrock data beneath gold+PGE+nickel+copper anomalies defined by auger sampling completed last year. Holes are drilled to refusal, which is effectively the base of strong weathering and complete oxidation. Given the wide spacing of drill holes, the drilling is targeting geochemical haloes in the weathered, oxidised profile that may be associated with primary mineralisation in fresh bedrock.

The assays received so far have defined an **extensive copper-gold zone extending over 1km in length and up to 200m in width (Figures 2 and 3)**, coincident with elevated nickel (>250ppm) and platinum (up to 80ppb).

Drilling has intersected quartzo-feldspathic gneiss with interlayered banded iron formation, mafic and ultramafic units. The copper-gold values listed in the highlights are hosted by completely weathered material and the original rock type cannot be determined; however, magnesium and chrome values indicate a mafic/ultramafic protolith.

The association of anomalous copper-gold-nickel-platinum is interpreted to indicate magmatic sulphide mineralisation at depth and a 12-15 hole/1,500-2,000m RC drilling program has commenced to test beneath the better aircore intersections.

The overall aircore program will comprise up to 200 holes for 12,000m, with 119 holes for 5,247m drilled before Christmas 2020 (**Figure 4**) and the remaining drilling scheduled to commence before the end of January 2021. Assays have been received for the first 38 holes with results for the rest of the pre-Christmas drilling expected by the end of January 2021. Samples are initially assayed as 4m composites with 1m splits to be analysed where warranted.

Regional auger sampling across previously untested, priority magnetic targets has also re-commenced and is ongoing. This work is expected to define further targets for drill testing and will be undertaken in parallel with ground-based Moving Loop Electromagnetic (MLEM) surveys to help refine drill targeting.

Liontown Managing Director, David Richards, said: *“Achieving potentially ore grade copper and gold intercepts in our very first batch of assays from this early-stage of air-core drilling is a very encouraging result which gets our maiden exploration program at Moora off to a very strong start. Importantly, the association of these significant values with strong nickel and platinum geochemistry in the context of what we believe to be the broader geological setting points to a possible magmatic source at depth.*”

*“We are looking forward to seeing what RC drilling beneath some of the stronger aircore results will reveal, and to receiving the balance of the aircore numbers. We are continuing to pursue a systematic and multi-pronged approach to unlocking a possible commercial discovery at Moora, employing the full range of exploration methodologies including ground EM, auger drilling, aircore drilling and, now, RC drilling.”*

This announcement has been authorized 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.

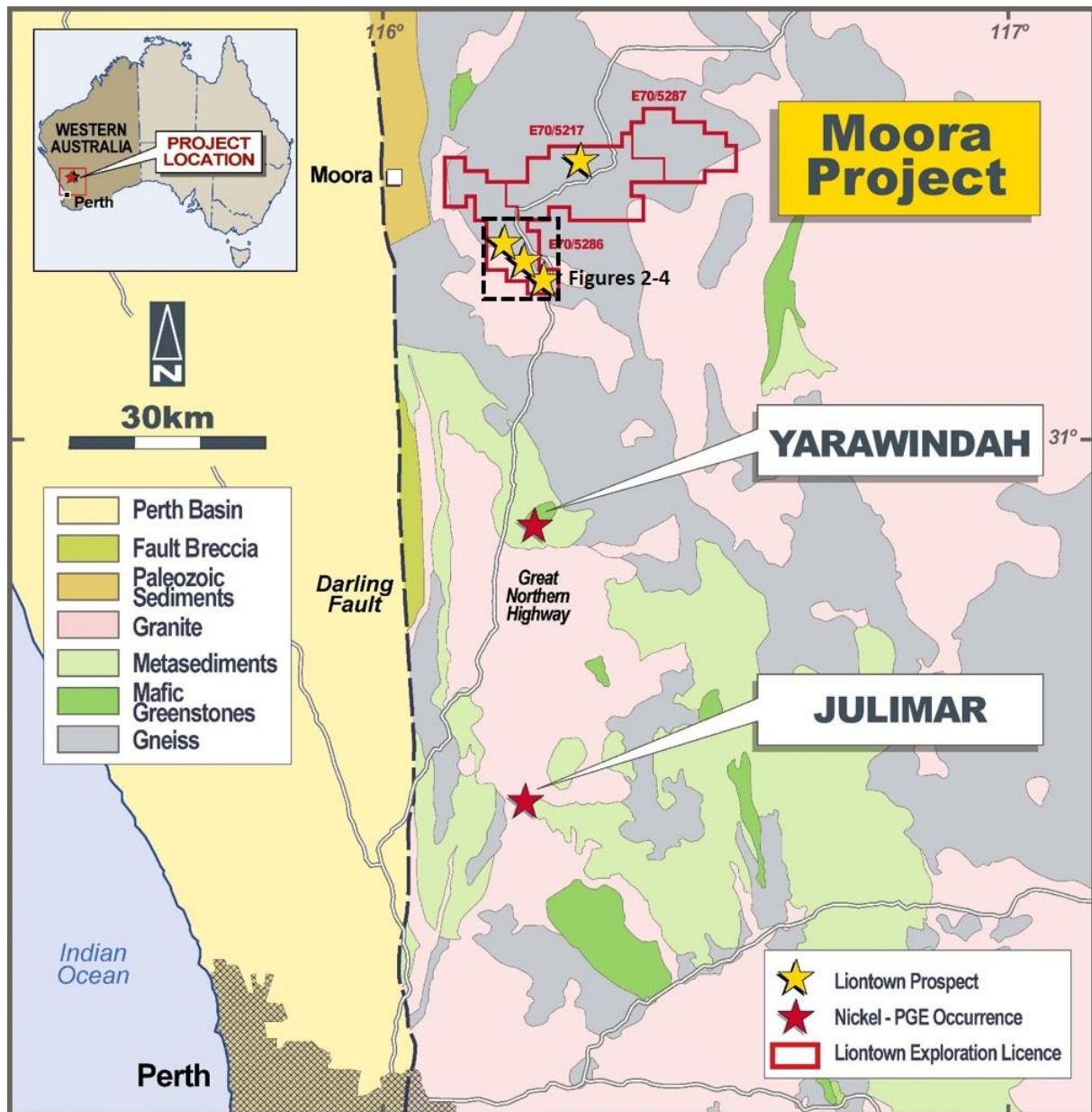


Figure 1: Moora Project: Location plan and regional geology.

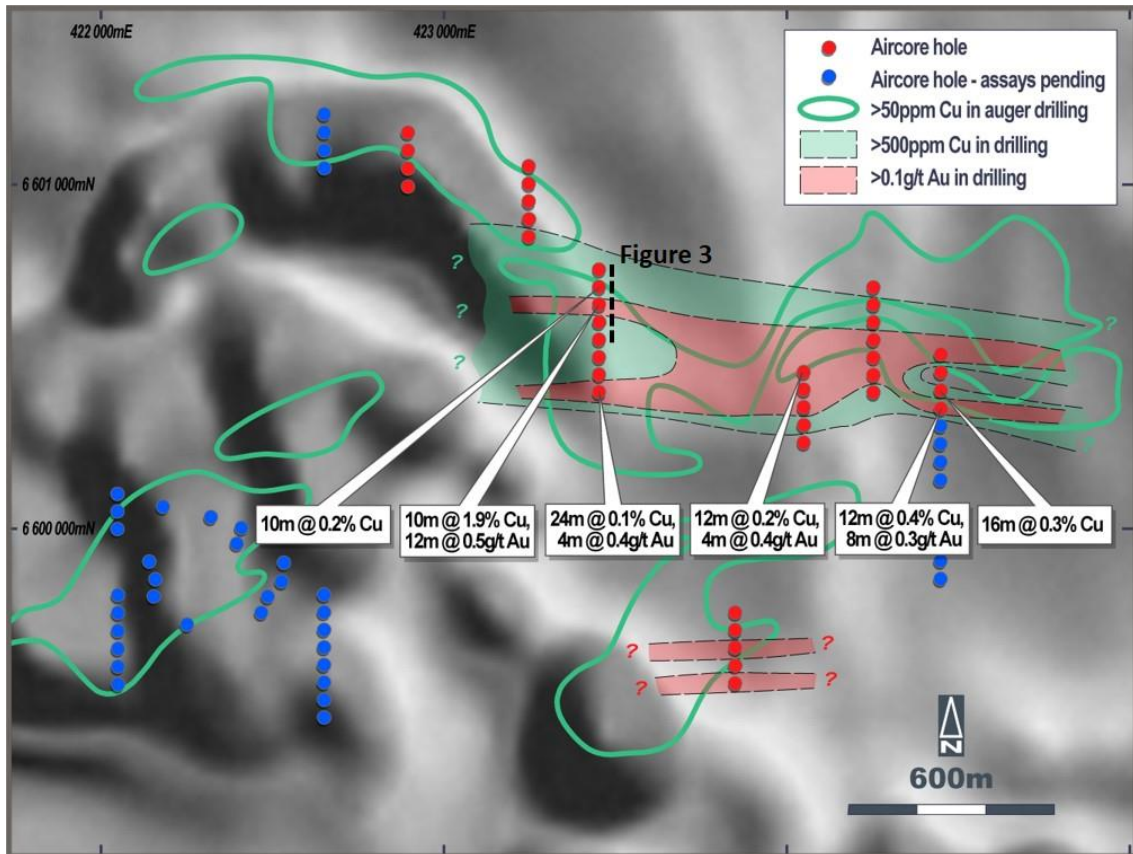


Figure 2: Mt Yule Prospect – Drill hole plan on magnetic image showing better aircore results.

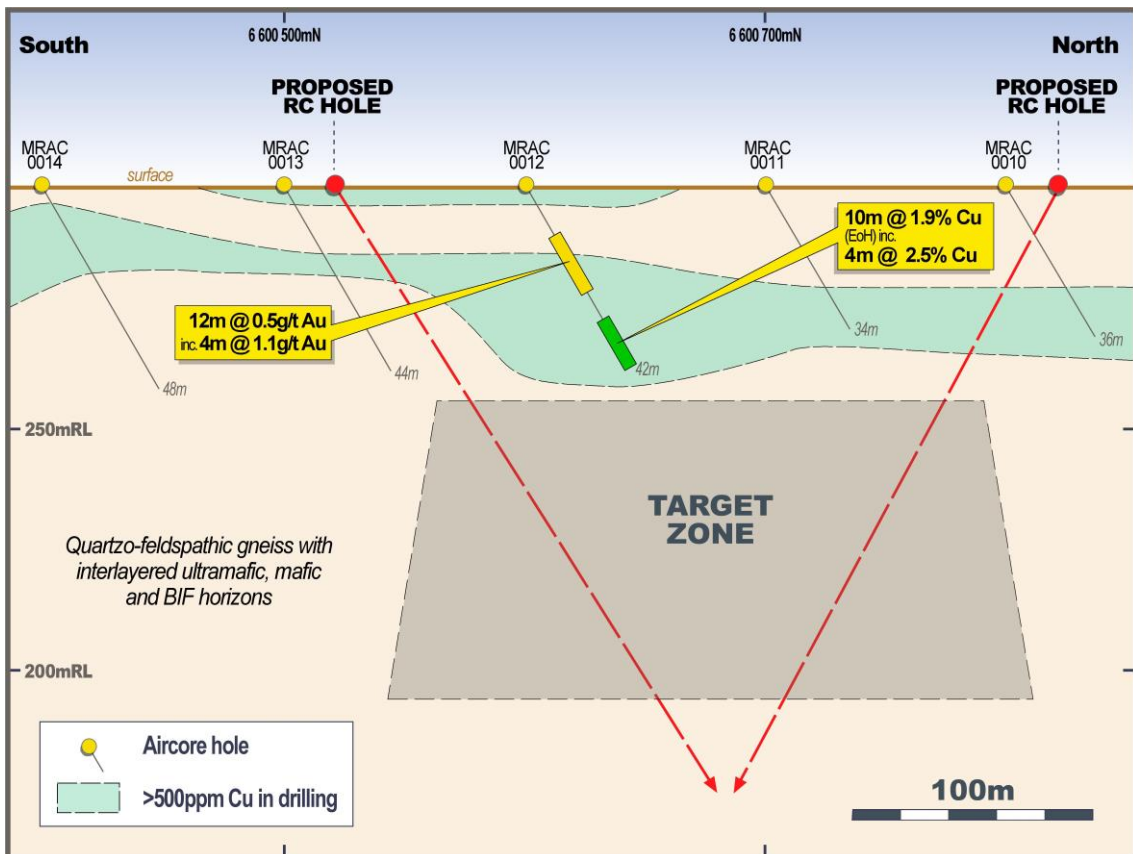
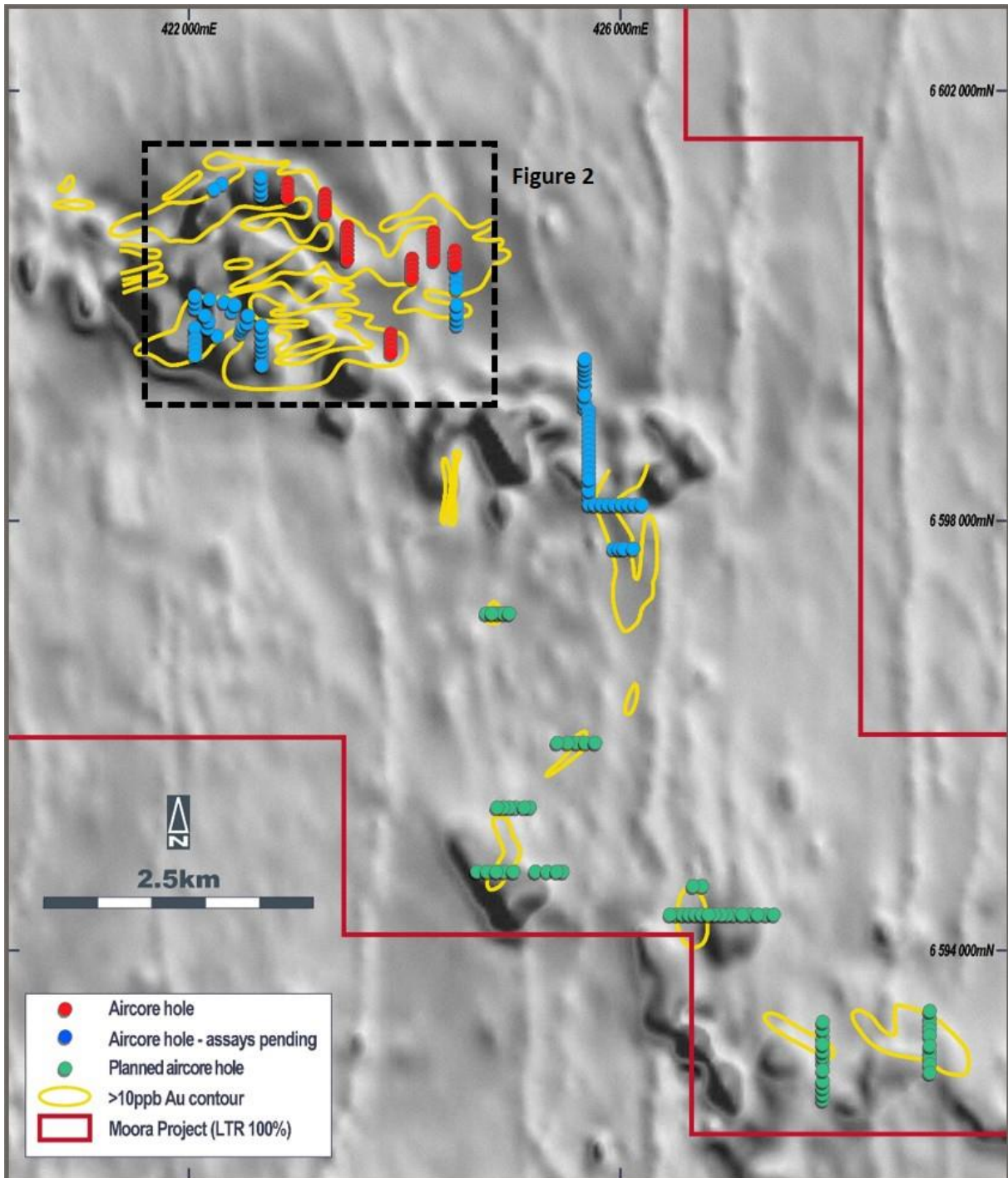


Figure 3: Mt Yule Prospect – Drill section 423450E.



Appendix 1 – Moora Project – Aircore Drill Hole Statistics

Hole_ID	East	North	RL	Depth (m)	Dip	Azimuth	From (m)	To (m)	Significant Intercepts				
									Gold (>0.1g/t)		Copper (>0.1%)		
									Interval (m)	Grade (g/t)	Interval (m)	Grade (%)	
MRAC0001	422900	6601150	300	42	-60	360							
MRAC0002	422900	6601100	300	52	-60	360							
MRAC0003	422900	6601050	300	54	-60	360							
MRAC0004	422900	6601000	300	16	-60	360							
MRAC0005	423250	6600850	300	29	-60	180	20	24			4	0.1	
MRAC0006	423250	6600900	300	43	-60	180							
MRAC0007	423250	6600950	300	34	-60	180							
MRAC0008	423250	6601000	300	22	-60	180							
MRAC0009	423250	6601050	300	32	-60	180							
MRAC0010	423450	6600750	300	36	-60	360	24	36			12	0.1	
MRAC0011	423450	6600700	300	34	-60	360	24	34			10	0.2	
MRAC0012	423450	6600650	300	42	-60	360	0	4	4	0.1			
							12	24	12	0.5			
							inc. 4m @ 1.1g/t gold from 20m						
							32	42			10	1.9	
							inc.4m @ 2.5% copper from 36m						
MRAC0013	423450	6600600	300	44	-60	360	0	4			4	0.1	
MRAC0014	423450	6600550	300	48	-60	360							
MRAC0015	423450	6600500	300	41	-60	360	0	4	4	0.1			
MRAC0016	423450	6600450	300	38	-60	360	28	32			4	0.1	
MRAC0017	423450	6600400	300	61	-60	360	24	28	4	0.4			
							24	48			24	0.1	
							4	24	20	0.2			
MRAC0018	423850	6599550	300	27	-60	180							
MRAC0019	423850	6599600	300	30	-60	180							
MRAC0020	423850	6599650	300	24	-60	180	0	16	16	0.2			
MRAC0021	423850	6599700	300	20	-60	180							
MRAC0022	423850	6599750	300	38	-60	180							
MRAC0023	424050	6600450	300	48	-60	360	32	36	4	0.4			
							32	44			12	0.2	
							24	32			8	0.2	
MRAC0024	424050	6600400	300	61	-60	360	52	56	4	0.2			
							0	16	16	0.1			
							16	28			12	0.1	
MRAC0025	424050	6600350	300	67	-60	360	52	64			12	0.2	
											12	0.2	
MRAC0026	424050	6600300	300	66	-60	360							
MRAC0027	424050	6600250	300	62	-60	360							
MRAC0028	424250	6600400	300	63	-60	180							
MRAC0029	424250	6600450	300	66	-60	180	0	8	8	0.2			
MRAC0030	424250	6600500	300	53	-60	180	0	4	4	0.3			
							36	44	8	0.2			
							40	44			4	0.1	
							0	12	12	0.1			
MRAC0031	424250	6600550	300	63	-60	180							
MRAC0032	424250	6600600	300	59	-60	180							
MRAC0033	424250	6600650	300	54	-60	180	28	36			8	0.1	
MRAC0034	424250	6600700	300	48	-60	180							
MRAC0035	424450	6600500	300	52	-60	360	24	32			8	0.2	
							40	44	4	0.2	4	0.2	
MRAC0036	424450	6600450	300	64	-60	360							
MRAC0037	424450	6600400	300	80	-60	360	28	32	4	0.2			
							36	52			16	0.3	
							36	48			12	0.4	
MRAC0038	424450	6600350	300	71	-60	360	44	52	8	0.3			
							68	71	3	0.2	3	0.2	

## Appendix 2 – 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
<b>Sampling techniques</b>	<i>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.</i>	Drill samples collected by aircore (AC) drilling techniques (see below).  Liontown auger samples collected from 0.8 -1m depth with 200-500g, -2mm material collected for assay.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Regular cleaning of cyclone to remove hung-up clays and avoid cross-sample contamination.  Samples typically dry.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report.</i>	AC samples were collected by the metre from the drill rig cyclone.
	<i>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.</i>	4m composite samples collected via spear sampling of 1m samples.  1m samples retained for future assaying if warranted.  Entire sample pulverised.  Aqua regia following 4 acid digest.  Samples assayed at Bureau Veritas – Au (AR001), Pt, Pd (AR002), Other elements MA101, 102  Au, As, Co, Pd and Pt by ICP-MS. Cr, Cu, Fe, Mg, Ni, S, Ti and Zn by ICP-OES.
<b>Drilling techniques</b>	<i>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).</i>	Standard 3.5" aircore drill bit.  Drilling by Drill Power utilising a truck mounted KL150 drill rig.
<b>Drill sample recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Sample recoveries are visually estimated and recorded for each metre.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Dry drilling and regular cleaning of sampling material.
	<i>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.</i>	None noted.
<b>Logging</b>	<i>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.</i>	All drill holes are logged on 1 m intervals and the following observations recorded:  Recovery, quality (i.e. degree of contamination), wet/dry, hardness, colour, grainsize, texture, oxidation, mineralogy, lithology, structure type and intensity, vein type and %, sulphide type and % and alteration assemblage.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	Logging is quantitative, based on visual field estimates

Criteria	JORC Code explanation	Commentary
	<i>The total length and percentage of the relevant intersections logged.</i>	All holes are logged from start to finish.
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	No core drilling completed.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	Non-core samples are collected as 1 metre samples and then composited by tube/spear sampling. Samples are typically dry.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Sample preparation follows industry best practice standards and is conducted by internationally recognised laboratories; i.e.  Oven drying, jaw crushing and pulverising so that 85% passes -75microns.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Duplicates, standards and blanks inserted approximately every 25 samples.  Review of lab standards
	<i>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.</i>	Measures taken for drill samples include: <ul style="list-style-type: none"> <li>regular cleaning of cyclones and sampling equipment to prevent contamination;</li> <li>statistical comparison of duplicate, standards and blanks</li> </ul> statistical comparison of anomalous composite assays versus average of follow up 1m assays.  Auger sampling completed on regular grid spacings, varying from 200x50m up to 800x800m, to ensure representative sampling of area being assessed.  Entire sample submitted for assay.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	The drill sample size (2-3kg) submitted to laboratory is consistent with industry standards.
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Assay and laboratory procedures have been selected following a review of techniques provided by internationally certified laboratories.  Samples are submitted for multi-element analyses by Bureau Veritas aqua-regia techniques following mixed-acid digest.  The assay techniques used are total.
	<i>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.</i>	None used
	<i>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</i>	Regular insertion of blanks, standards and duplicates every 25 samples.  Lab standards checked for accuracy and precision.
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Intersections peer reviewed in house.
	<i>The use of twinned holes.</i>	None drilled.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	All field data is manually collected, entered into excel spreadsheets, validated and loaded into an Access database.  Electronic data is stored on the Perth server. Data is exported from Access for processing by a number of different software packages.



Criteria	JORC Code explanation	Commentary
		All electronic data is routinely backed up. No hard copy data is retained.
	<i>Discuss any adjustment to assay data.</i>	None required
<b>Location of data points</b>	<i>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.</i>	All samples collected are located using a hand held GPS.
	<i>Specification of the grid system used</i>	The grid system used is GDA94 Zone 50
	<i>Quality and adequacy of topographic control.</i>	Nominal RLs based on regional topographic datasets are used initially; however, these will be updated if DGPS coordinates are collected.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	<b>Drilling</b> Variable – first pass testing of geochemical anomalies. See diagrams in report. <b>Auger</b> First pass sampling collected on 200x200m, 400x400m and 800x800m grid spacing with density of sampling dependent on perceived prospectivity. Infill sampling collected on 200x50m grid over gold-PGE anomalies and 200x200m over Ni-Cu anomalies.
	<i>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.</i>	MRE not being prepared.
	<i>Whether sample compositing has been applied.</i>	Aircore drill samples collected as 4m composites which have been composited from 1 m intervals. 1 m samples submitted for assay where composites >0.25g/t Au and/or 0.25% Cu.
<b>Orientation of data in relation to geological structure</b>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	Drilling is typically oriented perpendicular to the interpreted strike of geology and no bias is envisaged.
	<i>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.</i>	None observed.
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	Senior company personnel supervise all sampling and transport to assay laboratory in Perth.
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	None completed.

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<i>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.</i>	The Moora Project comprises 3 granted exploration licences (E70/5217, E70/5286 and E70/5287). The tenement package forms a contiguous, 467km <sup>2</sup> area located ~150km NNE of Perth, Western Australia. All ELs are held by ERL (Aust) Pty Ltd, a wholly owned subsidiary of Liontown Resources Limited. Liontown has agreed to pay Armada Exploration Services: <ul style="list-style-type: none"> <li>\$1,000,000 cash; and</li> <li>a 0.5% NSR</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>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.</p> <p>The Moora Project is largely underlain by freehold properties used for broad acre cropping and livestock rearing. Liontown has negotiated access agreements over 8 of the larger properties which cover the main geophysical anomalies and is in discussions with other landowners.</p> <p>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.</p>
	<i>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.</i>	All tenements are in good standing.
<b>Exploration done by other parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<p>Previous exploration for magmatic Ni-Cu-PGE sulphide mineralisation has been carried out over the central part of the Moora Project area by Poseidon NL (1968), Palladium Resources (1999 – 2001) and Washington Resources (2004 – 2009).</p> <p>This work included geophysical surveys, surface geochemistry and shallow drilling. Anomalous Ni±Cu±PGE±Au was defined within the shallow, weathered regolith.</p> <p>There has been no prior drill testing of the primary, unoxidised bedrock.</p>
<b>Geology</b>	<i>Deposit type, geological setting and style of mineralisation.</i>	<p>The Moora Project area is located within the &gt;3Ga age Western Gneiss Terrain of the Archaean Yilgarn Craton of southwest Western Australia.</p> <p>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.</p> <p>NNE and NNW trending, Proterozoic dolerite dykes also intrude the geological sequence.</p> <p>Outcrops are rare and bedrock geology is largely obscured by lateritic duricrust and saprolitic weathering. The clearing of farm land and related agricultural practices have further contributed to the masking of the bedrock.</p> <p>The intrusive mafic/ultramafic units are interpreted to form concordant igneous complexes at least 50m thick; however, the true dimensions are difficult to determine due to the limited outcrop.</p>
<b>Drill hole Information</b>	<p><i>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:</i></p> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of</i></li> </ul>	See diagrams and appendix in attached report.

Criteria	JORC Code explanation	Commentary
	<p><i>the drill hole collar</i></p> <ul style="list-style-type: none"> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ul>	
<b>Data aggregation methods</b>	<p><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></p>	See Appendix 1 above.
	<p><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></p>	See Appendix 1 above.
	<p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	None reported
<b>Relationship between mineralisation widths and intercept lengths</b>	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p>	
	<p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p>	Unknown at this stage – further drilling planned.
	<p><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></p>	
<b>Diagrams</b>	<p><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></p>	See Figures in body of report
<b>Balanced reporting</b>	<p><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></p>	Results for all sampling reported are shown on diagrams included in the ASX report.
<b>Other substantive exploration data</b>	<p><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></p>	All meaningful and material data reported
<b>Further work</b>	<p><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p>	<ul style="list-style-type: none"> <li>RC drilling beneath aircore anomalies.</li> <li>First pass aircore drilling across untested auger anomalies</li> <li>Extend and first pass auger sampling.</li> <li>Ongoing access negotiations with landowners.</li> </ul>