



## **RENISON AREA 5 UNDERPINS 10 YEAR MINE LIFE AND** INCREASED TIN PRODUCTION

Metals X Limited (Metals X or the Company) is pleased to announce the results of the Area 5 Mining Optimisation Study (Area 5 Study) and updated Life-of-Mine Plan (2020 LOM Plan) for the Renison Tin Operation (Renison) in Tasmania. Renison is 50%-owned by Metals X through the Bluestone Mines Tasmania Joint Venture (BMTJV)1.

This announcement must be read in the context of the Cautionary Statement on Page 13, the Footnotes that accompany this announcement, and the appended Area 5 Optimisation Study and Life-of-Mine Plan Summary.

The Area 5 Study and 2020 LOM Plan reported the following key results<sup>2</sup>:

- Area 5 Ore Reserve declared of 3.30 Mt at 1.87% tin (Sn) for 61,900 tonnes of contained tin, with total Renison Ore Reserve increasing by 46% to 120,300 tonnes of contained tin<sup>3</sup>.
- Mine life extended to 10 years4:
  - Total of 9.27 million tonnes mined over ten years at an average 1.38% Sn for 128,000 tonnes of contained
  - Grade profile increasing from 1.25% 1.30% Sn in initial years to 1.4% 1.5% Sn from FY25 onwards.
  - Production from the high-grade Area 5 contributes approximately 40% of total contained tin mined over the 10 year mine life.
  - Production increasing from first two years of 8,500 9,000 tonnes of tin per annum to over 10,000 tonnes of tin per annum from FY25.
  - Estimated production of approximately 98,000 tonnes of tin in concentrate over the ten year plan.
  - Additional existing Mineral Resources and exploration upside provide clear scope for extending mine life beyond 10 years.
- Two-year Area 5 project capital investment of \$50 \$55 million into ventilation, backfill, electrical and pumping infrastructure, as well as additional mobile equipment together with additional asset integrity sustaining capital, is funded by operating cashflow based on modelled tin prices of A\$23,500 - A\$24,500 per tonne of tin.
- All-in sustaining costs, initially \$19,000 \$20,000 per tonne of tin during ramp-up, reducing to \$16,500 \$17,500 per tonne of tin from FY25 when steady state production of over 10,000 tonnes of tin per annum is achieved.
- Total cash flow of \$300 million, EBITDA of \$476 million and net present value (8% discount rate) of \$185 million (all Metals X's 50% share on a pre-tax, pre-debt basis) achieved at LOM average price of A\$24,800/t Sn (Spot price at 15 June 2020 was A\$24,970).

### Chief Executive Officer, Mr Mike Spreadborough, commented:

"Area 5 is an outstanding addition to our already substantial Ore Reserves at Renison. With a mine life of 10 years, 82% of which is at Proved and Probable Ore Reserve status, an increasing production profile driven by the highgrade Area 5, and an operating margin expected to fund the required investment, Renison is well set to deliver substantial returns to Metals X over coming years.

"With completion of the Area 5 Study and 2020 LOM Plan, the operational focus is now on detailed mine design, engineering and execution planning for the Area 5 Project, and continued metallurgical and margin improvement.'

<sup>&</sup>lt;sup>4</sup> Refer to Competent Person Statement regarding Production Targets and Modifying Factors at the end of the announcement.





<sup>&</sup>lt;sup>1</sup> All data in this announcement is 100% of Renison unless stated as 'MLX 50% share'. All financials are AUD unless stated.

<sup>&</sup>lt;sup>4</sup> All data in this announcement is 100% of Renison unless stated as 'MLX 50% share'. All mancials are AUD unless stated.

<sup>2</sup> This announcement must be read in the context of the Cautionary Statement on page 13. The Area 5 Study has been prepared with the intention of an overall accuracy range of ±20%. The Project benefits from 82% of forecast production being from Proved and Probable Ore Reserve with the balance being a Production Target comprising Inferred Resource in designed and scheduled stopes (11% of LOM tonnes) and additional assumed conversion of existing Measured and Indicated Mineral Resource to Ore Reserves from years 6 – 10 (7% of LOM tonnes). In addition, Renison is currently in operation with historical mining, processing and operating data that provides confidence in the estimates used in the Area 5 Study and 2020 LOM Plan. Renison is a going concern with all necessary approvals, permits, internal and regulatory requirements. All estimates are subject to market and operating conditions. They should not be construed as guidance.

<sup>3</sup> Refer ASX announcement: 17 June 2020, 2020 Renison Resource & Reserve Update.

<sup>4</sup> Refer to Competent Person Statement regarding Production Targets and Modifying Factors at the end of the announcement.



# RENISON AREA 5 MINING OPTIMISATION STUDY AND LIFE OF MINE PLAN SUMMARY

#### Introduction

During 2017 - 2019, a significant resource definition drilling program at the Renison Tin Operation (**Renison**), 50%-owned by Metals X through the Bluestone Mines Tasmania Joint Venture (**BMTJV**), was conducted in the underground mine in the Area 5 and Leatherwood Trend areas. A maiden Mineral Resource for Area 5 was declared in May 2019<sup>5</sup>. Located proximal to existing development and mining in the main part of the Renison orebody, Area 5 represents a substantial opportunity for increased production rates and mine life.

The Area 5 Mining Optimisation Study (**Area 5 Study**) was commissioned in August 2019 to determine the optimal development and mining strategy for Area 5 and to estimate the capital expenditure required for underground mine infrastructure to support the Area 5 mine plan. The Renison Life-of-Mine Plan (**2020 LOM Plan**) has been updated using the outcomes of the Area 5 Study including an assessment of sustaining capital expenditure to ensure continuation of optimal production for the mine life.

During the course of the Area 5 Study, mine development into Area 5 has continued with preliminary stoping activities underway.

An updated Renison Mineral Resource estimate was completed for Renison as at 31 March 2020<sup>6</sup>. The updated Mineral Resource, the Area 5 Study, and the 2020 LOM Plan, formed the basis for an updated Renison Ore Reserve estimate as at 31 March 2020<sup>3</sup>:

- Total Renison Proved & Probable Ore Reserve of 8.61 Mt at 1.40% Sn for 120,300 tonnes of contained tin, a 46% increase<sup>3</sup>.
- Area 5 subset Ore Reserve of 3.30 Mt at 1.87% Sn for 61,900 tonnes of contained tin, including 2.2 Mt at 2.11% Sn for 46,400 tonnes of contained tin from a distinct high-grade portion of the Mineral Resource.

## **Highlights**

The Area 5 Study and 2020 LOM Plan, including designed and scheduled stopes for the Ore Reserve, was completed in May 2020 and provides the following key metrics:

- Mine life of 10 years<sup>4</sup>.
- Total of 9.27 Mt mined over 10 years at an average mined grade of 1.38% Sn for 128,000 tonnes of contained tin<sup>4</sup>.
- 2020 LOM Plan is based on Ore Reserves plus Inferred Resource in designed and scheduled stopes (11% of LOM tonnes) and additional assumed conversion of exiting Measured and Indicated Mineral Resource from years six to ten<sup>2,7</sup> (7% of LOM tonnes) (Figure 1).
- Tin production, based on annual mine production of 900,000 940,000 tpa, and increased mined grade with the ramp up of Area 5 mining production, and including the benefits of the Metallurgical Improvement Program that is underway, increases from the first two years of 8,500 9,000 tpa Sn to greater than 10,000 tpa Sn in concentrate from FY25 (Figure 2):
  - Estimated production of approximately 98,000 tonnes of tin in concentrate over the ten year plan.
  - Area 5 production and ore grade ramping up in the LOM Plan, with total contribution of approximately 40% of the total contained tin mined in the 10 year plan.
  - Further upside if mine production rates can be lifted to match the current mill capacity of approximately 1 Mtpa.
  - Grade profile increasing from 1.25% 1.30% Sn in initial years to 1.4% 1.5% Sn from FY25 onwards.

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<sup>&</sup>lt;sup>5</sup> Refer ASX announcement: 24 May 2019, 2019 Renison Resource Update.

<sup>&</sup>lt;sup>6</sup> Refer ASX announcement: 17 June 2020, 2020 Renison Resource & Reserve Update.

<sup>&</sup>lt;sup>7</sup> There is high geological confidence in relation to existing Measured and Indicated Mineral Resources, however there is no certainty that further work will result in the conversion of all of these Mineral Resources to Ore Reserves.



- Overall metallurgical recovery, including ore sorter tin recovery, increasing from 74 75% Sn in early years to 77 - 78% Sn, due to a combination of increased mill feed grade and the ongoing Metallurgical Improvement Program.
- Approximately \$50 \$55 million of project capital is required to be invested into the Area 5 development over the next two years, predominantly in underground infrastructure.
- Additional sustaining capital of \$8 \$10 million for asset integrity (winder controls & critical spares) and underground mine pumping in years 2 - 3, and \$5 - \$7 million for completion of the ongoing Metallurgical Improvement Program (approximately \$8 million expended to date).
- The LOM Plan includes \$52 million for additional Tailings Storage Facility (**TSF**) capacity over the life of mine.
- At prevailing tin prices of between A\$23,500 and A\$24,500 per tonne Sn, the required Area 5 Development, Metallurgical Improvement Program and sustaining capital, including TSF capacity replacement, is expected to be funded by operating cashflow.
- All-in sustaining costs, initially \$19,000 \$20,000 per tonne of Sn during ramp-up, reducing to \$16,500 \$17,500 per tonne of tin from FY25 when steady state production of over 10,000 tonnes of tin per annum is achieved.
- Total cash flow of \$300 million, EBITDA of \$476 million and net present value (8% discount rate) of \$185 million (all Metals X's 50% share on a pre-tax, pre-debt basis) achieved at LOM average price of A\$24,800/t Sn (Spot price at 15 June 2020 was A\$24,970).

## **Area 5 Technical Summary**

The Area 5 Study was commissioned in August 2019 to determine the optimal development and mining strategy for Area 5 and to estimate the capital expenditure for required underground mine infrastructure to support the Area 5 mine plan. The Area 5 Study was completed using internal resources supported by Hardrock Mining Consultants and other specialist consultants in the fields of ventilation, geotechnical modelling and backfill design.

#### **Area 5 Orebody**

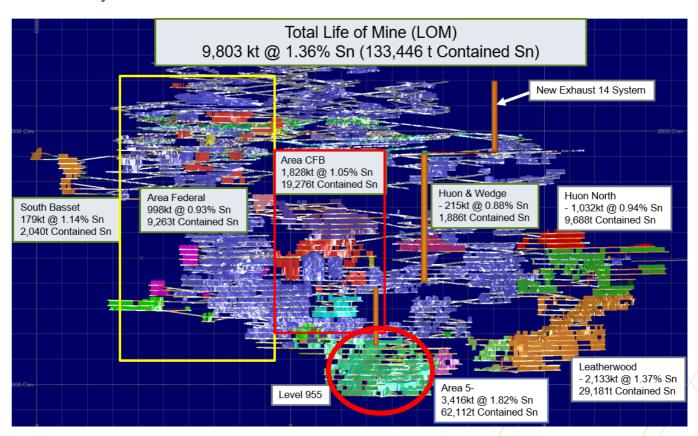


FIGURE 1: RENISON MINING AREAS SECTION SHOWING AREA 5 [RED CIRCLE]



The Federal Bassett Fault Domain is the most significant domain for ore production in the Renison Mineral Resource inventory. It is intimately associated with the distribution of tin mineralisation in other domains.

Two of the most important flexures in the Federal Bassett Fault are the Huon - Area 5 (into Bell 50) Trend and the Leatherwood Trend. The core of both these mineralised systems are included within the Area 5 and Bell 50 mining fronts (Figure 1).

#### **Area 5 Mine Design**

The Area 5 orebody has a number of characteristics differentiating it from the remainder of the Renison orebody:

- · Greater depth.
- Occurs in a wider continuous zone.
- Generally has a higher talc content.
- Moderately, rather than steeply, dipping.
- Continuous across several geological domains.
- Significantly higher tin content than most other mine areas.

A diamond drilling program, using orientated drill core, has improved the definition and structural understanding of the orebody and surrounding country rock. This information was used by Mining One Pty Ltd (**Mining One**) to complete a detailed geotechnical assessment and to provide the basis for the mine design parameters.

A number of iterations of stope designs were undertaken by Renison staff and assessed during the Area 5 Study. Geotechnical reviews, to understand stope stability, were undertaken to allow interrogation of possible mining methods, by in-house geotechnical personnel and Mining One. Actual mining overbreak and ground condition data from the adjoining Area 4, and early development information from Area 5, were incorporated into the analysis. The Area 4 geotechnical and geological setting has some similarities to Area 5. The stability guidelines from the geotechnical assessments were used by Renison staff to refine the mine design and schedule used to generate the LOM Plan.

Renison staff selected mine design is based on a stope size of approximately 15 m x 15 m, and vertical stope height of 40 m. Hangingwall exposures have been minimised by creating vertical walls across the orebody (where required).

Long hole stoping with engineered backfill was selected to extract the wide orebody in Area 5. Mining will be in a bottom up sequence and a single continuous mining front from the north. Figures 2 and 3 show the Area 5 mining area.

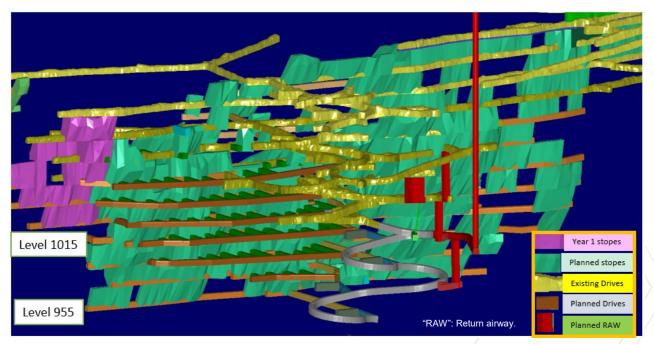


FIGURE 2: RENISON MINING AREA 5 - LOOKING EAST



#### **Area 5 Ventilation**

The main primary ventilation network at Renison has been largely unchanged for greater than 20 years with no new return or fresh air rises established to the surface even though working areas have expanded and the mine has progressively advanced deeper each year. The current primary ventilation system includes a large number of internal booster fans to overcome the high resistance associated with the expanded footprint. Rock and associated ground water temperatures increase with depth at Renison at the rate of 3 degrees per 100 m vertically. Ventilation is required to provide fresh air; control working temperatures and remove contaminants from the workings. The required mine ventilation modelling for the Area 5 Study was undertaken with the support of Ozvent Consulting Pty Ltd.

The Area 5 Study has recommended the development of the No.14 Ventilation System as a ventilation exhaust system dedicated to Area 5. It comprises a series of three raise bored shafts with a planned diameter of 5.0 m from surface to 1020 mRL (approximately 1.2km depth) with connecting drives. A 55 m surface pre-sink is required to reach rock suitable for raise boring. A twin exhaust fan will be installed on the surface with ventilation control devices (doors, barricades & regulators) installed underground.

The construction of the new exhaust system will commence in Q4 2020 following completion of engineering and tendering, and is scheduled for completion in Q2 2022.

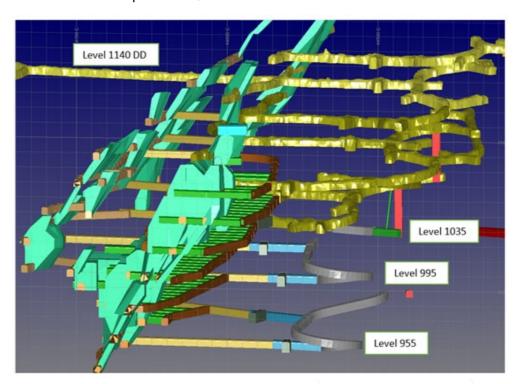


FIGURE 3: RENISON MINING AREA 5 - LOOKING SOUTH

#### Area 5 Backfill Design

Suitable backfill material is integral to the implementation of a successful extraction sequence for Area 5, with the major aim to allow the recovery of as much as possible of the wide, high grade zones in the orebody. Backfill material testing and recommendations were conducted by Outotec Oyj. Backfill materials used for Area 5 bulk stopes will satisfy the following requirements:

- Sufficient strength to ensure the stability of large vertical faces (exposures) when stopes adjacent to the backfill
  are being mined.
- Sufficient flow to ensure the stope voids are tight filled.
- Engineered fill required to meet the backfill requirements in the Area 5 bulk zone.



The backfill required in Area 5 bulk area will consist of the following components:

- Cemented fills to ensure the stability of any exposures when stope adjacent to the backfill are being mined.
- Engineered fills such as Cemented Aggregate Fill, Cement Hydraulic Fill and Paste Fill, can meet the strength demand that is required for the lower 20 m section of each stope void.
- Slurry type fill is required to ensure the stope void is tight filled.
- Cemented Rock Fill can be used in the bottom 20 m of the stope void representing approximately 35% of the Area 5 stope void over the LOM Plan.

Further evaluation of the backfill system and surface plant requirements is be undertaken during FY21 with commencement of construction from July 2021.

## **Fan Power Supply**

Power for the establishment and operation of the new No. 14 ventilation system necessitates an upgrade of the power supply network both at the main Renison High Voltage switch yard and the distribution network to the fans location at the north end of the mine. The planned electrical power requirements range from 1.3 - 1.7 MW depending upon final confirmed ventilation fan type and raisebore shaft parameters. Once the No. 14 ventilation system is operational, the No. 4 exhaust system will be converted to a downcast fresh air rise and a number of the existing internal return air booster fans decommissioned and removed reducing the installed power requirement.

#### Mine Schedule

The Renison 2020 LOM Plan mining schedule is based on the 2020 Mineral Resource and Ore Reserve estimates<sup>6</sup>. The 2020 LOM Plan provides a 10-year production plan comprising 82% Ore Reserve with the balance being a production target consisting of Inferred Resource in designed and scheduled stopes (11% of LOM tonnes) and additional assumed conversion of existing Measured and Indicated Mineral Resources from years  $6 - 10^{2.7}$  (7% of LOM tonnes) (**Production Target**) (Figure 4). Over the first 5 years, resource definition drilling of \$5 million has been allocated to support the required conversion of Mineral Resources to Ore Reserves.

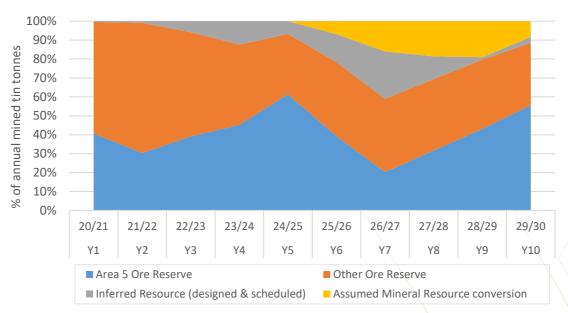


FIGURE 4: RENISON LOM PLAN ORE RESERVE CONTRIBUTION

Renison mine production stabilises at approximately 930,000 tonnes per annum (**tpa**) after an initial ramp-up from approximately 900,000 tpa, with production rate limited by stope production scheduling and underground asset capacity. Over the 10 year mine life, Area 5 contributes approximately 40% of total contained tin in mine production (Figure 4).

Mined grade improves over the first four years of the plan, as the proportional contribution of the high-grade Area 5 and Leatherwood regions increase (Figure 5).



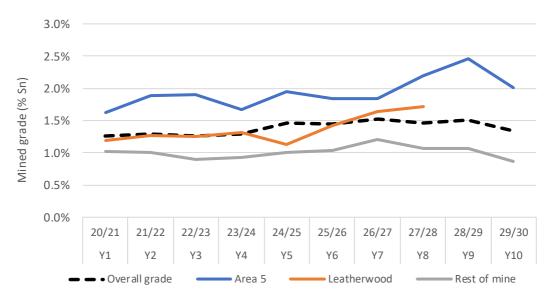


FIGURE 5: RENISON LOM PLAN MINED GRADE

#### **Concentrate Production**

The throughput capacity of the Renison processing plant is approximately 1 Mtpa. The ore sorter provides flexibility and additional throughput capacity.

Production of tin increases over the first four years of the 2020 LOM Plan, and reaches 10,000 tonnes of tin in concentrate per annum by FY25 (Figure 6).



FIGURE 6: RENISON LOM PLAN TIN PRODUCTION

The ongoing Metallurgical Improvement Program is expected to deliver significant ongoing value over the life of mine. Comparing overall recovery (ore sorter and processing plant) at constant ore grade, approximately 2.1% improvement in overall recovery has been achieved to date with a further 1% recovery increase expected by the end of CY20 and a further 2% improvement over CY21. The recovery profile varies with grade of feed (Figure 7) and has been modelled based on actual plant performance over FY20 plus the expected recovery improvements.



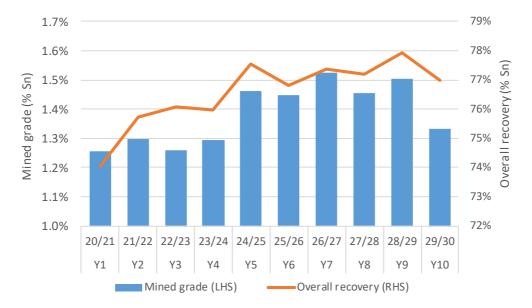


FIGURE 7: RENISON LOM PLAN METALLURGICAL RECOVERY

Overall metallurgical recovery, including ore sorter tin recovery, increases from 74 - 75% Sn in early years to 77 - 78% Sn, due to a combination of increased mill feed grade and the ongoing Metallurgical Improvement Program (Figure 7).

## **LOM Tin Price Assumption**

Tin price is modelled in the LOM from a low of A\$23,500/t Sn, for the second half of CY20, improving on a quarterly basis over two years to reach an assumed long term forecast price of A\$25,000/t Sn (Figure 8). Over the two year period 2018-2019 (pre-COVID-19), the tin price averaged approximately A\$26,860/t Sn.

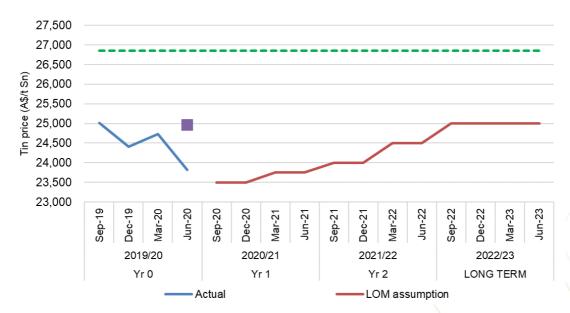


FIGURE 8: RENISON LOM PLAN TIN PRICE ASSUMPTION

The average tin price over the 10 year plan is A\$24,800/t Sn, which is lower than current spot (at 15 June 2020) of A\$24,970/t. Metals X considers that there is considerable upside in its price assumption, as global supply remains constrained with limited new production and increasing demand from electronics and the electric vehicle driven demand for batteries.



## **Tin Marketing and State Royalty**

Metals X has existing tin concentrate sales contracts for its 50% share of the BMTJV tin production. These contracts are typically renewed annually, with treatment charges and other terms negotiated at contract renewal. The 2020 LOM Plan uses treatment charges, freight and other sales and marketing cost assumptions based on current USD denominated charges and an assumed USD/AUD exchange rate increasing from 0.65 to 0.69 over the first two years of the plan.

The State Royalty in Tasmania is a two-tiered system based on the sum of a net sales royalty and a profit royalty with a maximum royalty payable of 5.35% of net sales (revenue less smelter and sales & marketing costs).

Over the 10 year LOM Plan, at the assumed tin price the BMTJV contributes approximately \$90M to the Tasmanian State economy in royalties.

Total treatment charges, freight, marketing and royalties over the LOM are approximately \$3,300/t Sn, equivalent to 13% of the tin price.

## **Capital and Operating Costs**

Capital costs for Area 5 and associated underground and surface infrastructure, together with sustaining capital requirements, were estimated in the Area 5 Study and 2020 LOM Plan to an overall level of accuracy of ±20%.

Approximately \$50 - \$55 million of project capital is required to be invested into the Area 5 development over the next two years, predominantly in underground infrastructure:

- New surface exhaust ventilation raise: \$23 \$25 million (pre-sink, raise bore and fans) during FY21 and FY22.
- Additional underground mobile equipment: approximately \$4 million (additional loader and truck) during FY21.
- Underground mine services upgrades and extensions: approximately \$5 million (power and communications) during FY21.
- New surface backfill plant: \$18 \$21 million (batch plant and reticulation) during FY22.

Additional sustaining capital of approximately \$8 - \$10 million for asset integrity (winder controls & critical spares) and underground mine pumping is required in Years 2 - 3, and \$5 - \$7 million for completion of the ongoing metallurgical improvement program (approximately \$8 million expended to date).

The LOM Plan includes a total of \$52 million for additional Tailings Storage Facility (**TSF**) capacity over the life of mine, of which \$5 - \$6 million is spent in the first two years on a lift of the current "D-Dam" tailings storage facility.

Operating costs are based upon actual Renison operating costs, with adjustments made for expected variations in stoping size, productivity and ground support in Area 5. As costs are predominantly based on actuals, there is a high degree of confidence in unit operating costs (Table 1).

Over the 10-year life-of-mine, C1 cash costs reduce from approximately \$13,500/t Sn to range between \$10,500/t and \$11,200/t once production achieves 10,000 tonnes of tin per annum from FY25.

All-in Sustaining Costs average \$19,000 - \$20,000 per tonne Sn in the first four years, reducing to \$16,500 - \$17,500 per tonne of tin once steady state production of greater than 10,000 tonnes of tin per annum is achieved from FY25.



**TABLE 1: RENISON LOM PLAN UNIT COSTS** 

	LOM	LOM
	\$/t ore	\$/t Sn
Revenue	263.52	24,813
Mining	59.47	5,600
Processing	38.59	3,634
Maintenance	9.86	928
Geology	6.59	621
General & administrative	11.15	1,050
Total cash production costs (C1 Cost)	125.66	11,832
TC, sales and marketing costs	25.51	2,402
Royalty - Govt	9.62	906
Total sales and marketing costs	35.13	3,308
Capital development	9.41	886
Resource definition / extensional exploration	2.70	254
Tailings Storage Facilities	5.63	530
Mobile equipment	5.61	529
Property, plant & equipment	4.88	459
Total sustaining capital	28.22	2,658
All-in-sustaining costs (AISC)	189.02	17,798
Mine properties & development	2.01	189
Property, plant & equipment	3.90	367
Mobile equipment	0.44	42
Other enhance projects	0.03	3
Total project capital	6.37	600
Exploration	1.17	110
Rehabilitation	2.56	241
All-in-costs (AIC)	199.12	18,749
Net cash flow	64.40	6,064

## **Resource Definition & Exploration**

The 2020 LOM Plan allocated \$5 million per year for the first 5 years of the plan to resource definition / extensional exploration. This underpins the assumption of the 7% of the LOM plan, from year 6-10, being from defined Measured and Indicated Resources assumed to be converted to Ore Reserves.

In addition to the resource definition drilling, a further \$11 million is spent over 6 years on additional exploration of inmine and near-mine exploration targets, utilising both underground and surface drilling. There is no assumption within the 2020 LOM Plan preliminary economic evaluation of exploration success.

#### Rehabilitation

The two key rehabilitation provisions at Renison are for Mt Bischoff (\$17.4 million) and Renison (\$6.3 million). Mt Bischoff rehabilitation is planned to be carried out from years 2 – 10 of the plan and Renison rehabilitation completed at the end of mine life.

## **Preliminary Economic Evaluation**

At prevailing tin prices of between A\$23,500 and A\$24,500 per tonne tin, the required Area 5 Development, Metallurgical Project and sustaining capital, including TSF capacity replacement, is expected to be funded by operating cashflow (Figure 9).

Metals X's 50% share of Renison provides the following key financial metrics based on the Area 5 Study and the 2020 LOM Plan:

- Gross revenue of \$2.44 billion.
- Total pre-tax net cash flow of \$300 million.
- EBITDA of \$476 million.
- Pre-tax net present value (8% discount rate) of \$185 million on a pre-debt basis.



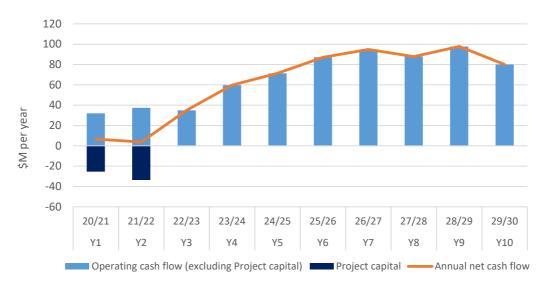


FIGURE 9: RENISON LOM PLAN NET CASH FLOW AND PROJECT CAPITAL

## **Sensitivity Analysis**

Tin price, ore grade and mine production are the three most sensitive parameters in the 2020 LOM Plan. The key exposure for financial risk management is management of net cash flows during the first two years of the plan as the Area 5 project is executed. The sensitivity of the total of the first two years cashflow to price, mined grade, production and costs is shown in Figure 10 (Metals X 50% share). Note that the sensitivity to mined grade is approximately equivalent to the sensitivity to tin price and is shown on one line.

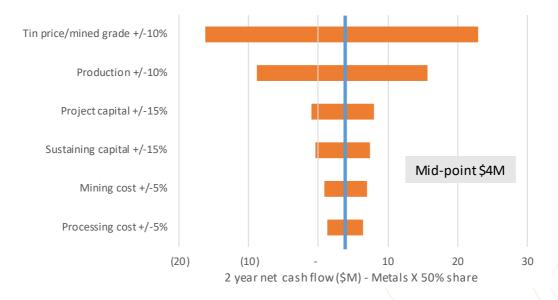


FIGURE 10: RENISON LOM PLAN FINANCIAL SENSITIVITY ANALYSIS: 2 YEAR NET CASH (MLX 50%)

Renison has significant upside exposure to tin price. The average price assumed in the 2020 LOM Plan is approximately \$24,800/t Sn. An increase in tin price assumption to the average price for CY2018 - 2019 of A\$26,860/t Sn would result in the following changes to the financial metrics for Metals X 50% share of the BMTJV:

- Total pre-tax net cash flow increase from \$300 to \$380 million.
- EBITDA increase from \$476 to \$560 million.
- Pre-tax net present value (8% discount rate) increase from \$185 to \$246 million on a pre-debt basis.



Approximately 80% of the 2020 LOM Plan costs are operating costs. These costs are predominantly based on actual performance and well known operating parameters. As such, the exposure to operating cost variability is not considered a major risk to the 2020 LOM Plan. The life-of-mine cash margin (net cash flow less total cost) is calculated at \$6,064 per tonne of tin, or \$64.40/t ore (Table 1) which provides a considerable 32% margin over all-in-cost.

Similarly, project capital comprises only \$600/t Sn over the life-of-mine, which is only equivalent to 10% of the cash margin returned over the 10 years. However, the key exposure is net cash flow over the first two years of the plan (FY21 and FY22) during the execution of the \$50 - \$55 million Area 5 project (Figure 10) as well as the additional sustaining capital of \$13 - \$17 million for asset integrity, pumping and completion of the metallurgical improvement program:

- Total Area 5 and asset integrity expenditure in FY21-22 of \$63 \$72 million.
- Cumulative net cashflow over the first two years of the plan of approximately \$5 \$10 million, representing 8% 14% of the two year capital project program and less than the +/-30% accuracy of estimate.
- As such, tight project controls are required for the execution of project capital over FY21 and FY22, with additional
  working capital contingency prudent for the joint venture partners.

## **LOM Opportunities**

The current Ore Reserves<sup>3</sup> represent only 47% of defined Measured and Indicated Mineral Resources. The 2020 LOM Plan assumes \$5 Mpa expenditure for the first five years for replenishment of Ore Reserves and to maintain the 10-year mine life through resource definition and extensional exploration drilling.

Only Mineral Resources above 955 mRL are included in the Ore Reserve estimate, with the deposit remaining open below this level with drilling continuing.

The high-grade Bell 50 Mineral Resource extension to Area 5 represents additional upside as does the Leatherwood, South Bassett and Regnans Trends (Figure 11).

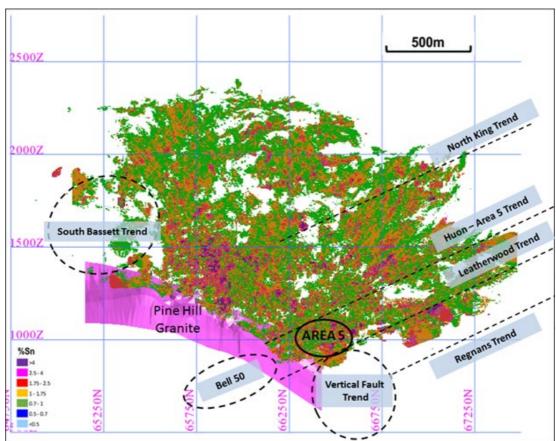


FIGURE 11: RESOURCE LONGSECTION LOOKING WEST HIGHLIGHTING EXTENSIONAL RESOURCE POTENTIAL



## **Cautionary Statement**

The Area 5 Mining Optimisation Study (the Area 5 Study) for the Renison Tin Operation (Renison) referred to in this ASX announcement and accompanying Renison Area 5 Mining Optimisation Study and Life of Mine Plan Summary (Summary) has been undertaken to determine the optimal development and mining strategy for the high-grade Area 5 mining area and to estimate the capital expenditure required for underground mine infrastructure to support the Area 5 mine plan. The Renison Life-of-Mine Plan (2020 LOM Plan) has been updated using the outcomes of the Area 5 Study including an assessment of sustaining capital expenditure to ensure continuation of optimal production for the mine life.

The Area 5 Study is subject to further detailed engineering for the proposed capital expenditure program involving ventilation, paste, pumping and other required underground and surface infrastructure and has been prepared with the intention of an overall accuracy of ±20%. An Area 5 Proved and Probable Ore Reserve has been declared, with an update of the total Mineral Resource estimate and Ore Reserve estimate at Renison published on ASX on 17 June 20203. Metals X is not aware of any other new information or data that materially affects the information included in that release. All material assumptions and technical parameters underpinning the estimates in these ASX releases continue to apply and have not materially changed.

The 2020 LOM Plan is based on a 10 year production plan comprising 82% Ore Reserve with the balance being a production target consisting of Inferred Resource in designed and scheduled stopes (11% of LOM tonnes) and additional assumed conversion of Mineral Resource from years 6 – 10 (7% of LOM tonnes) being in Indicated and Measured Resource category (**Production** Target).

The Inferred Mineral Resources are considered too speculative geologically to have the economic considerations applied that would enable them to be categorised as Ore Reserves. In addition to the Inferred Resources, the Measured and Indicated Mineral Resources in the Production Target are not Ore Reserves and do not have demonstrated economic viability.

Renison is currently in operation with historical mining, processing and operating data that provides confidence in the estimates used in the Area 5 Study and 2020 LOM Plan. Renison is a going concern with all necessary approvals, permits, internal and regulatory requirements.

The 2020 LOM Plan includes a preliminary economic analysis based on the Production Target and assumptions on Modifying Factors and evaluation of other relevant factors estimated by a Competent Person to be at the level of a Scoping Study.

The Area 5 Study and 2020 LOM Plan outcomes, Production Target and forecast financial information are based on information that is considered to be at Pre-feasibility Study level. The information applied in the Area 5 Study and 2020 LOM Plan is insufficient to support the estimation of Ore Reserves for the 18% of the LOM production that is assumed from Mineral Resources. While each of the Modifying Factors was considered and applied, there is no certainty of eventual conversion to Ore Reserves or that the Production Target will be realised. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Area 5 Study and 2020 LOM Plan.

This ASX announcement and accompanying Summary contains a series of forward-looking statements. The words "expect", "potential", "intend", "estimate" and similar expressions identify forward-looking statements. Forward-looking statements are subject to known and unknown risks and uncertainties that may cause actual results, performance or achievements to differ materially from those expressed or implied in any forward-looking statements in this ASX announcement and accompanying Summary are not a guarantee of future performance.

This ASX announcement and accompanying Summary regarding the Metals X business or proposed business, which are not historical facts, are forward-looking statements that involve risks and uncertainties. These include Ore Reserve estimates, Mineral Resource estimates, metal prices, capital and operating costs, changes in operational and project parameters as plans continue to be evaluated, the continued availability of capital, general economic, market or business conditions, and statements that describe the future plans, objectives or goals of Metals X, including words to the effect that Metals X or its management expects a stated condition or result to occur. Forward-looking statements are necessarily based on estimates and assumptions that, while considered reasonable by Metals X, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies. Since forward-looking statements address future events and conditions, by their very nature, they involve inherent risks and uncertainties. Actual results in each case could differ materially from those currently anticipated in such statements. Investors are cautioned not to place undue reliance on forward-looking statements.

Metals X has concluded that it has a reasonable basis for providing these forward-looking statements and the forecast financial information included in this ASX announcement and accompanying Summary. This includes a reasonable basis to expect that the Renison Tin Operation will be self-funding. The detailed reasons for these conclusions are outlined throughout the ASX announcement and accompanying Summary. While Metals X considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Area 5 Study and 2020 LOM Plan will be achieved. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of this ASX announcement and accompanying Summary. However, should additional funding be required it may only be available on terms that may be dilutive to or otherwise affect the value of Metals X shares.

This ASX announcement and accompanying Summary have been prepared in compliance with the current JORC Code (2012) and the ASX Listing Rules. All material assumptions, including sufficient progression of all JORC modifying factors, on which the Production Target and forecast financial information are based, have been included in this ASX announcement and accompanying Summary.



## **Competent Persons Statements**

## Competent Person Statement - Renison Tin Operation - Mineral Resource

The information in this report that relates to Mineral Resources has been compiled by Bluestone Mines Tasmania Joint Venture Pty Ltd technical employees under the supervision of Mr Colin Carter B.Sc. (Hons), M.Sc. (Econ. Geol), AusIMM. Mr Carter is a full-time employee of the Bluestone Mines Tasmania Joint Venture Ptv Ltd and has sufficient experience which is relevant to the style 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 Carter consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

#### Competent Person Statement – Renison Tin Operation – Ore Reserves

The information in this report that relates to Ore Reserves has been compiled by Bluestone Mines Tasmania Joint Venture Pty Ltd technical employees under the supervision of Mr Mark Recklies, B Engineering (Mining Engineering), AusIMM. Mr Recklies is a full time employee of the Bluestone Mines Tasmania Joint Venture Pty Ltd. Mr Recklies has sufficient experience which is relevant to the style 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 Recklies consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

#### Competent Person Statement - Production Target and Modifying Factors

The information in this announcement that relates to the Production Target, assumptions on Modifying Factors and evaluation of other relevant factors are based on and fairly represents information and supporting documentation that has been compiled for this announcement and have been compiled under the supervision of Mr Mark Recklies, B Engineering (Mining Engineering) and member of AusIMM. Mr Recklies is a full time employee of the Bluestone Mines Tasmania Joint Venture Pty Ltd. Mr Recklies has reviewed and approved the technical content of this announcement. Mr Recklies is a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012). Mr Recklies consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears

#### **About Metals X Limited**

Metals X Limited (ASX: MLX) is an ASX-listed mining company with a portfolio of high quality base metals assets including 50% ownership of Australia's largest tin operation through the Renison Operation (Bluestone Mines Tasmania JV) located in Tasmania, the owner of the Nifty Copper Operation and the Maroochydore Copper Project located in the east Pilbara region of Western Australia, extensive exploration tenements in the Paterson Province. and the world class Wingellina Nickel-Cobalt Project also located in Western Australia.

#### This announcement has been authorised by the Board of Directors of Metals X Limited.

#### **ENQUIRIES**

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#### **MEDIA ENQUIRIES**

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