METALS X LIMITED

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

CORPORATE DIRECTORY

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QUARTERLY REPORT

FOR THE PERIOD ENDING 30 SEPTEMBER 2014

SIGNIFICANT OUTPUTS

DURING THE QUARTER

CORPORATE

- Cash & working capital at end of quarter of $133.3 million including gold pre-pay of $40.45 million.
- Annual dividend policy announced to be 30% of NPAT and inaugural dividend of 0.6785 cents per share with a record date of 16 December 2014.
- Capital consolidation of 1 for 4 announced to be voted on at AGM, reducing shares on issue to approximately 414 million.
- Metals X was included in the S&P/ASX 300 index commencing 20 September 2014.

GOLD DIVISION

- Gold division outperformed production guidance by 20.8%
    - Mined 207,385 tonnes @ 5.96 g/t Au.
    - Processed 394,252 tonnes @ 3.46 g/t Au.
    - Gold metal produced was 42,293 ounces (up 10% Q on Q).
    - Total cash cost of sales was $878/oz (4% higher Q on Q).
    - EBITDA (unaudited) of $22.2 million (4% higher Q on Q).

TIN DIVISION

- Record Quarterly tin output:
    - Mined 173,332 tonnes @1.56% Sn (steady).
    - Processed 167,879 tonnes @ 1.56% Sn (grade 0.11% higher).
    - Tin metal production (in concentrates) increased by 9% to 1,831 tonnes.
    - Total cash cost of sales was $18,910/t Sn (lower by 3.2%, output driven).
    - Metals X share of EBITDA (unaudited) of $4.36 million (lower by 11%, lower tin prices).

NICKEL DIVISION

- Wingellina Public Environmental Review document ready for submission (following Environmental Scoping study approved by the EPA on 23 May 2014).
- A further 100 tonne bulk sample extracted and dispatched to Korea for metallurgical testing using an alternative Limonite processing technology.
- Approvals received for drilling of new limonite prospect to be completed in next quarter.

WARUMPI JOINT VENTURE

- Substantial high grade copper and zinc results, up to 9.9% Cu and 8.55% Zn returned from a newly discovered gossan.

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GOLD DIVISION

OVERVIEW

Metals X continued to consolidate its position as a gold producer with the end of the quarter marking the first year anniversary as a gold producer from its gold division strategy. Production guidance on acquisition was for a first full year of 150,000 per ounce at total costs of A$1,000 per ounce.

The first full year for the gold division yielded 180,361 ounces at total costs of sales of A$999 per ounce. Further, EBITDA generated from the first year of gold production was A$106.9 million.

Gold production for the current quarter was again above guidance of 35,000 ounces by 20.8% at 42,293 ounces.

At the Higginsville Gold Operations, the Company closed the Chalice Underground Mine during the quarter as previously forecast. The Company successfully commenced open pit mining at the Lake Cowen open pits to replace the Chalice ore source.

The South Kalgoorlie Operations continued to operate at full capacity on low grade stocks and intermittent toll processing of third party ores. Significant progress was made on a revised development plan that will see open pit mining recommence in the ensuing quarter as well as a re-start of the HBJ underground mine.

At the CMGP, detailed planning and the generation of budgets and works schedules are nearing completion. A number of immediate mining opportunities were drilled and evaluated and a revised plan of operations for a re-start of operations in mid 2015 is taking shape.

Diamond drilling at Rover 1 (copper-gold-bismuth) is underway with a focus on a resource upgrade below 600 m vertical depth and to gain additional data for geotechnical and shaft sinking studies.

Production guidance for the ensuing quarter for the gold division is 30,000 ounces at a total cost of A$1,100 per ounce. The lower production rate and increase in total cost reflects the buildup of open pit mining over the quarter which is initially of lower grade than the gold production from the Chalice Underground Mine.

HIGGINSVILLE GOLD OPERATIONS (HGO)

HGO consists of a modern 1.35 Mtpa capacity CIP plant, a 300 person village, the Trident Underground Mine, numerous open pits and requisite mine and process infrastructure.

[Photo: Higginsville 1.35 Mtpa Gold Plant]

Productivity and operational performance during the quarter was highlighted by excellent mine grade performance from the Trident Mine which offset lower production from the Chalice Mine. Continued issues with stoping at the Chalice Mine and lower reconciliations in the final development drives brought forward the closure of the mine, essentially 60,000 tonnes lower than expected. The mine was completely closed and all stock was depleted by the end of the quarter. A complete writeoff of the remaining carrying values at the Chalice Mine occurred during the quarter.

Ore from the Chalice Mine is being replaced with open pit ores from the Lake Cowan group of pits located approximately 10 km north-east of the process plant. Open pit mining commenced late in the quarter with the mining of the Louis Pit. These ores will complement the feeds from the Trident Mine and production rates will build during the current quarter.

HGO operating output for the quarter is summarised as follows:

Higginsville Gold Operations	September 14 Quarter	Previous Quarter
Mine Production		
Ore Tonnes (t)	**207,385**	247,629
ROM Grade (g/t Au)	**5.96**	4.86
Ore Processed		
Tonnes Processed	**214,688**	224,030
Head Grade (g/t Au)	**5.67**	5.24
Recovery (%)	**96.6**	94.7
Gold Produced (oz)	**37,834**	35,777

The imputed key fiscal outcomes attributable to HGO for the quarter are summarised below:

Higginsville Gold Operations	September 14 Quarter	Previous Quarter
Imputed Revenue (A$ Million)	**53.0**	50.0
Avg. Gold Price Received (A$/oz)	**1,400**	1,394
Cash Operating Cost (A$/oz)	**815**	798
Cash Cost of Sales (A$/oz)	**895**	875
Cash Operating Surplus (EBITDA) $M	**19.2**	18.7
Depreciation & Amortisation (A$/oz)	**224**	239
Total Cost of Sales (A$/oz)	**1,119**	1,114

Total capital reinvestment into HGO for the quarter is summarised below:

Higginsville Gold Operations	September 14 Quarter	Previous Quarter
Capital Mine Development ($M)	**3.91**	4.27
Exploration ($M)	**0.95**	0.81
Property Plant & Equipment ($M)	**0.74**	0.64

HIGGINSVILLE GOLD OPERATIONS (HGO) (CONTINUED)
EXPLORATION ACTIVITY

Exploration work at Trident has had a dual focus, with drilling targeted at both defining the internal grade distribution of the Artemis and Helios zones below the current mining front, and expanding the footprint of Trident Mineralisation beyond the boundaries of the current resource.

At Artemis, drilling was conducted beyond the southern boundary of the current resource and mine design. A best result of 0.7 m at 75.3 g/t in hole TUG2357 highlighted that the Artemis structure carries significant grade beyond what was thought to be the southernmost extent of economic mineralisation. Work over the current quarter will attempt to quantify the potential mining target in this area.

At Helios a previously undefined E Shear adjacent to active development has returned significant results over a strike-length of at least forty metres. This new zone of mineralisation is expected to contribute additional high-grade ounces to the production profile over the coming months without any additional capital expenditure. Best results returned from this E Shear include 2.6 m at 16.1 g/t from 16.8 m in hole TUG2316 and 2.7 m at 37.8 g/t from 16.3 m in hole TUG2320. In addition, Helios Core mineralisation within the current mining plan continues to return strong results in definition drilling. Some standout results this quarter include 8.1 m at 15.5 g/t from 80 m in hole TUG2307, 6.2 m at 6.8 g/t from 80.5 m in hole TUG2314 and 18 m at 5.2 g/t from 88.5 m in hole TUG2317.

The Poseidon zone which sits outside the current Trident resource and adjacent to existing Eastern Zone mining infrastructure has undergone initial testing this quarter. Pleasingly a series of strong results have been returned, providing significant encouragement for follow-up work in this area. Better results returned to date include 2.8 m at 10.1 g/t from 74 m in hole TUG2336, 2.1 m at 22.4 g/t from 69.5 m in hole TUG2332 and 2.8m at 6.5 g/t from 32.2 m in hole TUG2330.

Finally, a follow-up hole at the Ares (targetted up-dip and to the north of the current Artemis/Helios mining area) returned 8 m at 4.9 g/t Au. Work within the coming quarter will focus on better constraining the mineralised zone, which will allow for an initial economic assessment to be undertaken. This zone sits approximately 100 m from an existing developed area.

Significant drilling was conducted at the Josephine and Napoleon prospects in order to define additional ores to supplement the Louis Pit ore. Better results from this work include 19.1 m at 4.12 g/t from 42 m in hole LKCR252, 9.9 m at 4.30 g/t from 58 m in hole LKCR250 and 7.8 m at 9.77 g/t from hole LKCR258 all at Napoleon. It is expected that small open pits at both Josephine and Napoleon will be added to the current mining campaign at Louis.

Further afield, the Wills palaeo-channel resource underwent a last round of resource definition drilling. This will allow for finalisation of the pit design in anticipation of a significant campaign of palaeo-channel pit mining commencing in 2015. Better results from this work include 9 m at 6.34 g/t from 22 m in hole HIGA7133 and 7 m at 9.64 g/t from 23 m in hole HIGA7146.

SOUTH KALGOORLIE OPERATIONS (SKO)

The SKO consists of a 1.2 Mtpa CIP plant and infrastructure. Numerous open pits and underground options have previously been mined within the tenement area since the late 1980's.

The SKO operated predominantly on processing low grade stockpiles with intermittent toll processing of third party ores.

[Photo: Jubilee Plant 1.2 Mtpa]

Operational performance for the SKO business unit includes only those ores owned and processed by SKO, no physical toll processing production from ores owned by other parties are reported below. Revenues from toll processing are credited against the operating costs such that fiscal production from site as a business unit is reported. No mining was undertaken during the quarter. Physical output is summarised below:

South Kalgoorlie Operations	September 14 Quarter	Previous Quarter
Mine Production		
Ore Tonnes (t)	**-**	-
ROM Grade (g/t Au)	**-**	-
Ore Processed		
Tonnes Processed (t)	**179,564**	112,175
Head Grade (g/t Au)	**0.81**	0.87
Recovery (%)	**84.0**	84.0
Gold Produced (oz)	**4,459**	2,657

The imputed key fiscal outcomes for the quarter attributable to SKO are summarised below:

South Kalgoorlie Operations	September 14 Quarter	Previous Quarter
Imputed Revenue (A$)	6.30	3.72
Avg. Gold Price Received (A$/oz)	1,400	1,380
Cash Operating Cost (A$/oz)	696	421
Cash Cost of Sales (after tolling credits) (A$/oz)	733	442
Cash Operating Surplus (after tolling credits) (EBITDA $M)	3.04	2.55
Depreciation & Amortisation (A$/oz)	169	335
Total Cost of Sales (A$/oz)	902	777

SOUTH KALGOORLIE OPERATIONS (SKO) (CONTINUED)

Total capital reinvestment into SKO for the quarter is summarised:

South Kalgoorlie Operations	September 14 Quarter	Previous Quarter
Capital Mine Development ($M)	-	0.36
Exploration ($M)	1.40	1.30
Property Plant & Equipment ($M)	0.44	0.05

In the ensuing quarter the plant feed will be a combination of SKO low-grade ore stocks and toll treatment of third party ores.

A number of small open pit feed sources have been identified, drilled and scheduled for open pit mining. These sources should see open pit mining recommence in the ensuing quarter and be processed in the March 2015 quarter. The staged approach to recommencing the HBJ Underground Mine advanced during the quarter with dewatering of the open pit being esentially completed. A new portal will be cut in the next quarter to intersect and allow rehabilitation of the old (existing) decline. Metals X expects to build a long-term ore supply from HBJ underground of approximately 400,000 tpa at 4-5 g/t Au on the doorstep of the process plant.

Additionally, a mine financing and profit sharing agreement was reached with Southern Gold during the quarter. This will see the Cannon Open Pit Mine and potentially an underground mine developed at Bulong. Under the agreement, Metals X's staff will operate and manage the mine and the ore will be batch processed in parcels of approximately 40,000 tonnes through the Jubilee process plant. Revenue will firstly go to repay costs and the surplus will be split on a 50:50 basis.

Metals X is negotiating on a number of similar ventures with smaller operators in the Kalgoorlie region.

EXPLORATION ACTIVITY

Exploration drilling works at SKO during the quarter has been focussed on supporting the upcoming re-start of open pit mining. Open pit mining will initially will be concentrated in Locations 48 and 50, within 5 km of Metals X's Jubilee Processing plant. Two of the three initial pits in this area, Peaceful Chief and Dusk underwent their final round of resource drilling. Better results returned from Peaceful Chief include 6 m at 3.01 g/t from 31 m in hole PCFRC025, 3 m at 9.75 g/t from 44 m in hole PCFRC032 and 3 m at 4.84 g/t Au from 57 m in hole PCFRC049. Better results returned from Dusk include 6 m at 3.58 g/t from 43 m in hole DSKRC043, 12 m at 1.78 g/t from 8 m in hole DSKRC044 and 12 m at 3.66 g/t from 11 m in hole DSKRC048. The third pit in the initial mining campaign, Mutooroo is undergoing final resource modelling, in preparation for optimisation, design and grade control in early November.

As reported in the previous quarter, the preparation of the existing Erebus and Fuji pits has continued to advance. These pits had previously terminated at a historical lease boundary that is now integrated into Metals X's tenure. Initial positive drill results prompted follow-up drilling during the quarter, with recent results including 11 m at 3.31 g/t from 34 m in hole EBSRC075, 7 m at 5.12 g/t from 23 m in hole EBSRC096 and 11 m at 3.63 g/t from 43 m in hole EBSRC103. Based upon this drilling an initial resource model has been developed. Subsequent feasibility assessment has provided a pit design that will be grade controlled in early November in readiness for mining. Extensional drilling at Erebus continues, with the resource remaining open down-dip, and along-strike to the north.

Over the coming quarter exploration and resource development work at SKO will focus on: expanding the mining inventory in the Location 48/50 area; following up on the success achieved at Erebus; initial testing of the Trojan group of exploration targets will be undertaken in preparation for mining at the Trojan mining complex in 2015; ongoing geological development work at the large HBJ Underground Mine as it comes online from October.

CENTRAL MURCHISON GOLD PROJECT (CMGP)

Metals X continued to advance its strategy to re-commence mining at the Central Murchison Gold Project.

The acquisition of the Meekatharra Gold Operations was completed in the previous quarter. These assets are now integrated into the existing Central Murchison Gold Project (CMGP), and works have commenced on a development strategy to bring the region into production in mid 2015.

The recently refurbished (and operated) 1.5–2.0 Mtpa process CIP plant and infrastructure provides an immediate process option for the ores in the region. As previously announced, the gold resource base covers the historic mineral production fields of Day Dawn, Cuddingwarra, Big Bell, Reedy, Yaloginda, Paddy's Flat and Meekatharra North with a combined total resource of 7.85 million ounces.

[Photo: Bluebird Plant 1.5–2.0 Mtpa]

The key objective for the CMGP is to re-establish the region as an underground mining hub whereby the major historic underground mines and prolific producers of Great Fingall, Golden Crown, Big Bell, Paddy's Flat, Bluebird, Paddy's Flat and Reedy mining centres are brought back into production.

The operational objective is to steadily access these underground mines on a staged basis over the ensuing years with an objective to achieve long-term sustainable production at a rate in excess of 200,000 oz per annum. The Bluebird mill will process a blended feedstock from all sources at an estimated rate of 2 million tonnes per annum at this point. In the build-up phase, smaller open pit mines will supplement underground development ores whilst full capacity is established over a 3 year period.

Metals X is close to completing its detailed development plans, costing and timing for the re-start which remains on track for a mid to late 2015 commencement.

On the exploration front, significant on-ground work commenced this quarter in support of the 2015 restart of operations at the CMGP.

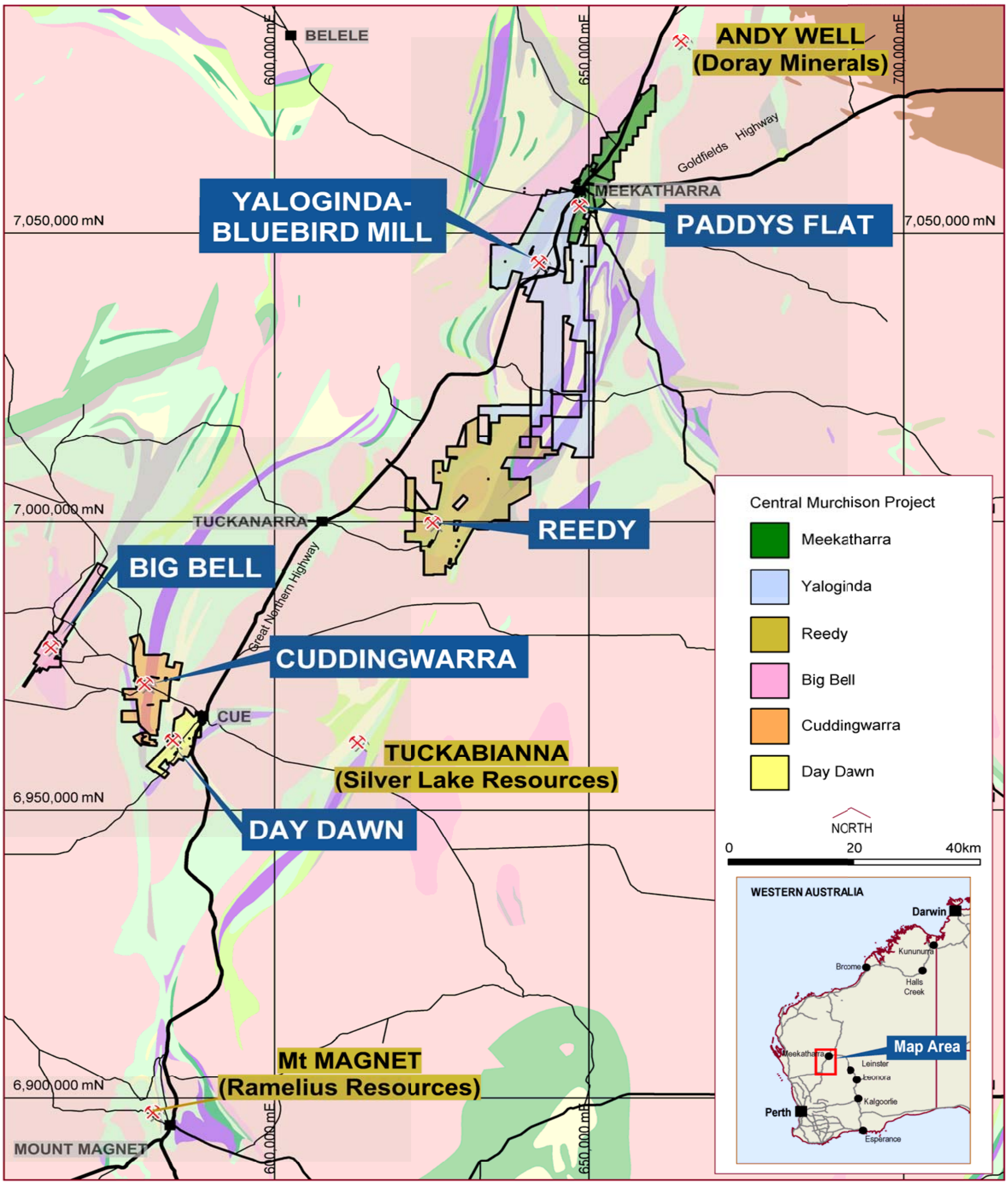
Deep diamond drilling into the high-grade Great Fingall underground mine commenced, with the current holes designed to improve definition of the Great Fingall Reef at depth to assist in optimising the mine design. These holes are expected to be completed in November, with results available shortly thereafter.

The diamond rig will then shift onto drilling of underground targets at the Black Swan South and Rheingold prospects, both of which were prolific open pit mines with limited deeper evaluation.

CENTRAL MURCHISON GOLD PROJECT (CONTINUED)

In the Yaloginda area, resource definition drilling was completed at the Batavia and Whangamata prospects to enable pit designs to be finalised. Results were not available at the end of the quarter. During the December quarter it is expected that grade control drilling for the first benches of all pits in the 2015 mining schedule will be completed, allowing ore block design and detailed short term scheduling to be undertaken well in advance of the proposed start of mining activities.

Diamond drilling will commence in the Paddy's Flat area in October with an initial focus on underground targets at the high-grade Vivian – Consol's mining area and from there progressing onto the Reedy mining centre.



[Figure: Central Murchison Gold Project Locations]

THE ROVER PROJECT (GOLD-COPPER-BISMUTH)

The Rover Project is an undercover repetition of the rich Tennant Creek Goldfield, 80 km to the north-east. Exploration to date has so far fully tested three blind targets within the project area. Each of which has defined significant mineralised IOCG (Iron Oxide Copper Gold) systems at Rover 1, Explorer 108 and Explorer 142 prospects.

Development works at Rover are focussed on the Rover 1 Prospect. Rover 1 is a virgin IOCG discovery and Metals X has previously announced a polymetallic Total Mineral Resource at Rover 1 (as at 30 June 2014) of 6.81 million tonnes at 1.74 g/t Au, 1.2% Cu, 0.14% Bi and 0.06% Co (1.22 Moz at 5.6 g/t gold equivalent).

The project area is proximal to a major infrastructure corridor adjacent to Central Australian Railway, gas pipeline and Stuart Highway.

Diamond Drilling commenced late in the quarter on an infill and extensional program for the Jupiter Deeps zone at Rover 1. At the quarter's end the first hole defining the resource boundary in this area had been complete, with the margins of the ironstone and minor gold and chalcopyrite mineralisation (visual) successfully intersected. Assay results are yet to be recieved. A daughter hole/wedge targeting the centre of the ironstone down-plunge of the current Indicated resource is currently underway.

As previously advised, the Northern Territory Government, through the Geological Survey has awarded Metals X with co-funding of approximately $96,000 for the drilling of the Curiosity IP anomaly 36 km west-northwest of Rover 1. The co-funding has been awarded under the Geophysics and Drilling Collaborations program which is part of the NT Government's CORE (Creating Opportunities for Resource Exploration) initiative which provides co-funding assistance for selected exploration drilling and geophysical acquisition projects in greenfields areas where there is a paucity of geological information. Drilling of this program commenced in mid October.

WARUMPI JOINT VENTURE (EARNING UP TO 80%)

The Warumpi Project is a grass roots exploration project in what is believed to be a paleo-proterozoic terrain equivalent to the prolific stratigraphy and epoch (1690-1610Ma) when the mega base metal mines of Broken Hill (1690Ma), Mt Isa (1654Ma), McArthur River (1640Ma) and Century (1610Ma) were formed. Metals X is a first mover in this virtually unknown and unexplored province.

Ground reconnaissance has discovered an outcropping gossan at the Huron Prospect with rock chip results at surface returning results up to 120g/t Ag, 9.89% Cu and 4.73% Zn (WR0343).

Further reconnaissance has revealed a cluster of gossanous outcrops with high anomalous base and precious metal results (silver, copper and zinc). Infill sampling surrounding this zone was completed during the quarter with results showing upto 182g/t Ag (WR0381), 7.72%Cu (WR0373) and 8.55% Zn (WR0351).

These results whilst early-stage, have provided encouragement for follow-up work, and as such, 3D IP and aerial magnetic surveys over the zone of anomalous surface responses have been planned for late October - early November.

TIN DIVISION

RENISON PROJECT (MLX 50%)

Productivity and operational performance continue to be in line with nameplate levels with higher head grades enabling a quarterly record of tin produced. Mine and processing outputs are summarised below:

Renison Mine (100%)	Sept 2014 Quarter	Previous Quarter	Rolling 12 Months
Ore Tonnes (t)	**173,332**	173,754	**650,419**
ROM Grade (%Sn)	**1.56**	1.43	**1.48**
Tin Concentrator			
Tonnes Processed (t)	**167,879**	172,350	**649,032**
Head Grade (%Sn)	**1.56**	1.45	**1.48**
Tail Grade (% Sn)	**0.48**	0.47	**0.47**
Tin Metal Produced (t)	**1,831**	1,685	**6,461**

The operations have matured such that process capacity is no longer dictated by the mine output and increasing ore stocks have been building up ahead of the processing plant. The focus of mining is now on optimisation and grade maximisation whilst maintaining productivity.

The Renison tin concentrator plant continued to show steady performance with excellent availability, lower tin residues and significantly improved concentrate quality. Continuous improvement work programs are underway and are aimed at increasing plant productivity.

Whilst tin production was at record levels, lower revenue was received as the average tin price fell by A$1,200/t compared with the previous quarter. The key fiscal outcomes for the quarter attributable to Metals X's 50% ownership of the Renison Project are summarised below:

Fiscal Outcomes (MLX Share)	Sept 2014 Quarter	Previous Quarter	Rolling 12 Months
Imputed Revenue (A$)	21.7	20.9	79.7
Tin Price Received (A$/t Sn)	23,659	24,855	24,560
Cash Operating Cost (A$/t Sn)	15,564	16,346	15,788
Cash Cost of Sales (A$/t Sn)	18,910	19,521	19,018
Cash Operating Surplus (EBITDA $M)	4.36	5.03	19.9
Depreciation & Amortisation (A$/t Sn)	1,821	2,201	2,316
Total Cost of Sales (A$/t Sn)	20,731	21,722	21,334

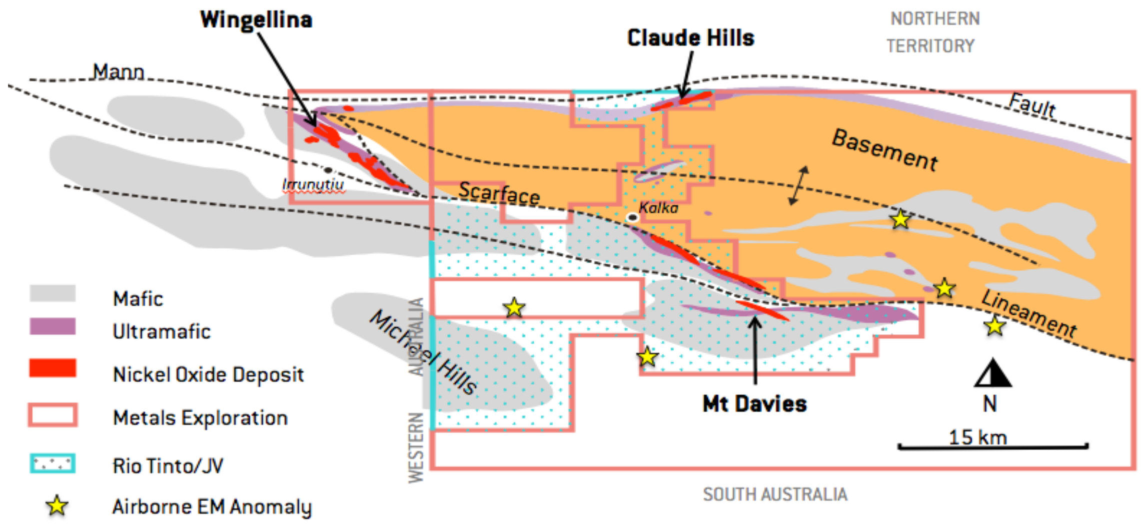
Capital re-investment at Renison has continued to slow as expected. A large stock of capitally and normally developed ore exists with mine, which bodes well for future production. Drilling activity during the quarter was focussed on the upgrading and infilling of known resources.

Capital Re-investments (MLX Share)	Sept 2014 Quarter	Previous Quarter	Rolling 12 Months
Capital Mine Development ($M)	1.09	2.09	8.35
Exploration ($M)	0.39	0.03	2.59
Property Plant & Equipment ($M)	0.36	0.19	1.28

NICKEL DIVISION

Metals X wholly owns the largest nickel project in Australia and one of the largest undeveloped nickel projects in the world today, the Wingellina Nickeliferous Limonite Project in the Central Musgrave Region of Western Australia.

The Wingellina Project is an intensely leached deposit of limonite (previously a dunite intrusive) enriched in nickel, iron and cobalt. Over the past decade, Metals X has consolidated outright ownership of the Wingellina layered intrusive complex. The latest move by Metals X in the region was to buy-out Rio Tinto's interest in what was previously the Mt Davies JV, which it completed in 2013.



The key focus of the Nickel Division is to bring the Wingellina Nickel–Cobalt Project into production.

The Wingellina Mineral Resource estimate defines an ore body containing approximately 183 million tonnes of ore containing 1.8 million tonnes of contained nickel metal, 86 million tonnes of Fe_2O_3 and 139,000 tonnes of Cobalt metal. Significantly, over 91% of the resource is defined as a Probable mining reserve in accordance with the JORC code. The ore is very similar in style to Ambatovy in Madagascar (under development) and Moa Bay in Cuba, where Sherritt Gordon developed and have successfully operated High Pressure Acid Leach (HPAL) for over 50 years.

Wingellina is only one of many areas where nickeliferous limonites exist within the Central Musgrave Project, and is the only one to have been extensively drilled to date. In 2011 Metals X completed a drilling program at its Claude Hill Prospect, another known occurrence located approximately 25 km to the east of Wingellina. This first reconnaissance program defined a further Inferred Resource (JORC) of 33 million tonnes grading 0.81% Ni, 0.07% Co and 39% Fe_2O_3. Many other areas remain to be tested.

Metals X engaged industry experts to complete a feasibility study (+/-25%) in 2009 which concluded:

- A robust project development with a minimum 40 year mine life at an average annual production rate of 40,000 t of nickel and 3,000 t of cobalt.
- At a nickel price of US$20,000/t nickel, US$40,000/t cobalt and an A$/US$ exchange rate of 0.85, an estimated Project NPV(8%) of $3.4 Billion was determined.
- A production cost of US$3.34/lb after cobalt credits.
- Capital cost estimates were put at approximately A$2.5 billion and have recently been reconfirmed at this level (2013).

PREVIOUS DEVELOPMENT PROPOSALS AT WINGELLINA

Metals X entered into a Memorandum of Undestanding (MOU) with Samsung C&T in September 2012 to work together to bring the massive Wingellina Ni–Co Project into production. Under the MOU, Metals X will complete a revised Definitive Feasibility Study (DFS) with the assistance of Samsung C&T, updating and reviewing the previous development proposal study completed in 2008. Under the MOU, Samsung C&T would provide its technical expertise in engineering, feasibility studies and construction and will use its financial reputation and capacity to assist Metals X with the financing and development proposals for the project.

The objectives of the MOU were for Metals X to retain a 30% interest in the project free carried to production and that Samsung C&T would be awarded the Engineering, Procurement and Construction (EPC) contract for the project on normal and competitive commercial terms. Under the terms of the MOU, Samsung C&T can, depending on the outcomes of the DFS, purchase equity in the project and provide project delivery. SNC-Lavalin was appointed the Principle Engineer for the DFS and was directly awarded the engineering for the Processing and plant infrastructure. Due to the deterioration of the nickel price and the strength of the Australian dollar through 2013, the Board of Metals X reassessed the timing of the DFS and in consultation with Samsung C&T and SNC decided to park up the project until economics improve.

CURRENT STATUS OF WINGELLINA

Whilst the engineering works for the updated feasibility study have been halted, Metals X continues to use its internal resources to complete other long lead-time studies required for the DFS. Metals X has been completing infrastructure, roads, rail and ports studies, and the Public Environmental Review (PER) documentation which is the final documentation required for EPA approval.

As stated in the June quarter the Wingellina environmental scoping study was approved by the EPA on 23 May 2014. Following this approval, the PER document will be formally submitted to the Office of the Environmental Protection Authority by the end of October. This is a significant step in the development of the project as it is the main documentat required for final approvals. The document will undertake the normal review process across WA Government Departments before being released for public review towards the end of the year.

As a result of the successful metallurgical bench testing of the Wingellina ore through an alternative Limonite process that is being developed in Korea, a sample program was completed to obtain a further 100 tonne sample for pilot plant testing in South Korea during the quarter.

Interaction with the State and Federal Governments in relation to infrastructure requirements within central Australia continued with strong co-operation and a desire to assist with the development of the project.

The company entered into an agreement with the Native Title Holders and their representative bodies in 2010 allowing Metals X to develop a mining operation at Wingellina.

WINGELLINA REGIONAL EXPLORATION

Approvals and works have been completed to undertake a drill program to commence at the end of the December quarter to test further Nickel and Cobalt mineralisation in the South Australian tenements and to further define the calcrete deposits used for neutralisation. The program is focused on the known mineralisation located at Scarface with a series of drill lines being undertaken over 4.5 km of strike.

CORPORATE

During the quarter Metals X was included into the S&P / ASX 300 Index on the commencement of trading on 20 September 2014.

Subsequent to the end of the quarter the Company has announced an inaugural fully frank dividend of 0.6785 cents per share with a record date of 16 December to be paid on 7 January 2015. The company has also announced a Dividend Reinvestment Plan that will attract a 5% discount to the 5 day VWAP prior to reinvestment.

Metals X also announced that it will recommend to shareholders at the AGM on 26 November 2014 that the issued capital of the Company be consolidated on the basis of one (1) new share for every four (4) shares currently on issue. The consolidation will reduce the number of shares on issue from 1,656M to approximately 414M. The Company believes that this will much better align the company with its peers in the market.

During the quarter Metals X entered into a pre-payment arrangement to sell 30,000 ounces of production over 24 months (1,250 oz per month). The net result of this has been to bring forward $40.4M in cashflow at minimal cost.

Metals X ended the September quarter with unaudited cash and working capital of $133.3M. The Group has no corporate debt.

INVESTMENTS

Metals X holds the following investments in other listed entities:

Reed Resources Limited	0.39% share holding
Aziana Limited	13.73% share holding
Mongolian Resource Corporation Limited	14.76% share holding

CAPITAL STRUCTURE

The Company has the following equities on issue as of 30 September 2014:

Fully Paid Ordinary Shares	1,655,826,110
Unlisted Options - various conversions and dates	6,565,000
Fully Diluted Equity	1,662,391,110

MAJOR SHAREHOLDERS

The major shareholders of the Company as of 30 September 2014 are:

APAC Resources (HKEX:1104)	24.07%
Jinchuan Group	10.66%

End

COMPETENT PERSONS STATEMENT

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources and Ore Reserves is based on information compiled by Mr Peter Cook BSc (App. Geol.), MSc (Min. Econ.) MAusIMM (11072) who has sufficient experience that is relevant to the styles of mineralisation, the types of deposits under consideration and the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Cook is the CEO and an Executive Director and a full time employee of Metals X Limited and consents to the inclusion in the reports of the matters based on his information in the form and context in which it appears. Mr Cook is a shareholder of Metals X and is entitled to participate in Metals X's short term and long term incentive plans details of which are included in Metals X's Remuneration Report in the Annual Report.

GOLD DIVISION – HGO
TABLE OF RESULTS FOR THE QUARTER

Prospect/ Lode	Hole	Collar N	Collar E	Collar RL	Intercept (True Width)	From (m)	Dip	Azi
Ares	TUG2381	6,490,042	379,944	687	8m at 4.9g/t Au	163.3	-11	321
Artemis	TUG2320	6,490,025	379,853	403	0.5m at 50.3g/t Au	128.6	-46	259
	TUG2356	6,489,740	379,792	547	NSI		8	218
	TUG2357	6,489,756	379,802	510	0.7m at 75.3g/t Au	189.7	-3	217
	TUG2358	6,489,806	379,809	473	NSI		-17	226
	TUG2359	6,489,677	379,874	546	NSI		-15	218
	TUG2360	6,489,823	379,812	441	NSI		-31	231
	TUG2361	6,489,780	379,812	445	NSI		-27	222
	TUG2362	6,489,763	379,810	500	NSI		-23	216
	TUG2363	6,489,817	379,812	415	NSI		-38	233
	TUG2364	6,489,800	379,815	402	NSI		-39	225
	TUG2365	6,489,782	379,815	409	NSI		-34	218
	TUG2402	6,490,017	379,837	202	NSI		-62	251
	TUG2413	6,490,080	379,853	286	NSI		-58	274
	TUG2429	6,490,055	379,859	391	3.7m at 3.8g/t Au	129.0	-52	280
	TUG2457	6,490,016	379,849	435	NSI		-32	252
	TUG2458	6,490,030	379,863	432	NSI		-39	260
At WZ_link	TUG2366	6,489,429	379,796	1,036	NSI		-34	177
	TUG2366A	6,489,429	379,796	1,036	NSI		-34	177
Helios E Shear	TUG2311	6,490,072	379,921	487	3.3m at 2.1g/t Au	30.2	-16	320
	TUG2312	6,490,080	379,921	488	1m at 5.6g/t Au	37.5	-12	329
	TUG2315A	6,490,048	379,921	483	1.2m at 3.5g/t Au	22.0	-31	276
	TUG2316	6,490,046	379,927	483	2.6m at 16.1g/t Au	16.8	-40	281
	TUG2316A	6,490,049	379,928	483	1.6m at 2.4g/t Au	16.5	-40	281
	TUG2317	6,490,053	379,929	484	0.6m at 41.7g/t Au	17.5	-36	304
	TUG2318A	6,490,062	379,928	484	1m at 4.3g/t Au	21.7	-29	316
	TUG2319	6,490,065	379,931	483	NSI		-30	328
	TUG2320	6,490,043	379,928	481	2.7m at 37.8g/t Au	16.3	-46	259
	TUG2321	6,490,049	379,931	483	1m at 17.3g/t Au	15.0	-48	285
	TUG2376	6,490,127	379,944	492	NSI		-2	325
	TUG2427	6,490,045	379,931	482	0.5m at 24.6g/t Au	15.1	-52	266
	TUG2429	6,490,048	379,932	483	2m at 5.8g/t Au	14.0	-52	280
	TUG2457	6,490,038	379,919	481	2.3m at 4.5g/t Au	25.0	-32	252
	TUG2458	6,490,042	379,926	482	2m at 2.2g/t Au	17.9	-39	260

Prospect/ Lode	Hole	Collar N	Collar E	Collar RL	Intercept (True Width)	From (m)	Dip	Azi
EZ 1185	TUG2343	6,489,313	379,802	1,200	NSI		43	96
	TUG2344	6,489,312	379,790	1,191	0.2m at 44.1g/t Au	3.6	51	130
	TUG2345	6,489,293	379,811	1,206	1.2m at 28.8g/t Au	28.4	38	100
	TUG2345	6,489,292	379,814	1,208	0.9m at 6.7g/t Au	32.0	38	100
	TUG2346	6,489,286	379,803	1,205	1.7m at 4g/t Au	23.0	46	124
	TUG2346	6,489,281	379,810	1,213	6m at 4.4g/t Au	33.0	46	124
	TUG2347	6,489,280	379,807	1,202	NSI		31	128
	TUG2348	6,489,265	379,805	1,210	NSI		35	154
	TUG2341	6,489,333	379,811	1,212	NSI		44	50
	TUG2342	6,489,314	379,789	1,193	NSI		69	86
Helios Shear	TUG2312	6,490,161	379,870	467	8m at 2.3g/t Au	128.0	-12	329
	TUG2311	6,490,130	379,874	466	35m at 0.8g/t Au	90.0	-16	320
	TUG2318A	6,490,120	379,873	440	NSI		-29	316
	TUG2319	6,490,151	379,877	426	NSI		-30	328
	TUG2371	6,490,195	379,877	504	NSI		2	320
	TUG2374	6,490,190	379,880	425	8m at 1.1g/t Au	168.0	-23	320
	TUG2376	6,490,217	379,883	484	NSI		-2	325
	TUG2370	6,490,196	379,880	526	NSI		10	320
	TUG2372	6,490,190	379,881	476	NSI		-7	320
	TUG2373	6,490,188	379,884	454	NSI		-15	320
	TUG2315A	6,490,053	379,881	459	2.5m at 5.4g/t Au	68.0	-31	276
Helios Core	TUG2309	6,490,149	379,876	484	5m at 1.9g/t Au	116.6	-4	328
	TUG2306	6,490,058	379,870	476	8.9m at 5.4g/t Au	69.5	-15	277
	TUG2307	6,490,094	379,874	473	8.1m at 15.5g/t Au	80.0	-60	270
	TUG2308	6,490,119	379,876	482	3.8m at 5.8g/t Au	96.0	-7	318
	TUG2310	6,490,075	379,869	467	7.5m at 4.7g/t Au	78.0	-21	292
	TUG2311	6,490,128	379,876	467	NSI		-16	320
	TUG2313	6,490,013	379,865	463	4.8m at 8.4g/t Au	86.0	-22	247
	TUG2314	6,490,029	379,867	457	6.2m at 6.8g/t Au	80.5	-27	259
	TUG2315A	6,490,055	379,865	449	3.6m at 2.9g/t Au	86.8	-31	276
	TUG2316A	6,490,060	379,867	433	14m at 2.1g/t Au	87.0	-40	281
	TUG2317	6,490,091	379,871	434	18m at 5.2g/t Au	88.5	-36	304
	TUG2320	6,490,026	379,857	407	11m at 2.5g/t Au	114.0	-46	259
	TUG2321	6,490,062	379,871	416	17m at 2.4g/t Au	93.6	-48	285
	TUG2458	6,490,030	379,863	432	18m at 2.7g/t Au	85.5	-39	260

GOLD DIVISION – HGO
TABLE OF RESULTS FOR THE QUARTER (CONTINUED)

Prospect/ Lode	Hole	Collar N	Collar E	Collar RL	Intercept (True Width)	From (m)	Dip	Azi
Helios Core	TUG2457	6,490,020	379,861	443	6.9m at 1.7g/t Au	94.5	-32	252
	TUG2413	6,490,077	379,882	331	5m at 2.4g/t Au	189.5	-58	274
	TUG2427	6,490,038	379,859	391	4m at 2.4g/t Au	128.5	-52	266
	TUG2428	6,490,047	379,867	410	16m at 2.6g/t Au	96.0	-50	274
	TUG2429	6,490,054	379,870	404	10.5m at 2.7g/t Au	106.7	-52	280
Helios HW Quartz	TUG2313	6,490,013	379,864	462	0.6m at 36.4g/t Au	89.3	-22	247
	TUG2314	6,490,030	379,868	457	0.8m at 31.5g/t Au	83.1	-27	259
	TUG2457	6,490,023	379,871	449	1.3m at 55.8g/t Au	85.2	-32	252
Poseidon	TUG2329A	6,489,030	379,803	1,204	1.8m at 5.5g/t Au	86.0	58	124
	TUG2330	6,489,032	379,830	1,187	NSI		40	111
	TUG2334A	6,489,059	379,819	1,181	4.9m at 2.5g/t Au	73.0	44	89
	TUG2336	6,489,067	379,807	1,191	2.8m at 10.1g/t Au	74.0	56	74
	TUG2337	6,489,085	379,840	1,182	1.3m at 10.7g/t Au	96.2	34	70
	TUG2333	6,489,053	379,798	1,191	NSI		62	95
	TUG2332	6,489,038	379,834	1,126	2.1m at 22.4g/t Au	69.5	-1	106
	TUG2335	6,489,051	379,811	1,152	NSI		26	98
	TUG2420	6,489,023	379,826	1,138	NSI		43	93
	TUG2421	6,489,017	379,817	1,144	NSI		72	89
	TUG2422	6,489,018	379,834	1,131	NSI		25	90
	TUG2330	6,489,047	379,789	1,151	2.8m at 6.5g/t Au	32.2	40	111
	TUG2331	6,489,037	379,803	1,144	NSI		20	117
	TUG2340	6,489,095	379,823	1,151	4.8m at 3.7g/t Au	72.0	5	82
	TUG2340	6,489,086	379,810	1,146	3.7m at 3.4g/t Au	56.0	5	82
	TUG2339	6,489,067	379,839	1,134	NSI		5	82
	TUG2338	6,489,066	379,809	1,142	4.1m at 2.6g/t Au	45.2	18	78
WZ FW1	TUG2367	6,489,413	379,793	1,038	NSI		3	191
	TUG2368	6,489,401	379,788	1,051	NSI		24	192
	LKCR262	6,496,416	394,064	287	2.1m at 7.53g/t Au	75.0	-60.0	055
	LKCR263	6,496,404	394,064	286	4.2m at 2.58g/t Au	25.0	-60.0	055
	LKCR263	6,496,404	394,064	286	4.2m at 1.23g/t Au	34.0	-60.0	055
Wills	HIGA7122	6,514,470	370,880	296	NSI		-90.0	000
	HIGA7123	6,514,450	370,880	296	NSI		-90.0	000
	HIGA7124	6,514,431	370,880	296	NSI		-90.0	000
	HIGA7125	6,514,487	370,947	296	NSI		-90.0	000

Prospect/ Lode	Hole	Collar N	Collar E	Collar RL	Intercept (True Width)	From (m)	Dip	Azi
Wills	HIGA7126	6,514,495	370,957	296	NSI		-90.0	000
	HIGA7127	6,514,487	370,990	297	NSI		-90.0	000
	HIGA7128	6,514,523	370,990	296	NSI		-90.0	000
	HIGA7129	6,514,547	371,009	296	7m at 0.87g/t Au	22.0	-90.0	000
	HIGA7130	6,514,560	371,020	296	6m at 2.52g/t Au	20.0	-90.0	000
	HIGA7130	6,514,560	371,020	296	NSI		-90.0	000
	HIGA7131	6,514,566	371,030	296	4m at 1.67g/t Au	21.0	-90.0	000
	HIGA7132	6,514,581	371,051	297	3m at 6.37g/t Au	23.0	-90.0	000
	HIGA7133	6,514,589	371,047	296	9m at 6.34g/t Au	22.0	-90.0	000
	HIGA7134	6,514,586	371,033	296	2m at 2.96g/t Au	22.0	-90.0	000
	HIGA7135	6,514,607	370,991	296	2m at 3.85g/t Au	21.0	-90.0	000
	HIGA7135	6,514,607	370,991	296	NSI		-90.0	000
	HIGA7136	6,514,586	370,976	296	NSI		-90.0	000
	HIGA7137	6,514,609	370,970	296	NSI		-90.0	000
	HIGA7138	6,514,579	370,998	296	2m at 8.87g/t Au	22.0	-90.0	000
	HIGA7139	6,514,633	370,900	295	NSI		-90.0	000
	HIGA7140	6,514,611	370,899	295	NSI		-90.0	000
	HIGA7141	6,514,581	371,071	297	NSI		-90.0	000
	HIGA7142	6,514,607	371,069	297	NSI		-90.0	000
	HIGA7143	6,514,607	371,089	297	3m at 1.69g/t Au	24.0	-90.0	000
	HIGA7144	6,514,613	371,122	297	4m at 1.41g/t Au	21.0	-90.0	000
	HIGA7145	6,514,606	371,111	297	4m at 2.33g/t Au	21.0	-90.0	000
	HIGA7146	6,514,606	371,148	297	7m at 9.64g/t Au	23.0	-90.0	000
	HIGA7147	6,514,615	371,169	297	NSI		-90.0	000
	HIGA7148	6,514,607	371,189	298	NSI		-90.0	000
	HIGA7148	6,514,607	371,189	298	NSI		-90.0	000
	HIGA7149	6,514,624	371,189	298	8m at 1.41g/t Au	24.0	-90.0	000
	HIGA7150	6,514,615	371,171	297	2m at 3.07g/t Au	22.0	-90.0	000
	HIGA7151	6,514,674	370,901	296	NSI		-90.0	000
	HIGA7152	6,514,657	370,901	296	4m at 1.29g/t Au	17.0	-90.0	000
	HIGA7153	6,514,690	370,860	296	NSI		-90.0	000
	HIGA7154	6,514,670	370,858	296	NSI		-90.0	000
	HIGA7155	6,514,647	370,861	295	NSI		-90.0	000
	HIGA7156	6,514,627	370,860	295	NSI		-90.0	000

GOLD DIVISION – HGO
TABLE OF RESULTS FOR THE QUARTER (CONTINUED)

Prospect/ Lode	Hole	Collar N	Collar E	Collar RL	Intercept (True Width)	From (m)	Dip	Azi
Josephine	JOGC100	6,496,376	394,617	287	5.2m at 5.36g/t Au	1.0	-60.0	055
	JOGC099	6,496,371	394,609	287	6.3m at 3.74g/t Au	15.0	-60.0	055
	JOGC098	6,496,366	394,637	287	2.9m at 7.84g/t Au	7.0	-60.0	055
	JOGC097	6,496,361	394,629	287	13.8m at 0.62g/t Au	0.0	-60.0	055
	JOGC096	6,496,355	394,621	286	NSI		-60.0	055
	JOGC096	6,496,355	394,621	286	NSI		-60.0	055
	JOGC095	6,496,354	394,655	287	NSI		-60.0	055
	JOGC094	6,496,348	394,646	287	NSI		-60.0	055
	JOGC093	6,496,342	394,638	286	NSI		-60.0	055
	JOGC092	6,496,337	394,665	286	3.4m at 2.31g/t Au	1.0	-60.0	055
	JOGC091	6,496,332	394,658	286	3.4m at 1.5g/t Au	14.0	-60.0	055
	JOGC090	6,496,321	394,676	286	NSI		-60.0	055
Napoleon	LKCR235	6,496,564	393,980	291	NSI		-60.0	055
	LKCR235	6,496,564	393,980	291	NSI		-60.0	055
	LKCR236	6,496,558	393,988	291	NSI		-60.0	055
	LKCR237	6,496,585	394,044	291	NSI		-60.0	055
	LKCR238	6,496,576	394,032	290	NSI		-60.0	055
	LKCR239	6,496,549	393,993	292	NSI		-60.0	055
	LKCR239	6,496,549	393,993	292	NSI		-60.0	055
	LKCR240	6,496,562	394,029	291	3.5m at 1.99g/t Au	2.0	-60.0	055
	LKCR240	6,496,562	394,029	291	NSI		-60.0	055
	LKCR241	6,496,548	394,009	291	2.8m at 2.4g/t Au	12.0	-60.0	055
	LKCR241	6,496,548	394,009	291	4.2m at 1.51g/t Au	19.0	-60.0	055
	LKCR242	6,496,557	394,040	291	NSI		-60.0	055
	LKCR243	6,496,542	394,014	291	NSI		-60.0	055
	LKCR244	6,496,529	394,016	291	NSI		-60.0	055
	LKCR244	6,496,529	394,016	291	NSI		-60.0	055
	LKCR244	6,496,529	394,016	291	NSI		-60.0	055
	LKCR245	6,496,549	394,062	290	NSI		-60.0	055
	LKCR246	6,496,532	394,039	291	NSI		-60.0	055
	LKCR246	6,496,532	394,039	291	NSI		-60.0	055
	LKCR247	6,496,514	394,013	292	4.9m at 2.9g/t Au	32.0	-60.0	055
	LKCR248	6,496,498	394,024	291	NSI		-60.0	055

Prospect/ Lode	Hole	Collar N	Collar E	Collar RL	Intercept (True Width)	From (m)	Dip	Azi
Napoleon	LKCR248	6,496,498	394,024	291	6.4m at 0.81g/t Au	36.0	-60.0	055
	LKCR249	6,496,489	394,012	292	NSI		-60.0	055
	LKCR252	6,496,445	394,019	290	9.9m at 1.66g/t Au	8.0	-60.0	055
	LKCR252	6,496,445	394,019	290	9.9m at 1.64g/t Au	25.0	-60.0	055
	LKCR252	6,496,445	394,019	290	19.1m at 4.12g/t Au	42.0	-60.0	055
	LKCD003	6,496,429	394,066	287	7.5m at 0.84g/t Au	54.0	-60.0	055
	LKCD004	6,496,476	394,029	290	NSI		-60.0	055
	LKCR250	6,496,450	394,016	290	7.1m at 2.62g/t Au	25.0	-60.0	055
	LKCR250	6,496,450	394,016	290	9.9m at 4.3g/t Au	58.0	-60.0	055
	LKCR251	6,496,457	394,036	289	NSI		-60.0	055
	LKCR253	6,496,434	394,003	290	6.4m at 1.9g/t Au	75.0	-60.0	055
	LKCR254	6,496,445	394,053	289	3.5m at 1.86g/t Au	59.0	-60.0	055
	LKCR255	6,496,419	394,017	290	NSI		-60.0	055
	LKCR256	6,496,444	394,105	286	NSI		-60.0	055
	LKCR257	6,496,455	394,086	287	2.8m at 2.45g/t Au	35.0	-60.0	055
	LKCR258	6,496,439	394,079	287	7.8m at 9.77g/t Au	47.0	-60.0	055
	LKCR259	6,496,421	394,055	288	3.5m at 1.83g/t Au	16.0	-60.0	055
	LKCR259	6,496,421	394,055	288	8.5m at 1.66g/t Au	65.0	-60.0	055
	LKCR260	6,496,404	394,030	287	4.9m at 1.44g/t Au	82.0	-60.0	055
	LKCR261	6,496,422	394,091	286	4.2m at 2g/t Au	47.0	-60.0	055
	LKCR262	6,496,416	394,064	287	4.9m at 1.07g/t Au	59.0	-60.0	055
	LKCR262	6,496,416	394,064	287	2.1m at 7.53g/t Au	75.0	-60.0	055
	LKCR263	6,496,404	394,064	286	4.2m at 2.58g/t Au	25.0	-60.0	055
	LKCR263	6,496,404	394,064	286	4.2m at 1.23g/t Au	34.0	-60.0	055
	LKCR264	6,496,393	394,049	287	NSI		-60.0	055
Louis	LKCR181	6,495,775	395,517	285	NSI		-60.0	055
	LKCR182	6,495,781	395,508	285	NSI	22.0	-61.0	055
	LKCR184	6,495,799	395,496	284	NSI	16.0	-60.8	055
	LKCR185	6,495,801	395,484	284	NSI	19.0	-60.0	055
	LKCR186	6,495,808	395,475	284	NSI	7.0	-60.0	055
	LKCR213	6,495,453	395,728	282	NSI		-60.5	055
	LKCR220	6,495,813	395,448	283	NSI	0.0	-60.0	055
	LKCR221	6,495,837	395,448	284	NSI		-55.0	055
	LKCR222	6,495,836	395,446	283	NSI	10.0	-60.0	055
	LKCR222	6,495,836	395,446	283	NSI	16.0	-60.0	055

GOLD DIVISION – HGO
TABLE OF RESULTS FOR THE QUARTER (CONTINUED)

Prospect/ Lode	Hole	Collar N	Collar E	Collar RL	Intercept (True Width)	From (m)	Dip	Azi
Louis	LKCR223	6,495,830	395,437	283	NSI	3.0	-60.0	055
	LKCR223	6,495,830	395,437	283	NSI	12.0	-60.0	055
	LKCR223	6,495,830	395,437	283	NSI	21.0	-60.0	055
	LKCR224	6,495,840	395,436	283	NSI	3.0	-60.0	055
	LKCR224	6,495,840	395,436	283	NSI	19.0	-60.5	055
	LKCR225	6,495,849	395,431	283	NSI	9.0	-60.6	055
Voltaire	LKCR265	6,496,071	394,920	278	NSI		-60.0	055
	LKCR266	6,496,062	394,908	278	NSI		-60.4	057
	LKCR267	6,496,054	394,897	278	NSI		-61.0	056
Wills Head Waters	WILC003	6,514,458	370,944	297	NSI		-60.0	230
	WILC004	6,514,418	370,884	296	NSI		-60.0	230
	WILC005	6,514,371	370,835	296	NSI		-60.0	230
	WILC006	6,514,318	370,768	296	NSI		-60.0	230
	WILC007	6,514,266	370,707	296	NSI		-60.0	230
	WILC008	6,514,222	370,642	296	NSI		-60.0	230

GOLD DIVISION – SKO
TABLE OF RESULTS FOR THE QUARTER

Prospect/ Lode	Hole	Collar N	Collar E	Collar RL	Intercept (Downhole Width)	From (m)	Dip	Azi
Peaceful Chief	PCFRC005	6,567,850	366,730	366	6m at 2.07g/t Au	19.0	-60.0	90.0
	PCFRC007	6,567,863	366,730	366	2m at 3.34g/t Au	20.0	-60.0	90.0
	PCFRC009A	6,567,887	366,745	366	3m at 1.94g/t Au	10.0	-60.0	90.0
	PCFRC012A	6,567,912	366,735	366	5m at 1.18g/t Au	16.0	-60.0	90.0
	PCFRC014	6,567,938	366,725	366	6m at 1.39g/t Au	23.0	-60.0	90.0
	PCFRC015	6,567,950	366,738	366	4m at 2.01g/t Au	13.0	-60.0	90.0
	PCFRC017	6,567,963	366,745	366	4m at 2.94g/t Au	11.0	-60.0	90.0
	PCFRC024	6,567,988	366,715	367	9m at 1.49g/t Au	21.0	-60.0	90.0
	PCFRC025	6,567,963	366,700	367	3m at 1.79g/t Au	26.0	-60.0	90.0
		6,567,963	366,700	367	6m at 3.01g/t Au	31.0	-60.0	90.0
	PCFRC027	6,568,000	366,696	368	8m at 1.23g/t Au	42.0	-60.0	90.0
	PCFRC032	6,568,013	366,690	368	3m at 9.75g/t Au	44.0	-65.0	90.0
	PCFRC037	6,567,775	366,770	366	3m at 2.91g/t Au	23.0	-60.0	90.0
	PCFRC049	6,568,013	366,675	369	3m at 4.84g/t Au	57.0	-60.0	90.0
	PCFRC051	6,568,026	366,678	370	2m at 3.51g/t Au	62.0	-60.0	90.0

Prospect/ Lode	Hole	Collar N	Collar E	Collar RL	Intercept (Downhole Width)	From (m)	Dip	Azi
Dusk	DSKRC025	6,557,048	371,600	333	3m at 1.86g/t Au	18.0	-60.0	90.0
	DSKRC029	6,557,068	371,560	333	3m at 1.88g/t Au	27.0	-60.0	90.0
	DSKRC033	6,557,088	371,565	333	14m at 1.49g/t Au	10.0	-55.0	90.0
	DSKRC037	6,557,118	371,550	332	2m at 3.14g/t Au	26.0	-70.0	90.0
		6,557,118	371,550	332	12m at 1.69g/t Au	46.0	-70.0	90.0
	DSKRC039	6,557,130	371,560	332	8m at 1.9g/t Au	8.0	-60.0	90.0
	DSKRC040	6,557,130	371,545	332	3m at 3.66g/t Au	39.0	-60.0	90.0
	DSKRC041	6,557,148	371,565	331	2m at 4.5g/t Au	0.0	-60.0	90.0
	DSKRC042	6,557,148	371,550	331	2m at 2.52g/t Au	20.0	-60.0	90.0
		6,557,148	371,550	331	8m at 1.17g/t Au	31.0	-60.0	90.0
Dusk	DSKRC043	6,557,158	371,545	331	6m at 1.24g/t Au	25.0	-60.0	90.0
		6,557,158	371,545	331	6m at 3.58g/t Au	43.0	-60.0	90.0
	DSKRC044	6,557,168	371,555	331	12m at 1.78g/t Au	8.0	-60.0	90.0
	DSKRC045	6,557,168	371,540	331	4m at 1.66g/t Au	30.0	-60.0	90.0
	DSKRC047	6,557,188	371,540	331	5m at 3.31g/t Au	20.0	-60.0	90.0
		6,557,188	371,540	331	3m at 1.86g/t Au	32.0	-60.0	90.0
	DSKRC048	6,557,210	371,555	331	12m at 3.66g/t Au	11.0	-60.0	90.0
	DSKRC049	6,557,210	371,540	331	4m at 4.66g/t Au	24.0	-60.0	90.0
	DSKRC051	6,557,228	371,540	331	6m at 1.71g/t Au	16.0	-60.0	90.0
	DSKRC052	6,557,250	371,545	331	5m at 1.41g/t Au	6.0	-50.0	90.0
Erebus	EBSRC060	6,567,124	350,490	388	4m at 1.51g/t Au	61.0	-60.0	270.0
	EBSRC062	6,567,138	350,455	389	8m at 2.33g/t Au	24.0	-60.0	270.0
	EBSRC063	6,567,138	350,470	388	6m at 1.32g/t Au	40.0	-60.0	270.0
		6,567,138	350,470	388	3m at 4.45g/t Au	52.0	-60.0	270.0
	EBSRC064	6,567,150	350,475	388	5m at 2.54g/t Au	54.0	-60.0	270.0
	EBSRC065	6,567,150	350,490	388	9m at 0.77g/t Au	68.0	-60.0	270.0
	EBSRC068	6,567,163	350,470	388	4m at 1.51g/t Au	53.0	-60.0	270.0
	EBSRC070	6,567,188	350,435	388	12m at 2.3g/t Au	9.0	-55.0	270.0
	EBSRC071	6,567,188	350,445	388	4m at 1.26g/t Au	23.0	-60.0	270.0
	EBSRC072	6,567,200	350,430	387	7m at 1.59g/t Au	6.0	-55.0	270.0
	EBSRC074	6,567,213	350,430	387	15m at 2.2g/t Au	14.0	-55.0	270.0
	EBSRC075	6,567,213	350,445	387	11m at 3.31g/t Au	34.0	-55.0	270.0
	EBSRC076	6,567,225	350,425	387	18m at 1.71g/t Au	12.0	-55.0	270.0
	EBSRC077	6,567,225	350,440	386	15m at 1.31g/t Au	33.0	-55.0	270.0
	EBSRC078	6,567,225	350,455	386	13m at 2.66g/t Au	56.0	-55.0	270.0

GOLD DIVISION – SKO
TABLE OF RESULTS FOR THE QUARTER (CONTINUED)

Prospect/ Lode	Hole	Collar N	Collar E	Collar RL	Intercept (Downhole Width)	From (m)	Dip	Azi
Erebus	EBSRC079	6,567,238	350,415	386	16m at 1.49g/t Au	5.0	-55.0	270.0
	EBSRC081	6,567,238	350,445	386	5m at 5.77g/t Au	49.0	-55.0	270.0
	EBSRC082	6,567,263	350,410	386	7m at 1.55g/t Au	14.0	-55.0	270.0
	EBSRC084	6,567,288	350,395	386	3m at 2.28g/t Au	21.0	-55.0	270.0
	EBSRC085	6,567,288	350,410	386	2m at 3.52g/t Au	22.0	-55.0	270.0
	EBSRC092	6,567,396	350,370	384	3m at 2.77g/t Au	4.0	-55.0	270.0
	EBSRC095	6,567,415	350,370	383	3m at 2.4g/t Au	20.0	-55.0	270.0
	EBSRC096	6,567,415	350,380	383	7m at 5.12g/t Au	23.0	-55.0	270.0
		6,567,415	350,380	383	3m at 4.41g/t Au	36.0	-55.0	270.0
	EBSRC099	6,567,435	350,385	382	6m at 1.5g/t Au	39.0	-55.0	270.0
		6,567,435	350,385	382	6m at 1.04g/t Au	54.0	-55.0	270.0
	EBSRC100	6,567,463	350,375	382	2m at 2.6g/t Au	33.0	-50.0	270.0
	EBSRC100	6,567,463	350,375	382	7m at 1.94g/t Au	41.0	-50.0	270.0
	EBSRC102	6,567,475	350,325	383	3m at2.59g/t Au	41.0	-55.0	90.0
		6,567,475	350,325	383	11m at 1.51g/t Au	48.0	-55.0	90.0
	EBSRC103	6,567,485	350,375	382	2m at 5.37g/t Au	28.0	-55.0	270.0
		6,567,485	350,375	382	3m at 2.61g/t Au	37.0	-55.0	270.0
		6,567,485	350,375	382	11m at 3.63g/t Au	43.0	-55.0	270.0
	EBSRC104	6,567,510	350,320	382	6m at 1.38g/t Au	20.0	-55.0	90.0
		6,567,510	350,320	382	11m at 1.88g/t Au	32.0	-55.0	90.0
	EBSRC106	6,567,540	350,360	382	6m at 1.15g/t Au	26.0	-55.0	270.0
	EBSRC108	6,567,650	350,303	383	7m at 1.04g/t Au	12.0	-50.0	90.0
	EBSRC110	6,567,660	350,290	385	13m at 1.45g/t Au	30.0	-50.0	90.0
	EBSRC111	6,567,670	350,306	383	2m at 3.12g/t Au	6.0	-50.0	90.0
	EBSRC112	6,567,685	350,302	384	3m at 1.71g/t Au	2.0	-50.0	90.0
	EBSRC115	6,567,725	350,320	383	17m at 1.67g/t Au	13.0	-50.0	270.0
	EBSRC117	6,567,773	350,307	383	8m at 0.84g/t Au	28.0	-55.0	270.0
Samphire	STSF11A	6,562,581	359,908	340	16m at 1.01g/t Au	12.0	-90.0	0.0

GOLD DIVISION – CMGP
TABLE OF RESULTS FOR THE QUARTER

Prospect/ Lode	Hole	Collar N	Collar E	Collar RL	Intercept (True Width)	From (m)	Dip	Azi
Cuddy South	CDAC1765	6,961,600	580,130	420	3m at 0.72g/t Au	33.0	-60	270
		6,961,600	580,130	420	2m at 2.94g/t Au	59.0	-60	270

TIN DIVISION – RENISON
TABLE OF RESULTS FOR THE QUARTER

Prospect/ Lode	Hole	Intercept N	Intercept E	Intercept RL	Intercept (True Width)	From (m)	Dip	Azi
Area 4kay	U4950				NSI			
	U4951	66,708	44,468	1,354	1.8m at 2.28% Sn	53.0	29.7	29.8
	U4951	66,716	44,473	1,359	2.3m at 3.3% Sn	63.7	29.7	29.8
	U4952	66,673	44,476	1,343	1.7m at 11.32% Sn	22.0	35.8	77.1
	U4953				NSI			
	U5059	66,538	44,530	1,219	2.6m at 7.21% Sn	75.1	-0.4	136.6
	U5059	66,524	44,540	1,219	1.1m at 4.19% Sn	92.5	-0.4	136.6
	U5059	66,514	44,546	1,219	5.4m at 2.61% Sn	102.0	-0.4	136.6
	U5130				NSI			
	U5131	66,523	44,520	1,245	2.5m at 1.9% Sn	4.3	-17.0	134.2
	U5131	66,499	44,546	1,234	1m at 23.4% Sn	40.2	-17.0	134.2
	U5132	66,505	44,544	1,233	1.6m at 3.89% Sn	34.7	-21.6	128.2
	U5133				NSI			
	U5136	66,536	44,522	1,246	3.1m at 2.14% Sn	0.3	-2.2	96.5
	U5140				NSI			
	U5141				NSI			
	U5142				NSI			
	U5143				NSI			
	U5144				NSI			
	U5145				NSI			
	U5146				NSI			
	U5148	66,674	44,474	1,311	1.4m at 1.23% Sn	21.0	-41.4	72.4
	U5149				NSI			
	U5150	66,714	44,478	1,337	2m at 12.67% Sn	60.3	10.4	35.8
	U5190	66,572	44,521	1,243	2.3m at 0.74% Sn	0.0	-56.0	315.4
	U5191	66,563	44,518	1,243	2.3m at 2.34% Sn	3.0	-24.5	214.6
	U5192A	66,557	44,535	1,233	4.9m at 1.59% Sn	18.0	-34.3	282.3
	U5193				NSI			
	U5193A	66,550	44,533	1,239	1.8m at 1.92% Sn	12.6	-27.0	249.4
	U5193A	66,546	44,522	1,233	4.8m at 4.08% Sn	24.0	-27.0	249.4
	U5193A	66,544	44,519	1,231	1m at 4.05% Sn	30.0	-27.0	249.4

TIN DIVISION – RENISON
TABLE OF RESULTS FOR THE QUARTER (CONTINUED)

Prospect/ Lode	Hole	Intercept N	Intercept E	Intercept RL	Intercept (True Width)	From (m)	Dip	Azi
Area 4kay	U5194				NSI			
	U5195	66,610	44,518	1,237	1.1m at 1.68% Sn	11.5	-37.8	233.0
	U5196	66,618	44,524	1,241	1.5m at 9.17% Sn	3.2	-46.1	290.0
	U5197				NSI			
	U5198				NSI			
	U5199				NSI			
Central Federal Bassett	U5139				NSI			
	U5164				NSI			
	U5165				NSI			
	U5166	66,416	44,514	1,365	1.6m at 1.61% Sn	1.0	40.2	111.4
	U5167	66,421	44,523	1,364	0.9m at 22.65% Sn	10.7	12.4	53.4
	U5168	66,417	44,517	1,358	1.1m at 1.19% Sn	3.5	-29.5	52.3
	U5169				NSI			
	U5170				NSI			
	U5171	66,446	44,516	1,354	1.3m at 1.43% Sn	10.5	-38.1	99.6
	U5172				NSI			
	U5173	66,450	44,517	1,378	1.3m at 11.86% Sn	16.0	51.4	78.0
	U5174				NSI			
	U5175				NSI			
	U5176				NSI			
	U5177				NSI			
	U5178	66,278	44,507	1,417	1.3m at 1.41% Sn	44.0	-31.1	99.6
	U5179				NSI			
	U5180	66,268	44,499	1,438	0.9m at 3.15% Sn	34.1	-4.4	119.0
	U5181	66,293	44,500	1,438	2.2m at 1.62% Sn	31.0	76.1	-5.6
	U5181	66,296	44,515	1,436	2m at 2.92% Sn	46.0	76.1	-5.6
	U5182	66,280	44,490	1,483	6.3m at 3.56% Sn	43.1	60.0	104.1
	U5183	66,294	44,493	1,471	8.1m at 4.16% Sn	35.7	50.0	68.5
	U5184	66,329	44,499	1,436	2.5m at 0.99% Sn	30.4	-1.1	79.5
	U5185	66,328	44,494	1,457	3.8m at 1.39% Sn	29.4	33.5	80.5
	U5186	66,321	44,487	1,478	3.8m at 1.36% Sn	39.4	61.7	96.4
	U5187	66,336	44,480	1,492	2.1m at 0.6% Sn	52.1	71.3	48.1
	U5188				NSI			
	U5189				NSI			

Prospect/ Lode	Hole	Intercept N	Intercept E	Intercept RL	Intercept (True Width)	From (m)	Dip	Azi
Central Federal Bassett	U5200				NSI			
	U5201	66,465	44,513	1,382	2.3m at 20.17% Sn	12.6	-0.2	86.3
	U5202				NSI			
	U5211	66,160	44,497	1,470	8.8m at 5.07% Sn	56.8	14.2	77.2
	U5212	66,137	44,494	1,470	2m at 1.71% Sn	58.0	15.0	100.0
	U5216	66,129	44,487	1,479	1.4m at 5.47% Sn	54.7	25.4	105.5
	U5216	66,128	44,491	1,481	4.6m at 1.28% Sn	57.7	25.4	105.5
	U5216	66,126	44,500	1,485	4.8m at 5.55% Sn	67.7	25.4	105.5
	U5216	66,123	44,509	1,490	1.5m at 4.18% Sn	80.4	25.4	105.5
	U5218	66,119	44,496	1,454	3.5m at 1.36% Sn	60.0	0.2	113.6
	U5220	66,090	44,495	1,455	9.3m at 3.39% Sn	71.5	1.3	129.0
	U5220	66,081	44,506	1,455	4.7m at 2.39% Sn	89.4	1.3	129.0
	U5223	66,096	44,487	1,467	1.5m at 5.24% Sn	67.3	10.4	131.4
	U5223	66,087	44,497	1,470	2.2m at 1.17% Sn	82.0	10.4	131.4
	U5223	66,076	44,509	1,473	5.9m at 2.44% Sn	95.5	10.4	131.4
	U5231	66,459	44,507	1,388	2.3m at 7.15% Sn	9.0	23.5	121.6
	U5232				NSI			
	U5233	66,177	44,569	1,382	0.8m at 2.18% Sn	27.1	-11.6	83.4
	U5234				NSI			
	U5238A				NSI			
	U5250	65,951	44,517	1,430	1m at 4.07% Sn	21.4	-7.4	198.3
Upper Federal	U5151	65,697	44,348	1,918	5.3m at 1.53% Sn	1.0	15.2	275.3
	U5152				NSI			
	U5153				NSI			
	U5154	65,715	44,365	1,920	2m at 1.02% Sn	8.0	14.4	96.0
	U5155				NSI			
	U5156	65,733	44,361	1,918	2.9m at 0.88% Sn	0.4	14.0	101.0
	U5157	65,750	44,356	1,919	3.3m at 1.03% Sn	0.0	14.4	283.1
	U5158	65,766	44,350	1,922	1.9m at 1.53% Sn	11.0	14.5	285.0
	U5159	65,788	44,352	1,924	2.9m at 0.92% Sn	15.3	16.3	306.1
	U5160				NSI			
	U5161				NSI			
	U5162	65,637	44,352	1,919	9.5m at 1.02% Sn	9.0	15.5	96.2
	U5163				NSI			

BASE METALS – WARUMPI
TABLE OF RESULTS FOR THE QUARTER

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

APPENDIX 1 – JORC 2012 TABLE 1 – GOLD DIVISION
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.	**HGO** • Diamond Drilling The bulk of the data used in resource calculations at Trident has been gathered from diamond core. Four types of diamond core sample have been historically collected. The predominant sample method is half-core NQ2 diamond with half-core LTK60 diamond, Whole core LTK48 diamond and whole core BQ also used. This core is logged and sampled to geologically relevant intervals. The bulk of the data used in resource calculations at Chalice has been gathered from diamond core. The predominant drilling and sample type is half core NQ2 diamond. Occasionally whole core has been sampled to streamline the core handling process. Historically half and whole core LTK60 and half core HQ diamond have been used. This core is logged and sampled to geologically relevant intervals. • Face Sampling Each development face / round is chip sampled at both Trident and Chalice. One or two channels are taken per face perpendicular to the mineralisation. The sampling intervals are domained by geological constraints (e.g. rock type, veining and alteration / sulphidation etc.) with an effort made to ensure each 3 kg sample is representative of the interval being extracted. Samples are taken in a range from 0.1 m up to 1.2 m in waste / mullock. All exposures within the orebody are sampled. • Sludge Drilling Sludge drilling at Chalice and Trident is performed with an underground production drill rig. It is an open hole drilling method using water as the flushing medium, with a 64mm or 89mm hole diameter. Samples are taken twice per drill steel (1.9m steel, 0.8m sample). Holes are drilled at sufficient angles to allow flushing of the hole with water following each interval to prevent contamination. • RC Drilling For Fairplay, Vine, Lake Cowan, Two Boys, Mousehollow, Pioneer and Eundynie the bulk of the data used in the resource estimate is sourced from RC drilling. Minor RC drilling is also utilised at Trident, Musket, Chalice and the Palaeochannels (Wills, Pluto, Mitchell 3 & 4). Drill cuttings are extracted from the RC return via cyclone. The underflow from each 1 m 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. Samples to wet to be split through the riffle splitter are taken as grabs and are recorded as such.
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.	

Criteria	JORC Code Explanation	Commentary
		• RAB / Air Core Drilling Drill cuttings are extracted from the RAB and Aircore return via cyclone. 4m Composite samples are obtained by spear sampling from the individual 1m drill return piles; the residue material is retained on the ground near the hole. In the Palaeochannels 1m samples are riffle split for analysis. There is no RAB or Aircore drilling used in the estimation of Trident, Chalice, Corona, Fairplay, Vine, Lake Cowan and Two Boys. **SKO** SKO is a long-term producing operation with a long history of drilling and sampling to support exploration and resource development. • Sampling Techniques Chips from the RC drilling face-sampling hammer are collected for assaying. Sample return lines are cleaned with compressed air each metre and the cyclone sample collector is cleaned following each rod. Samples are riffle split through a three-tier splitter with a split ~3kg sample (generally at 1m intervals) pulverised to produce a 30g charge analysed via fire assay. Diamond drill-core is geologically logged and then sampled according to geology (minimum sample length of 0.4 m to maximum sample length of 1.5 m) – where consistent geology is sampled, a 1m length is used for sampling the core. The core is sawn half-core with one half sent off for analysis. Samples have been collected from numerous other styles of drilling at SKO, including but not limited to RAB, aircore, blast-hole, sludge drilling and face samples. • Drilling Techniques Historical data includes DD, RC, RAB and aircore holes drilled between 1984 and 2010. Not all the historical drilling programmes at SKO are documented and many historical holes are assigned a drill type of 'unknown'. Over 4,000 km of drilling has been completed on the tenure. Drilling by the most recent previous owners (Alacer Gold Corporation) has predominantly been RC, with minor DD and aircore drilling. RC drilling is used predominantly for defining and testing for near-surface mineralisation and utilises a face sampling hammer with the sample being collected on the inside of the drill-tube. RC drillholes utilise downhole single shot camera. Drillhole collars were surveyed by onsite mine surveyors. Diamond drilling is used for either testing / targeting deeper mineralised systems or to define the orientation of the host geology. Many of these holes had RC pre-collars generally to a depth of between 60 – 120 m, followed by a diamond tail. The majority of these holes have been drilled at NQ2 size with minor HQ sized core. All diamond holes were surveyed during drilling with down hole single shot cameras, and then at end of hole using a Gyro Inclinometer at 5 or 10 m intervals. Drillhole collars were surveyed by onsite mine surveyors.

Criteria	JORC Code Explanation	Commentary
		• Sample Recovery Sample recovery is generally good, and there is no indication that sampling presents a material risk for the quality of the evaluation of any deposit at SKO. **CMGP** • Diamond Drilling A significant portion of the data used in resource calculations at the CMGP has been gathered from diamond core. Multiple sizes have been used historically. This core is geologically logged and subsequently halved for sampling. Grade control holes may be whole-cored to streamline the core handling process if required. • Face Sampling At each of the major past underground producers at the CMGP, each development face / round is horizontally chip sampled. The sampling intervals are domained by geological constraints (e.g. rock type, veining and alteration / sulphidation etc.). The majority of exposures within the orebody are sampled. • Sludge Drilling Sludge drilling at the CMGP was performed with an underground production drill rig. It is an open hole drilling method using water as the flushing medium, with a 64mm (nominal) hole diameter. Sample intervals are ostensibly the length of the drill steel. Holes are drilled at sufficient angles to allow flushing of the hole with water following each interval to prevent contamination. Sludge drilling is not used to inform resource models. • RC Drilling RC drilling has been utilised at the CMGP. 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. • RAB / Aircore Drilling Combined scoops from bucket dumps from cyclone for composite. Split samples taken from individual bucket dumps via scoop. RAB holes not included in the resource estimate. • Blast Hole Drilling Cuttings sampled via splitter tray per individual drill rod. Blast holes not included in the resource estimate. • 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.

Criteria	JORC Code Explanation	Commentary
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	• Metals X / Alacer / Avoca surface drill-holes are all orientated and have been logged in detail for geology, veining, alteration, mineralisation and orientated structure. Metals X / Alacer / Avoca underground drill-holes are logged in detail for geology, veining, alteration, mineralisation and structure. Core has been logged in enough detail to allow for the relevant mineral resource estimation techniques to be employed. • Surface core is photographed both wet and dry and underground core is photographed wet. All photos are stored on the companies servers, with the photographs from each hole contained within separate folders. • Development faces are mapped geologically. • RC, RAB and AirCore chips are geologically logged. • Sludge drilling is logged for lithology, mineralisation and vein percentage. • Logging is quantitative in nature. • All holes are logged completely, all faces are mapped 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.	**HGO** • NQ2 and LTK60 diameter core is sawn half core using a diamond-blade saw, with one half of the core consistently taken for analysis. LTK48 and BQ are whole core sampled. Sludge samples are dried then riffle split. • The un-sampled half of diamond core is retained for check sampling if required. • For the onsite Intertek facility the entire dried sample is jaw crushed (JC2500 or Boyd Crusher) to a nominal 85% passing 2 mm with crushing equipment cleaned between samples. An analytical sub-sample of approximately 500-750 g is split out from the crushed sample using a riffle splitter, with the coarse residue being retained for any verification analysis. Sample preparation techniques are appropriate for the type of analytical process. • Where Fire assay has been used the entire half core sample (3-3.5 kg) is crushed and pulverised (single stage mix and grind using LM5 mills) to a target of 85-90% passing 75µm in size. A 200g sub-sample is then separated out for analysis • Core and underground face samples are taken to geologically relevant boundaries to ensure each sample is representative of a geological domain. Sludge samples are taken to nominal sample lengths. • The sample size is considered appropriate for the grain size of the material being sampled. • For RC, RAB and Aircore chips regular field duplicates are collected and analysed for significant variance to primary results. • RAB and Aircore sub-samples are collected through spear sampling.

Criteria	JORC Code Explanation	Commentary
		SKO • NQ2 and HQ diameter core is sawn half core using a diamond-blade saw, with one half of the core consistently taken for analysis. Smaller sized core (LTK48 and BQ) are whole core sampled. The un-sampled half of diamond core is retained for check sampling if required. SKO staff collect the sample in pre-numbered calico sample bags which are then submitted to the laboratory for analysis. Delivery of the sample is by an SKO staff member and as such. • RC samples are collected at 1m intervals with the samples being riffle split through a three-tier splitter. The samples are collected by the RC drill crews in pre-numbered calico sample bags which are then collected by SKO staff for submission. Delivery of the sample to the laboratory is by an SKO staff member. • Upon delivery to the laboratory, the sample numbers are checked by the SKO staff member against the sample submission sheet. Sample numbers are recorded and tracked by the laboratory using electronic coding. • Sample preparation techniques are considered appropriate for the style of mineralisation being tested for – this technique is industry standard across the Eastern Goldfields. **CMGP** • Blast holes -Sampled via splitter tray per individual drill rods. • RAB / AC chips - Combined scoops from bucket dumps from cyclone for composite. Split samples taken from individual bucket dumps via scoop. • RC - Three tier riffle splitter (approximately 5kg sample). Samples generally dry. • Face Chips - Nominally chipped horizontally across the face from left to right, sub-set via geological features as appropriate. • Diamond Drilling - Half-core niche samples, sub-set via geological features as appropriate. Grade control holes may be whole-cored to streamline the core handling process if required. • Chips / core chips undergo total preparation. • Samples undergo fine pulverisation of the entire sample by an LM5 type mill to achieve a 75µ product prior to splitting. • 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 significant 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.	**HGO** • At the Intertek on-site facility, analysis is performed using a 500g PAL method. The accurately weighed sub-sample is further processed utilising a PAL1000B to grind the sample to a nominal 90% passing 75µm particle size, whilst simultaneously extracting any cyanide amenable gold liberated into a Leachwell liquor. The resulting liquor is then analysed for gold content by organic extraction with flame AAS finish, with an overall method detection limit of 0.01ppm Au content in the original sample. This method is appropriate for the type and magnitude of mineralisation at Higginsville. • Quality control procedures include the use of standards, blanks and duplicates. Standards and duplicates are used to test both the accuracy and precision of the analytical process, while blanks are employed to test for contamination during the sample preparation stage. The analyses have confirmed the analytical process employed at Higginsville is adequately precise and accurate for use as part of the mineral resource estimation. **SKO** • Only nationally accredited laboratories are used for the analysis of the samples collected at SKO. • The laboratory dry and if necessary (if the sample is >3kg) riffle split the sample, which is then jaw crushed and pulverised (the entire 3kg sample) in a ring mill to a nominal 90% passing 75 microns. All recent RC and Diamond core samples are analysed via Fire Assay, which involves a 30g charge (sub-sampled after the pulverisation) of the analytical pulp being fused at 1050°C for 45 minutes with litharge. The resultant metal pill is digested in aqua regia and the gold content determined by atomic adsorption spectrometry – detection limit is 0.01 ppm Au. • Quality Assurance and Quality Control (QA/QC) samples are routinely submitted by SKO staff and comprise standards, blanks, assay pills, field duplicates, lab duplicates and repeat analyses. The results for these QA/QC samples are routinely analysed by Senior Geologists with any discrepancies dealt with in conjunction with the laboratory prior to the analytical data being imported into the database. • There is limited information available on historic QA/QC procedures. SKO has generally accepted the available data at face value and carry out data validation procedures as each deposit is re-evaluated. • The analytical techniques used are considered appropriate for the style of mineralisation being tested for – this technique is industry standard across the Eastern Goldfields. • Ongoing production data generally confirms the validity of prior sampling and assaying of the mined deposits to within acceptable limits of accuracy.

Criteria	JORC Code Explanation	Commentary

		CMGP
		• Recent drilling was analysed by fire assay as outlined below;
		  • A 50g sample undergoes fire assay lead collection followed by flame atomic adsorption spectrometry.
		  • The laboratory includes a minimum of 1 project standard with every 22 samples analysed.
		  • Quality control is ensured via the use of standards, blanks and duplicates.
		• No significant QA/QC issues have arisen in recent drilling results.
		• Historical drilling has used a combination of Fire Assay, Aqua Regia and PAL analysis.
		• 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 independent or alternative verifications are available. • Virtual twinned holes have been drilled in several instances across all sites with no significant issues highlighted. Drillhole data is also routinely confirmed by development assay data in the operating environment. • Primary data is collected on paper or on tough book using a standard excel template. The information is imported into a SQL database server and verified. • All data used in the calculation of resources and reserves are compiled in databases (underground and open pit) which are overseen and validated by senior geologists. • No adjustments have been made to any assay data.
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.	**HGO** • Collar coordinates for surface drill-holes were generally determined by GPS, with underground drill-holes generally determined by survey pick-up. Downhole survey measurements for most surface diamond holes were by Gyro-compass at 5m intervals. Holes not gyro-surveyed were surveyed using Eastman single shot cameras at 20m intervals. Downhole surveys for underground diamond drill-holes were taken at 15 – 30m intervals by Reflex single-shot cameras. Routine survey pick-ups of underground and surface holes where they intersected development indicates (apart from some minor discrepancies with pre-Avoca drilling) a survey accuracy of less than 5m. • All drilling and resource estimation is undertaken in local mine grid at the various projects. • Topographic control is generated from Differential GPS. This methodology is adequate for the resource in question.

Criteria	JORC Code Explanation	Commentary
		SKO • Collar coordinates for surface RC and diamond drill-holes were generally determined by either RTK-GPS or a total station survey instrument. Underground drill-hole locations (Mount Marion and HBJ) were all surveyed using a Leica reflectorless total station. • Recent surface diamond holes were surveyed during drilling with down-hole single shot cameras and then at the end of the hole by Gyro-Inclinometer at 5 or 10mm intervals. Holes not gyro-surveyed were surveyed using Eastman single shot cameras at 20m intervals. RC drill-holes utilised down-hole single shot camera surveys spaced every 15 to 30m down-hole. • Down-hole surveys for underground diamond drill-holes were taken at 15 – 30m intervals by Reflex single-shot cameras. • The orientation and size of the project determines if the resource estimate is undertaken in local or MGA 94 grid. Each project has a robust conversion between local, magnetic and an MGA grid which is managed by the SKO survey department. • Topographic control is generated from RTK GPS. This methodology is adequate for the resources in question. **CMGP** • 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, the majority with single / multishot cameras. • All drilling and resource estimation is undertaken in local mine grid at the various sites. • 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.	**HGO** • Drilling in the underground environment at Chalice and Trident is nominally carried-out on 20m x 30m spacing for resource definition and in filled to a 10m x 15m spacing with grade control drilling. At trident the drill spacing below the 500RL widens to an average of 40m x 80m. At Chalice below the 880RL the typical drill spacing 60m x 60m. Mining has shown that this data spacing is appropriate for the Mineral Resource estimation process and to allow for classification of the resource as it stands. • Drilling at the Lake Cowan region is on a 20m x 10m spacing. Historical mining has shown this to be an appropriate spacing for the style of mineralisation and the classifications applied. • Compositing is carried out based upon the modal sample length of each project.

Criteria	JORC Code Explanation	Commentary
		SKO HBJ: Drill spacing ranges from 10m x 5m grade control drilling to 100m x 100m at deeper levels of the resource. The majority of the Indicated Resource is estimated using a maximum drill spacing of 40m x 40m. The resource has been classified based on drill density with mining of the 2.2km long HBJ Open-Pit confirming that the data spacing is adequate for the resource classifications applied. Mount Martin: Drill spacing ranges from 10m x 5m grade control drilling to 60m x 60m for the Inferred areas of the resource. The drill spacing for the majority of the Indicated Resource is 20m x 20m. The resource has been classified primarily on drill density and the confidence in the geological/grade continuity – the data spacing and distribution is deemed adequate for the estimation techniques and classifications applied. Pernatty: Drill spacing for the reported resource is no greater than 60m x 60m with the majority of the Indicated resource based on a maximum spacing of 40m x 40m. The geological interpretation of the area is well understood, and is supported by the knowledge from open pit and underground operations. However given the mineralisation is controlled by shear zones the mineralisation continuity is considered to be less understood. The resource is classified on a combination of drill density and the number of samples used to estimate the resource blocks. Mount Marion: Drill-spacing ranges from 20m x 20m to no greater than 60m x 60m for the reported resource Given that the geological and mineralisation understanding is well established via mining operations, this drill-spacing is considered adequate for the classifications applied to the resource. Compositing is carried out based upon the modal sample length of each project. **CMGP** • Data spacing is variable dependent upon the individual orebody under consideration. A lengthy history of mining has shown that 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.

Criteria	JORC Code Explanation	Commentary
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 as underground infrastructure constraints / topography allows. • Development sampling is nominally undertaken normal to the various orebodies. • Where drilling angles are sub optimal the number of samples per drill hole used in the estimation has been limited to reduce any potential bias. • It is not considered that drilling orientation has introduced an appreciable sampling bias.
Sample security	• The measures taken to ensure sample security.	• The core is transported to the core storage facility by either drilling company personnel or geological staff. Once at the facility the samples are kept in a secure location while logging and sampling is being conducted. The storage facility is enclosed by a fence which is locked at night or when the geology staff are absent. The samples are transported to the onsite Intertek facility by geological staff.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data	**HGO** A review of the grade control practices on site has been undertaken by an external consultant. No formal external audit or review has been performed on the resource estimate. Internal reviews are performed as a matter of course. **SKO** No formal external audit or review has been performed on the sampling techniques and data. Internal reviews are performed as a matter of course. **CMGP** 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.	**HGO** • State Royalty of 2.5% of revenue applies to all tenements. • The Trident Resource is located within mining leases M15/0642, M15/0351 and M15/0348. M15/0351 and M15/0642 also incur the Morgan Stanley royalty of 4% of revenue after 100,000oz of production and the Morgan Stanley price participation royalty at 10% of incremental revenue for gold prices above AUD$600/oz. M15/0642 is also subject to the Mitchell Royalty at AUD$32/oz. • The Chalice Resource is located on mining lease M15/0786. There are no additional royalties. • Lake Cowan is located on mining lease M15/1132. Lake Cowan is subject to an additional royalty (Brocks Creek) of $1/tonne of ore. **SKO** • State Royalty of 2.5% of revenue applies to all tenements, although does not apply to the 16 freehold titles (which host the majority of SKO's Resource inventory). There are a number of minor agreements attached to a select number of tenements and locations with many of these royalty agreements associated with tenements with no current Resources and/or Reserves. • Private royalty agreements are in place that relate to production from HBJ open-pit at $10/oz. In addition, a royalty is payable in the form of 1.75% of the total gold ounces produced from the following resources: Shirl Underground, Golden Hope, Bellevue, HBJ Open-pit, Mount Martin open-pit, Mount Martin Stockpiles and any reclaimed tailings. • SKO consists of 141 tenements including 16 freehold titles, 6 exploration licenses, 47 mining leases, 12 miscellaneous licenses and 60 prospecting licenses, all held directly by the Company. • There are no known issues regarding security of tenure. • There are no known impediments to continued operation. **CMGP** • The CMGP comprises 9 granted exploration leases, 14 granted miscellaneous leases, 48 granted mining leases and 38 granted prospecting leases. • Native title interests are recorded against several CMGP tenements. • The CMGP tenements are held by the Big Bell Gold Operations (BBGO) of which Metals X has 100% ownership. • Several third party royalties exist across various tenements at CMGP, over and above the state government royalty. • BBGO 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.

Criteria	JORC Code Explanation	Commentary
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other partie	• The Higginsville region has an exploration and production history in excess of 30 years. • The SKO tenements have an exploration and production history in excess of 40 years. • Metals X / Alacer work has generally confirmed the veracity of historic exploration data.
Geology	• Deposit type, geological setting and style of mineralisation.	**HGO** • Trident is hosted primarily within a thick, weakly differentiated gabbro with subordinate mafic and ultramafic lithologies and comprises a series of north-northeast trending, shallowly north-plunging mineralised zones. The deposit comprises two main mineralisation styles; large wallrock-hosted ore-zones comprising sigmoidal quartz tensional vein arrays and associated metasomatic wall rock alteration hosted exclusively within the gabbro; and thin, lode-style, nuggety laminated quartz veins that formed primarily at sheared lithological contacts between the various mafic and ultramafic lithologies. • Chalice geology is characterised by NNW-striking and W-dipping intercalated mafic and ultramafic volcanic rocks that are metamorphosed to mid-amphibolite facies. This sequence is bounded to the west and east by thick granitic bodies of the Boorabin Batholith and Pioneer Dome Batholith respectively. The dominant unit that hosts gold mineralisation is a fine grained, weakly to strongly foliated amphibole-plagioclase amphibolite. Two major, and one minor, ultramafic units occur as discontinuous members throughout the deposit. Four generations of granitic dike intrude the lithostratigraphic sequence. The mineralisation is characterised by strong diopside-hornblende-albite alteration with associated pyrite / pyrrhotite sulphides. Mineralisation occurs with highly foliated and folded host rock with width varying up to 50m. • Lake Cowan mineralisation can be separated into two types. Structurally controlled primary mineralisation in ultramafics, basalts and felsics host (e.g. Louis, Josephine and Napoleon), and saprolite / palaeochannel hosted supergene hydromorphic deposits, including Sophia, Brigitte and Atreides.

Criteria	JORC Code Explanation	Commentary
		SKO HBJ: The HBJ lodes form part of a gold mineralised system along the Boulder-Lefroy shear zone that is over 5km long and includes the Celebration, Mutoroo, HBJ and Golden Hope open-pit and underground mines. The lodes are hosted within a steeply-dipping, north-northwest striking package of mafic, ultramafic and sedimentary rocks and schists that have been intruded by felsic to intermediate porphyries. Gold mineralisation is structurally controlled and is focused along lithological contacts, within stockwork and tensional vein arrays and within shear zones. The main mineralised zone has a length in excess of 1.9 km and an average width of 40 m in the Jubilee workings but is generally narrower to the north in the Hampton-Boulder workings. Mount Marion: The Mount Marion deposit is located on the eastern side of the Coolgardie Domain within a flexure in the Karramindie Shear Zone. It is hosted within a sub-vertical sequence of meta-komatiites intercalated with metasediments that have been metamorphosed to amphibolite facies. Gold mineralisation occurs in a footwall and hangingwall lode, each ranging in thickness from 2 to 15m. The mineralisation plunges steeply to the west and is open at depth. Mount Martin: The Mount Martin Tribute Area, is located within a regional scale north-northwest trending Archaen Greenstone Belt. Within the Mount Martin – Carnilya area, the greenstone belt comprises a mixed sequence of ultramafic (predominantly komatiitic) and fine-grained, variably sulphidic sedimentary lithologies with subsidiary mafic units. Known gold and nickel mineralisation at the Mount Martin Mine is associated with a series of stacked, westerly dipping, sulphide and quartz-carbonate bearing lodes which are mainly hosted within intensely deformed and altered chloritic schists sandwiched between talc-carbonate ultramafic lithologies. Pernatty: The Pernatty deposit is hosted within a granophyric phase of a gabbro and is controlled by a structurally complex interaction of a number of major shear zones. Shearing has altered the original granophyric quartz dolerite to a biotite-carbonate-plagioclase-pyrite schist. The sequence has also been intruded by mafic and felsic porphyritic dykes, which are also mineralised.

Criteria	JORC Code Explanation	Commentary
		CMGP • The CMGP is located in the Achaean Murchison Province, a granite-greenstone terrane in the northwest of the Yilgarn Craton. Greenstone belts trending north-northeast are separated by granite-gneiss domes, with smaller granite plutons also present within or on the margins of the belts. • Mineralisation at Big Bell is hosted in the shear zone (Mine Sequence) and is associated with the post-peak metamorphic retrograde assemblages. Stibnite, native antimony and trace arsenopyrite are disseminated through the K-feldspar-rich lode schist. These are intergrown with pyrite and pyrrhotite and chalcopyrite. Mineralisation outside the typical Big Bell host rocks (KPSH), for example 1,600N and Shocker, also display a very strong W-As-Sb geochemical halo. • Numerous gold deposits occur within the Cuddingwarra Project area, the majority of which are hosted within the central mafic-ultramafic ± felsic porphyry sequence. Within this broad framework, mineralisation is shown to be spatially controlled by competency contrasts across, and flexures along, layer-parallel D2 shear zones, and is maximised when transected by corridors of northeast striking D3 faults and fractures. • The Great Fingall Dolerite hosts the majority gold mineralisation within the portion of the greenstone belt proximal to Cue (The Day Dawn Project Area). Unit AGF3 is the most brittle of all the five units and this characteristic is responsible for its role as the most favourable lithological host to gold mineralisation in the Greenstone Belt.
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.	• Tables containing drillhole collar, downhole survey and intersection data are included in the body of the announcement.
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.	• All results presented are length weighted. • No high-grade cuts are used. • Reported results contain no more than two contiguous metres of internal dilution below 1g/t. • Results are reported above a variety of gram / metre cut-offs dependent upon the nature of the hole. These are cut-offs are clearly stated in the relevant tables. • No metal equivalent values are stated.

Criteria	JORC Code Explanation	Commentary
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').	• Unless indicated to the contrary, all results reported are true width. • Given restricted access in the underground environment the majority of drillhole intersections are not normal to the orebody.
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.	• Appropriate diagrams are provided in the body of the release.
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.	• Appropriate balance in exploration results reporting is provided.
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.	• There is no other substantive exploration data associated with this release.
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.	• Ongoing surface and underground exploration activities will be undertaken to support continuing mining activities at Metals X Gold Operations.

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.	• The database used for the estimation was extracted from the Metals X's DataShed database management system stored on a secure SQL server. • 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.
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 Metals X Gold Operations regularly.
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.	**HGO** • Current and historical mining activities across the Higginsville region provide significant confidence in the geological interpretation of all projects. • No alternative interpretations are currently considered viable. • In all cases the local lithological and structural geology has been used to inform the interpretive process. All available information from drilling, underground mapping and pit mapping has been considered during interpretation. • The Trident, Corona, Fairplay, Vine and Two boys deposits are all hosted within a suite of east over west thrust repeated mafic, ultramafic and sedimentary rocks. In all cases the most favourable host is of mafic composition, generally gabbro and to a lesser extent basalt. Together the deposits form what is locally referred to as the Higginsville Line of Lode, a 5km long, north-northeast striking mineralised corridor of historic and current mining operations. Steep west and shallow east have been identified as the most favourable structural orientations for mineralisation. • At Chalice, multiple generations of unmineralised felsic intrusive cross cut the host amphibolite and influence both the volume and the grade, through contact remobilisation, of the mineralisation. The Resource Estimate is sensitive to the volume of unmineralised felsics within the mineralised horizon. • At both Chalice and Lake Cowan there is a lack of consistent visual proxies for mineralisation, making accurate ore delineation difficult. • High-grade zones within the palaeochannels are the result of a more preferential depositional environment due to changes in strike of the palaeochannel.

Criteria	JORC Code Explanation	Commentary
		SKO HBJ: The mineralisation has been modelled focussing on the structural (shear zone) and lithological (porphyry mainly) controls. The large scale (1.9km long and ~40m wide) provides significant confidence in the geological and grade continuity within the deposit. The interpretation has used predominantly RC drilling with some DD used for the deeper parts of the resource. There is an alternative interpretation that could be applied to this deposit, which focuses on defining and sub-domaining higher grade mineralisation that is evident at lithological contacts. Mount Marion: The lithological and structural model for the Mount Marion deposit is well understood as it is supported by the knowledge gained from open-pit and underground operations. The mineralisation is hosted along a dilational flexure within the lode gneiss with clearly defined contact mineralisation with the surrounding ultramafic lithologies. The lithological model is used as the basis for the mineralisation interpretation and has been derived from predominantly RC and Diamond drill-holes. The confidence of the geological controls on mineralisation is consistent with the resource classification applied to the deposit. No alternative interpretations have been devised for this deposit. Mount Martin: Gold mineralisation at Mount Martin is associated with chlorite schists (shear zones) hosted within talc-carbonate ultramafic lithologies. Within these controlling shear zones are a series of stacked, westerly-dipping, sulphide and quartz carbonate bearing lodes which host the majority of the gold mineralisation. The geological and mineralisation interpretation used in this resource is consistent with that mined historically in the open pit. Although other interpretations have been proposed they tend to be variations on the steep westerly-dipping lodes theme adopted for this resource and as such would not represent a significant change in the contained metal. Pernatty: Mineralisation at Pernatty is controlled by a complex arrangement of very well-defined shear zones with the highest grade mineralisation associated with structural intersections and flexures along the three main shears. Given the consistency in orientation of the three main controlling shears, the confidence in the geological and mineralisation interpretation is deemed adequate.

Criteria	JORC Code Explanation	Commentary
		CMGP Mining has occurred since 1800's providing significant confidence in the currently geological interpretation across all projects. 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 is the dominant control on geological and grade continuity at the CMGP. Lithological factors such as rheology contrast 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.	**HGO** • The Trident mineral resource extends over 680m in strike length, 350m in lateral extent and 940m in depth. • Chalice mineralisation has been defined over a strike length of 700m, a lateral extent of 200m and a depth of 650m. • The Lake Cowan resource has been defined over a strike length of >1.5Km, a lateral extent of >500m and to a depth of >150m. • **SKO** • The HBJ deposit extends over 5km of strike (includes the Golden Hope and Mutooroo lodes) and up to 650m below surface with the individual lodes being up to 40m wide. • Mount Marion mineralisation extends to just under 1km in strike length, 800m in depth with the lodes varying in width from 3 – 15m. The mineralisation is steeply plunging resulting in a very small surface expression of the lodes. • The Mount Martin deposit has a strike length of 1km, a vertical extent of 350m, with the individual, shallow west-southwesterly dipping lodes varying between 2 – 10m true thickness. These lodes make up a mineralised package of ~300m true thickness (hangingwall to footwall). • The Pernatty desposit has a strike extent of 500m, 400m dip extent and up to 300m in lateral extent. The individual lodes are of varying orientations and are generally between 2 – 15m wide. **CMGP** • Individual deposit scales vary across the CMGP. • The Big Bell Trend is mineralised a strike length of >3,900m, a lateral extent of up +50m and a depth of over 1,500m. • Great Fingall is mineralised a strike length of >500m, a lateral extent of >600m and a depth of over 800m. • Black Swan South is mineralised a strike length of >1,700m, a lateral extent of up +75m and a depth of over 300m.

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.	• **HGO** • For Trident, Chalice, Two Boys, Vine and Lake Cowan the modelling and estimation work was undertaken by Alacer Gold and carried out in Vulcan 3D mining software. • For Alacer Gold estimates the drill hole data to be used in the process is first validated. The initial interpretation is then completed on 1:250 scale hardcopy cross sections, long sections and level plans, this interpretation is then validated by either the senior geologists or the Chief Geologist before then being digitised into the Vulcan 3D modelling package. The digitised polygons 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, this is carried out using Supervisor. Top cut analysis was carried out by assessing normal and log-histograms for extreme values and using a combination of mean variance plots and population disintegration techniques. Variographic analysis of individual domains is undertaken to assist with determining appropriate search parameters. In all cases knowledge of the geology was used to guide the analysis of the variogram fans in determining the orientation of maximum continuity. • An empty block model is then created for the area of interest; with each ore wireframe used to assign block domain codes which match the flag used for the composites. This model contains attributes set at background values for gold 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 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. At Trident a grade assignment method has been employed for the Athena orebody. This uses face sampling/mapping on each level to identify runs of vein with similar width and grade profiles. For each run, the length of the run and average vein width is calculated as well as a width weighted average vein grade. Two or more grade runs are then joined up across levels to form a grade block, a long section is used to validate the plunge of each grade block against the diamond drilling. The length and width of each run is used to calculate a length weighted average grade and an average vein width for the block. A wireframe for each grade block is created at the specified average vein width for the block. This wireframe is then assigned the previously calculated block grade using a post process script. • No by-products or deleterious elements are estimated. • No assumptions have been made about the correlation between variables.

Criteria	JORC Code Explanation	Commentary
		• The estimation is validated using the following: a visual interrogation, a comparison of the mean composite grade to the mean block grade for each domain, a comparison of the wireframe volume to the block volume for each domain, Grade trend plots (moving window statistics), comparison to the previous resource estimate. • 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. • Production reconciliation data is regularly used to check the performance of the estimate and to adjust parameters is necessary. • Good reconciliation between mine claimed figures and milled figures is routinely achieved.
		SKO • The HBJ mineral resource estimate was undertaken in December 2011 by Widenbar and Associates Pty Ltd. The grade interpolation method used was Ordinary Kriging (OK) in the Datamine ESTIMA process – a method that is appropriate for the style of mineralisation being estimated. A simple unfolding process has been applied to the data and model blocks in order to simplify the setup of search ellipses and allow searches to follow the varying dip and strike of the various domains. • Geological, mining as-built and mineralisation domains and a valid drillhole database were supplied by SKO personnel. The geological and mineralisation domains were used to control the interpolation as hard boundaries (mineralisation domains) and for the application of bulk density data (geological boundaries). • The Mineral Resource estimates for Mount Marion, Mount Martin and Pernatty were undertaken by Alacer Gold in September 2011. The geological and mineralisation wireframes as well as the grade interpolation was undertaken in Vulcan 8.04 3-D modelling software with statistical analysis undertaken using Snowden Supervisor software. The interpolation method used was Ordinary Kriging (OK) – a method that is appropriate for the styles of mineralisation being estimated. • Statistical analysis was undertaken to determine the composite length (1m) and for the application of top-cuts. • The search ellipses applied were based on a combination of drillhole spacing and variographic analysis. Various minimum and maximum samples were used in the first search with a maximum of four samples per drill-hole allowed. Several passes were used each with increasing search ellipse sizes, all the blocks in the mineralised domains were informed in the first pass. • The block model was depleted using surfaces / domains generated by the SKO Survey. • Validation of the models was completed by visual inspection, statistical comparisons and comparison with reconciliation data, with the final model achieving a satisfactory validation. • No deleterious elements were estimated as they are considered not material.

Criteria	JORC Code Explanation	Commentary
		CMGP • 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 cut off grades used for the reporting of the Mineral Resources have been selected based on the style of mineralisation, depth from surface of the mineralisation and the most probable extraction technique.

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.	**HGO** The principle extraction method at both Trident and Chalice is sub-level open stoping. For the narrow vein systems at Trident bench stoping is employed. **SKO** The Pernatty, Mount Martin and upper portions of the HBJ deposits are assumed to be amenable to open pit mining processes. A minimum mining width of 2.5m (horizontal) is applied to the lodes. The lower parts of the HBJ deposit was assumed to be mineable via bulk underground mining techniques such as sub-level or block caving. The Mount Marion deposit is assumed to be amenable to underground mining via open stoping means which is consistent with the mining practices adopted for the Mount Marion deposit. **CMGP** 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.	**HGO** Metallurgical test work is carried out on a project by project basis. The Higginsville plant is approximately 5.5 years old and routinely averages over 96% recovery when being fed with Trident and Chalice material. No other project is currently being mined / processed. **SKO** The majority of the SKO resource base comprises deposits that have some level of mining history and hence established metallurgical properties. **CMGP** 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.	**HGO** • Tailings are discharged to the nearby tailings storage facility and also used to form cemented backfill for underground operations. • Process water is pumped 30 km from the Chalice open pit to the Aphrodites pit from which it is stored prior to pumping to the process mill • Potable water is pumped from the Coolgardie–Norseman water pipe line and is provided by the state water provider. • Water used in the Trident mine for mining operations is recycled from underground and stored in the nearby Poseidon North Pit before being returned for underground use. • Water used in the Chalice mine for mining operations is pumped from the remaining water left in the base of the Chalice open pit. **SKO** The significant operational history at SKO has allowed for a consistent set of environmental assumptions to be applied to the mineral resource deposits in the region. **CMGP** BBGO operates in accordance with all environmental conditions set down as conditions for grant of the respective leases.

Criteria	JORC Code Explanation	Commentary
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.	**HGO** • For both Trident and Chalice bulk densities were assessed via test work and assigned to the model. Samples were selected to cover the full range of lithology types and ore types across the deposit. Individual unbroken half core samples of approximately 30cm length were randomly selected from within specified metre intervals. Samples were sent to the Genalysis Laboratory in Kalgoorlie, where mass and volumes (by water immersion) were measured and bulk density calculated. • Where no drill core or other direct measurements are available, SG factors have been assumed based on similarities to other zones of mineralisation / lithologies or from historic production records. **SKO** • For the HBJ, Mount Marion, Pernatty and Mount Martin deposits, density values were based on historic mining reconciliations combined with bulk density check test work. • Bulk densities were assigned based on the host rock, mineralisation style and oxidation state, all of which were coded into the block models. **CMGP** • Bulk density of the mineralisation at the CMGP is variable and is for the most part lithology rather than mineralisation dependent. Bulk density sampling is undertaken via assessments of drill core and grab samples. • A significant past mining history has validated the assumptions made surrounding bulk density at the CMGP.
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, 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. • No external reviews have been undertaken.
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. • A continuing history of mining with good reconciliation of mine claimed to mill recovered provides confidence in the accuracy of the estimates.

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 are classified as Probable Reserve based on whether they are 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.	• Mr Buckingham visits the Higginsville operations on a regular basis and is actively involved in budgets / forecasts and physical mining processes at both the operating mines.
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	**HGO** • Mining is in progress at both Chalice and Trident. • The Chalice underground mine has been in operation since 2011, with historical open pit and underground workings having been established in the 1990's by Resolute Mining. The mining methodology, design layouts, production performance, mining modifying factors and cost profiles used in the 2014 Mineral Reserve are therefore reflective of this history. • The Trident Underground mine began production in late 2008. The mining methodology, design layouts, production performance, mining modifying factors and cost profiles used in the 2014 Mineral Reserve are therefore reflective of this history. • Underground mining costs have been derived from the current Australian Contract Mining (ACM) rates. • The Lake Cowan Mining Centre (including Louis Pit) was mined in the 2000's by Harmony Gold. The Reserve for Louis involves depth and width extension of the current Pit. • Following exploration and infill drilling activity, annual resource updates and economic assessment of the Measured and Indicated resources is completed using actual costs, operating parameters and modifying factors. An annual update of Ore Reserves is completed on this basis. **SKO** • Economic assessment of the stockpiles is undertaken regularly using actual costs of processing inclusive of administration at SKO. **CMGP** • A comprehensive Definitive Feasibility Study utilising a combination of internal and external expertise has been undertaken to allow the conversion of Mineral Resources to Ore Reserves.

Criteria	JORC Code Explanation	Commentary
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• Underground Mines - Cut off grades were determined for the various mining methods and various mining sections in the mine. The COG's have been applied to both development and stope production from their respective areas. • Open Pit Mines - The pit rim cut off grade (COG) was determined as part of the Reserve estimation. The pit rim COG determines which material will be processed by equating the operating cost of processing and selling to the value of the mining block in terms of recovered metal and the expected selling price. The COG is then used to determine whether or not a mining block should be delivered to the treatment plant for processing or taken to the waste dump as waste.
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.	• Ore Reserves have been undertaken on a 'bottom up' process – with the physicals reflecting mine designs rather than Resource conversion factors or Whittle optimisations. **HGO** • Mining methodologies for underground Reserves centre on long hole open stoping. However, there are areas which are designed as narrow vein up hole or flat bench stoping. All methods described in the Reserve have either been trialled successfully and/or implemented historically. The stope design parameters take into account the different mining shapes and are based on specific geology and geotechnical domains associated with those areas. Stope shapes, level layouts and extraction sequences are designed cognisant of local and regional ground conditions. Where deteriorating ground conditions are expected or where significant fault planes run adjacent to mineralisation, stope shapes are altered to encompass these conditions and sequenced early to ensure recovery is possible. • Dilution factors vary pending the orebody style and host rock conditions as well as from mining sequence and development layouts. • Each mining method applied has a minimum width, which corresponds to sub level distances, blast hole drill accuracy constraints, nature of the mineralisation and/or fleet flexibility. • With the implementation of paste filling at Trident and the utilisation of remote loaders with telecabins, a 100% mining recovery factor is applied to the stope physicals. • No Inferred resources are included with the Reserve Statement. • Both underground mines are established production centres and have been in operation for several years. Mining methodologies forecasted in the Reserve are those currently being utilised. • Conventional open pit mining methodologies and sequencing have been applied to open pits. • A 6% dilution factor has been applied to Louis Reserve. • Louis has a 95% mining recovery factor. • Wall angles used in the Louis Pit are reflective of the historical parameters used. • Lake Cowan has pre-existing haulage routes and site earthworks. Re-establishment of the haulage route into Higginsville has been costed as is included within the economic analysis. **SKO** • As all SKO reserves are stockpile no mining factors or assumptions are applied during assessment of their viability.

Criteria	JORC Code Explanation	Commentary
		CMGP • Pit and underground reserves have all been subject to detailed mine design. • Stockpile resources have been converted to reserves by application of appropriate modifying factors. • Feasibility Evaluations have incorporated dewatering requirements. • Open Pit geotechnical parameters have been supplied by Geotechnical Consultant following site inspection. • Open Pits have been designed to ensure a minimum 25m bench width. • Inferred Mineral Resources have been treated as waste in each assessment. • The construction of a 1.5Mtpa Process Plant at Big Bell as detailed in the DFS has been assumed.
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?	**HGO** • Gold extraction is achieved using staged crushing, ball milling with gravity concentration and Carbon in Leach. The Higginsville plant has operated since 2008 and historical recoveries on Trident ore average 97% and Chalice 95%. • Treatment of ore is via conventional gravity recovery / intensive cyanidation and CIL is applied as industry standard technology. • Host mineralisation has been consistent within the Trident and Chalice orebodies, and historical high gold extractions achieved at full commercial production rates. Additional testwork is instigated where notable changes to geology and mineralogy are identified. Small scale batch leach tests on primary Louis ore have indicated lower recoveries (80%) associated with finer gold and sulphide mineralisation. • There have been no major examples of deleterious elements affecting gold extraction levels or bullion quality. Some minor variations in sulphide mineralogy have had short term impacts on reagent consumptions. • No bulk sample testing is required whilst geology/mineralogy is consistent based on treatment plant performance. **SKO** • All SKO stockpiles have a significant processing history and metallurgical performance is well understood. • A long history of processing through the existing facility demonstrates the appropriateness of the process to the styles of mineralisation considered. • No deleterious elements are considered, as a long history of processing has shown this to be not a material concern.

Criteria	JORC Code Explanation	Commentary
		CMGP • The industry standard CIL process will be used treat CMGP ore. This has a demonstrated applicability to the styles of mineralisation present at the CMGP. • The CIL process is well proven. • Significant metallurgical test-work has been undertaken as part of the DFS. A significant past production history exists to validate the test-work results. • No significant deleterious elements are known. As such there is no allowance for deleterious elements in the process. • Metallurgical recoveries on the various ore and grades were considered as part of the cut-off grade analysis.
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.	**HGO** • The Higginsville mine operates under and in compliance with a number of operating environmental plans, which cover its environmental impacts and outputs. • Waste is generally stored underground in mined out stopes. When underground stopes are not available, waste is placed on approved surface waste dumps or capping material for historical tailings dams. • Waste rock created from the Open Pit operation at Louis is planned for storage alongside the pit crest and is formed up against an existing waste landform. The planned location sits underneath a tested regional dyke (no mineralisation). **SKO** • SKO operates under and in compliance with a number of operating environmental plans, which cover its environmental impacts and outputs. **CMGP** • A Clearing Permit covering all reserves and associated infrastructure has been approved. • Department of Water Licence to Take Water approvals are in place to allow dewatering of all mines within reserve estimate. • DEC Works Approval has been granted for Dewatering activities. • Hydrogeology, Waste and Soil characterisation studies have been undertaken. • Yet to submit application for Mining Proposal for Waste Dumps or Tails Storage Facility.

Criteria	JORC Code Explanation	Commentary
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.	**HGO** • Both the Trident and Chalice mines are currently active and have substantial infrastructure in place including a large amount of underground infrastructure, major electrical, ventilation and pumping networks. The main Higginsville location has an operating CIL plant a fully equipped laboratory, extensive workshop, administration facilities and a 350 person single person quarters nearby. • Infrastructure required for Louis Pit production (workshops, gen sets, offices) will be sourced from South Kalgoorlie Operations. These units have been used historically in satellite pits for SKO. **SKO** • SKO has an operating CIL plant, along with extensive maintenance and administration facilities. • Power and water supplies are in place. • Labour and accommodation is sourced from the nearby city of Kalgoorlie – Boulder. **CMGP** • Sufficient space is availability on existing granted tenements to allow mining and associated infrastructure to extract reserves. • Power will be supplied by diesel or gas generation onsite.

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.	**HGO** *Underground Mines* • Capital Development costs are derived from the current contractor cost model (ACM). CAPEX Infrastructure costs have been sourced either from specific quotes or historical invoices. • Operating costs are derived primarily from the current contractor cost profile (ACM). In areas where works are outside of ACM's scope, alterative contractor costs have been sourced. • Chalice Mine haulage (25km) is operated by Breakaway with current contract rates included within the Reserve model. *Open Pit Mine* • CAPEX has been sourced from a specific quote (Dec 2013). • Operating costs associated with the pit operation are based on schedule of rates from various Kalgoorlie based contractors. These costs are in line with previous pit operations in both SKO and HGO. *Surface and Plant* • The HGO Plant costs are derived from historical cost profiles, with updates from recent consumable negotiations. • Fuel and potable water rates are reflective of current market conditions. • Site Administration and Manning costs are reflective of current conditions. *Royalties* • All private and state royalties have been incorporated into the Reserve cost model.
		SKO • Processing costs are based on actual cost profiles, as are administrative costs. • Both state government and private royalties are incorporated into costings as appropriate. **CMGP** • Capital Costs were estimated as part of the DFS. • Operating Costs were estimated as part of the DFS. • WA State Government 2.5% applies. • $5 per oz produced Royalty applies to Great Fingall Deeps.

Criteria	JORC Code Explanation	Commentary
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.	**HGO** • Trident Mine Revenue is based on the long term forecast of A$ 1,452/oz. • The Chalice and Louis mines are analysed at a A$1,400/oz price due to their shorter life. • No allowance is made for silver by-products. **SKO** • For SKO, revenue is based upon a A$1,400/oz forecast which is consistent with current market pricing and industry short term forecasts. • No co-product revenue is considered in evaluations. **CMGP** • Reserves are based upon a AUD$1500 per fine gold oz revenue assumption. • Costs for bullion transport and refining in Perth. No allowances for additional costs or penalties and no allowance for silver revenue.
Market assessment	• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	• Detailed economic studies of the gold market and future price estimates are considered by Metals X and applied in the estimation of revenue, cut-off grade analysis and future mine planning decisions. • There remains strong demand and no apparent risk to the long term demand for the gold.
Economic	• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs.	**HGO** • The Higginsville NPV assumes a 10% discount rate with no inflation. Mining costs derived from contract rates, Paste Plant costs as per cubes required at a historical A$/$m^3$, G&A costs on a cost per tonne basis and processing cost based on actual cost profiles. **SKO** • The SKO NPV assumes a 10% discount rate with no inflation, G&A costs on a cost per tonne basis and processing costs based on upon actual cost profiles. **CMGP** • For the CMGP, 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.

Criteria	JORC Code Explanation	Commentary
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	**HGO** • HGO is fully permitted and a major contributor to the local and regional economy. It has no external pressures that impact its operation or which could potentially jeopardise its continuous operation. • As new open pits or underground operations develop the site will require separate environmental approvals from the different regulating bodies. **SKO** • SKO mine is fully permitted and a major contributor to the local and regional economy. It has no external pressures that impact its operation or which could potentially jeopardise its continuous operation. • As new open pits or underground operations develop the site will require separate environmental approvals from the different regulating bodies. **CMGP** • The CMGP is yet to start and will require environmental and other regulatory permitting.
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.	• HGO is an active mining project. • SKO is an active mining project. • No operational or marketing contracts have been awarded for the CMGP. However, the DFS assumptions are based upon common WA operational experience giving confidence in their validity. Statutory approvals and licence applications are either in place or substantially prepared and no delays or hindrances to project development are anticipated.
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. • Further, external consultants (experts in their field of speciality) regularly visit Metals X Gold Divisions sites to audit designs and processes. The recommendations from these reports are represented in the Reserves.

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.	**HGO** • Trident and Chalice Reserves are reflective of current operating practices and mine planning processes. All currently reported reserve calculations are considered representative on a local scale. Regular mine reconciliations occur to validate and test the accuracy of the estimates at Trident and Chalice. A comprehensive production history confirms the validity of the Trident and Chalice reserve. • Reserve calculations for the Louis Open Pit are cognisant of the historical geological, geotechnical and mining data (Harmony Gold 2000's). Confidence in the Reserve is further achieved with the validation of historical production data and observation of structural orientations on the existing pit walls. **SKO** • All currently reported reserve calculations are considered representative on a local scale. Regular mine reconciliations occur to validate and test the accuracy of the estimates at SKO. **CMGP** • The ore reserve has been completed to a DFS standard and benchmarked against local site historical production and experience hence confidence in the estimate is high.

APPENDIX 2 – JORC 2012 TABLE 1 – WARUMPI
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. • or lag and soil samples, preperation 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 partie	• 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.	• No drillhole information is being presented in this release.
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.	• No drillhole information is being presented in this release.
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 drillhole information is being presented in this release.
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 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.
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.

Criteria	JORC Code Explanation	Commentary
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.
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.

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.	• 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 resource has been stated for the Warumpi 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 resource has been stated for the Warumpi 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 resource has been stated for the Warumpi Project.
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• No resource has been stated for the Warumpi 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 resource has been stated for the Warumpi 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 resource has been stated for the Warumpi 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 resource has been stated for the Warumpi 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 resource has been stated for the Warumpi 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 resource has been stated for the Warumpi 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 resource has been stated for the Warumpi 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 resource has been stated for the Warumpi 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 resource has been stated for the Warumpi Project.
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• No resource has been stated for the Warumpi 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 resource has been stated for the Warumpi 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 resource has been stated for the Warumpi Project.
Audits or reviews	• The results of any audits or reviews of Ore Reserve 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 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 resource has been stated for the Warumpi Project.

APPENDIX 3 – JORC 2012 TABLE 1 – TENNANT CREEK IOCG ORE BODIES
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, Bi, Co and Cu 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. » Silver, bismuth, cobalt and copper (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.	• No drillhole information is being presented in this release.
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.	• No drillhole information is being presented in this release.
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.	• No drillhole information is being presented in this release.
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 drillhole information is being presented in this release.
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 Tennant Creek 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.	• 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 Rover 1 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.

Criteria	JORC Code Explanation	Commentary
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.
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 4 – JORC 2012 TABLE 1 – TIN DIVISION
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 The bulk of the data used in resource calculations at Renison has been gathered from diamond core. Three sizes have been used historically NQ2 (45.1mm nominal core diameter), LTK60 (45.2mm nominal core diameter) and LTK48 (36.1mm nominal core diameter), with NQ2 currently in use. This core is geologically logged and subsequently halved for sampling. Grade control holes may be whole-cored to streamline the core handling process if required. NQ and HQ core sizes have been recorded as being used at Mount Bischoff. This core is geologically logged and subsequently halved for sampling. There is no diamond drilling for the Rentails Project. • Face Sampling Each development face / round is horizontally chip sampled at Renison. The sampling intervals are domained by geological constraints (e.g. rock type, veining and alteration / sulphidation etc.). Samples are taken in a range from 0.3m up to 1.2m in waste / mullock. All exposures within the orebody are sampled. A similar process would have been followed for historical Mount Bischoff face sampling. There is no face sampling for the Rentails Project. • Sludge Drilling Sludge drilling at Renison is performed with an underground production drill rig. It is an open hole drilling method using water as the flushing medium, with a 64mm (nominal) hole diameter. Sample intervals are ostensibly the length of the drill steel. Holes are drilled at sufficient angles to allow flushing of the hole with water following each interval to prevent contamination. There is no sludge drilling for the Mount Bischoff Project. There is no sludge drilling for the Rentails Project. • RC Drilling RC drilling has been utilised at Mount Bischoff. 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. There is no RC drilling for the Renison Project. There is no RC drilling for the Rentails Project.
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.	

Criteria	JORC Code Explanation	Commentary
		• Percussion Drilling This drilling method was used for the Rentails project and uses a rotary tubular drilling cutter which was driven percussively into the tailings. The head of the cutting tube consisted of a 50mm diameter hard tipped cutting head inside which were fitted 4 spring steel fingers which allowed the core sample to enter and then prevented it from falling out as the drill tube was withdrawn from the drill hole. There is no percussion drilling for the Renison Project. There is no percussion drilling for the Mount Bischoff Project. • 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 chips are logged geologically. • Development faces are mapped geologically. • Logging is quantitative in nature. • All holes are logged completely, all faces are mapped 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.	• Drill core is halved for sampling. Grade control holes may be whole-cored to streamline the core handling process if required • Samples are dried at 90°C, then crushed to <3mm. Samples are then riffle split to obtain a sub-sample of approximately 100g which is then pulverized to 90% passing 75um. 2g of the pulp sample is then weighed with 12g of reagents including a binding agent, the weighed sample is then pulverized again for one minute. The sample is then compressed into a pressed powder tablet for introduction to the XRF. This preparation has been proven to be appropriate for the style of mineralisation being considered. • QA/QC is ensured during the sub-sampling stages process via the use of the systems of an independent NATA / ISO accredited laboratory contractor. • 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.
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.	• Assaying is undertaken via the pressed powder XRF technique. Sn, As and Cu have a detection limit 0.01%, Fe and S detection limits are 0.1%. These assay methodologies are appropriate for the resource in question. • All assay data has built in quality control checks. Each XRF batch of twenty consists of one blank, one internal standard, one duplicate and a replicate, anomalies are re-assayed to ensure quality control. • Specific gravity / density values for individual areas are routinely sampled during all diamond drilling where material is competent enough to do so.

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. Drillhole data is also routinely confirmed by development assay data in the operating environment. • Primary data is loaded into the drillhole database system and then archived for reference. • All data used in the calculation of resources and reserves are compiled in databases (underground and open pit) 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, currently with a GyroSmart tool in the underground environment at Renison, and a multishot camera for the typically short surface diamond holes. • All drilling and resource estimation is undertaken in local mine grid at the various sites. • Topographic control is generated from remote sensing methods in general, with ground based surveys undertaken where additional detail is required. 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.	• Drilling in the underground environment at Renison is nominally carried-out on 40m x 40m spacing in the south of the mine and 25m, x 25m spacing in the north of the mine prior to mining occurring. A lengthy history of mining has shown that this data spacing is appropriate for the Mineral Resource estimation process and to allow for classification of the resource as it stands. • Drilling at Mount Bischoff is variably spaced. A lengthy history of mining has shown that this data spacing is appropriate for the Mineral resource estimation process and to allow for classification of the resource as it stands. • Drilling at Rentails is usually carried out on a 100m centres. This 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 as underground infrastructure constraints / topography 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.	• At Renison, Mount Bischoff and Rentails samples are delivered directly to the on-site laboratory by the geotechnical crew where they are taken into custody by the independent laboratory contractor.
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.	• All Tasmania resources are hosted within 12M1995 and 12M2006. Both tenements are standard Tasmanian mining leases. • No native title interests are recorded against the Tasmanian tenements. Native title interests are recorded against the Queensland tenements. • Tasmanian tenements are held by the Bluestone Mines Tasmania Joint Venture of which Metals X has 50% ownership. • No royalties above legislated state royalties apply for the Tasmanian tenements. • Bluestone Mines Tasmania Joint Venture operates in accordance with all environmental conditions set down as conditions for grant of the mining leases. • There are no known issues regarding security of tenure.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other partie	• The Renison and Mount Bischoff areas have an exploration and production history in excess of 100 years. • Bluestone Mines Tasmania Joint Venture work has generally confirmed the veracity of historic exploration data.
Geology	• Deposit type, geological setting and style of mineralisation.	• Renison is one of the world's largest operating underground tin mines and Australia's largest primary tin producer. Renison is the largest of three major Skarn, carbonate replacement, pyrrhotite-cassiterite deposits within western Tasmania. The Renison Mine area is situated in the Dundas Trough, a province underlain by a thick sequence of Neoproterozoic-Cambrian siliciclastic and volcaniclastic rocks. At Renison there are three shallow-dipping dolomite horizons which host replacement mineralisation. • Mount Bischoff is the second of three major Skarn, carbonate replacement, pyrrhotite-cassiterite deposits within western Tasmania. The Mount Bischoff Mine area is situated within the Dundas Trough, a province underlain by a thick sequence of Neoproterozoic-Cambrian siliciclastic and volcaniclastic rocks. At Mount Bischoff folded and faulted shallow-dipping dolomite horizons host replacement mineralisation with fluid interpreted to be sourced from the forceful emplacement of a granite ridge and associated porphyry intrusions associated with the Devonian Meredith Granite, which resulted in the complex brittle / ductile deformation of the host rocks. Lithologies outside the current mining area are almost exclusively metamorphosed siltstones. Major porphyry dykes and faults such as the Giblin and Queen provided the major focus for ascending hydrothermal fluids from a buried ridge of the Meredith Granite. Mineralisation has resulted in tin-rich sulphide replacement in the dolomite lodes, greisen and sulphide lodes in the porphyry and fault / vein lodes in the major faults. All lodes contain tin as cassiterite within sulphide mineralisation with some coarse cassiterite as veins throughout the lodes. • The Rentails resource is contained within three Tailing Storage Facilities (TSF's) that have been built up from the processing of tin ore at the Renison Bell mine over the period 1968 to 2013.

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 Renison 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 3% Sn/m cut-off. • Results reported may include up to two metres of internal dilution below a 0.5% Sn cut-off. • No metal equivalent values are reported in an exploration context.
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 true 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 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 Renison deposit.
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 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 and normal mine extensional drilling continues to take place at Renison. • Exploration assessment continues to progress at Mount Bischoff. • Project assessment continues to progress at Rentails.

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 the active sites on a regular 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 has occurred since 1800's providing significant confidence in the currently geological interpretation across all projects. • 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 architecture of the Renison horst / graben system is the dominant control on geological and grade continuity. • Similarly at Mount Bischoff the extent of intrusive felsic dykes in proximity to carbonate horixons control the continuity of grade within the system. • The depositional history of Rentails is well documented.
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.	• Renison has currently been mined over a strike length of >1,950m, a lateral extent of >1,250m and a depth of over 1,100m. • Mount Bischoff mineralisation has currently been defined over a strike length of >600m, a lateral extent of >250m and a depth of >250m. • Rentails is deposited in three adjacent TSFs which have and aggregate length of approximately 1.8km and a width at the widest point of circa 1km. Maximum depth is in excess of 20m.

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 Bluestone 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. It is assumed that by-products correlate well with tin. 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 tin assets. • Estimation results are routinely validated against primary input data, previous estimates and mining output. • Good reconciliation between mine claimed figures and milled figures is routinely achieved.
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 0.7% Sn at Renison. • The resource reporting cut-off grade is 0.5% Sn at Mount Bischoff. • There is no lower reporting cut-off grade for Rentails

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.	• Both Bluestone Mines Tasmania Joint Venture operates in accordance with all environmental conditions set down as conditions for grant of the respective mining 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 Renison and Mount Bischoff is variable. Bulk density sampling is undertaken via assessments of drill core (BMTJV practice is to undertake bulk density determinations on a representative selection of drill core sent for assay), and are reviewed constantly (BMTJV practice is to collect check SG samples as a regular part of the mining cycle). Where no drill core or other direct measurements are available, SG factors have been assumed based on similarities to other zones of mineralisation. • Given the volume of the TSF's are known, and the tonnage of tailings material deposited into the dams was recorded, the insitu bulk density of the Rentails resource has been back-calculated.
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. • A continuing history of mining with good reconciliation of mine claimed to mill recovered provides confidence in the accuracy of the estimate for Renison and Mount Bischoff. • A detailed set of production records provides confidence in the accuracy of the estimate for Rentails.

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.	• Mr Michael Poepjes visits the Tasmanian operations on a regular basis and is actively involved in physical mining process and evaluations.
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	• Mining is in progress at Renison and has occurred for nearly 50 years. Following exploration and infill drilling activity, annual resource updates and economic assessment of the measured and indicated resources is completed using actual costs, operating parameters and modifying factors. An annual update of Ore Reserves is completed on this basis. With regard to the Rentails Mineral Resource and Ore Reserve, the proposed Rentails Tailings Re-treatment Project has been subject to a Definitive Feasibility Study to validate the operating parameters applied. Increases in both the Mineral Resource and Ore Reserve for Renison are a direct reflection of total tailings output to the tailings dam from the operating Renison tin concentrator plant. • No reserve is stated for Mount Bischoff.

Criteria	JORC Code Explanation	Commentary
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• The cut-off grade used for inclusion in the Renison Reserve is 0.8% Sn based on economic assessment and current operating and market parameters. No consideration is given to copper co-product revenue in the economic assessment as the mining and recovery of the material is ad hoc and occurs as a consequence of mining the tin. • There is no lower cut-off for reporting of the Rentails Reserve as the entire resource will be mined as far as physical constraints allow. • No reserve is stated for Mount Bischoff.
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.	• The Renison mine predominantly applies an up-hole benching with in some cases post fill and cemented aggregate fill to fill voids. The mining method has been successfully applied over the past decade with small tweaks and geotechnical considerations progressively applied. • Mining dilution for the Mining Reserve is generally 25% at zero grade. • A minimum mining width of underground development is 3.5m and for underground stoping a minimum width of 1.5m and resource models are diluted to these limits before dilution applied. • A mining recovery 80% of the material developed and/or stoped is applied. • No Inferred resources are included within either the Reserve or the mine plan. • Rentails resources have been converted to reserve via a DFS study. • Rentails will be mined via a combination of dredging and monitoring. • Mining dilution at Rentails is minimal. • Mining recovery at Rentails will exceed 95%. • No Inferred resources are included within either the Rentails Reserve or the mine plan. • No reserve is stated for Mount Bischoff.
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?	• The Renison mine produces a tin concentrate of grade varying between 50- 60 % Sn with internal process designed to reduce penalty metals such as iron, sulphur, tungsten and copper. • The metallurgical process is complex and applies several stages of gravity-type concentration as well as sulphide and oxide flotation, regrinding and acid leach methods. The method is proved and has successfully operated for over 45 years. • The metallurgical recovery as estimated based on regression analysis of grade recovery curves from the actual processing of ores in the plant. • Metallurgical recoveries on the various ore and grades were considered as part of the cut-off grade analysis. • The process proposed by Rentails project is to regrind the ores to a finer grind, the pre-concentration using sulphide and oxide flotation, and high-g-force gravity separation to produce a low-grade concentrate which is planned to be processed using an Ausmelt process to fume the tin to a high grade concentrate tap out a copper matte. • No reserve is stated for Mount Bischoff.

Criteria	JORC Code Explanation	Commentary
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 is generally stored underground in old mine voids. Smaller amounts are placed on approved dumps. • The Renison mine operates under and in compliance with a number of operating permits, which cover its environmental impacts and outputs. • No reserve is stated for Mount Bischoff.
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.	• The Renison mine is currently active and has substantial in place infrastructure in place including a large amount of mine infrastructure, major electrical and pumping networks, and underground primary crusher and automated shaft hoist system, a 650,000tpa tin concentrator plant, a fully equipped laboratory, extensive workshop, administration facilities and a 100 person single person quarters nearby. • The Rentails Project will be integrated with the Renison Project. There is sufficient land set aside for the Rentails expansion and future infrastructure requirements including tailings storage. • No reserve is stated for Mount Bischoff.
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.	• Mining costs for the Renison mine are based on Actual Mining Contractor Costs and actual realised costs and future budget estimates for all other functions at the existing mine. • Costs for the Rentails Project have been defined through a Definitive Feasibility Study. • No reserve is stated for Mount Bischoff
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.	• For the Renison Mine, revenue is based upon existing smelter contract costs and a base international tin price of A$25,000. No co-product revenue is considered in Mining Reserve or cut-off grade estimation. • For the Rentails Project, similar industry based smelter contracts is considered. Credits for sale of a high-grade copper matte product are considered and applied as a co-product revenue in the estimation of operating costs. • No reserve is stated for Mount Bischoff.
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 tin 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 tin products and/or copper products generated from the 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.	• As an operating mine, internal cash flow estimates and impairment models apply an implied 8% real discount rate for NPV analysis and only economically viable ores are considered for mining. The mine is operated in a JV and carries no external debt forces. • For the Rentails Project, 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. • No reserve is stated for Mount Bischoff.
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• The Renison mine is fully permitted and a major contributor to the local and regional economy. It has no external pressures that impact its operation or which could potentially jeopardise its continuous operation. • The Rentails Project is yet to start and will require environmental and other regulatory permitting. • The Mount Bischoff Project is currently closed and the site is under care and maintenance whilst addition drilling and economic evaluation or remaining resources is considered.
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.	• Renison is an active mining 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).	• 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.

Criteria	JORC Code Explanation	Commentary
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.
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 local scale. Regular mine reconciliations occur to validate and test the accuracy of the estimates at Renison. A comprehensive production history confirms the validity of the Rentails reserve. • No reserve is stated for Mount Bischoff.

APPENDIX 5 – JORC 2012 TABLE 1 – NICKEL DIVISION
SECTION 1 SAMPLING TECHNIQUES AND DATA

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

Criteria	JORC Code Explanation	Commentary
Sampling techniques **Drilling techniques** **Drill sample recovery**	• 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. • 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. • 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.	• 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. • Historial 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. • 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 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.	• 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.
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, Al_2O_3, CaO, K_2O, Fe_2O_3, MgO, MnO, Na_2O, SiO_2, V_2O_5, TiO_2, Cr, SO_3, 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 drillhole 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 MGA94, 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 Lty (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 partie	• 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 130,000km^2 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 SiO_2 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 (Fe_2O_3, Al_2O_3) and metal element concentrations in the weathered profile.
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.	• No drillhole information is being presented in this release.
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.	• No drillhole information is being presented in this release.
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 drillhole information is being presented in this release.
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 resource has been undertaken since early 2008 no recent site visits by the Competent Person have been undertaken.
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 a strike length of >9km, a lateral extent of up to 2.5km and a depth of up to 200m.

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 was carried out in three dimensions via either Vulcan or 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 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/m^3. • 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.
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.

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 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.

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.	• Whittle 4D was 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.
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 draft Public Environmental Notice has been completed and will be published.
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 Pre-Feasibility Study progressed 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 and will require environmental and other regulatory permitting.
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.

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).	• 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.
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 Pre-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.