METALS X LIMITED

ASX RELEASE

17 OCTOBER 2017

STUDIES COMMENCED AT WINGELLINA FOR HIGH GRADE NICKEL-COBALT

Metals X Limited (**Metals X** or the **Company**) is pleased to advise that it has initiated further studies on its 100%-owned Wingellina Nickel-Cobalt-Scandium Project in Western Australia (**Wingellina** or the **Project**).

Wingellina, also known as the Central Musgrave Project (**CMP**), remains as one of the largest undeveloped nickel-cobalt deposits in the world. The CMP has a Mineral Resource containing approximately 2.0 million tonnes of nickel and 154,000 tonnes of cobalt within which Wingellina has an Ore Reserve of approximately 1.56 million tonnes of nickel and 123,000 tonnes of cobalt is reported[1].

The purpose of the studies is to optimise a number of high grade cobalt-nickel open pits and to undertake additional testing for the production of cobalt sulphate and nickel sulphate as feedstock for the battery industry.

Past drilling and mining studies at Wingellina were focused predominantly on optimisation for nickel production. As part of the current studies, having now received works approvals, an infill drill program is planned to commence within the next few weeks to further delineate the high grade cobalt domains. Previous significant cobalt intercepts include[2]:

- WPRC0576: 38.0m at 0.58% Co and 1.32% Ni (4.81% Ni_{eq}[3])
- RR332: 25.9m at 0.54%Co and 1.81% Ni (5.04% Ni_{eq})
- RR130: 18.3m at 0.70% Co and 1.34% Ni (5.53% Ni_{eq})
- WPRC0009: 9.0m at 0.62% Co and 2.06% Ni (5.79% Ni_{eq})

The existing Mineral Resource includes high grade nickel-cobalt domains totaling 29.7Mt at 0.14% Co and 1.15% Ni (1.97% Ni_{eq}) at a 0.1% Co cut-off grade, or 110.5Mt at a grade of 0.11% Co and 0.97% Ni (1.60% Ni_{eq}) at a 0.05% Co cut-off. The infill drilling will target these high grade domains in advance of further open pit design.

The Company will also undertake testing for the production of cobalt sulphate and nickel sulphate as feedstock for the battery industry. This work will build on previous studies that has shown the Wingellina ore is very amenable to high nickel, cobalt and scandium leach recoveries and that resins are affective in recovering both the nickel and cobalt as separate products.

In addition to Wingellina, the Company also has previously defined a Mineral Resource of 33.3Mt at 0.81% nickel and 0.07% cobalt at the Claude Hills prospect, located approximately 25km from Wingellina[1] which is one of several known additional mineralised areas within the Central Musgrave Project.

Managing Director, Mr Warren Hallam, said:

“Wingellina remains as one of the world’s largest undeveloped nickel, cobalt and scandium deposits. We already have the approvals and a reserve that is sufficient in scale to support decades of production. As with other similar projects, we are able to utilise resins for extracting and recovering cobalt and nickel to produce nickel and cobalt sulphates for battery manufacturing. The main differentiating feature with Wingellina is the grade is higher and the resource is significantly larger than most cobalt-hosting projects currently being touted in the market.”

“The recent significant increase in the cobalt price combined with the potential ability to directly produce nickel and cobalt sulphates for the battery industry will substantially improve the project economics for Wingellina”.

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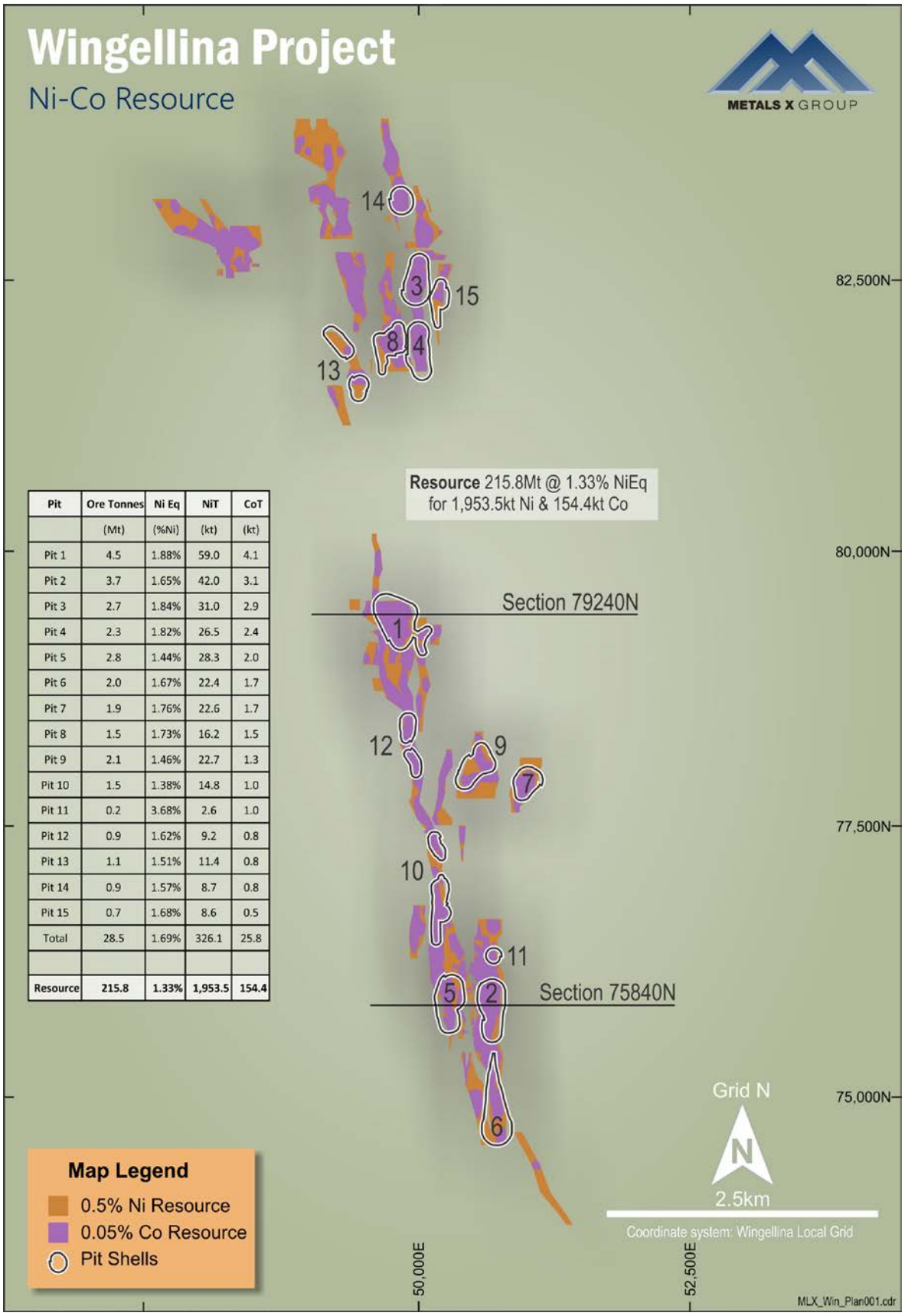
[1] Refer to Appendix 1.

[2] Refer to Appendix 2.

[3] Nickel equivalent (Ni_{Eq}) calculated using a Ni:Co ratio of 6:1 based on assumed price of US$10,000/t Ni and US$60,000/t Co.



Pit	Ore Tonnes	Ni Eq	NiT	CoT
	(Mt)	(%Ni)	(kt)	(kt)
Pit 1	4.5	1.88%	59.0	4.1
Pit 2	3.7	1.65%	42.0	3.1
Pit 3	2.7	1.84%	31.0	2.9
Pit 4	2.3	1.82%	26.5	2.4
Pit 5	2.8	1.44%	28.3	2.0
Pit 6	2.0	1.67%	22.4	1.7
Pit 7	1.9	1.76%	22.6	1.7
Pit 8	1.5	1.73%	16.2	1.5
Pit 9	2.1	1.46%	22.7	1.3
Pit 10	1.5	1.38%	14.8	1.0
Pit 11	0.2	3.68%	2.6	1.0
Pit 12	0.9	1.62%	9.2	0.8
Pit 13	1.1	1.51%	11.4	0.8
Pit 14	0.9	1.57%	8.7	0.8
Pit 15	0.7	1.68%	8.6	0.5
Total	28.5	1.69%	326.1	25.8
Resource	**215.8**	**1.33%**	**1,953.5**	**154.4**

FIGURE 1: OVERVIEW OF WINGELLINA DEPOSIT SHOWING 9KM FOOTPRINT OF +0.5% NI RESOURCE WIREFRAMES, +0.05% CO RESOURCE WIREFRAMES AND POTENTIAL HIGH GRADE OPEN PIT OUTLINES. ALL COORDINATES ARE WINGELLINA 2015 LOCAL GRID

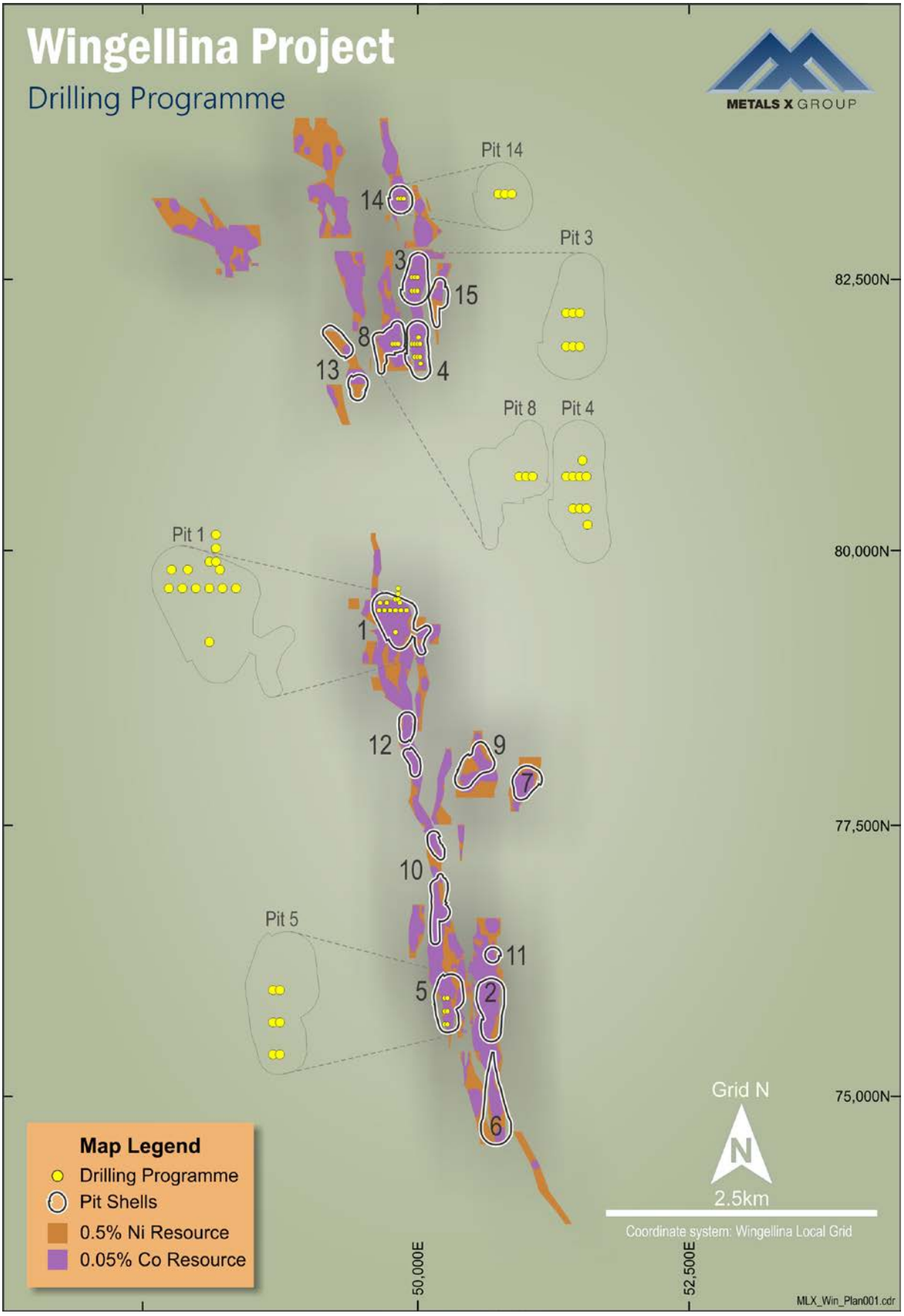


FIGURE 2: PROPOSED WINGELLINA DRILLING PROGRAM SHOWING PIT SHELLS AND DRILL HOLE LOCATIONS

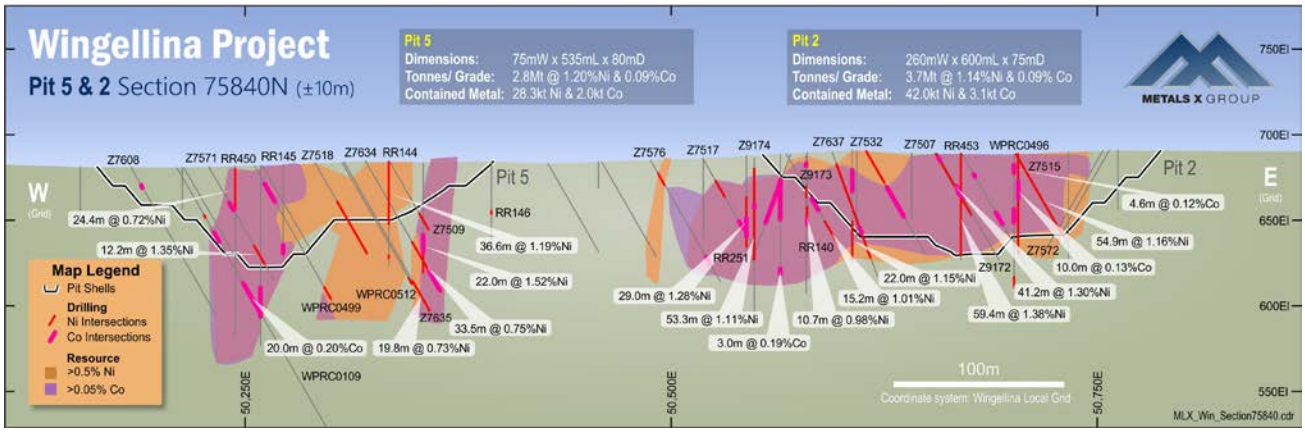


FIGURE 3: CROSS SECTION 75840N – PITS 5 & 2 (REFER TO FIGURE 1 FOR PIT LOCATIONS IN PLAN VIEW)

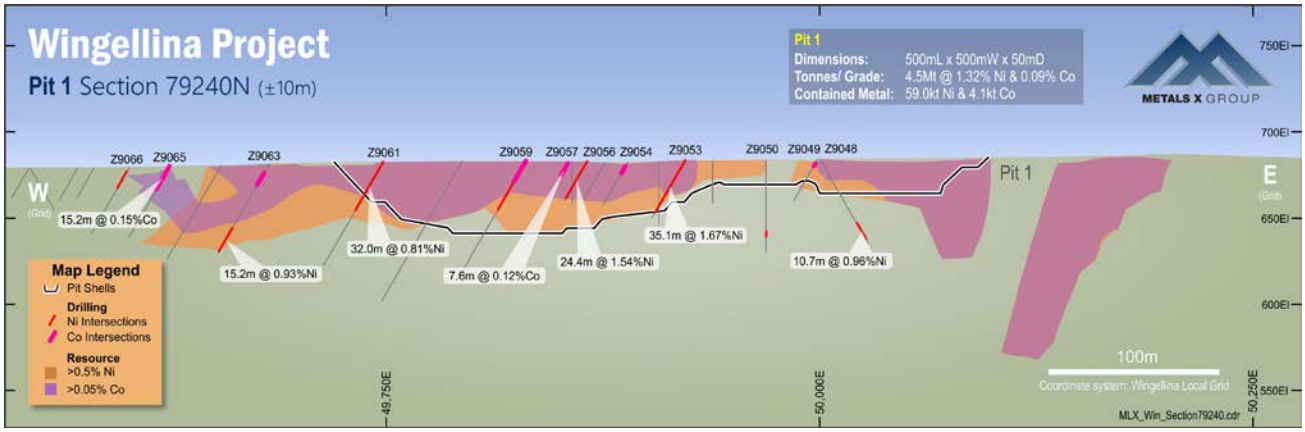


FIGURE 4: CROSS SECTION 79240N – PIT1 (REFER TO FIGURE 1 FOR PIT LOCATION IN PLAN VIEW)

ENQUIRIES

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APPENDIX 1

WINGELLINA MINERAL RESOURCE AND ORE RESERVE ESTIMATES

TABLE 1. WINGELLINA MINERAL RESOURCE ESTIMATE AT 30 JUNE 2017

			Nickel		Cobalt	
Deposit	**Mineral Resource Category[1]**	**Mt[2]**	**Grade % Ni**	**Nickel kt Ni[2]**	**Grade % Co**	**Cobalt kt Co[2]**
Wingellina	Measured	37.6	0.98%	368	0.07%	28.0
(cut-off 0.50% Ni)	Indicated	130.9	0.91%	1,193	0.07%	94.6
	Inferred	14.1	0.87%	122	0.06%	9.1
	Total	**182.6**	**0.92%**	**1,684**	**0.07%**	**131.7**
Claude Hills	Measured	-	-	-	-	-
(cut-off 0.50% Ni)	Indicated	-	-	-	-	-
	Inferred	33.3	0.81%	270	0.07%	22.7
	Total	**33.3**	**0.81%**	**270**	**0.07%**	**22.7**
Total Central	Measured	37.6	0.98%	368	0.07%	28.0
Musgrave Project	Indicated	130.9	0.91%	1,193	0.07%	94.6
	Inferred	47.4	0.83%	392	0.07%	31.8
	Total	**215.8**	**0.91%**	**1,953**	**0.07%**	**154.4**

1. Mineral Resources are reported inclusive of Mineral Resources modified to produce the Ore Reserve;
2. Tonnes are reported as million tonnes (Mt) and rounded to nearest 100,000; nickel tonnes are reported as thousand tonnes (kt) and rounded to the nearest 1000 tonnes; cobalt tonnes are reported as thousand tonnes (kt) and rounded to the nearest 100 tonnes; rounding may result in some slight apparent discrepancies in totals.

TABLE 2. WINGELLINA ORE RESERVE ESTIMATE AT 30 JUNE 2017

			Nickel		Cobalt	
Deposit	**Ore Reserve Category[1]**	**Ore Mt[2]**	**Grade % Ni**	**Nickel kt Ni[2]**	**Grade % Co**	**Cobalt kt Co[2]**
Wingellina	Proved	-	-	-	-	-
	Probable	168.4	0.93%	1,561	0.07%	122.6
	Total[2]	**168.4**	**0.93%**	**1,561**	**0.07%**	**122.6**

1. The Ore Reserve is based on the Wingellina Mineral Resource estimate at 30 June 2017, with applied modifying factors, at a cut-off Grade of 0.5% Ni;
2. Ore tonnes are reported as million tonnes and rounded to the nearest 100,000 tonnes; nickel tonnes are reported and rounded to the nearest 1,000 tonnes; cobalt tonnes are reported as 1,000 tonnes and rounded to the nearest 100 tonnes; rounding may result in some slight apparent discrepancies in totals.

COMPETENT PERSON'S STATEMENT

Competent Person Statement –Wingellina Nickel-Cobalt Project Mineral Resources

The information in this announcement that relates to Mineral Resources for the Wingellina Project has been extracted from Metals X's 2017 Annual Report and is available to view at http://www.metalsx.com.au. The Mineral Resource estimate is at 30 June 2016 and was reported in accordance with JORC Code 2012 guidelines. Metals X confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Metals X confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcement. The Measured and Indicated Mineral Resources tabled above are inclusive of those Mineral Resources modified to produce the Ore Reserve. In all Resources tables, significant figures do not imply precision. Figures are rounded according to JORC Code guidelines.

Competent Person Statement –Wingellina Nickel-Cobalt Project Ore Reserves

The information in this announcement relating to the Ore Reserves of the Wingellina Project has been extracted from Metals X's 2017 Annual Report and is available to view at http://www.metalsx.com.au. The Ore Reserve estimate is at 30 June 2016 and was reported in accordance with JORC Code 2012 guidelines. Metals X confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Metals X confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcement.

APPENDIX 2

WINGELLINA SIGNIFICANT INTERCEPTS

Hole	Collar N	Collar E	Collar RL	Intercept(Est. True Width)	From (m)	Dip	Azi
WPRC0576	7,121,355.5	492,749.4	667.2	38.0m at 1.32% Ni and 0.58% Co	68.0	- 60	233
RR332	7,120,640.3	493,624.4	671.3	25.9m at 1.81% Ni and 0.54% Co	4.6	- 90	-
RR130	7,116,035.7	497,668.9	685.5	18.3m at 1.34% Ni and 0.70% Co	27.4	- 90	-
WPRC0009	7,118,019.6	495,034.0	683.8	9.0m at 2.06% Ni and 0.62% Co	3.0	-60	53

Competent Person Statement – Exploration Results

The information in this announcement that relates to Exploration Results for the Wingellina Project was compiled by Metals X technical employees and contractors under the supervision of Mr Jake Russell BSc (Hons), who is a member of the Australian Institute of Geoscientists. Mr Russell is a contractor to the Company and has sufficient experience which is relevant to the styles of mineralisation and types of deposit under consideration and to the activities which is he undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves. Mr Russell consent to the inclusion in this report of the matters based on his information in the form and context in which it appears.

APPENDIX 3

INFORMATION MATERIAL TO UNDERSTANDING THE EXPLORATION RESULTS, MINERAL RESOURCES AND ORE RESERVES

JORC CODE, 2012 EDITION

JORC TABLE 1: THE INFORMATION IN THIS TABLE REFERS TO THE WINGELLINA AND CLAUDE HILLS PROJECTS

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.	**Diamond Drilling** • A small portion of the data used in resource calculations at the Central Musgrave Project (CMP) has been gathered from diamond core. This core is geologically logged prior to sampling. **RC Drilling** • RC drilling has been utilised extensively at the CMP. • Drill cuttings are extracted from the RC return via cyclone. The underflow from each interval is transferred via bucket to a four tiered riffle splitter, delivering approximately three kilograms of the recovered material into calico bags for analysis. The residual material is retained on the ground near the hole. Composite samples are obtained from the residue material for initial analysis, with the split samples remaining with the individual residual piles until required for re-split analysis or eventual disposal. **Historical** • A variety of drilling methods were employed by INCO, including churn drilling (102 holes) DDH (19 holes) RAB Drilling (2,643 holes) Vacuum (77 holes) Becker Drilling (102 holes). • Sample recovery from early drilling by INCO is not known. Sample recovery from RC drilling carried out from RC drilling after 2001 was generally very good, except where the drill encountered strong water flow from the hole.
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). • Method of recording and assessing core and chip sample recoveries and results assessed.	

Criteria	JORC Code Explanation	Commentary
Drill sample recovery	• 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.	• All geology input is logged and validated by the relevant area geologists, incorporated into this is assessment of sample recovery. No defined relationship exists between sample recovery and grade. Nor has sample bias due to preferential loss or gain of fine or coarse material been noted.
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	• Diamond core is logged geologically and geotechnically. • RC hole chips are logged geologically. • Logging is qualitative in nature. • All holes are logged completely.
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.	• A sample of each 5ft of drilling from INCO drilling were quartered and forwarded for assay, either to AMDEL in Adelaide, or to INCO's in-house laboratory at Blackstone. • Samples of RC drilling taken prior to 2006 were composited on 3 or 4m basis, and the composite assayed. A 1m riffle-split sample was also taken for each metre drilled, and was submitted for analysis if the composite assayed >0.4%Ni. • Sub-sampling for the 2006 and later RC drilling were riffle split each 2m sample drilled. • Chips / core chips undergo total preparation. • QA/QC is currently ensured during the sub-sampling stages process via the use of the systems of an independent NATA / ISO accredited laboratory contractor. A portion of the historical informing data has been processed by in-house laboratories. • The sample size is considered appropriate for the grain size of the material being sampled. • The un-sampled half of diamond core is retained for check sampling if required. • For RC chips regular field duplicates are collected and analysed for significant variance to primary results.

Criteria	JORC Code Explanation	Commentary
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.	• Samples of INCO's drilling were dried and assayed by AAS either at AMDEL in Adelaide, or at INCO's in-house laboratory at Blackstone. The digest method was not specified. Samples were assayed for Ni, Co and Fe. Analytical quality control was maintained by the by the insertion of standard samples and re-analysis of duplicates at separate laboratories at a frequency of two check analyses for every twenty samples. • Composite samples of RC drilling completed in 2001 were submitted to AMDEL, dried and pulverised, and assayed for Ni, Co, Ag, As, Bi, Cu, Cr, Fe, Mg, Mn, Pb, S, Sb, Ti, V, Zr, Ca and Al by HF-multi-acid digest / ICP-OES. The 1m riffle-splits for any composite sample assaying • >0.4%Ni were retrieved, and re-assayed using the same method. • Composite samples from 2002-2004 were assayed for Al, Ca, Cr, Fe, Mg, Mn, Ni, Si, Ti by borate fusion ICP-OES, and for Ag, As, Bi, Co, Cu, Ni, Pb, S, Sb, V, Zr by HF-multi-acid digest / ICP-OES. • During 2005 two metre composite riffle-split (or spear-sampled for wet samples) samples were sent to SGS Laboratories in Perth. Each 2m composite sample was dried and pulverised to a nominal 90 per cent passing 75 microns and analysed for: As, Bi, Co, Cu, Ni, Pb, S and Zn by ICP-OES. Samples returning >0.4%Ni were re-assayed for Ni, Co, Al2O3, CaO, K2O, Fe2O3, MgO, MnO, Na2O, SiO2, V2O5, TiO2, Cr, SO3, Cu, Zn by fused disc XRF. • After 2005 two metre composite riffle-split (or spear-sampled) samples were sent to SGS Laboratories in Perth. Each sample was pulverised to nominal 90 per cent passing 75 micron for analysis for assay for Ni, Co, Al2O3, SiO2, TiO2, Fe2O3, MnO, CaO, K2O, MgO, SO3, Na2O, V2O5, Cr, Cu and Zn by fused disc XRF. • Duplicate samples were taken by spearing the sample pile on the ground approximately every 20 samples, and an in-house standard was inserted into the sample run every alternate 20 samples. • No significant QA/QC issues have arisen in recent drilling results. • These assay methodologies are appropriate for the resource in question.

Criteria	JORC Code Explanation	Commentary
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.	• Anomalous intervals as well as random intervals are routinely checked assayed as part of the internal QA/QC process. • Virtual twinned holes have been drilled in several instances across all sites with no significant issues highlighted. • Primary data is loaded into the drill hole database system and then archived for reference. • All data used in the calculation of resources and reserves are compiled in databases which are overseen and validated by senior geologists. • No primary assays data is modified in any way.
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.	• All hole collar locations for RC holes drilled after 2000 were surveyed by using a Real Time Kinematic GPS. This measured X, Y and Z to sub-centimetre accuracy in terms of the MGA 94, Zone 52 metric grid. • Hole collars for almost all INCO drill holes were re-located, and survey in using the RTK GPS. Several INCO collars could not be located, and their MGA positions are estimated from their drilled location on the original INCO Imperial local grid. • Topographic control is generated from a combination of remote sensing methods and ground- based surveys. This methodology is adequate for the resource in question.
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.	• Drill hole spacing at CMP is generally on a 120m x 50m spacing. This has been filled-in to 60 x 50 and 30m x 25m spacing in some areas. The data spacing is sufficient for both the estimation procedure and resource classification applied. • Compositing of drill assay data to 1.5m was used in the estimate.
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.	• Drilling intersections are nominally designed to be sub-normal to the orebody. • It is not considered that drilling orientation has introduced an appreciable sampling bias.
Sample security	• The measures taken to ensure sample security.	• Samples are delivered to a third party transport service, who in turn relay them to the independent laboratory contractor. Samples are stored securely until they leave site.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data	• Site generated resources and reserves and the parent geological data is routinely reviewed by the Metals X Corporate technical team.

SECTION 2: REPORTING OF EXPLORATION RESULTS

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

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	• The CMP comprises 5 granted exploration leases and 1 granted miscellaneous lease. • Native title interests are recorded against the CMP tenements. • The CMP tenements are held by the Austral Nickel Pty. Ltd. (South Australia) and Hinckley Range Pty. Ltd. (Western Australia). Metals X has 100% ownership of both companies. • One third party royalty agreement applies to the tenements at CMP, over and above the state government royalty. • Hinckley Range and Austral Nickel operate in accordance with all environmental conditions set down as conditions for grant of the leases. • There are no known issues regarding security of tenure. • There are no known impediments to continued operation.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties	• The CMP area has an exploration history which extends to the 1960's, with significant contributors being INCO, Acclaim and Metex Nickel. • On balance, MLX work has generally confirmed the veracity of historic exploration data.
Geology	• Deposit type, geological setting and style of mineralisation.	• The Musgrave Block is an east-west trending, structurally bounded mid-Proterozoic terrane some 130,000km2 in area, straddling the common borders of Western Australia, South Australia and the Northern Territory. • Deep weathering of olivine-rich ultramafic units has resulted in the concentration of nickel mineralisation. The olivines in the ultramafic units have background values of about 0.15% Ni to 0.3% Ni. The almost complete removal of MgO and SiO2 to ground waters during the weathering of olivines in the ultramafic units resulted in extreme volume reductions and consequent significant upgrading of other rock forming oxides (Fe2O3, Al2O3) and metal element concentrations in the weathered profile.

Criteria	JORC Code Explanation	Commentary
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.	• Excluded results are non-significant and do not materially affect understanding of the Wingellina deposit.
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 typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	• Results are reported on a length weighted average basis. • Results are reported above a 0.2%m Co cut-off.
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').	• Interval widths are downhole width unless otherwise stated.
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.	• Presented in the body of the text above.
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.	• Presented above. • Excluded results are non-significant and do not materially affect understanding of the Wingellina deposit.

Criteria	JORC Code Explanation	Commentary
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.	• No relevant information to be presented.
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.	• Exploration and mine planning assessment continues to take place at the CMP.

SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code Explanation	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. • Data validation procedures used.	• Drillhole data is stored in a Maxwell's DataShed system based on the Sequel Server platform which is currently considered "industry standard". • As new data is acquired it passes through a validation approval system designed to pick up any significant errors before the information is loaded into the master database. The information is uploaded by a series of Sequel routines and is performed as required. The database contains diamond drilling (including geotechnical and specific gravity data), and some associated metadata. By its nature this database is large in size, and therefore exports from the main database are undertaken (with or without the application of spatial and various other filters) to create a database of workable size, preserve a snapshot of the database at the time of orebody modelling and interpretation and preserve the integrity of the master database.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	• The site is manned continually by Senior Geological personnel. • As no material update to the data supporting the resource has been undertaken since early 2008 no recent site visits by the Competent Person have been undertaken.

Criteria	JORC Code Explanation	Commentary
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• Confidence in the geological model used to constrain the Wingellina estimate is high, with the genetic model for lateritic nickel development well understood. Logged geology has been used to drive the mineralisation interpretation, with the base of laterite defined with drill holes, or its level on a given section interpreted from surrounding drill sections. Continuity of the interpretation across and along the Wingellina deposit is for the most part good, with intersections of hard rock in drill holes, and well mapped outcropping basement the primary causes of breaks within the mineralised horizon. • No alternative interpretations are currently considered viable. • Geological interpretation of the deposit was carried out using a systematic approach to ensure that the resultant estimated Mineral Resource figure was both sufficiently constrained, and representative of the expected sub-surface conditions. In all aspects of resource estimation the factual and interpreted geology was used to guide the development of the interpretation. • The protolithology is the dominant control on grade continuity at the CMP. Structural controls which influence depth of weathering are secondary controls on grade distribution.
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	• Individual deposit scales vary across the CMP. • The Wingellina deposits are mineralised over a strike length of >9km, a lateral extent of up to 2.5km and a depth of up to 200m.
Estimation and modelling techniques	• The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. • The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. • The assumptions made regarding recovery of by-products. • Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). • In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	• All modelling and estimation work undertaken was carried out in three dimensions via Surpac Vision. • After validating the drillhole data to be used in the estimation, interpretation of the orebody is undertaken in sectional and / or plan view to create the outline strings which form the basis of the three dimensional orebody wireframe. Wireframing is then carried out using a combination of automated stitching algorithms and manual triangulation to create an accurate three dimensional representation of the sub-surface mineralised body. • Drillhole intersections within the mineralised body are defined, these intersections are then used to flag the appropriate sections of the drillhole database tables for compositing purposes. Drillholes are subsequently composited to allow for grade estimation. In all aspects of resource estimation the factual and interpreted geology was used to guide the development of the interpretation.

Criteria	JORC Code Explanation	Commentary
	• Any assumptions behind modelling of selective mining units. • Any assumptions about correlation between variables. • Description of how the geological interpretation was used to control the resource estimates. • Discussion of basis for using or not using grade cutting or capping. • The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	• Once the sample data has been composited, a statistical analysis is undertaken to assist with determining estimation search parameters, top-cuts etc. Variographic analysis of individual domains is undertaken to assist with determining appropriate search parameters. Which are then incorporated with observed geological and geometrical features to determine the most appropriate search parameters. • An empty block model is then created for the area of interest. This model contains attributes set at background values for the various elements of interest as well as density, and various estimation parameters that are subsequently used to assist in resource categorisation. The block sizes used in the model will vary depending on orebody geometry, minimum mining units, estimation parameters and levels of informing data available. • Grade estimation is then undertaken, with ordinary kriging estimation method is considered as standard, although in some circumstances where sample populations are small, or domains are unable to be accurately defined, inverse distance weighting estimation techniques will be used. Both by-product and deleterious elements are estimated at the time of primary grade estimation if required. It is assumed that by-products correlate well with gold. There are no assumptions made about the recovery of by-products. • The resource is then depleted for mining voids and subsequently classified in line with JORC guidelines utilising a combination of various estimation derived parameters and geological / mining knowledge. • This approach has proven to be applicable to Metals X's nickel assets. • Estimation results are routinely validated against primary input data, previous estimates and mining output.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• Tonnage estimates are dry tonnes.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• The resource reporting cut-off grade is 0.5% Ni. • The reporting cut-off used was based on MLX's current interpretation of commodity markets, and to allow peer group comparison.

Criteria	JORC Code Explanation	Commentary
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	• Not considered for Mineral Resource. Applied during the Reserve generation process.
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	• Not considered for Mineral Resource. Applied during the Reserve generation process.
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• MLX operates in accordance with all environmental conditions set down as conditions for grant of the respective leases.
Bulk density	• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. • The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	• Sampling of HQ diamond drill core was used to determine the dry density of laterite ore. Average measured dry density is 1.28t/m3. • A total of 281 triple-tube HQ core samples were collected immediately from the core barrel and measured for bulk density on site. The core length was measured for diameter and length (square-cut ends), dried for 24 hours in a gas oven at 120°C, and weighed. • Density was calculated by dividing the weight (kg) of dry sample by the volume of the core piece.

Criteria	JORC Code Explanation	Commentary
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit.	• Resources are classified in line with JORC guidelines utilising a combination of various estimation derived parameters, the input data and geological / mining knowledge. • This approach considers all relevant factors and reflects the Competent Person's view of the deposit.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• Resource estimates are peer reviewed by the site technical team as well as Metals X's corporate technical team.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• All currently reported resources estimates are considered robust, and representative on both a global and local-scale.

SECTION 4 ESTIMATION AND REPORTING OF ORE RESERVES

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code Explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. • Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	• At all projects, all resources that have been converted to reserve are classified as either an Indicated or Measured Resource. Indicated Resources are only upgraded to Probable Reserves after adding appropriate modifying factors. Some Measured Resource may be classified as Proven Reserves and some is classified as Probable Reserve based on whether is capitally or fully developed.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	• Irregular site visits have been undertaken. The reserve has remained materially consistent since the 2008 Feasibility Study was completed.
Study status	• The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. • The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered	• A Feasibility Study utilising a combination of internal and external expertise has been undertaken to allow the conversion of Mineral Resources to Ore Reserves.
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• The cut-off grade used for inclusion in the CMP Reserve were determined through the Feasibility Study process. • Cobalt co-product revenue is considered by the FS.
Mining factors or assumptions	• The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). • The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. • The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling. • The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). • The mining dilution factors used.	• Whittle 4Dwas used to formulate optimal pit shell, with subsequent designs being undertaken in Surpac. • Mining studies indicate most material will be free digging, but an allowance has been made to blast some material. • The material outcrops on surface and has an overall strip ratio of 1.1:1. Due to the shallow nature and expected ground conditions, slope angles are low. Geotechnical data has been obtained through logging. • The Mineral Resource was used to formulate the Ore Reserves. • Due to the bulk nature of the deposit, limited dilution factors have been used, combined with high recovery factors.

Criteria	JORC Code Explanation	Commentary
	• The mining recovery factors used. • Any minimum mining widths used. • The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. • The infrastructure requirements of the selected mining methods.	
Metallurgical factors or assumptions	• The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. • Whether the metallurgical process is well-tested technology or novel in nature. • The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. • Any assumptions or allowances made for deleterious elements. • The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. • For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	• Based on this preliminary assessment, the Wingellina Deposit should be processed by a pressure acid leach flowsheet. • Pressure acid leach is a proven nickel extraction method both in Australia and globally • Extensive test-work including at pilot plant scale has been conducted on CMP material over the period 1965 to 2013.
Environmental	• The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	• Waste dumps were considered during the Feasibility Study. • A Public Environmental Notice has been completed and approved. The project has Environmental Protection Agency approval.
Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	• Limited infrastructure is currently present. All required infrastructure was considered in the Feasibility Study. • Infrastructure is considered standard for a remote site set-up.

Criteria	JORC Code Explanation	Commentary
Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study. • The methodology used to estimate operating costs. • Allowances made for the content of deleterious elements. • The source of exchange rates used in the study. • Derivation of transportation charges. • The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. • The allowances made for royalties payable, both Government and private.	• The Feasibility Study was completed in 2008 using both independent and internal cost estimates. These costs were updated in 2012. • Both government and private royalties are payable. All royalties were considered as part of the Feasibility Study.
Revenue factors	• The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. • The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	• The Feasibility Study utilising assumptions regarding foreign exchange rates and commodity prices presented below. These prices have been set by corporate management and are considered a realistic forecast of expected commodity prices and exchange rates over the initial period of projected operation at Wingellina. • Ni = US $20,000/t Co = US $45,000/t • Exchange Rate ($AUD : $US) = US $0.85 • Head grades have been defined via Whittle optimisation and subsequent scheduling.
Market assessment	• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	• Detailed economic studies of the nickel market and future price estimates are considered by Metals X and applied in the estimation of revenue, cut-off grade analysis and future mine planning decisions. • There remains strong demand and no apparent risk to the long term demand for the nickel generated from the project.
Economic	• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs.	• For the CMP, which is yet to be funded, an 8% real discount rate is applied to NPV analysis. • Sensitivity analysis of key financial and physical parameters is applied to future development project considerations and mine.
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• The CMP is yet to start. It has environmental permitting, but will require mining permitting to occur.

Criteria	JORC Code Explanation	Commentary
Other	• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: • Any identified material naturally occurring risks. • The status of material legal agreements and marketing arrangements. • The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	• A Native Title agreement has been reached.
Classification	• The basis for the classification of the Ore Reserves into varying confidence categories. • Whether the result appropriately reflects the Competent Person's view of the deposit. • The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	• The basis for classification of the resource into different categories is made on a subjective basis. Measured Resources have a high level of confidence and are generally defined in three dimensions and have been accurately defined or capitally and normally developed. Indicated resources have a slightly lower level of confidence but contain substantial drilling and are in most instances capitally developed or well defined from a mining perspective. Inferred resources always contain significant geological evidence of existence and are drilled, but not to the same density. There is no classification of any resource that isn't drilled or defined by substantial physical sampling works. • Some Measured Resources have been classified as Proven and some are defined as Probable Reserves based on subjective internal judgements, but generally based upon the intensity of capital and normal development they have been subjected to. • The result appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	• Site generated reserves and the parent data and economic evaluation data is routinely reviewed by the Metals X Corporate technical team. Resources and Reserves have in the past been subjected to external expert reviews, which have ratified them with no issues. There is no regular external consultant review process in place.

Criteria	JORC Code Explanation	Commentary
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. • It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• All currently reported reserve calculations are considered representative on a global scale. • Only material considered as part of the Feasibility study has been included as part of the reserve statement. • Limited modifying factors have been applied due to the massive nature of the deposit and the closeness to the surface.