PRESS RELEASE

22 DECEMBER 2014

NEW BASE METAL DISCOVERIES

Metals X is pleased to advise the market of the outcome of its latest exploration results from it's Northern Territory projects, particularly two new discoveries of lead-zinc and copper-zinc deposits:

1. CURIOSITY LEAD-ZINC DISCOVERY

The first holes into the virgin Curiosity Prospect have resulted in a new discovery of a replacement polymetallic mineralisation. The Curiosity Prospect is nearby the previously discovered Explorer 108 lead-zinc ore body and compliments traditional ironstone-hosted copper-gold in this prolific mineral field.

Best results are from diamond hole MXCURD002:

- **11.7 m at 3.73 % Pb, 4.86 % Zn, 33 g/t Ag, 1.02 g/t Au, and 0.24 % Cu** from 473.53 m and;
- **0.53 m at 0.37g/t Au, 492g/t Ag and 12.4% Cu** from 510.29 m.

2. OUTCROPPING COOPER ZINC GOSSANS AT WARUMPI

Gossanous outcrops with high-grade copper and zinc and coincident IP anomalies now defined at Huron Prospect, Warumpi. First-mover status in the grossly under-explored Western Arunta region.

Better rock chips from Huron include:

- **WR0343 - 9.9% Cu, 4.7% Zn and 120g/t Ag.**
- **WR0373 - 7.7% Cu, 3.2% Zn and 91g/t Ag.**

Chief Executive Officer Peter Cook said:

"It is pleasing that during this extremely tough period for the industry that Metals X has continued to make substantial progress on our Northern Territory exploration projects, and demonstrate the quality of the North Territory as an exploration address.

The Curiosity lead-zinc discovery, drilled with the support of the Northern Territory government though the CORE co-funding initiative, shows that nearby Explorer 108 is not a one-off, and that replacement lead-zinc is a legitimate exploration target in the prolific Tennant Creek area, offering a new pathway for a return to mining in the district.

Perhaps more gratifying is the exploration success at Warumpi, which reinforces Metals X's view that the Western Arunta region holds immense potential for new discoveries and we are primed to capitalise on its potential by virtue of our prime landholding in the region"

ENQUIRIES

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METALS X LIMITED

Metals X Limited is a diversified group exploring and developing metals and minerals in Australia. It is Australia's largest tin producer and a top 10 gold producer. Metals X holds a pipeline of assets from exploration to production, including two gold development projects and the world-class Wingellina Nickel Project.

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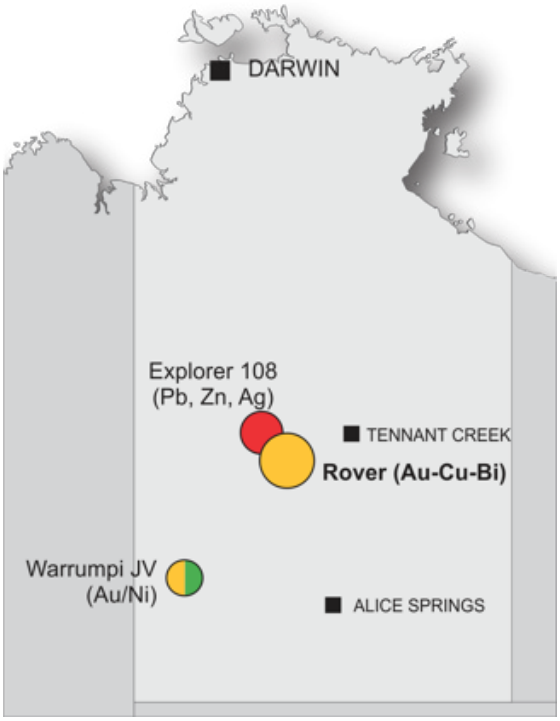
EXPLORATION UPDATE
NORTHERN TERRITORY BASE METAL PROJECTS

Metals X has significant land holdings and has been an active explorer in the Northern Territory for some time. It is active in the Tennent Creek Region with its Rover Project where it has already made significant Iron Oxide Copper-Gold-Bismuth (IOCG) discoveries at the Rover 1 and Explorer 142 prospects. In addition, a new style of lead-zinc-silver deposit was discovered at Explorer 108 a few years ago. Importantly, all these discoveries are blind, starting at depths below 200 m vertical below the un-conforming West-Wiso basin stratigraphy.

The Rover 1 Prospect is a poly-metallic IOCG deposit with substantial gold and copper mineralisation, very similar to the bonanza type deposits of gold-copper mined over the Tennant Creek Goldfield's history. Rover 1 it is one the very few significant virgin gold discoveries made in Australia in the past decade and has a resource inventory of benchmark size being approximately 1.2 million ounces of gold equivalence (6.8Mt at 5.6 g/t Au equivalent as previously announced).

The Explorer 108 prospect is an enigma in the region being a new (virgin) lead-zinc-silver discovery with a previously announced total Mineral Resource Estimate of 11.87 million tonnes at 3.24% Zn, 2.0% Pb and 11.4g/t Ag.

In our latest exploration efforts we have focussed on the testing of a coincident geophysical and geochemical anomaly called the Curiosity Prospect, to the south of the Explorer 108 Prospect. In addition we have been undertaking grass roots and reconnaissance works in the West Arunta stratigraphy in the far southwest of the Northern Territory.



[Figure 1: Northern Territory Project Areas.]

THE ROVER PROJECT

The Rover project is located 70 km southwest of Tennant Creek in the Northern Territory of Australia. The project area is interpreted to be underlain by the southern continuation of the Warramunga Formation under the sedimentary cover sequences of the Wiso Basin.

The Warramunga Formation hosts all the deposits of the Tennant Creek field, where a number of very high grade IOCG deposits have been mined to produce a recorded yield in excess of 156t Au and 345,000t Cu. Frequently such IOCG deposits are under cover, and present as coincident gravity and magnetic anomalies.

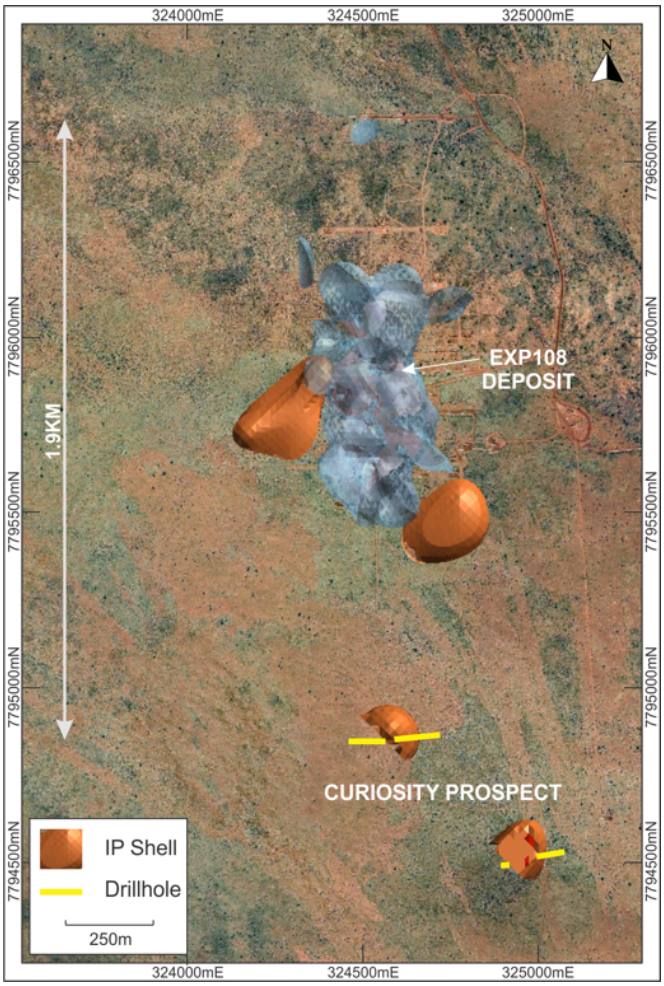
CURIOSITY PROSPECT

The Explorer 108 lead-zinc deposit and associated Curiosity magnetic/gravity/IP anomaly is 40 km to the west of the Rover 1 copper-gold resource. The Explorer 108 lead-zinc deposit is hosted by a sequence of folded felsic to intermediate volcanics and interlayered clastic sediments. Better grades are generally associated with chlorite-rich and moderately haematite-rich dolomite.

The Curiosity target is characterised by two separate IP anomalies, one coincident with a magnetic high, and a second located to the southeast between the magnetic high and a gravity peak. A remobilised copper accumulation has been located immediately above the base of the unconformity between the host Proterozoic sequence and the Cambrian cover sediments of the Wiso Basin, and is seen to increase in concentration from Explorer 108 through to Curiosity. The presence of this copper is suggestive of a Proterozoic copper deposit in the vicinity of the Lead-zinc deposit at Explorer 108 which has breached the basement sequence through either direct contact or a structural interaction.

Explorer 108 differs from other deposit in the region in the dominance of lead and zinc sulphides in potentially economic concentrations as opposed to Au and Cu mineralisation. From a metallogenic perspective the data is consistent with Explorer 108 Lead-zinc being located distal to a copper accumulation. A potential exploration model for the region has been proposed based on similarities between Explorer 108 / Curiosity and observations made at Mount Isa.

With funding assistance from the NT Government made available through the CORE Geophysics and Drilling Collaboration initiative, Metals X has drilled the first two holes into the refined Curiosity IP/gravity/magnetics target adjacent to an interpreted regional structure.



[Figure 3: Recent Curiosity drillholes (yellow), IP shells (brown) relative to Explorer 108 deposit (blue).]

Lode	Hole	Collar N	Collar E	Collar RL	Intercept (Downhole Width)	From (m)	Dip	Azi
Curiosity	MXCURD002	7,794,857	324,725	285	11.7m at 1.02 g/t Au, 32.98 g/t Ag, 3.73 % Pb, 4.86 % Zn and 0.24 % Cu	473.5	-62.2	260.0
					0.53m at 0.37g/t Au, 492g/t Ag and 12.4% Cu	510.3		

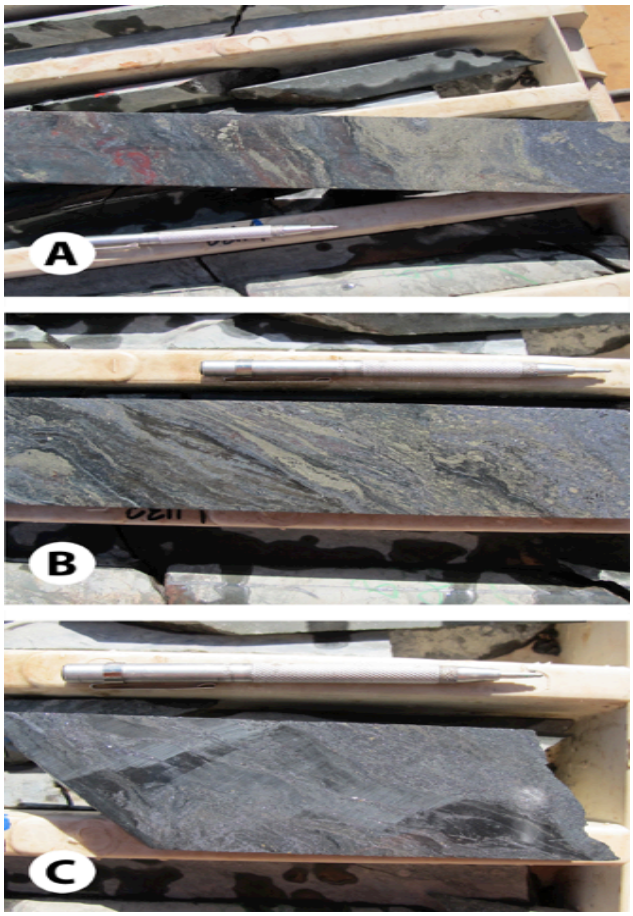
[Table 1: MXCURD002 significant intersection showing the polymetallic nature of the deposit. Intervals are reported on a length weighted average basis, above a 5%m Pb + Zn / 2.5%m Cu basis. Widths reported are downhole, as the geometry of the mineralisation is not clear at this time. Grid is MGA 1994 Zone 53.]

Metals X is extremely encouraged that the first holes drilled into this complex conceptual target have returned potentially economic grades and widths of lead and zinc. However, the story at Curiosity is far from complete, with the source of the increasing copper sulphide mineralisation yet to be encountered.

This mineralisation is interpreted to be hosted in a feeder structure, which may be proximal to high-grade replacement mineralisation, such as is seen at the nearby Explorer 108 Pb-Zn deposit. Both holes also intersected visible quantities of bornite. This occurs as secondary bornite precipitated into the overlying cover sequence, and as primary bornite displaying hallmarks of mechanical transportation, suggesting proximity to a larger copper body.

The current drilling program has increased the prospectivity of the Explorer 108/Curiosity area in particular, with elevated copper, lead and zinc mineralisation now encountered over a strike of 1.9 km. More importantly these results have reinforced Metals X's view that the Rover field is an emerging lead and zinc province, and that this style of mineralisation has been overlooked in the past in the Tenant Creek district, where exploration has largely been driven by the testing of bullseye magnetic anomalies associated with ironstone hosted copper and gold.

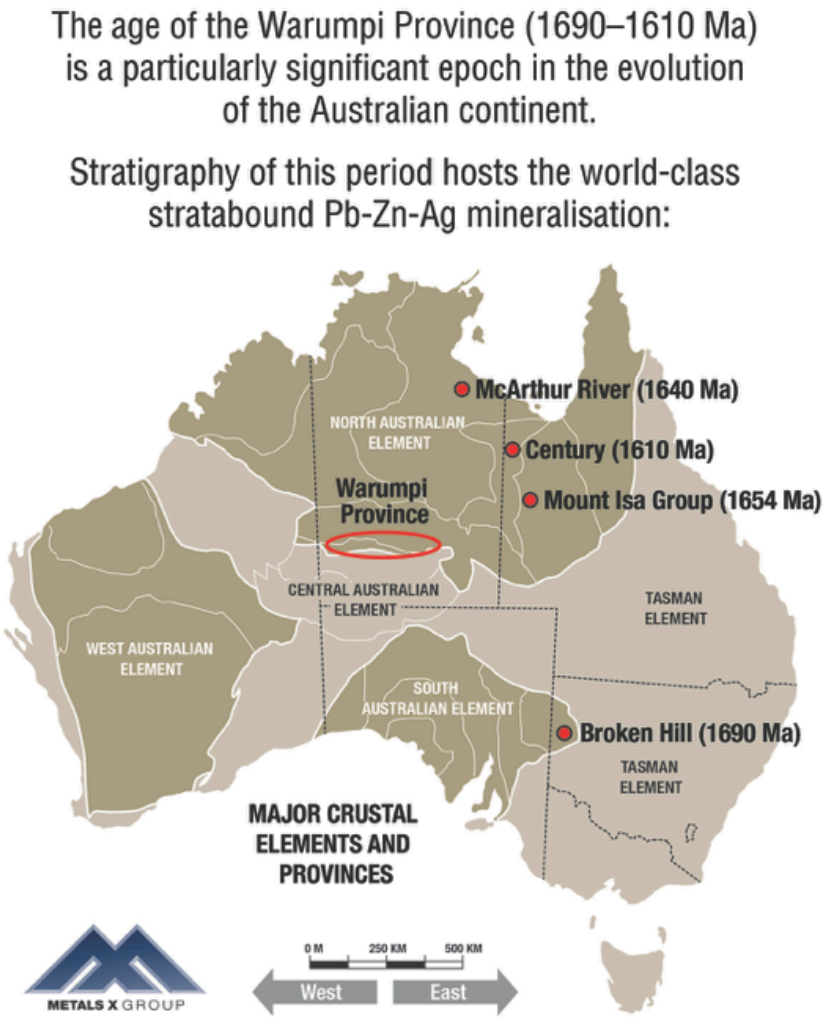
Metal's X intends to pursue the broader Explorer 108/Curiosity opportunity during the next field season, and commends the NT governments forward thinking approach of supporting conceptual exploration through initiatives such as CORE, which will ultimately play a significant part in unlocking the mineral wealth of the Territory for all stakeholders.



[Plate 1: Base metal shear zone intercepted in MXCURD002. (a) and (b) semi-massive sulphide zone with pyrite, galena, chalcopyrite and sphalerite mineralisation, and (c) galena rich stringer zone with trace magnetite and sphalerite in a talc-rich shear.]

WARUMPI PROJECT (WEST ARUNTA REGION) (METALS X 51% AND EARNING UP TO 80%)

The Warumpi project is located in central Australia, approximately 350 km west of Alice Springs. The areas is underlain by a recently recognised Proterozoic Tectonic domain, which at 1690-1610 Ma is temporally similar to Proterozoic basins in Eastern Australia that host five of the world's ten largest stratabound Lead-zinc deposits - Broken Hill, Hilton-George Fisher, Mount Isa, MacArthur River and Century.



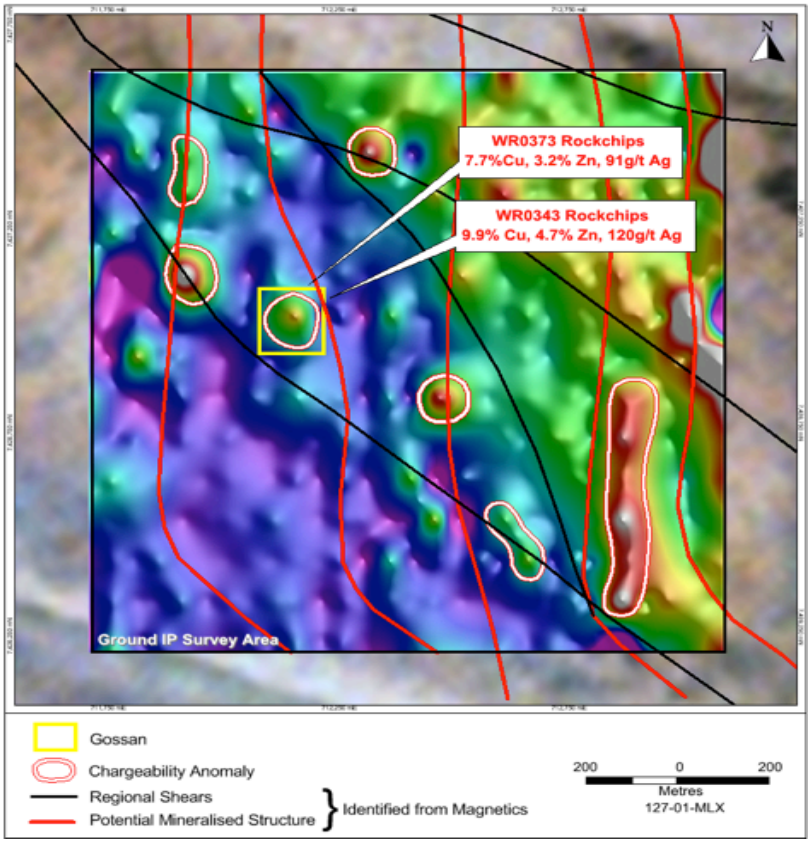
[Figure 4: Warumpi Province location relative to major Australian base metal provinces.]

This 500 km long collision zone along the southern margin of North Australian Craton exhibits variably deformed basin sediments metamorphosed to amphibolite facies which have been intruded by voluminous felsic and mafic suites. These mafic intrusions have considerable potential to host intrusion related Ni-Cu and Ni-Cr-PGE mineralisation, whilst the felsic intrusions have geochemical signatures which suggest the potential for Copper-gold.

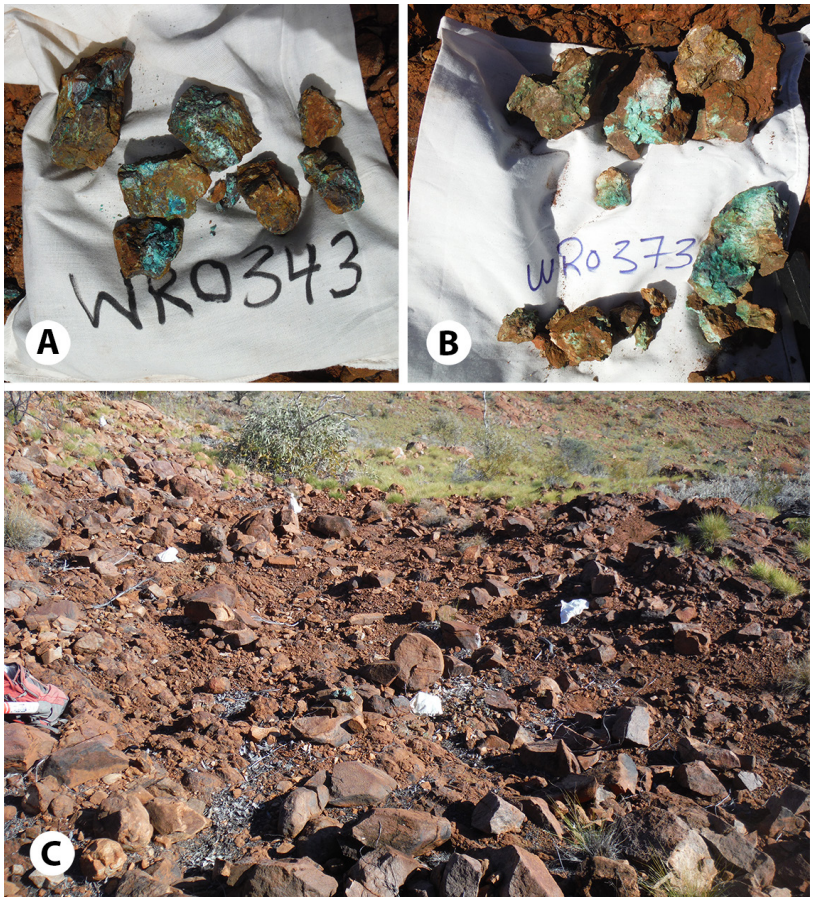
Ground reconnaissance work on this previously unexplored region during the year discovered mineralised (Cu, Zn, Ag) gossanous outcrop at the Huron prospect. Better rock chips from Huron include:

- **Rock Chip WR0343 - 9.9% Cu, 4.7% Zn and 120g/t Ag.**
- **Rock Chip WR0373 - 7.7% Cu, 3.2% Zn and 91g/t Ag.**

Subsequent induced polarisation geophysical surveys highlighted the presence of chargeable bodies below and adjacent to these outcrops. Airborne magnetic surveys have also been undertaken with a view to quickly refine targets for the first ever program of drilling in this region.



[Figure 2: Chargeability anomalies (white and red circles), gossan location (yellow box) and Cu rock chip assay results overlain on the Gradient Array Induced Polarisation chargeability data image.]



[Plate 2: (a) and (b) copper mineralisation in rock chip samples from (c) gossan zones at the Huron Prospect.]

The first systematic geological sampling programme in the region has presented a series of gossanous outcrops containing high grades of copper, zinc and silver from the Huron Prospect. All rock chips from the Huron Prospect are tabulated below.

Lode	Sample	North	East	Au ppm	Ag ppm	Cu %	Ni %	Pb %	Zn %
Huron	WR0316	7,426,490	711,574	0.00	0.00	0.00	0.00	0.00	0.00
	WR0317	7,426,104	712,590	0.00	0.08	0.00	0.00	0.02	0.06
	WR0318	7,426,534	712,712	0.00	0.02	0.00	0.00	0.01	0.02
	WR0319	7,427,042	712,122	0.00	1.26	0.01	0.00	0.00	0.15
	WR0320	7,426,935	712,273	0.00	0.06	0.00	0.00	0.00	0.05
	WR0321	7,427,076	712,067	0.00	0.08	0.00	0.00	0.01	0.19
	WR0322	7,427,010	712,133	0.00	0.11	0.00	0.00	0.00	0.00
	WR0323	7,426,971	712,012	0.00	0.05	0.00	0.00	0.01	0.00
	WR0324	7,427,209	711,978	0.00	0.00	0.00	0.00	0.00	0.01
	WR0326	7,427,009	712,416	0.00	0.11	0.00	0.00	0.01	0.20
	WR0327	7,427,009	712,416	0.00	0.11	0.00	0.00	0.01	0.16
	WR0328	7,426,592	712,560	0.00	0.12	0.00	0.00	0.01	0.88
	WR0329	7,426,592	712,561	0.00	0.06	0.00	0.00	0.01	0.24
	WR0338	7,426,963	712,553	0.00	0.02	0.00	0.00	0.00	0.01
	WR0339	7,426,661	712,493	0.00	0.35	0.00	0.00	0.00	0.10
	WR0340	7,426,890	712,362	0.00	0.02	0.00	0.00	0.00	0.02
	WR0341	7,427,009	712,416	0.00	0.01	0.00	0.00	0.00	0.01
	WR0342	7,426,971	712,069	0.00	0.05	0.00	0.00	0.01	0.01
	WR0343	7,427,021	712,188	0.08	120.00	9.89	0.00	0.04	4.73
	WR0344	7,427,031	712,183	0.00	4.46	0.17	0.00	0.01	0.61
	WR0345	7,427,005	712,185	0.03	14.40	0.45	0.00	0.06	0.37
	WR0346	7,427,019	712,184	0.00	6.16	0.03	0.00	0.01	0.04
	WR0348	7,426,533	712,564	0.00	0.34	0.01	0.00	0.01	0.32
	WR0349	7,426,527	712,596	0.00	0.06	0.00	0.00	0.01	0.23
	WR0350	7,426,595	712,570	0.00	0.36	0.03	0.00	0.01	0.05
	WR0351	7,427,007	712,182	0.16	24.90	4.57	0.00	0.06	8.55
	WR0352	7,427,014	712,138	0.00	0.18	0.01	0.00	0.00	0.17
	WR0353	7,427,019	712,148	0.02	11.10	0.16	0.00	0.15	0.82
	WR0354	7,427,132	712,205	0.00	1.22	0.00	0.00	0.02	0.15
	WR0355	7,427,258	712,054	0.00	0.04	0.00	0.00	0.00	0.00
	WR0356	7,427,148	712,270	0.00	0.20	0.01	0.00	0.00	0.07
	WR0357	7,427,072	712,343	0.00	0.04	0.00	0.00	0.00	0.02
	WR0358	7,426,882	712,373	0.00	1.37	0.04	0.00	0.07	0.42

Lode	Sample	North	East	Au ppm	Ag ppm	Cu %	Ni %	Pb %	Zn %
	WR0359	7,426,879	712,376	0.00	0.89	0.01	0.00	0.02	0.53
	WR0360	7,427,013	712,132	0.00	1.94	0.05	0.00	0.01	1.42
	WR0361	7,427,035	712,111	0.00	0.09	0.00	0.00	0.02	0.07
	WR0362	7,427,036	712,112	0.00	0.09	0.01	0.00	0.00	0.13
	WR0363	7,427,112	712,075	0.00	0.10	0.00	0.00	0.00	0.09
	WR0364	7,426,973	712,056	0.00	0.04	0.00	0.00	0.01	0.01
	WR0365	7,426,980	712,233	0.00	0.04	0.00	0.00	0.01	0.01
	WR0366	7,427,021	712,072	0.00	1.33	0.09	0.00	0.03	0.12
	WR0367	7,427,067	712,063	0.00	0.60	0.00	0.00	0.05	0.01
	WR0368	7,427,048	712,083	0.02	85.40	2.36	0.00	0.09	1.64
	WR0370	7,426,497	712,724	0.00	0.54	0.00	0.01	0.13	0.44
	WR0371	7,426,869	712,421	0.00	1.63	0.02	0.00	0.02	0.20
	WR0372	7,426,860	712,436	0.00	0.14	0.00	0.00	0.01	0.20
	WR0373	7,427,039	712,083	0.09	90.60	7.72	0.00	0.09	3.23
	WR0374	7,427,042	712,083	0.10	83.80	3.70	0.00	0.10	1.30
	WR0375	7,426,540	712,561	0.01	1.68	0.46	0.00	0.01	0.36
	WR0376	7,426,528	712,567	0.01	1.74	0.41	0.00	0.01	1.42
	WR0377	7,426,494	712,707	0.01	20.50	0.03	0.00	0.63	0.61
	WR0378	7,426,551	712,637	0.00	0.48	0.01	0.00	0.06	0.14
	WR0379	7,427,108	712,410	0.00	0.08	0.01	0.00	0.00	1.44
	WR0380	7,427,101	712,414	0.00	0.47	0.00	0.00	0.02	0.59
	WR0381	7,427,044	712,082	0.06	182.00	4.97	0.00	0.11	3.03
	WR0382	7,427,031	712,082	0.01	2.82	0.57	0.00	0.03	0.24
	WR0383	7,427,049	712,082	0.01	47.40	0.17	0.00	0.07	0.36
	WR0384	7,426,929	712,298	0.00	5.94	0.19	0.00	0.01	0.14
	WR0385	7,426,946	712,314	0.00	4.47	0.02	0.00	0.01	0.07
	WR0386	7,427,037	712,173	0.00	1.01	0.01	0.00	0.02	0.02

[Table 2: Huron rock chips. Grid is MGA 1994 Zone 52.]

COMPETENT PERSONS STATEMENT

The information in this report that relates to Exploration Results is based on information compiled by Mr Jake Russell, B.Sc. (Hons) MAIG. Mr Russell has sufficient experience which is relevant to the styles of mineralisation and types of deposit under consideration and to the activities are 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 (JORC 2012)".

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. Mr Russell is a full-time senior executive of the Company and is eligible to, and may participate in short-term and long-term incentive plans of the Company as disclosed in its annual reports and disclosure documents.

APPENDIX 1 – JORC 2012 TABLE 1 – ROVER PROJECT
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 All data used in resource calculations at the Tennant Creek Project has been gathered from diamond core. Multiple sizes have been used historically. This core is geologically logged and subsequently halved for sampling. • 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.
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.	
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.	
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. • Logging is quantitative in nature. • All holes are logged completely.

Criteria	JORC Code Explanation	Commentary
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.	• Diamond Drilling - Half-core niche samples, sub-set via geological features as appropriate. • Core undergoes total preparation. • The sample preparation process consists of; » Crushing using a vibrating jaw crusher to achieve a maximum sample size of 4mm. » The sample is then weighed, and if the sample weight is greater than 3.2kg, the sample is split into two using a Jones-type Riffle splitter. » The crushed sample is then pulverised in a Labtech LM5 Ring Mill for 6 minutes. For samples weighing greater than 3.2kg the first portion is removed and second portion is homogenised in the same machine. Once complete the first portion is put back in the LM5 and both portions are homogenised. » From the pulverised sample, approximately 200g is taken as a master sample which stays in Alice Springs, while a second sample of approximately 150g taken and sent to for assaying. These samples are collected via a scoop inserted to the bottom of the bowl. The remaining sample is transferred to a calico bag for storage. » For every 20th sample, an approximately 25g sample is screened to 75 microns to check that homogenising has achieved 80% passing 75 microns. • QA/QC is ensured during sampling via the use of sample ledgers, blanks, standards and repeats. • QA/QC is ensured during the assays process via the use of blanks, standards and repeats at a NATA / ISO accredited laboratory. • The sample sizes are considered appropriate to the grainsize of the material being sampled. • The un-sampled half of diamond core is retained for check sampling if required.
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.	• Analysis of drill core for Au, Ag, Cu, Pb, Zn was carried out in Perth in the following manner; » Gold (Au-AA25 scheme – lower detection limit = 0.01ppm, upper detection limit = 100ppm). A 30g charge of prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents and then cupelled to yield a precious metal bead. » The bead is then dissolved in acid and analysed by atomic absorption spectroscopy against matrix-matched standards. » Samples returning assay values in excess of 100g/t Au were repeated using the Au-AA26 method. » Ag, Cu, Pb, Zn (ME-OG62) - A prepared sample is digested using a 4 acid digest. » The subsequent solution is analysed by inductively coupled plasma - atomic emission spectroscopy or by atomic absorption spectrometry. • 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 with no significant issues highlighted. • Primary data is loaded into the drillhole database system and then archived for reference. • All data used in the calculation of resources 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 data is spatially oriented by survey controls via direct pickups by the survey department. Drillholes are all surveyed downhole, deeper holes with a Gyro tool if required. • All drilling and resource estimation is undertaken in MGA 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.	• Data spacing is variable dependent upon the individual orebody under consideration. This approach is appropriate for the Mineral Resource estimation process and to allow for classification of the resource as it stands. • Compositing is carried out based upon the modal sample length of each individual domain.
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 normal to the orebody as far topography / economics allows. • Development sampling is nominally undertaken normal to the various orebodies. • 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 Tennant Creek Project comprises 5 granted exploration leases. • Native title interests are recorded against the Tennant Creek tenements. • The Tennant Creek tenements are held by Castile with is 100% Metals X owned. • Several third party royalties exist across various tenements at Tennant Creek, over and above the Northern Territory government royalty. • Castile operates 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 partie	• The Tennant Creek area has an exploration and production history in excess of 100 years. The Rover area in particular has an intensive exploration history stretching from the 1970's. • On balance, Castile work has generally confirmed the veracity of historic exploration data.
Geology	• Deposit type, geological setting and style of mineralisation.	• The Tennant Creek Project is located in the 1860-1850Ma Warramunga Province is approximately centred on the township of Tennant Creek, and contains the Palaeoproterozoic Warramunga Formation. This is a weakly metamorphosed turbiditic succession of partly tuffaceous sandstones and siltstones which includes argillaceous banded ironstones locally referred to as 'haematite shale'. • Copper in the form of chalcopyrite occurs around the upper margins of the quartz magnetite ironstones and in the silicified BIF or haematitic shales that often form an alteration transition to the adjacent chlorite alteration envelope. Although copper levels in the upper quartz magnetite portion of the ironstones is usually very low, pervasive sub-economic copper levels can persist throughout this zone. Economic levels of copper are dominantly contained in the lower massive magnetite portion or in massive magnetite "veins" identified in the magnetite quartz zones. The massive magnetite zones grade laterally and at depth into magnetite chlorite stringer zones. Gold content increases where the content of magnetite veining and chlorite alteration decreases and there is an increase in early haematite dusted quartz veins and indurated sediments and fine chlorite veining related to the mineralisation phase. The transition from massive magnetite copper mineralisation to magnetite quartz chlorite stringer gold mineralisation is also the zone of increased bismuthinite mineralisation. • Lead and zinc mineralisation at Explorer 108 is associated with a brecciated dolomitised sediment unit, consisting of irregular, generally narrow, domains or veins of semi-massive sulphides (sphalerite and galena). A basal "high-grade" zone is present at the contact of the dolomite and lower felsic units.

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.	• Drillhole information is provide in Table 1.
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 5gm Au / Au Eq. cut-off / 5%m Pb + Zn / 2.5%m Cu. • Results reported may include up to two metres of internal dilution below a 0.5g/t Au / Au Eq. cut-off / 0.5% Pb + Zn / 0.5%m Cu. • Metal equivalent values are not reported.
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.	• Excluded results are non-significant and do not materially affect understanding of the Curiosity discovery.
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	• Relevant information presented in the body of the text above
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.	• Relevant information presented in the body of the text above

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), face chip and sludge drilling 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.	• Mr Russell visits site on an "as required" basis.
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.	• Mining of similar deposits in the region provides confidence in the current geological interpretation. • 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 structural regime and the presence of intrusive source bodies are the dominant controls on geological and grade continuity at the Tennant Creek Project.
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 Tennant Creek Project. • The Rover 1 deposit is mineralised a strike length of >540m, a lateral extent of up +70m and a depth of over 650m. • The Explorer 108 deposit is mineralised a strike length of >400m, with a thickness of up to 60m. • The Explorer 142 deposit is mineralised a strike length of >200m, with a thickness of up to 8m.

Criteria	JORC Code Explanation	Commentary
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. • 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.	• All modelling and estimation work undertaken by Metals X is 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. • 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 gold assets. • Estimation results are routinely validated against primary input data, previous estimates and mining output. • Good reconciliation between mine claimed figures and milled figures was routinely achieved during past production history.
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 Rover 1 reporting cut-off grade is 2.5g/t Au. • The Explorer 108 reporting cut-off grade is 2.5% Pb + Zn. • The Explorer 142 reporting cut-off grade is 2.5g% Cu.

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.	• Castile 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.	• Bulk density of the mineralisation at the Tennant Creek Project is variable and is for the both lithology and alteration / mineralisation dependent. • For modern drilling, field technicians perform density test-work on core samples on a campaign basis every three months. All density measurements have been determined using the simple water immersion technique. The samples from all holes were well below the base of oxidation and were in generally competent, non-porous rock.
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.

Criteria	JORC Code Explanation	Commentary
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. • No production data exists to compare the resource estimate against

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.	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek Project.
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	• No reserve has been stated for the Tennant Creek Project.
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• No reserve has been stated for the Tennant Creek Project.

Criteria	JORC Code Explanation	Commentary
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. • 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.	• No reserve has been stated for the Tennant Creek Project.
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?	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek Project.

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.	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek 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.	• No reserve has been stated for the Tennant Creek Project.
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek Project.

Criteria	JORC Code Explanation	Commentary
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).	• No reserve has been stated for the Tennant Creek Project.
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek Project.

APPENDIX 2 – JORC 2012 TABLE 1 – WARUMPI PROJECT
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.	• No drilling has been undertaken at Warumpi. • All sampling undertaken to date is reconnaissance geochemical in nature, with grab, lag and soil samples collected.
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.	
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.	
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	• No holes have been drilled to date. • Geochemical sampling medium is recorded in the field.

Criteria	JORC Code Explanation	Commentary
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.	• Grab samples undergoes total preparation. The sample preparation process consists of; » Crushing using a vibrating jaw crusher to achieve a maximum sample size of 4mm. » The crushed sample is then pulverised in a Labtech LM5 Ring Mill for 6 minutes. For samples weighing greater than 3.2kg the first portion is removed and second portion is homogenised in the same machine. Once complete the first portion is put back in the LM5 and both portions are homogenised. » From the pulverised sample, approximately 200g is taken as a master sample which stays in Alice Springs, while a second sample of approximately 150g taken and sent to for assaying. These samples are collected via a scoop inserted to the bottom of the bowl. The remaining sample is transferred to a calico bag for storage. » For every 20th sample, an approximately 25g sample is screened to 75 microns to check that homogenising has achieved 80% passing 75 microns. • For lag and soil samples, preparation is as follows; » Crushing using a vibrating jaw crusher to achieve a maximum sample size of 4mm. » Pulverise 1kg to 85% passing <75um » Roasting to remove organic matter. • QA/QC is ensured during sampling via the use of sample ledgers, blanks, standards and repeats. • QA/QC is ensured during the assays process via the use of blanks, standards and repeats at a NATA / ISO accredited laboratory. • The sample sizes are considered appropriate to the grainsize of the material being sampled. • The reject is retained for check sampling if required.
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.	• Analysis of samples is as per the following; » For gold 30g charge of prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents and then cupelled to yield a precious metal bead. The bead is then dissolved in acid and analysed by ICP-AES. » For the remaining elements of interest the prepared sample is digested using a 4 acid digest. » The subsequent solution is analysed by inductively coupled plasma - atomic emission spectroscopy or by atomic absorption spectrometry for 48 elements. • No significant QA/QC issues have arisen in recent drilling results. • These assay methodologies are appropriate for the resource in question.
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.	• No drilling has been undertaken to date. • Primary data is loaded into the database system and then archived for reference. • All data is compiled and overseen and validated by senior geologists. • No primary assays data is modified in any way.

Criteria	JORC Code Explanation	Commentary
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 data is spatially oriented by handheld GPS. • All data is located in MGA grid. • Topographic control is generated from remote sensing methods. 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.	• Data spacing is semi-regular, with the initial geochemical sampling at kilometres centres. This spacing is closed down to 250m x 250m centres in areas of interest. • Individual features may be selectively grab sampled. • No composting of samples has been 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. • 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.	• All sampling is reconnaissance geochemical and surficial in nature. Orientation is dictated by topography.
Sample security	• The measures taken to ensure sample security.	• Samples are delivered to the secure facility of a third party independent laboratory contractor.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data	• Site generated geochemical 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 Warumpi Project comprises 4 granted exploration leases. • Native title interests are recorded against the Warumpi tenements. • The Warumpi tenements are held by Lassact Pty. Ltd. Castile with is 100% Metals X owned is earning into the tenements. • Several third party royalties exist across various tenements at Warumpi, over and above the Northern Territory government royalty. • Castile operates 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	• There is no documented modern exploration at Warumpi.
Geology	• Deposit type, geological setting and style of mineralisation.	• The Warumpi terrain represents the southern margin of a large collisional zone of the North Australia Craton (NAC) and the South Australia Craton (SAC) which has greatly distorted the rocks throughout its multiple phase deformational history. This deformational history has created several crustal-scale shear zones and thrust faults as well as numerous secondary structures throughout the region. • To date no known occurrences of economic mineralisation are known to exist in the Warumpi Project area.
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.	• No drillhole information is being presented in this release.

Criteria	JORC Code Explanation	Commentary
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.	• No drillhole information is being presented in this release.
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').	• No drillhole information is being presented in this release.
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.	• Excluded results are non-significant and do not materially affect understanding of the Huron discovery.
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	• Relevant information presented in the body of the text above.
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 assessment continues to take place at the Warumpi Project.

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.	• 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.
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.	• Given the early stage in project evolution a site visit has not been undertaken by the competent person to date.
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.	• No resource has been stated for the Warumpi Project.
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.	• No resource has been stated for the Warumpi Project.

Criteria	JORC Code Explanation	Commentary
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. • 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.	• No resource has been stated for the Warumpi Project.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• No resource has been stated for the Warumpi Project.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• No resource has been stated for the Warumpi Project.
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.	• No resource has been stated for the Warumpi Project.

Criteria	JORC Code Explanation	Commentary
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.	• No resource has been stated for the Warumpi Project.
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.	• Castile 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.	• No resource has been stated for the Warumpi Project.
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.	• No resource has been stated for the Warumpi Project.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• No resource has been stated for the Warumpi Project.
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.	• No resource has been stated for the Warumpi Project.

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.	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek Project.
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	• No reserve has been stated for the Tennant Creek Project.
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• No reserve has been stated for the Tennant Creek Project.
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. • 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.	• No reserve has been stated for the Tennant Creek Project.

Criteria	JORC Code Explanation	Commentary
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?	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek Project.

Criteria	JORC Code Explanation	Commentary
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.	• No reserve has been stated for the Tennant Creek Project.
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek Project.
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).	• No reserve has been stated for the Tennant Creek Project.
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek Project.