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 and a significant copper producer with a pipeline of assets from exploration to development including the world class Wingellina Nickel Project.

CORPORATE DIRECTORY

ASX Code: **MLX**

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QUARTERLY REPORT

FOR THE PERIOD ENDING 31 MARCH 2017

HIGHLIGHTS OF THE QUARTER

CORPORATE

- Operating EBITDA of A$6.68M (unaudited).
- Strong balance sheet with closing cash and working capital at the end of the quarter of A$113 million plus investments of A$14.8 million.

COPPER DIVISION – FOCUS ON ORE DEVELOPMENT AND MINE LIFE

- Production from Nifty Operations of 5,077 tonnes of copper contained in concentrates at an all-in-cost of A$8,576 per tonne of copper (A$3.87 per pound).
- Lower production for the quarter as expected due to reliance on historical mining areas while new stoping fronts are opened up.
- Implementation of the business improvement and ramp up plan on track to deliver target run-rate of 35,000 tonnes per annum (tpa) in the second half of 2017 and 40,000 tpa in the first half of 2018.
- Substantial tonnage identified in the North West limb with development access substantially complete.
- Exploration from underground drilling continues to return high grade intercepts including:
  - » NUG0059 7.60m at 4.39% Cu, and 21.20m at 2.03% Cu.
  - » NUG0069 29.00m at 4.26% Cu.
  - » NUG0054 27.40m at 2.23% Cu.
- Diamond drilling to commence at Maroochydore to followup on high grade sulphide and 3D IP targets.

TIN DIVISION – STEADY PRODUCTION AND HIGHER RETURNS

- Production of 1,783 tonnes of tin contained in concentrates at an all-in-cost of A$18,992 per tonne of contained tin (A$8.61 per pound).
- EBITDA of A$10.0 million and net cashflow of A$6.7M (unaudited).
- Ore sorting engineering completed and construction to start in May 2017 for 15-20% expansion of tin production.
- Rentails feasibility to be completed in May 2017, project economics robust with JV partners considering financing options.

Note: all figures are AUD$ and relate to the March 2017 Quarter unless stated otherwise.

All Renison figures are MLX's 50% equity share.

ENQUIRIES

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COPPER DIVISION

NIFTY OPERATIONS (MLX 100%)

Metals X took operational control of Nifty Operations, located in the East Pilbara region of Western Australia, after moving to compulsory acquisition of Aditya Birla Minerals Limited on 1 August 2016. During the quarter the Company continued with the implementation of the business improvement and production ramp-up plan for Nifty. Production for the quarter continued to be affected by the lack of available stoping fronts, resulting from insufficient capital development prior to acquisition of the mine. Some additional stoping areas, previously isolated by the lack of services, have also been brought back into production through the installation of infrastructure such as rising mains and escape ways.

Copper production for the quarter was 5,077 tonnes of copper contained in concentrates. A large percentage of the ore for the quarter was mined from the historical checker board (stope and fill mining area) while the new additional stoping fronts are being brought on line. This resulted in additional dilution and lower production grades due to the poor integrity of past paste fill. It is expected that copper grades will significantly improve as new stoping areas are brought into production.

Although the overall total costs of the operations were lower, the unit cost per tonne of contained copper in concentrate was negatively impacted by the lower copper production for the quarter. The C1 cost for the operation was A$6,885 per tonne of contained copper in concentrate (A$3.12 per pound of copper) and the all-in cost was A$8,576 per tonne of copper (A$3.89 per pound). The resultant cashflow for the quarter was (A$4.21) million with an (unaudited) EBITDA of (A$3.34) million. This negative cash position is expected to turnaround during the June quarter as operational improvements and the revised mine plan are implemented as summarised below.

The Company's objective is to achieve an annualised production rate of 40,000 tonnes of contained copper in concentrate by the end of 2017. In order to achieve this, current activities are focused on opening up additional underground stoping areas and utilizing the current 40% spare capacity in the processing plant. The operation remains on track to achieve the targeted annualised production rates of 35,000 tpa in the second half of 2017 and 40,000 tpa for the first half of 2018. In addition, significant progress has been made towards increasing the reserve base at Nifty through geological modeling and the on-going resource extension drilling program.

In conjunction with the new geological model completed in January 2017, the mine plan has been updated with revised mine strategies to optimize mining of the ore body. The mine plan shows sufficient ore is available at both ends of the current mine workings (to the East and West ends) within close proximity to current development. The identified tonnage should be sufficient to achieve the planned production rate of over 40,000 tonnes of copper in concentrate per annum. Stoping plans are being implemented to bring these areas into production. Access to the West end is expected to be achieved during the June quarter and access to the East end early in the September quarter, after which the areas will be set up for stoping.

Picture: Nifty Copper Concentrator

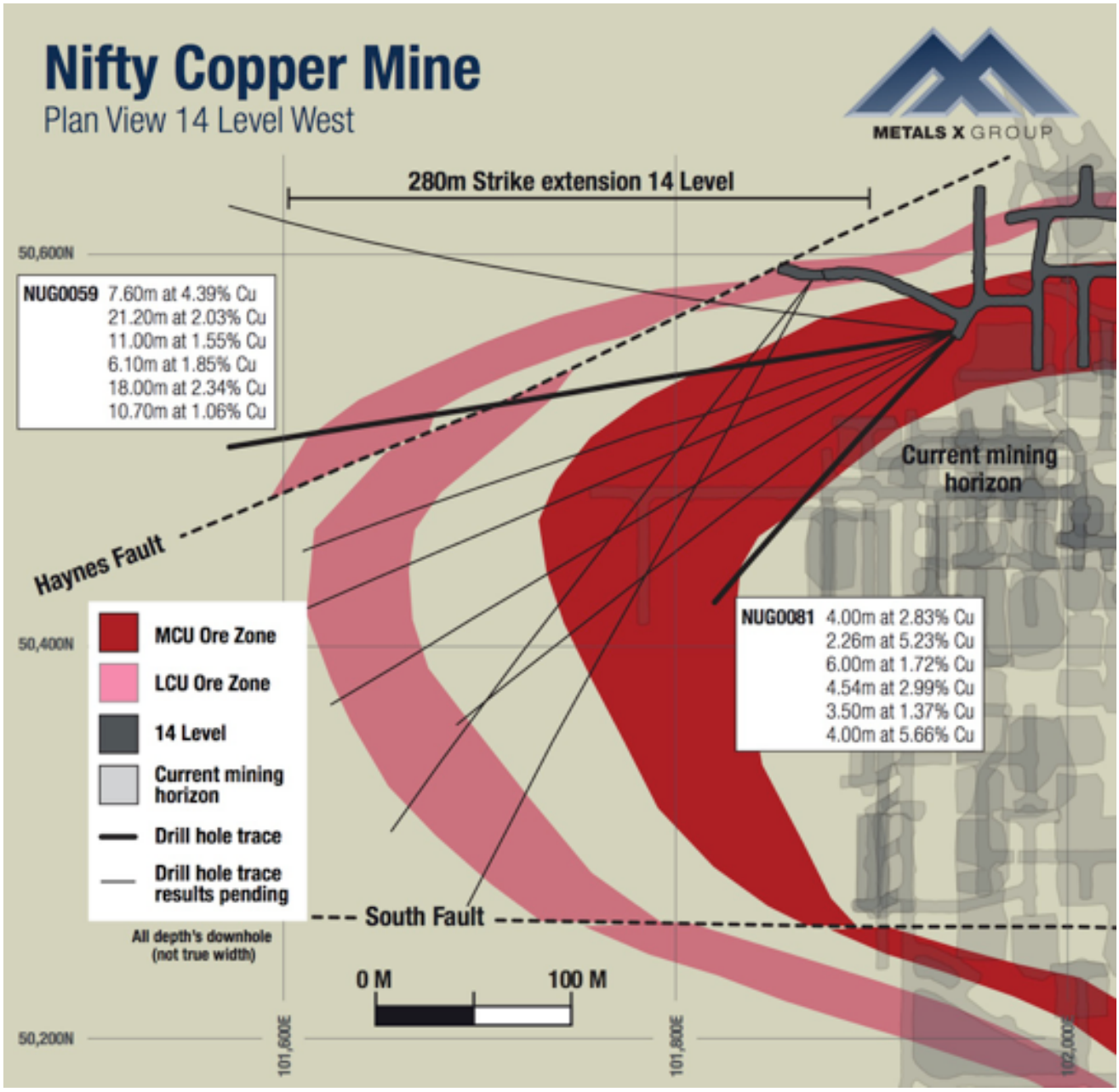


Figure 1: Plan view of extensional drilling of 14L West showing an additional 280 m of mineralization beyond the current mine front.

The surface exploration strategy has also commenced with the initial aim of substantially extending the life of the underground operation through further defining and drilling the down plunge extension of the Nifty syncline. A seismic survey will commence in early May to confirm the current proposed drill targets, with drilling expected to commence early July. The regional exploration strategy has also commenced which includes the assessment of the broader, highly prospective copper, lead and zinc exploration tenure held by the Company (see Nifty exploration below).

During the quarter 3D IP reprocessing was also completed at Maroochydore identifying various anomalous targets . Diamond drilling at Maroochydore will commence as soon as possible to followup these targets and previous sulphide drilling results which included:

- 12m at 2.58% Cu from 352m from hole 12MAD088;
- 26m at 1.67% Cu from 213m from hole 12MAD135; and
- 10m at 2.99% Cu from 327.0 from hole 12MAD138.

Operational cost reduction initiatives continued to be implemented during the quarter together with improved mining practices. Combined with the ongoing review of minor contracts, total costs at the operation continue to fall. These cost reductions will be reflected in reduced unit all-in-costs once as the operation increases its production rate towards targeted levels. Additional mobile equipment was mobilized to site during the quarter and major component rebuilds of the underground fleet continued. This has resulted in significant improvements in fleet availability which will further increase productivity and provide an expected reduction in unit costs during the June quarter.

Quarterly production and costs are tabulated below:

		March 17 Quarter	Prev. Quarter	Rolling 12-months
Physical Summary	Units			
Production				
Ore Tonnes Mined	t	347,707	415,004	**1,576,472**
Ore Grade Mined	% Cu	1.56	2.09	**1.84**
Copper Concentrator				
Tonnes Processed	t	344,134	394,985	**1,569,244**
Ore Grade Processed	% Cu	1.59	2.11	**1.85**
Recovery	%	93.06	94.85	**94.87**
Copper Produced	t	5,077	7,909	**27,579**
Copper Sold	t	4,477	8,213	**25,040**
Copper price achieved	$	7,747	6,970	**6,661**
Cost Summary				
Mining	A$/t Cu	3,859	2,153	**2,755**
Processing	A$/t Cu	1,976	1,027	**1,240**
Admin	A$/t Cu	1,029	1,043	**1,155**
Stockpile Adj	A$/t Cu	21	-	**4**
C1 Cash Cost	A$/t Cu	6,885	4,223	**5,154**
Royalties	A$/t Cu	340	305	**306**
Marketing / Sales costs	A$/t Cu	1,112	1,229	**1,277**
Sustaining Capital	A$/t Cu	132	367	**413**
Reclamation & other Adj	A$/t Cu	68	108	**105**
All-in Sustaining Costs	A$/t Cu	8,537	6,232	**7,255**
Project Start-up costs	A$/t Cu	-	-	**-**
Exploration Costs	A$/t Cu	39	40	**57**
All-in Costs	A$/t Cu	8,576	6,272	**7,312**

NIFTY EXPLORATION

Underground drilling continued at Nifty during the quarter providing both infill grade control information and resource definition drilling ahead of the mining front. Best results from the drilling program include;

- East Hinge 7.60m at 3.21% Cu in NG0075.
- West Hinge 7.60m at 4.39% Cu, 21.20m at 2.03% Cu, and 18m @ 2.34% Cu in NUG0059.
- North East limb 29.00m at 4.26% Cu in NUG0069.
- North West Limb 27.40m at 2.23% Cu in NUG0054.

As mentioned above, the Northern Limb already has extensive capital development within close proximity. With the benefit of the increased geological definition and confidence in grade distribution provided by the drilling, the West end of the limb is currently being accessed for production during the June quarter. Access to the East end is planned to be in place during the September quarter.

During the December 2016 quarter the Nifty exploration team developed a strategic plan to underpin the recommencement of grassroots exploration activities across the Company's large landholdings in the Patterson Province. With the completion of the wet season in early 2017 the Company is pleased to advise that a significant exploration effort is now underway on the Nifty tenement package with ramp-up of activities through the June quarter.

Petrophysical measurement of drill core through the project area was completed during the quarter. Results from these tests will be used in the modelling of various electrical and potential field surveys.

A 3D Seismic survey has been tested and approved for commencement in early May to define the down plunge extension of the Nifty syncline. In support of this program, consultants have been to site and completed rock property measurements to assist with interpreting the seismic results. A regional gravity survey has also been approved, with results expected in the coming quarter. An aerial magnetics survey at Nifty North has also commenced.

At Maroochydore, 3D IP reprocessing was completed during the quarter. Results are encouraging, with several chargeable anomalies down-dip of current sulphide resource outlined. Three of these anomalies correspond to the conductive shales. However, one sits outside the conductive zone, which further increases the probability of it being sulphide related.

Drilling at Maroochydore will commence as soon as possible to followup these anomalies and previous sulphide drilling results.

TIN DIVISION

RENISON PROJECT (MLX 50%)

The Renison tin operations in Tasmania delivered another consistent quarterly performance with production of 1,783 tonnes of tin contained in concentrates at a C1 cost of A$11,620 per tonne of tin compared to the previous quarter of 1,768 tonnes of tin at a C1 cost of A$11,980 per tonne. The average tin price for the quarter was approximately 5% lower than the previous quarter and is currently trading in a range between A$26,000 and A$27,000 per tonne. EBITDA for the quarter was A$10.0 million (MLX 50% share) compared to the previous quarter of A$10.7 million.

The process plant continued to run well above nameplate capacity and underground production tonnes have been deliberately restrained to meet the processing plant requirements. A significant stockpile of ore remains on surface and underground development continues to open up additional stoping areas in preparation for the completion of the ore sorting installation by early 2018 which will require the production of an additional 200,000t of ore per year.

Recoveries in the process plant continue to break record highs with the average quarterly recovery being 75.65% and a resultant average tailings grade of 0.31% which is substaintially lower than historical levels.

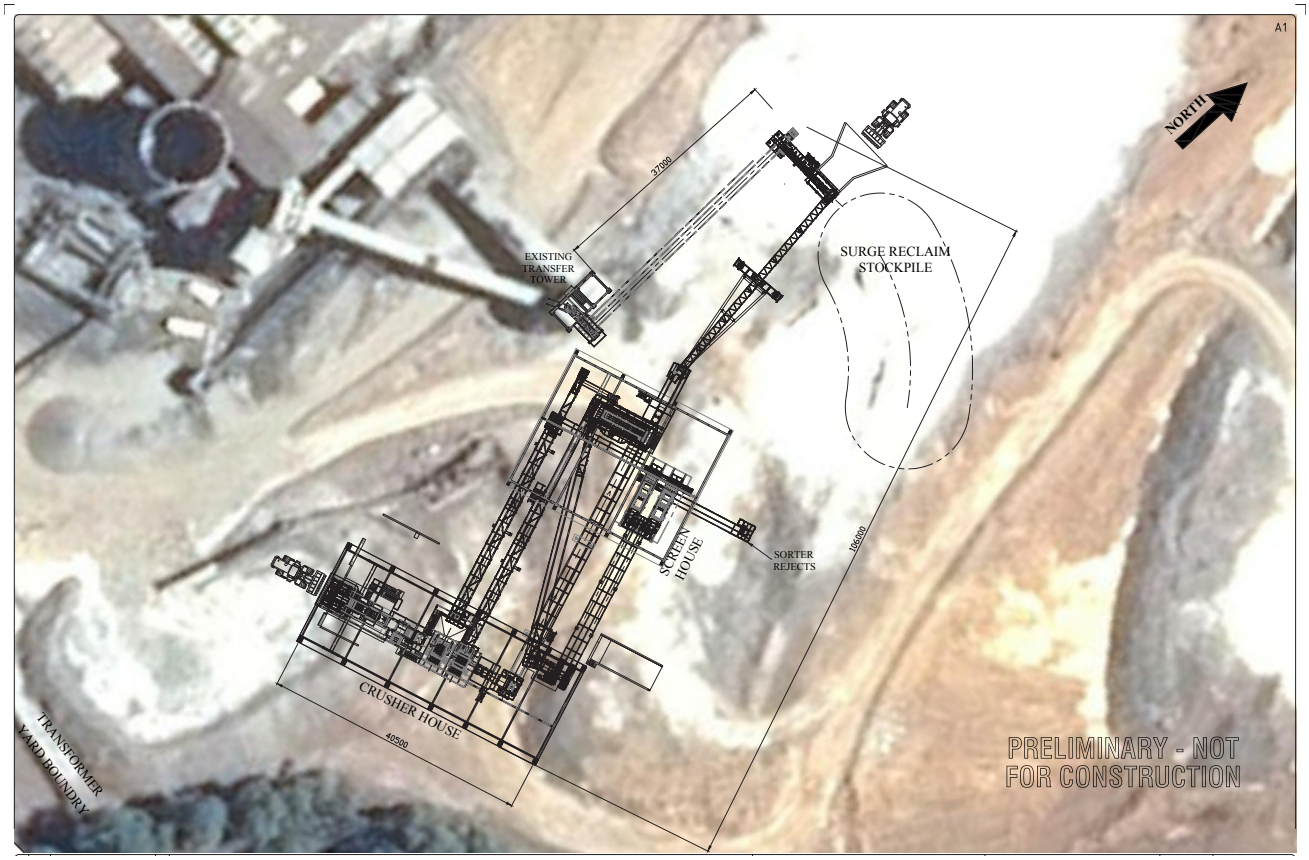
C1 operating costs of A$11,620 per tonne of tin for the quarter were slightly lower than the previous quarter (approximately 3.0%) while the All-in-sustaining cost (AISC) of A$18,992 was slightly higher (approximately 2.7%) due to an increase in sustaining capital as a result of the commencement of the construction of the new tailings dam (Dam D) which commenced in February 2017.

Picture: Renison Tailings Dam D construction.

Quarterly production and costs are tabulated below:

		March 17 Quarter	Prev. Quarter	Rolling 12-months
Physical Summary	Units			
Production				
Ore Tonnes Mined	t	186,230	197,650	**754,019**
Ore Grade Mined	% Sn	1.28	1.28	**1.22**
Tin Concentrator				
Tonnes Processed	t	184,570	190,438	**728,171**
Ore Grade Processed	% Sn	1.27	1.29	**1.23**
Recovery	%	75.65	72.33	**71.58**
Tails grade	%	0.31	0.36	**0.35**
Tin Produced	t	1,783	1,768	**6,421**
Tin Sold	t	1,730	1,868	**6,303**
Tin price achieved	$	26,477	27,911	**25,568**
Cost Summary				
Mining	A$/t Sn	6,238	6,937	**7,017**
Processing	A$/t Sn	4,526	4,313	**4,881**
Admin	A$/t Sn	1,029	1,081	**1,109**
Stockpile Adj	A$/t Sn	(174)	(351)	**(390)**
C1 Cash Cost	A$/t Sn	11,620	11,980	**12,617**
Royalties	A$/t Sn	1,354	1,623	**1,209**
Marketing / Sales costs	A$/t Sn	2,251	2,388	**2,241**
Sustaining Capital	A$/t Sn	3,758	2,478	**3,430**
Reclamation & other Adj	A$/t Sn	9	26	**33**
All-in Sustaining Costs	A$/t Sn	18,992	18,495	**19,530**
Project Start-up costs	A$/t Sn	-	-	**734**
All-in Costs	A$/t Sn	18,992	18,495	**20,264**

During the quarter the Joint Venture Committee agreed to proceed with the implementation of ore sorting. Trials indicate that approximately 25% of waste can be rejected from underground ore with tin losses of less than 3%. The purpose of implementing ore sorting is to enable a cost effective expansion at the Renison tin operation, with an increase in mining production without the requirement to expand the processing plant. The economic evaluation indicates a project payback period of less than 12 months for a total capital outlay of approximately A$13M (100% basis). It is anticipated that the construction contract will be awarded by early May 2017 with a 40 week construction phase.



Picture: Renison Proposed crushing and ore sorting plant layout.

The ore sorter design requires an increase in annualized mine production over the next 18 months to 920,000 tonnes while maintaining the processing plant at a rate of approximately 720,000 tonnes per annum. Tin production with the proposed ore sorter is expected to increase by 15-20% from the current levels of approximately 7,100 tonnes of tin per year. In addition, the resulting improved economics of Renison will facilitate a re-optimisation of the current resource.

RENISON EXPLORATION AND DEVELOPMENT

In anticipation of the expansion of underground production as a result of the proposed installation of ore sorting, a second underground drill rig continued to expand the Company's resource definition program in the Mid-South Federal Bassett and South Bassett areas. This program was completed, and the drill rig demobilized, in mid-March. It is intended to incorporate the results of this drilling into the upcoming resource updates and provide better definition for potential mining plans in these areas.

Drilling during the quarter continued to demonstrate the robustness of areas already encompassed by the mine plan, with best results of:

- 6.8m at 1.84% Sn from 21m in U5946;
- 6.2m at 1.82% Sn from 2.3m in U5992 from Area 4; and
- 1.9m at 5.73% Sn from 151m in U5809 from CFB.

Drilling during the June quarter will continue to improve overall resource definition and advance additional targets within the Upper Huon North

Work also continued during the quarter on re-evaluating remnant mineralisation in the substantial stratabound footwall ore system at the top of the mine. This large, high-grade mineralised zone, which has favourable metallurgical characteristics and has not previously been subject to modern geological modelling techniques and mining review, was the basis for the commencement of the current mechanised Renison Bell mine. A Loza Ground Penetrating Radar was used to perform a trial survey in the Battery and Dalcoath pits. Results from the trial were cross-checked against surrounding drilling and mapping. Subsequently, the results have revealed that Loza Radar surveys can differentiate between barren dolomite and sulphide replaced dolomite. This encouraging result will be studied in more detail with a view to justifying a more robust study at Renison.

RENISON EXPANSION (RENTAILS) PROJECT

The objective of the Rentails Project is to re-process an estimated 22.5 million tonnes of tailings, at an average grade of 0.45% tin and 0.22% copper, from the historical processing of tin ore. The current tailings has a Measured Mineral Resource containing over 100,000 tonnes of tin and 50,000 tonnes of copper.

Metals X completed a Definitive Feasibility Study in 2009 for the mining and re-processing of the tailings for the recovery of tin and copper. The financial evaluation estimated total cash cost of sales of A$11,875 per tonne of tin after copper credits, assuming a copper price of A$6,250/t (the current copper price is approximately A$8,250/t). Capital costs at an accuracy of estimate of +/- 15%, were estimated at approximately A$194 million.

During the quarter the feasibility capital and operating costs were updated with the updated economic model currently being reviewed. A comprehensive update is planned to be completed in early May 2017. The update feasibility indicates that there has only been a minor increase in capital and the operating costs have increased from A$11,875 per tonne of tin to approximately A$14,000 per tonne of tin, after copper credits. The results indicate a strong business case for the project at prevailing tin prices.

Definitive costings will be undertaken during the June quarter and financing options will be evaluated such that a financial investment decision can be considered by the JV Committee over the coming months.

NICKEL DIVISION

WINGELLINA NICKEL PROJECT (MLX 100%)

The Wingellina Nickel-Cobalt Project remains one of the largest undeveloped Nickel – Cobalt – Scandium deposits in the world. Metals X has defined a Mineral Resource estimate of approximately 168 million tonnes containing 1.56 million tonnes of nickel, 122,000 tonnes of cobalt and a significant inventory of scandium and iron. There are also numerous other identified mineral accumulations within the area; Metals X has also defined a further Inferred Resource (JORC) of 33 million tonnes with a grade of 0.81% Ni, 0.07% Co and 39% Fe_2O_3, at its Claude Hill Prospect located approximately 25 km to the east of Wingellina. Many other occurrences of nickel mineralisation remain untested.

Metals X has completed a feasibility study (+/-25%), has signed an agreement with the Traditional Owners which provides consent to undertake mining activities and in November 2016 received EPA approval.

Metals X has been collaborating with POSCO in regard to applying its propriety Nickel Extraction Process (PosNEP) to the Wingellina project. In late 2014 Metals X was invited to pilot test 100 tonnes of Wingellina ore through POSCO's PosNEP fully upgraded and automated pilot plant in Korea. The purpose of the pilot was to trial an alternative processing route for high iron, low magnesium nickel ores. The trials were successful and discussions are ongoing as to the next steps in the possible commercialisation of the PosNEP process and the Wingellina project.

The PosNEP process has the capability of being modularised into smaller production trains of approximately 10,000 tpa contained nickel for which additional trains can be added. In addition the process uses minimal water compared to other processes and recycles the main reagents. Overall this is expected to reduce the capital hurdle by starting production with one to two process trains and building additional trains at a subsequent date.

During the quarter Metals X reviewed several high grade pit start-up scenarios for the Wingellina project using the modulised PosNEP approach. The main two scenarios where the installation of:

- Scenario one - 1 x 10,000 tonne per annum nickel production module for the first 15 years producing an initial 150,000 tonnes of nickel; and
- Scenario two - 2 x 10,000 tonne per annum nickel production modules for the first 15 years producing an initial 300,000 tonnes of nickel.

The results indicate that the grade of ore mined under each of the scenarios would be substaintially higher than the global resource and is as follows:

- Scenario one – 1.49% Ni and 0.11% Co.
- Scenario two – 1.45% Ni and 0.11% Co.

As part of the ongoing review and discussion POSCO is currently modeling the above scenarios. These analyses are expected to conclude during the June Quarter.

During the quarter Metals X also reviewed the potential for high grade cobalt production from Wingellina (see ASX announcement 20 March 2017 for more detail). The review indicated that within the current resources a high grade cobalt domain of 29.7 million tonnes at 0.14%Co (cut-off grade of 0.1% Co) or 85.9 million tonnes at a grade of 0.11% Co (cut-off grade of 0.05% Co) could be mined.

CORPORATE

Subsequent to the completion of the demerger of Westgold from Metals X in December 2017, Mr Peter Cook stepped down as a Director of Metals X.

Metals X closed the quarter with cash, working capital of $113.3 million and investments of $14.8 million.

COPPER HEDGING

Metals X has hedged 1,500t of copper per month for April through to June 2017. The company has granted calls at A$8,100 per tonne of LME Copper and brought puts at A$7,500 per tonne of LME Copper.

ISSUED CAPITAL

The Company has the following equities on issue.

Fully Paid Ordinary Shares:	605,952,748
Unlisted Employee Options ($0.76, expiry 20/01/2020):	7,250,000

MAJOR SHAREHOLDERS

The current major shareholders of the Company are:

Blackrock Group	12.84%
APAC Resources (HKEX:1104)	9.18%
Jinchuan Group	7.22%
Ausbil Investment Management	5.27%

COMPLIANCE STATEMENTS

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

The information in this report that relate to Ore Reserves has been compiled by Metals X technical employees under the supervision of Mr Michael Poepjes BEng (Mining Engineering), MSc (Min. Econ) M.AusIMM. Mr Poepjes is a full-time employee of the company. Mr Poepjes has sufficient experience which is relevant to the styles of mineralisation and types of deposit under consideration and to the activities which he is undertaking to qualify as a Competent Person as de ned in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Poepjes consents to the inclusion in this report of the matters based on his information in the form and context in which it appears. Mr Poepjes is eligible to participate in short and long term incentive plans and holds performance rights in the Company as has been previously disclosed. Mr Poepjes is eligible to participate in short and long term incentive plans of the company.

The information that relates to Rentails Project Mineral Resources and Ore Reserves is extracted from the report entitled 'Annual Update Mineral Resource And Ore Reserves As At 30 June 2016' created on 18 August 2016 and is available to view on Metals X's website (www.metalsx.com.au) and the ASX (www.asx.com.au). The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modifed from the original market announcement.

The information that relates to Wingellina Project Mineral Resources and Ore Reserves is extracted from the report entitled 'Annual Update Mineral Resource And Ore Reserves As At 30 June 2016' created on 18 August 2016 and is available to view on Metals X's website (www.metalsx.com.au) and the ASX (www.asx.com.au). The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modifed from the original market announcement.

RENISON TIN PROJECT

Lode	Hole	Intercept N	Intercept E	Intercept RL	Intercept (True Width)	From (m)	Dip	Azi
Area 4	U5906	66,680.2	44,569.1	1,165.3	1.8m at 3.88% Sn and 0.1% Cu	119.9	-22	87
	U5946	66,691.3	44,552.2	1,213.7	6.8m at 1.84% Sn and 0.04% Cu	21.0	-25	65
	U5947	66,683.2	44,534.5	1,231.0	2.2m at 3.25% Sn and 0.13% Cu	5.0	24	65
	U5948	66,689.2	44,535.1	1,231.1	5.4m at 2.01% Sn and 0.09% Cu	7.0	17	38
	U5949	66,701.7	44,544.9	1,217.0	3.5m at 2.22% Sn and 0.12% Cu	22.0	-19	38
	U5954	66,707.4	44,535.5	1,234.0	1.1m at 1.62% Sn and 0.06% Cu	-	73	330
	U5955	66,708.7	44,541.0	1,227.2	0.9m at 2.74% Sn and 0.08% Cu	2.0	33	43
	U5956	66,708.1	44,540.8	1,227.5	2.2m at 1.44% Sn and 0.06% Cu	-	11	78
	U5958	66,687.1	44,534.7	1,231.5	3.2m at 3.37% Sn and 0.07% Cu	2.0	29	258
		66,685.2	44,526.0	1,236.5	1.4m at 1.48% Sn and 0.06% Cu	13.8	29	258
	U5992	66,692.6	44,522.6	1,252.0	6.2m at 1.82% Sn and 0.11% Cu	2.3	36	45
	U5995	66,686.3	44,517.7	1,263.7	2.2m at 1.19% Sn and 0.09% Cu	12.0	86	88
CFB	U5791	66,260.6	44,481.5	1,540.0	2.4m at 1.09% Sn and 0.23% Cu	94.6	2	78
	U5793	66,233.3	44,477.3	1,573.4	4.2m at 0.89% Sn and 0.15% Cu	95.0	22	95
	U5794	66,215.9	44,461.4	1,573.5	2.5m at 1.71% Sn and 0.46% Cu	84.3	24	108
	U5795	66,209.6	44,453.6	1,588.4	3.8m at 0.87% Sn and 2.43% Cu	86.8	34	116
		66,193.4	44,486.7	1,613.6	2.6m at 1.24% Sn and 0.58% Cu	131.3	34	116
	U5796	66,245.5	44,410.2	1,560.3	2.1m at 1.33% Sn and 1.01% Cu	30.9	43	76
	U5797	66,235.3	44,402.4	1,562.8	1m at 4.11% Sn and 0.5% Cu	27.5	58	85
		66,220.2	44,445.2	1,634.9	5.8m at 1.43% Sn and 0.62% Cu	107.5	58	85
	U5798	66,277.9	44,456.2	1,556.6	0.7m at 9.44% Sn and 0.02% Cu	78.2	15	64
	U5809	66,320.0	44,431.9	1,664.9	1.9m at 5.73% Sn and 0.13% Cu	151.0	55	30
	U5916	66,402.8	44,410.5	1,654.5	4.5m at 1.09% Sn and 0.07% Cu	62.7	-18	35
	U5924	66,358.8	44,410.8	1,699.7	2.8m at 1.01% Sn and 0.09% Cu	43.3	33	78
Lower Federal	U5225	65,808.9	44,486.8	1,482.9	0.5m at 12.28% Sn and 0.03% Cu	34.5	52	91
	U5229	65,842.8	44,477.2	1,488.9	1.4m at 2.14% Sn and 0.22% Cu	47.5	44	17
	U5927	66,357.6	44,387.0	1,700.0	2m at 0.9% Sn and 0.07% Cu	27.0	57	73
Mid-Federal South	U5840	65,537.5	44,486.3	1,628.9	2.7m at 2% Sn and 0.07% Cu	64.6	3	44
	U5841	65,525.0	44,513.6	1,607.2	4.8m at 0.98% Sn and 0.1% Cu	81.0	-13	64
		65,527.1	44,518.0	1,606.1	1.3m at 1.98% Sn and 0.08% Cu	87.2	-13	64
		65,528.5	44,520.9	1,605.4	2.1m at 1.91% Sn and 0.1% Cu	90.5	-13	64
	U5843	65,515.3	44,513.6	1,564.7	1.6m at 1.67% Sn and 0.18% Cu	96.9	-37	71

RENISON TIN PROJECT (CONTINUED)

Lode	Hole	Intercept N	Intercept E	Intercept RL	Intercept (True Width)	From (m)	Dip	Azi
	U5843	65,516.8	44,518.1	1,561.1	1.5m at 0.82% Sn and 0.65% Cu	102.8	-37	71
	U5849	65,467.8	44,498.6	1,605.3	1.9m at 0.79% Sn and 0.98% Cu	58.0	-19	103
	U5852	65,400.7	44,533.7	1,546.8	1.4m at 1.68% Sn and 0.17% Cu	141.4	-33	130
	U5853	65,384.8	44,532.2	1,551.3	1.7m at 1.11% Sn and 0.2% Cu	148.0	-29	137
	U5854	65,394.8	44,522.5	1,577.3	1.4m at 1.25% Sn and 0.81% Cu	124.0	-22	137
	U5855	65,439.0	44,505.6	1,600.1	1.3m at 0.9% Sn and 1.24% Cu	77.0	-18	123
	U5857	65,430.7	44,497.9	1,618.0	1.9m at 1.41% Sn and 0.07% Cu	71.4	-5	132
Flinders	U5858	65,404.5	44,501.9	1,625.1	1.7m at 1.23% Sn and 0.13% Cu	93.9	-0	142
	U5859	65,399.8	44,486.0	1,663.4	2.3m at 0.68% Sn and 0.16% Cu	97.0	22	152
	U5860	65,427.3	44,489.6	1,646.5	3m at 0.77% Sn and 0.18% Cu	72.9	16	140
	U5861	65,446.1	44,494.7	1,627.8	1.9m at 2.24% Sn and 0.78% Cu	59.4	2	123
	U5862	65,427.7	44,472.2	1,695.8	1.5m at 0.91% Sn and 2.45% Cu	89.2	19	151
	U5865	65,470.1	44,468.0	1,683.2	2.1m at 0.72% Sn and 0.25% Cu	60.0	60	120
	U5866	65,481.0	44,482.5	1,642.2	1.9m at 1.91% Sn and 0.4% Cu	42.3	21	96

- Widths are true
- Coordinates are intersection.
- Grid is Renison Mine Grid.
- Significant = >4%m Sn.

NIFTY COPPER OPERATIONS

Lode	Hole	Intercept N	Intercept E	Intercept RL	Intercept (True Width)	From (m)	Dip	Azi
Hinge East	NUG0047	7,603,718.2	352,666.4	-171.5	3.60m at 3.21% Cu*	83.8	-1	111
					5.00m at 1.14% Cu*	96.4		
	NUG0075	7,603,636.0	352,622.3	-171.2	7.00m at 2.09% Cu*	1.0	-	315
					7.60m at 3.21% Cu*	39.0		
					5.00m at 2.51% Cu*	56.0		
Hinge West	NUG0059	7,604,207.4	352,235.2	28.7	7.60m at 4.39% Cu*	-	-0	286
					21.20m at 2.03% Cu*	49.8		
					11.00m at 1.55% Cu*	83.0		
					6.10m at 1.85% Cu*	108.9		
					18.00m at 2.34% Cu*	200.0		
					10.70m at 1.06% Cu*	269.3		

NIFTY COPPER OPERATIONS (CONTINUED)

Lode	Hole	Intercept N	Intercept E	Intercept RL	Intercept (True Width)	From (m)	Dip	Azi
	NUG0081	7,604,204.0	352,235.4	28.0	4.00m at 2.83% Cu*	23.0	-1	249
					2.26m at 5.23% Cu*	31.9		
					6.00m at 1.72% Cu*	40.0		
					4.54m at 2.99% Cu*	65.5		
					3.50m at 1.37% Cu*	116.0		
					4.00m at 5.66% Cu*	133.0		
North East Limb	NUG0005	7,604,188.0	351,986.8	304.8	7.80m at 2.52% Cu	155.0	35	147
	NUG0009	7,604,164.0	352,373.8	305.0	11.2m at 1.18% Cu	139.8	36	152
					4.30m at 2.50% Cu	163.3		
	NUG0010	7,604,010.0	351,900.0	305.0	3.00m at 2.05% Cu	101.2	17	168
					9.60m at 1.69% Cu	126.2		
					4.00m at 1.40% Cu	140.7		
					3.10m at 1.39% Cu	148.0		
	NUG0011	7,604,076.0	351,828.0	305.0	3.90m at 1.97% Cu	128.1	44	154
					8.50m at 1.14% Cu	145.6		
	NUG0013	7,603,950.0	351,870.5	302.5	11.90m at 1.16% Cu	112.9	35	168
	NUG0019	7,604,304.0	351,463.6	305.0	2.60m at 2.39% Cu	79.2	21	192
					3.40m at 2.76% Cu	94.1		
	NUG0031	7,604,028.0	352,786.7	27.3	2.00m at 3.19% Cu	76.0	17	241
					6.15m at 1.55% Cu	88.0		
					2.40m at 1.46% Cu	99.7		
	NUG0033	7,604,031.0	352,790.7	28.6	7.15m at 2.00% Cu	97.0	43	254
	NUG0035	7,604,027.8	352,785.9	27.6	2.55m at 1.64% Cu	82.7	23	256
					4.90m at 3.67% Cu	98.0		
					2.65m at 1.86% Cu	111.1		
	NUG0038	7,604,027.9	352,785.9	27.6	3.10m at 2.97% Cu	97.4	25	268
					17.90m at 2.20% Cu	114.5		
	NUG0039	7,604,027.8	352,786.2	28.1	3.40m at 3.03% Cu	101.7	35	275
					8.30m at 1.62% Cu	117.0		
					2.35m at 1.69% Cu	133.5		
	NUG0040	7,604,027.8	352,786.2	28.6	2.25m at 1.66% Cu	146.5	40	284
					2.60m at 1.61% Cu	165.8		
	NUG0042	7,604,028.0	352,786.6	27.3	3.35m at 1.95% Cu	106.0	14	268
					22.50m at 1.75% Cu	125.0		

NIFTY COPPER OPERATIONS (CONTINUED)

Lode	Hole	Intercept N	Intercept E	Intercept RL	Intercept (True Width)	From (m)	Dip	Azi
	NUG0068	7,603,783.1	352,686.2	-141.9	3.50m at 1.55% Cu*	7.0	-0	85
					4.70m at 1.70% Cu*	14.2		
					4.0m at 1.44% Cu*	24.0		
	NUG0069	7,603,782.6	352,686.5	-141.9	29.00m at 4.26% Cu*	6.0	-1	105
	NUG0070	7,603,795.0	352,664.3	-140.6	5.40m at 1.45% Cu	4.4	29	205
					7.30m at 3.06% Cu	32.0		
	NUG0071	7,603,795.0	352,664.5	-140.4	8.60m at 3.15% Cu	6.5	30	175
North West Limb	NUG0054	7,604,231.6	352,320.5	27.2	27.40m at 2.23% Cu	22.5	16	225
					10.00m at 1.36% Cu	54.0		
					11.20m at 1.63% Cu	75.0		
					2.80m at 2.40% Cu	94.5		
	NUG0055	7,604,231.6	352,320.6	27.2	23.60m at 1.29% Cu	20.0	19	203
					15.20m at 1.35% Cu	65.0		
					2.50m at 2.18% Cu	88.0		
					2.10m at 2.45% Cu	98.6		
	NUG0056	7,604,231.6	352,320.6	27.2	24.0m at 1.60% Cu	19.0	16	188
					15.20m at 1.78% Cu	69.1		
	NUG0066	7,604,245.5	352,219.9	29.0	4.55m at 2.80% Cu	-	-	22
	NUG0067	7,604,246.0	352,219.9	29.0	6.65m at 1.14% Cu	-	-1	49
					3.60m at 3.76% Cu	31.3		
	NUG0083	7,604,203.0	352,237.0	29.0	4.50m at 3.03% Cu	19.0	-	201
	NUG0083				1.75m at 2.44% Cu	30.1		
	NUG0083				2.55m at 4.22% Cu	42.0		
	NUG0083				2.30m at 4.90% Cu	49.7		

* Denotes true width not calculated.

MAROOCHYDORE SULPHIDE

Lode	Hole	Collar N	Collar E	Collar RL	Intercept (Down Hole Width)	From (m)	Dip	Azi
Maroochydore Sulphide	12MAD088	50,801.8	9,997.7	10,308.7	12m at 2.58% Cu	352.0	-60	273
	12MAD135	50,681.6	9,802.6	10,311.2	26m at 1.67% Cu	213.0	-90	-
	12MAD138	50,583.2	10,001.8	10,309.2	10m at 2.99% Cu	327.0	-80	273

- Widths are down hole.
- Coordinates are collar.
- Grid is Maroochydore Local Grid.
- Intervals are best in hole above 0.5% Cu with no more than two consecutive metres of internal dilution.

APPENDIX 2 – 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. 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 qualitative 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 pulverised 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. • 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 4%m Sn cut-off.
Relationship between mineralisation widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	• Interval widths are 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.	• No new discoveries reported.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	• Presented above. • Excluded results are non-significant and do not materially affect understanding of the 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.	• No relevant information to be presented.

Criteria	JORC Code Explanation	Commentary
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.

APPENDIX 3 – JORC 2012 TABLE 1 – COPPER 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.	• The deposit has been drilled and sampled using various techniques with diamond and reverse circulation drilling utilised for mineral estimation. This information comes from surface and underground and is on variable spacing along and across strike. The total metres within the immediate vicinity of the Deposit are 143,497m. The holes are drilled on most occasions to intersect as near as possible perpendicularly the synclinal east plunge mineralisation. • The drilling programs have been ongoing since initial discovery to both expand the mineralisation and provided control for mining. The hole collars were surveyed by Company employees / contractors with the orientation recorded. Down holes survey is recorded using appropriate equipment. The diamond core was logged for lithology and other geological features. • The diamond core varied from HQ to NQ in diameter and mineralised intervals and adjacent locations were sampled by cutting the core in 1/2 based on observation from the core photographs. The RC samples were collected from the cyclone of the rig and spilt at site to approximate 2 to 3kg weight. The preparation and analysis was undertaken at an accredited commercial laboratory with the core dried, pulverised and split to produce a 30gm sample for assay by fire assay with either atomic absorption finish or gravimetric determination.
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.	• The drilling was completed using a combination of surface and underground drilling. In general the orientation of the drilling is appropriate given the given the strike and dip of the mineralisation. • The core recovery is recorded in the database and in most instances was in excess of 95%. This was assessed by measuring core length against core run. There is no record of the quantity (weight) of RC chips collected per sample length. • The ground condition in the mineralised zone is very competent. In areas of less competent material core return is maximised by controlling drill speed. RC samples from less competent material are identified in the log. • Whilst no assessment has been made, the competency of the material sampled would tend to preclude any potential issue of sampling bias.
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	• The routine logging of core and chips describes the general geology features including lithology, mineralisation, alteration etc. For the majority of holes this information is sufficient and appropriate to apply mineralisation constraints. Some core drilling is orientated and structural measurements of bedding, joints, veins etc. has been undertaken as well as facture densities. • Geological logging has recorded both summary and detailed lithology, mineralisation content, alteration, some angle to core axis information, vein type, incidence and frequency, magnetic content • The entire length of all holes, apart from surface casing, was logged.

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.	• All core to be sampled was halved using a mechanical saw. • RC chip samples are collected via a cyclone which is cleaned with air blast between samples. The samples is riffled to collect between 2 and 3kg. Most samples are dry with any moisture noted on the logs. • Field sub-sampling for chip samples appears appropriate as is the method of generating halved core. Procedures adopted in the laboratories are industry standard practises including that in the mine site facility. • In field riffles are cleaned between sampling using compressed air. The diamond cutting equipment is cleaned during the process using water. All laboratories adopt appropriate industry practises to reduce sample size homogeneously to the required size. • No field duplicate information was observed. • The style of mineralisation and high sulphide content does not rely on grain size as being influential on grade. Thus there is confidence in the overall grade of the deposit being fairly represented by the sampling.
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.	• The assay techniques are appropriate for the determination of the level of mineralisation in the sample. The technique was 4 acid digest with ICP finish. • No geophysical tools were utilised to ascertain grade • Standard and Blanks are included with all samples sent for analysis in the rate of between 1 in 20 and 1 in 30. The most recent reporting covering the majority of holes used in the estimate provide support for the quality of the Cu assays.
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.	• The extensive data set has been review by various parties including Maxwell Geoscience and DataGeo and the intersections within the mineralisation have been confirmed. • None observed but there is a significant amount of closely spaced supportive drilling results. • Field data is captured electronically, validated by responsible geologist and stored on corporate computer facilities. Protocols for drilling, sampling and QA/QC are contained with the company operating manuals. The information generated by the site geologist is loaded into a database by the company database manager and undergoes further validation at this point against standard acceptable codes for all variables. • No adjustments to the raw assay data has been made.
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.	• The collar positions were resurveyed by the Company surveyor or their contractors from a known datum. The survey is on a known local grid with demonstrated control. The orientation and dip at the collars is checked (aligned) by the geologist and down hole recording of azimuth and dip are taken at 30m intervals on most occasion using appropriate equipment. • The regional grid is GDA 94 Zone 50 and the drilling is laid out on a local grid. • Topographic control is from surface survey.

Criteria	JORC Code Explanation	Commentary
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.	• The majority of drilling utilised is on 40m x 20m grid specifically targeting lithological and hence mineralisation sequence definition. • The geological sequence is well understood from the mining which supports the current drill spacing as adequate for both grade continuity assessment and lithological modelling. • The sampling reflects the geological conditions. For mineral resource estimation a 1m composite length was chosen given that this is the dominant sample length in dataset.
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.	• Given the shape of the sequence the drilling as best as practically possible orientated to intersect the sequence perpendicularly. This is limited to drill sites from underground and surface. • No sampling bias is considered to have been introduced.
Sample security	• The measures taken to ensure sample security.	• The samples once collected and numbered are stored in the lockable site core yard chain. Batches of samples with each sample bag security tied and with sample number on the bag and inside on metal tags transported by commercial contractors to Perth. Upon receipt at the laboratory the samples are checked against the dispatch sheets to ensure all samples are present.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data	• Database management companies have over the past 2 years audited the drill hole database and found is representative of the information contained.

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.	• State Royalty of 5% applies to all tenements. • NCO consists of 92 tenements including 33 exploration licenses, 20 mining leases, 6 miscellaneous licenses and 33 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.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other partie	• NCO has a long history of exploration. The deposit was discovered during regional exploration by WMC in 1982. Since that time a significant exploration effort has been undertaken by WMC, and subsequently Straits Resources Limited and Aditya Birla Minerals Limited.

Criteria	JORC Code Explanation	Commentary
Geology	• Deposit type, geological setting and style of mineralisation.	• The Nifty deposit is hosted within the folded late-Proterozoic Broadhurst Formation which is part of the Yeneena Group. The Broadhurst Formation is between 1,000m to 2,000m thick and consists of a stacked series of carbonaceous shales, turbiditic sandstones, dolomite and limestones. The Broadhurst Formation hosts all known significant base metal occurrences including the Nifty copper mine and the Maroochydore, Rainbow and Warrabarty prospects. • The Broadhurst Formation deposit is unconformably overlain by the Isdell Formation which consists of an approximately 1000 m thick sequence of carbonate rocks, siltstones and shales. The sequence below the Broadhurst Formation consists of the Coolbro Sandstone, a 4,000 m thick sequence of sandstones with minor siltstones, volcanics, conglomerates and shales. • The Nifty copper deposit is a structurally and lithologically controlled, stratabound body of massive, disseminated and vein-style chalcopyrite. Structurally, the dominant feature at the Nifty copper mine is the Nifty Syncline which strikes approximately southeast-northwest and plunges at about 6-12 degrees to the southeast. The copper mineralisation occurs as a structurally controlled, chalcopyrite-quartz-dolomite replacement of carbonaceous and dolomitic shale within the folded sequence. The copper mineralisation is largely confined to the keel of the syncline and the northern limb.
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 Nifty 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 5%m Cu cut-off.

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').	• Interval widths are downhole width unless otherwise stated.
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	• Presented in the body of the text above.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	• Presented above. • Excluded results are non-significant and do not materially affect understanding of the Nifty 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.	• No relevant information to be presented.
Further work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Ongoing surface and underground exploration activities will be undertaken to support continuing mining activities at NCO.