

#### **GREENBUSHES CY23 RESOURCES AND RESERVES**

IGO Limited (IGO (ASX: IGO) is pleased to report its 31 December 2023 (CY23) JORC Code reportable Mineral Resource estimates (MREs) and Ore Reserve estimates (OREs) for its 24.99% indirect interest in Talison's Greenbushes Lithium Operation (Greenbushes). IGO's Greenbushes interest is held through Tianqi Lithium Energy Australia Pty Ltd (TLEA), the lithium joint venture partnership between Tianqi Lithium Corporation (Tianqi) (51%) and IGO (49%). Albermale Corporation (Albermale) holds a 49% interest in the Greenbushes holding entity, with TLEA having the majority interest of 51%.

#### Highlights

The highlights of the Greenbushes CY23 revised JORC Code reportable estimates are as follows:

- 1.43Mt of 6% Li<sub>2</sub>O spodumene concentrate produced in CY23: During CY23, Talison has open pit mined approximately 3.5 dry million tonnes (Mt) grading 2.71% lithia (Li<sub>2</sub>O) from the Central Lode Deposit (Central Lode), and about 1.8Mt grading 1.38% Li<sub>2</sub>O from the Tailings Storage Facility #1 Deposit (TSF1), for total CY23 ore mining of approximately 5.3Mt grading 2.25% Li<sub>2</sub>O. The CY23 ore processed was approximately 5.9Mt of ore grading 2.24% Li<sub>2</sub>O with total saleable spodumene concentrates produced of about 1.43Mt. About 95% of the concentrates produced were 6% Li<sub>2</sub>O chemical grade concentrates (SC6) destined for electric vehicle and other energy storage applications, while the remainder was very high grade lithia technical grade (TG) concentrates that have specialist uses such as ceramics.
- 25% increase in MRE *in situ* 6% Li<sub>2</sub>O spodumene product, net of mining deletion: In August 2023, Talison revised the Greenbushes MRE models to incorporate new drilling and other geoscientific information that its technical staff had collected since its prior MRE revisions in August 2021. This new information has significantly increased the Greenbushes MRE (on a 100% basis) from about 347Mt grading 1.5% Li<sub>2</sub>O on 31 December 2022 (CY22) to 447Mt grading 1.5% Li<sub>2</sub>O at the end of CY23. This near 30% MRE tonnage increase of about 99.3Mt, has added to Greenbushes MRE, net of 12 months of mining depletion, about 22Mt *in situ* of a nominal 6% Li<sub>2</sub>O saleable spodumene concentrate since the end of CY22. As noted above, IGO has a 24.99% interest in these total estimates.
- ORE of *in situ* 6% Li<sub>2</sub>O spodumene product increases by almost 2Mt, net of mining deletion: The Greenbushes total JORC Code reportable ORE (on a 100% basis) has marginally increased from about 171Mt grading 1.9% Li<sub>2</sub>O (CY22) to about 179Mt grading 1.9% Li<sub>2</sub>O (CY23) net of 12 months of mining depletion. This 4% ORE tonnage increase of about 7Mt, adds about 2Mt *in situ* of a nominal 6% Li<sub>2</sub>O saleable spodumene concentrate to the ORE since the end of CY22.
- Underground mining studies initiated supported by the current MRE and significant drill intersections outside the current MRE: Results from Talison's CY22 and CY23 drill programs that have been received since its August 2021 MRE revision, have increased the JORC Code confidence in large volumes of the Central Lode Deposit (Central Lode) and its' parallel satellite Kapanga Deposit (Kapanga). Numerous long drill hole intersections of lithia rich pegmatite occur below the CY23 ORE's life-of-mine design, which is generally limited by the depth extent of the JORC Code Indicated Resources. Talison has studies in progress to assess the potential of underground mining and the optimal interface between open pit and potential underground extraction methods. It is recognised that some of the material reported as an open pit MRE will convert to underground as this study progresses. Drilling has also extended the strike of mineralisation southward and northward.

IGO's Managing Director and CEO, Ivan Vella said, "Greenbushes is an exceptional asset with over 23 years of life defined by the current Ore Reserve at expanded throughput capacity. The investment in the drilling to understand the potential of this deposit continues to return exceptional results, with mineralisation remaining

Suite 4, Level 5 85 South Perth Esplanade South Perth WA 6151 PO Box 496 South Perth WA 6951 Western Australia T. +61 8 9238 8300 F. +61 8 9238 8399 E. contact@igo.com.au

igo.com.au IGO Limited ABN 46 092 786 304



open in all directions. With this improved understanding of the orebody coupled with underground mining studies will only continue to improve the status of this operation as the world's best hard-rock lithium mine "

#### **Forward Looking Statements**

This document may include forward-looking statements including, but not limited to, statements of current intention, statements of opinion and expectations regarding IGO's present and future operations, and statements relating to possible future events and future financial prospects, including assumptions made for future commodity prices, foreign exchange rates, costs, and mine scheduling. When used in this document, the words such as "could", "plan", "estimate", "expect", "intend", "may", "potential", "should" and similar expressions are forward-looking statements. Such statements are not statements of fact and may be affected by a variety of risks, variables and changes in underlying assumptions or strategy which could cause IGO Limited's (IGO's) actual results or performance to materially differ from the results or performance expressed or implied by such statements. There can be no certainty of outcome in relation to the matters to which the statements relate, and the outcomes are not all within the control of IGO. IGO makes no representation, assurance or guarantee as to the accuracy or likelihood of fulfilment of any forward-looking statement or any outcomes expressed or implied in any forward-looking statement. The forward-looking statements in this document reflect expectations held at the date of this document. Except as required by applicable law or the Australian Securities Exchange (ASX) Listing Rules, IGO disclaims any obligation or undertaking to publicly update any forward looking statements or discussions of future financial prospects, whether because of new information or of future events.



#### Greenbushes JORC Code reportable estimates

IGO last reported mining depleted, JORC Code reportable estimates for Greenbushes for the end of CY22 in its 30 June 2023 (FY23) Annual Resources and Reserves Report to the ASX. The MRE models supporting the CY22 estimates were prepared by Talison's technical staff in August 2021. To meet ASX requirements for FY23 reporting, IGO noted Greenbushes ore mining total for the first half of the 2023 calendar year in its FY23 report. In August 2023, Talison's technical staff revised the Greenbushes MRE models to include new drill hole and geoscientific information, and other adjustments to key JORC Code reporting modifying factors. These revised MRE models are now the basis of the current Greenbushes life-of-mine plan, and Talison has depleted its revised CY23 MRE and ORE estimates to 31 December 2023 for IGO's use in this announcement.

The following sections describe the location, history, and geology and mineralisation of Greenbushes, along with a comparison of the CY22 and CY23 MREs and OREs, and a brief discussion of exploration results.

#### Location

Greenbushes is a hard rock spodumene lithium mining and processing operation that directly abuts the town of Greenbushes in WA, which is 250km south-southeast of WA's capital Perth by road, and 90km southeast of the Port of Bunbury (Figure 1a). As depicted in Figure 1b, the centre of the Greenbushes mining operation is approximately at coordinates 33°51'54"S and 116°4'5"E.



#### Figure 1: Greenbushes location, regional geology, and infrastructure

Notes: a) Simplified geology of the Greenbushes region. b) Satellite image of Greenbushes on 6 January 2024.

#### History

Mining at Greenbushes commenced in 1888 with the extraction of tin minerals through surface mining operations, including dredging in later years. Tin mining was the primary focus until the 1980s, when lithium and tantalum mining became a new focus. The first lithium plant was commissioned in 1983, and since then, there have been several production increases.

At CY23 end, Talison was operating four spodumene concentrators at Greenbushes including the one technical grade plant (TGP1), two chemical grade plants (CGP1 and CGP2) and a tailings retreatment plant



(TRP). TGP1 plant typically produces very high purity spodumene concentrates for technical uses such as ceramics, special glassware and other industrial or medical applications. However, the plants CGP1, CGP2 and TRP, produce the bulk of Greenbushes saleable concentrates ultimately used in electric vehicle batteries and other energy storage applications.

Tantalum mining at Greenbushes began in the 1940s, and during the 1990s, the Cornwall Pit, located at the northern end of Greenbushes, was a significant source of tantalum ore. In 2001, a small underground mine was developed from the pit base to access high-grade tantalum ore. However, due to a subsequent collapse in tantalum prices mid-2000s, the mine was abandoned, and the pit and workings are now flooded with groundwater. Global Advanced Metals Inc (GAM) holds the rights to tantalum from Greenbushes. Talison stockpiles tantalum-rich and lithium-poor mineralisation separately to remain recoverable in the future. Talison recovers a tantalum and tin concentrate as a by-product for GAM in some of its processing facilities.

#### Geology and mineralisation

The Greenbushes principal orebody, the Central Lode, is a giant Archean age pegmatite that has intruded into the central region of the Donnybrook-Bridgetown Shear Zone, which is the 150km long geological structure depicted in Figure 1a. The Balingup Metamorphic Belt, which is depicted in the same figure, contains the Greenbushes mine sequence. The regional rock types include diorite gneiss, which is interpreted to be the basement for Archean greenstone sequences, as well as amphibolite, metasediments, ultramafic schists, and felsic to massive banded paragneiss units. In the Greenbushes region, a younger suite of granitoids is associated with the pegmatite intrusion.

Geologists working at Greenbushes have identified several compositional zones in the drill core and pit exposures that are associated with different styles of mineralisation, as depicted in the inset cross section in Figure 2a (below). The lithium rich zone is distinguished by a white to pinkish pegmatite that consists of the minerals spodumene, quartz, tourmaline, apatite and perthite, along with smaller amounts of tantalum minerals. The highest grade lithium zones occur at both margins of the main pegmatite and can reach up to 50% spodumene content that grades approximately 5% Li<sub>2</sub>O *in situ*.

The Greenbushes tin and tantalum mineralisation is associated with the albite zone, which is characterised by sodium rich albite feldspar, along with tourmaline, quartz, spodumene, cassiterite, tantalum minerals and minor microcline. Cassiterite is the primary tin mineral found at Greenbushes, whereas tantalum occurs as tantalite, columbite or as one more of several tantalum minerals that occur as silicates.

During the historical processing of tin-tantalum ores, the lithium mineral spodumene reported to process tailings, which has resulted in the lithium mineral resource in TSF1, which was accumulated during the 1990s phase of tantalum mining at Greenbushes (see Figure 2b). TSF1 has two distinct horizontal layers of tailing deposition, with an upper layer known as the "enriched zone", which has litha concentrations  $\geq$ 1% Li<sub>2</sub>O and a lower "depleted zone", with variable lithia grades ranging from about 0.5% to 1.0% Li<sub>2</sub>O.



#### Figure 2: Central Lode pit geology and TSF1

Notes: a) Simplified geological map of the Central Lode and Kapanga with inset 'A to B' cross section. b) TSF1 drill collar locations over mining surface imagery.

#### **Mineral Resources**

Table 1 on the next page, is a listing of the Greenbushes CY22 and CY23 MREs reported on a 100% basis. This tabulation includes JORC Code class sector and *in situ* product information for each deposit or stockpile source, along with parallel listings of CY23 minus CY22 arithmetic and relative differences for each metric. The Table 1 results are also compared graphically further in terms of nominal MRE-contained *in situ* SC6 concentrate in Figure 3 on page 7.

The noteworthy differences between the CY22 and CY23 MREs are as follows:

- The results received from drill targeting the Central Lode since Talison's preparation of its August 2021 MRE model, have significantly increased the confidence in the Central Lode's MRE as signalled by the 82% increase in Indicated Mineral Resource tonnage and 62% decrease in Inferred Mineral Resources. This drilling has also expanded the Central Lode MRE tonnage through the discovery of new pegmatite volumes, with a 30% overall increase in total MRE tonnage since CY22.
- New results from Kapanga drilling have not only increased the Indicated Mineral Resource tonnage of this deposit by about 25% but have increased the Inferred Mineral Resource tonnage by 117% through the discovery of new volumes of pegmatites. Overall, there has been a 33% increase in the MRE tonnage of Kapanga for only a minor reduction in lithia grade.
- The TSF1 CY23 estimate predominantly reflects mining depletion. However, an *in situ* density testing program completed during mining indicated a 17% downward adjustment in the TSF1 MRE density was appropriate. This adjustment removed 17% of the CY23 MRE tonnage net of mining depletion. There have been no changes in terms of JORC Code confidence classification for TSF1.
- There have been material drawdowns in Indicated and Inferred stockpiles over CY23, with a 12% overall tonnage reduction in stocks.



#### Table 1: Greenbushes CY22 and CY23 JORC Code reportable Mineral Resource estimates – 100% basis

													CY	23 minus (	CY22 repor	ting	
			31 [	Decemb	er 2022			31 December 2023			Arithmetic differences			s		ative rences	
		Mass	Li	20	LCE	SC6	Mass	Li	20	LCE	SC6	Mass	Li <sub>2</sub> O	LCE	SC6	Mass	In situ
Deposit	JORC Code Class	(Mt)	(%)	(Mt)	(Mt)	(Mt)	(Mt)	(%)	(Mt)	(Mt)	(Mt)	(Mt)	(Mt)	(Mt)	(Mt)	INIA55	product
Central lode	Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(≥ 0.5% Li₂O)	Indicated	184	1.8	3.3	8.2	55	334	1.5	5.1	12	84	151	1.8	4.3	29	82%	53%
	Inferred	103	1.0	1.0	2.4	16	39	1.0	0.4	0.9	6.4	-63	-0.6	-1.5	-9.8	-62%	-60%
	Central Lode total	286	1.5	4.3	11	72	374	1.5	5.5	13	91	87	1.2	2.9	19	30%	27%
Kapanga	Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(≥ 0.5% Li₂O)	Indicated	39	1.8	0.7	1.7	11	48	1.7	0.8	2.0	13.7	9.6	0.1	0.3	2.2	25%	19%
	Inferred	3.9	1.9	0.1	0.2	1.2	8.5	1.4	0.1	0.3	2.0	4.6	0.1	0.1	0.8	117%	63%
	Kapanga total	42	1.8	0.8	1.9	13	57	1.7	0.9	2.3	16	14	0.2	0.4	2.9	33%	23%
TSF1	Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(≥ 0.7% Li₂O)	Indicated	13.7	1.3	0.2	0.4	2.9	12	1.3	0.2	0.4	2.5	-1.7	-0.0	-0.1	-0.4	-12%	-13%
	Inferred	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TSF1 total	13.7	1.3	0.2	0.4	2.9	12	1.3	0.2	0.4	2.5	-1.7	-0.0	-0.1	-0.4	-12%	-13%
Stockpiles	Measured	0.7	3.0	0.0	0.1	0.3	0.7	3.0	0.0	0.1	0.4	0.1	0.0	0.0	0.0	10%	10%
(≥ 0.5% Li₂O)	Indicated	2.6	2.0	0.1	0.1	0.9	2.0	2.3	0.1	0.1	0.8	-0.5	-0.0	-0.0	-0.1	-21%	-8%
	Inferred	1.4	1.0	0.0	0.0	0.2	1.3	1.2	0.0	0.0	0.3	-0.1	0.0	0.0	0.0	-6%	10%
	Stockpiles total	4.7	1.8	0.1	0.2	1.4	4.1	2.1	0.1	0.2	1.4	-0.5	-0.0	-0.0	-0.0	-12%	-1%
Greenbushes	Measured	0.7	3.0	0.0	0.1	0.3	0.7	3.0	0.0	0.1	0.4	0.1	0.0	0.0	0.0	10%	10%
	Indicated	239	1.8	4.2	10	71	397	1.5	6.1	15	102	158	1.9	4.6	31	66%	44%
	Inferred	108	1.0	1.1	2.6	18	49	1.1	0.5	1.3	8.7	-59	-0.5	-1.3	-9	-54%	-51%
	Greenbushes total	347	1.5	5.3	13	89	447	1.5	6.6	16	111	99	1.3	3.3	22	29%	25%

**Notes:** MREs are reported using the Li<sub>2</sub>O cut-off grades listed against each MRE source and are inclusive of the respective OREs. The *in situ* product metrics of Li<sub>2</sub>O, LCE (lithium carbonate equivalent) and SC6 (6% lithia concentrate), do not account any mining and metallurgical recovery losses. True zero values are reported as the '-' symbol otherwise zero value represent quantities below the Competent Person's preferred precision of reporting. The totals and averages for MRE tonnage and lithia grades are affected by rounding. IGO's share is 24.99%.









As noted in Table 1 against each MRE source label, the Greenbushes pit and stockpile CY22 and CY23 MREs are reported using a  $\geq 0.5\%$  Li<sub>2</sub>O MRE model block cut-off grade. This is the grade threshold that Talison currently considers is the minimum concentration from which spodumene is practically recoverable from Central Lode and Kapanga ores. The reporting cut-off for TSF1 ore is higher at  $\geq 0.7\%$  Li<sub>2</sub>O due to the different metallurgical response of this fine-grained historic tailings. Two other key constraints Talison has applied to the CY23 MRE reporting, which relate to the JORC Code requirement that MREs should have "reasonable prospects of eventual economic extraction" (RP3E), are as follows:

the reporting period respective ORE spatial constraints.

• A principal spatial reporting MRE constraint for the Central Lode and Kapanga that is defined by the 3D limit of an open pit optimisation shell, as depicted in the cross sections of Figure 4. Talison prepared these RP3E optimisation shells in CY22 and CY23 using the same assumptions and modifying factors as used for the respective ORE assessments at each reporting date.





 For CY23 Talison applied a secondary spatial constraint for the MRE reporting for the Central Lode and Kapanga MREs, where potentially economic mineralisation north of what Talison describes as a Mine Development Envelope (MDE) boundary is excluded from the CY23 MRE, that precludes the reporting of any potential mineralisation where MRE RP3E optimisation shell limits might intersect with the southern limits of the Greenbushes townsite.

Importantly for the CY23 Central Lode and Kapanga MRE RP3E pit optimisation study, Talison included in the pit optimisation study an infrastructure replacement cost of A\$3.0 billion in anticipation that the optimisation results may indicate the need to move much of the current processing infrastructure and tailings located on the west side of the mine (Figure 5). Talison found that the resulting MRE optimisation shell did require the relocation of all current processing plants and part of the tailings storage facility. Given the optimisation included the anticipated costs for the relocation and/or rebuilding of this affected infrastructure, Talison considers that the CY23 MRE optimisation study has confirmed the JORC Code RP3E requirements, within the MRE optimisation shell and additionally limited to the north by the MDE boundary.



#### Figure 5: Greenbushes infrastructure adjacent to the CY23 design pit crest.

Note: Aerial image of the infrastructure affected by CY23 Central Lode and Kapanga pit design crest which is annotated as the bold red line)I. Annotations "Cr1 to Cr 3" indicate the locations of ore crushers.

Talison's technical staff have prepared the revised CY23 MRE model using normal industry methods for the style of mineralisation under consideration. Interested investors are encouraged to read the CY23 MRE JORC Code Table 1 summary appended to this announcement for a detailed explanation of Talison's sampling and data, exploration and MRE assumptions applied in preparing the CY23 estimate. In terms of governance, CY23



MRE has also been independently reviewed by an industry well-known and reputable MRE consultant, who found no material errors in the estimation process and has generally endorsed Talison's methodology and reporting. IGO's senior technical staff have also completed a high-level review of the model and database used for the estimate and found the supporting information and documentation consistent with the requirements of the prevailing JORC Code.

#### **Ore Reserves**

Table 2 on the next page, is a comparative listing of Talison's Greenbushes CY22 and CY23 OREs – on a 100% basis. This tabulation includes sector information for deposit and JORC Code classification, along with the arithmetic and relative difference metrics between the two reporting dates. The tabulated results are contrasted graphically in terms of an ORE-contained *in situ* SC6 concentrate in Figure 7 on page 12.

Figure 6 is a CY23 aerial overview of Greenbushes that has been modified to inset the Central Lode/Kapanga CY23 life-of-mine design and selected lithia grade cross sections through Talison's respective CY23 MRE model.



#### Figure 6: Southwest facing perspective overview of Greenbushes CY23 life-of-mine pit design

Notes: MRE blocks in the pit sections and the TSF1 MRE model are colour coded according to the lithia grades listed in the inset legend included on the lower left.



#### CY23 minus CY22 reporting 31 December 2022 31 December 2023 **Relative Differences** Arithmetic differences Li<sub>2</sub>O Li<sub>2</sub>O LCE SC6 Mass LCE SC6 Li<sub>2</sub>O LCE SC6 In situ Mass Mass Mass (Mt) products Deposit JORC Code class (%) (Mt) (%) (Mt) Central Lode Proved -------\_ ------132 1.9 2.6 -1% Probable 2.0 2.6 6.5 44 133 6.4 43 0.1 -0.0 -0.1 -0.6 0.1% **Central Lode total** 132 2.0 2.6 6.5 44 133 1.9 2.6 6.4 43 0.1 -0.0 -0.1 -0.6 0.1% -1% Kapanga Proved ----------------Probable 28 1.9 0.5 1.3 8.8 39 1.9 0.7 1.8 11 10 0.2 0.5 3.0 37% 34% 28 8.8 39 0.7 1.8 11 10 0.5 37% 34% Kapanga total 1.9 0.5 1.3 1.9 0.2 3.0 TSF1 Proved --------------7.9 1.4 0.3 0.1 1.2 -2.5 -0.0 -32% -32% Probable 0.1 1.8 5.4 1.4 0.2 -0.1 -0.6 **TSF1** total 7.9 1.4 0.1 0.3 1.8 5.4 1.4 0.1 1.2 -2.5 -0.0 -0.1 -0.6 -32% -32% 0.2 Stockpiles Proved 0.7 3.0 0.0 0.1 0.3 0.7 3.0 0.00 0.1 0.4 0.1 0.0 0.0 0.0 10% 10% Probable 2.6 2.0 0.1 0.1 0.9 2.0 2.3 0.1 0.1 0.8 -0.5 -0.0 -0.0 -0.1 -21% -8% 3.2 2.2 2.8 2.5 -14% -3% Stockpile total 0.1 0.2 1.2 0.1 0.2 1.2 -0.5 -0.0 -0.0 -0.0 0.7 0.3 3.0 0.0 10% 10% Greenbushes Proved 3.0 0.0 0.1 0.7 0.0 0.1 0.4 0.1 0.0 0.0 Probable 171 1.9 3.3 8.1 55 178 1.9 3.4 8.4 57 7.3 0.10 0.3 1.7 4% 3% 171 1.9 3.3 8.2 55 179 1.9 3.4 8.5 57 7.4 0.1 0.3 1.8 4% 3% **Greenbushes total**

#### Table 2: Greenbushes CY22 and CY23 JORC Code reportable Ore Reserve estimates - 100% basis

Notes: All OREs are reported using a  $\geq 0.7\%$  Li<sub>2</sub>O block model cut-off grade and OREs are exclusive of the MREs listed further above. Li<sub>2</sub>O, LCE and 6% Con masses are *in situ* and do not consider the metallurgical recovery losses. True zero values are reported as the '-' symbol otherwise zero values represent quantities that are below the Competent Person's preferred precision of reporting. Totals and averages for ORE tonnage and lithia grade are affected by rounding. IGO's interest in these estimates is 24.99%.





Figure 7: Greenbushes CY22 and CY23 ORE in situ SC6 concentrate – 100% basis

The CY23 ORE for Central Lode and Kapanga is constrained by a detailed open pit mine design that Talison's technical staff designed in the August 2023 ORE update. Talison designed this pit around an optimisation shell that was prepared using the revised ORE modifying factors that are explained in Section 4 of the JORC Code



Table 1 appended to this announcement. Talison's ORE methodology for the CY23 ORE is the same as applied in its last ORE model, which IGO reported in its CY22 ASX reporting.

The key input parameters to the CY23 pit optimisation that guided the CY23 mine design are as follows:

- Design basis:
  - Talison used the revised CY23 Central Lode and Kapanga MRE model as the ORE optimisation basis.
  - The mining dilution assumption and ore recovery assumptions are that the CY23 MRE model accommodates mining dilution expected in open pit truck and shovel mining operations and as such, ore mining recovery is expected to be 100% at the MRE model grades.
  - Only Measured and Indicated Resources were considered for ORE assessment, as required by the JORC Code when estimating Ore Reserves
  - Pit slope design angles and angle sectors were applied as recommended by Talison's industry well-known and reputable geotechnical consultant.
- Process rates
  - The assumed ramp up schedule included process rates of about 4.7Mt/a in CY24, then stepping to 6.5Mt/a in CY25, 7.1 Mt/a in CY26, 8.9Mt/a in CY27 and 9.5Mt/a from CY28 onwards.
- Financial considerations:
  - Talison assumed a CY23 A\$:US\$ foreign exchange ratio of 0.75:1.
  - Product prices determined at the time of the optimisation work in August 2023, which were in the order of A\$3,700/t for both technical and chemical grade products, are reported net of selling costs and the mineral conversion cost for the chemical grade concentrates.
  - The lithium chemical prices were assumed to be in the order of US\$25,750/t.
  - Annual discount rate on the time value of money was set at 7.5%/a.
- Costs:
  - Processing cost for CG ore was assumed to be in the order of A\$24/t.
  - The processing for cost for TG ore was about A\$20/t higher than for CG ore.
  - General and administration costs were assumed to about A\$11/t and sustain capital cost about A\$4/t.
  - Mining costs were based on Talison's current mining contractor's rates. Average LOM mining costs are A\$22.67per bench cubic metre
  - WA State royalties are levied at 5% of sales revenue after allowing for deductions of overseas shipping costs, where applicable.

Talison prepared a product price sensitivity test on its selected CY23 design pit optimisation shell and found the shell was largely insensitive to product prices as depicted in Figure 8 below. This insensitivity is due to the relatively high grade nature of the Central Lode and Kapanga Indicated Resources. Specifically, the test cases of having  $\pm 50\%$  relative product prices from the base case only had a  $\pm 4\%$  immaterial relative effect on the optimisation shell's contained proxy for ore tonnage. The pit optimisation sensitivity (or lack thereof) is impacted by the use of a hard boundary, limiting it to the boundary of ROM pads and access roads.



Key features of the CY23 revised Central Lode/Kapanga life-of-mine pit design and schedule include:

- Pit design:
  - The revised mine design has been reviewed by an industry well-known and reputable geotechnical consultant who found no fatal flaws in Talison's revised life-of-mine design.
  - The strip ratio has increased from about 4.4 to 5.7 compared to the prior 2021 design as the Kapanga sub pit has deepened requiring more waste movement between Kapanga and the Central Lode. Additionally, the Kapanga Deposit has many intercalated waste horizons that need to be extracted with the ore bearing pegmatites.
  - Footwall pit slopes have now been designed to be always below the pegmatite contact to ensure wall stability.
- ORE reporting:
  - Only about 2% of the life-of-mine ORE is expected to be technical grade ore, which needs to be defined by close spaced grade control drilling during mining, and as such is difficult to estimate with precision at MRE drill spacings.
  - Proved Ore Reserves are only reported for stockpiles which have been informed by grade control drilling, albeit lower confidence ore stockpiles are reported as Probable Ore Reserves. Otherwise, the in-pit Probable Ore Reserves are all derived from Indicated Mineral Resources.
  - The pit design includes about 2.3Mt grading 1.6% Li<sub>2</sub>O of Inferred Mineral Resources that have been excluded from the CY23 ORE reporting as per JORC Code requirements. However, Talison can reasonably expect that some of the resource may convert to ORE following in-pit grade control drilling.
- Infrastructure requirements
  - The ORE design requires mining of an access ramp to ore run-of-mine pads and a future planned ore sorter as depicted above in Figure 5 on page 9. However, Talison considers that access and location can be managed by further detailed design work and will not limit the ability to mine the ORE pit or operate processing plants at target capacities.
  - The spaces in the current waste rock and tailing storage facilities at Greenbushes are both insufficient for the revised life of mine plan and would limit production from CY40. However, Talison



considers given the long mine life , there are reasonable expectations that capacities can be expanded through future detailed designs and subsequent normal approval processes.

- In regard to water supply, existing process water capture dam walls are being raised to capture more surface run-off with other nearby water sources being considered. Talison considers that there are reasonable expectations that water supply for future expansions can be managed and will not impact on the viability of the ORE.
- Review
  - Prior ORE estimates for Greenbushes, which followed a similar process to the current estimate, have been reviewed at a high level by industry well-respected mining consultants AMC. AMC concluded the prior estimates were consistent with the requirements of the prevailing JORC Code.
  - The CY23 ORE design has been reviewed by industry well-respected geotechnical consultants Pells Sullivan and Maynick (PSM). PSM review found no fatal flaws in the geotechnical inputs to the design.

#### **Exploration Results**

Since completion of its prior MRE revision in August 2021, which was based on a drilling information cut-off date of June 2021, Talison has added an additional 162 drill holes to June2023. A total length of 305km of drilling was used to inform its August 2023 MRE revision. As discussed above this drilling has both infilled zones of known pegmatite to elevate volumes of prior JORC Code Inferred Mineral Resources to higher confidence Indicated Resources and discovered new additional volumes of spodumene mineralised pegmatites that have been classified as Talison's Competent Person considers appropriate. The pegmatite deposits of Greenbushes in most areas remain open and extensional drilling is continuous following mineralisation down plunge and along strike.

Figure 9 and Figure 10 are east facing (on mine grid orientation) long sections through the Central Lode, which demonstrate the continuity of the deposit at depth below the current life-of-mine design, along traces of holes drilled since August 2021. Of particular interest is the fact that there are significant volumes of continuous spodumene mineralisation south of the CY23 ORE pit, which are attractive targets to be evaluated for underground mining extraction.

Talison has drilled numerous diamond core drilling holes where assay results have been received after its August 2023 MRE revision. These newer results continue to extend the spodumene mineralised zone in the deeper parts of the Central Lode that are under substantial barren cover. Drill sections in this area are targeted with hole spacing 100m along strike and 50m across strike For example, on long section 9,700E (Figure ), drill hole CLDD083, which was collared in September in 2023 and not included in the CY23 MRE intersect 79.8m grading 2.8% Li<sub>2</sub>O from 487.9m down hole, with this intercept appearing to extend the high grade spodumene mineralisation further south from the CY23 MRE model. Within the modelled zone of mineralisation, there are numerous holes supporting this high grade zones continuity, with examples additionally annotated in Figure 9.





#### Figure 9: Central Lode long section 9,700mE ±37.5m with example CY21 to CY23 drilling results

As a second example on long section 9,625mE (Figure 10), there are three drill holes intersections that will likely extend the mineralisation to the south, with hole:

- CLDD080 intersecting 193.3m grading 2.0% Li<sub>2</sub>O from 446.95m,
- CLDD083 intersecting 79.8m grading 2.8% Li<sub>2</sub>O from 489.70m, and
- CLDD086 intersecting 91.6m grading 2.2% Li<sub>2</sub>O from 512.50m.

These example intersections are hanging wall to footwall pegmatite intersections and may contain up to 5m of internal host rock dilution. Note true thicknesses are approximately 80% of stated intersection thicknesses.





#### Figure 10: Central Lode long section 9,625mE ±75m with example CY21 to CY23 drilling results

To meeting JORC Code requirements for reporting exploration drilling results, Table 3 and Table 4 are respective listings of the details of the example drill hole intercepts annotated in Figure 9 and Figure 10.



Long	Drill hole identifier	Co	llar coordina (Mine grid)	tes	Total length	Month- year	Collar pl (Mine g	
section	laentiner	mE	mN	mElv	(m)	collared	Bearing	Dip
9,625mE ±75m	CLDD080	9566.62	11022.69	1300.7	654.5	Jun-2023	110	85
	CLDD083	9,557.4	11,016.5	1,301.0	708.5	Sep-2023	155	75
	CLDD086	9,553.5	11,010.5	1,300.7	699.3	Oct-2023	180	80
9,700mE ±37.5m	CLDD044	9,515.5	11,399.9	1,305.5	525.4	Sep-2021	90	70
	CLDD049	9,471.8	11,191.8	1,302.1	528.3	Dec-2021	90	60
	CLDD051	9,471.5	11,191.7	1,302.5	558.4	Jan-2022	90	70
	CLDD069	9,423.4	11,299.9	1,303.9	606.4	Nov-2022	90	60
	CLDD090	9,571.0	11,020.0	1,300.8	603.4	Nov-2023	100	75
	CLDD093	9,570.0	11,022.4	1,300.8	669.7	Nov-2023	50	75

#### Table 3: Example drilling results drill hole collar coordinates and at collar hole plunges

Table 4: Example drill intercepts lengths and grades

1	Drill hole	Example I	ntersection	details
Long section	identifier	Length (m)	Li <sub>2</sub> O (%)	From (m)
9,625mE ±75m	CLDD080	193.3	2.0	446.95
	CLDD083	79.78	2.8	489.72
	CLDD083	5.95	0.9	624.82
	CLDD086	13.98	2.3	487.35
	CLDD086	91.57	2.2	512.5
	CLDD086	6.58	1.0	604.77
	CLDD086	21.20	0.6	619.1
9,700mE ±37.5m	CLDD044	117	1.4	402.2
	CLDD049	68.4	2.0	429.4
	CLDD051	107.35	1.8	495.1
	CLDD069	83.2	1.8	462.4
	CLDD090	37.8	1.6	495.1
	CLDD093	135.4	1.4	421.75
Notes: Reported hole interval		0	0 0	

hole pegmatite intervals >5m containing <5m internal host dilution. Down hole lengths are not true width.

#### Summary and conclusions

Talison's technical staff have revised the Greenbushes MRE to incorporate new geoscientific information in August 2023 and subsequently revised the Greenbushes revised ORE and life-of-mine plan. Talison has depleted these estimates to the end of CY23 for the purpose of IGO's ASX reporting.

These CY23 revisions have significantly increased both the confidence and magnitude of the Greenbushes MREs and materially increased the OREs despite 12 months of mining depletion since last reporting of mining depleted estimates at the end of CY22. The headline metrics are included in the highlights of this announcement.

Talison's methodical exploration drilling of the Central Lode and Kapanga deposits since it's August 2021 revisions, has defined deeper high grade zones of pegmatite below high waste stripping areas of the CY23 life-of-mine open pit, and these discoveries provide Talison with the opportunity to assess the possibility of



underground lithium mining at Greenbushes to supplement open pit production with a potential high grade ore stream.

#### **Competent Persons**

The MREs and OREs discussed in this report were prepared by, or under the supervision of, the Competent Persons listed in Table 5 below.

Activity	Competent	Professional ass	ociation	Role	Employer	Location reporting and	
reporting	Person	Membership	Number	Role	Employer	period responsibilities	
Mineral Resources	Daryl Baker	MAusIMM	221170	Geology Superintendent	Talison Lithium	CY23 Central Lode, Kapanga and TSF1 Mineral Resources	
Ore Reserves	Andrew Payne	MAusIMM	308883	Mine Planning Superintendent	Talison Lithium	CY23 Central Lode, Kapanga and TSF1 Ore Reserves	

#### Table 5: Competent Person for Cosmos October 2023 MRE and ORE revisions

The information in this report that relates to Mineral Resources or Ore Reserves is based on the information compiled by the relevant Competent Persons and activities listed in Table 5 where:

- MAusIMM is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM).
- All IGO personnel are full-time employees of IGO.
- All the Competent Persons have provided IGO with written confirmation that they have sufficient experience that is relevant to the styles of mineralisation and types of deposits reported, and the activity being undertaken with respect to the responsibilities listed against each person above, 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 – the JORC Code 2012 Edition.
- Each Competent Person listed above has provided to IGO by e-mail:
  - Proof of their current membership to their respective professional organisations as listed above.
  - A signed consent to the inclusion of information for which each person is taking responsibility in the form and context in which it appears in this report, and that the respective parts of this report accurately reflect the supporting documentation prepared by each Competent Person for the respective responsibility activities listed above.
  - Confirmation that there are no issues other than those listed above that could be perceived by investors as a material conflict of interest in preparing the reported information.



#### Appendix A: Comparison to Albemarle's CY23 SEC SK1300 reporting

Albermale Corporation (Albermale) released a US Securities and Exchange Commission SEC Technical Report Summary on the Greenbushes Operation during February 2024. This report details SEC-style resource and reserve estimates for Greenbushes that have been prepared SRK US independently from the estimates prepared by Talison discussed in the main body of this ASX release.

SRK's MRE was prepared using drill hole data and interpretations prepared by both Talison's and Albemarle's geologists, with SRK (Perth) preparing the geological model, which was subsequently refined by Albermale and SRK (US) for SEC public disclosure purposes. As such the MRE model underpinning Albemarle's SEC reporting is very similar but not exactly the same as Talison's MRE model that is the basis of its JORC Code and ASX reporting.

The key difference are as follows:

- Talison's JORC Code CY23 MRE has 92% more MRE mass than Albemarle's SEC CY23 MRE and 22% more MRE mass, for respectively 70% and 28% more product, in terms of an *in situ* SC6 saleable concentrate.
- Talison's JORC Code CY23 ORE has 34% more ORE mass than Albermale SEC CY23 MRE, and 9% more ORE mass, for 23% and 11% more product mass respectively.

These differences stem from the different estimation approaches are:

- IGO is reporting to the ASX using prevailing JORC Code requirements, while Albermale is reporting to the SEC using its SK-1300 requirements. The SK-1300 regime traditionally imposes a higher certainty requirement to reporting than JORC Code, particularly in terms levels of confidence of study supporting estimates and estimation modifying factors.
- The main difference in the Mineral Resource, which attributes about 90% of the variance, has been the constraint of the open pit resource shell to the current infrastructure. This is in contrast to Talison, which has used an A\$3 billion allowance in the pit optimisation for the relocation and/or rebuilding of infrastructure for the purpose of reporting a Mineral Resource. However, as underground studies progress much of this deeper open pit estimate may report to a future underground resource. The remaining differences relate to the Albemarle's exclusion of TSF1 resource and reporting of the pit resources to the SEC at a relative 40% higher cut-off grade than that use by Talison.
- In terms of the Ore Reserve, the key difference variances can be attributed to approximately:
  - 20% associated with the exclusion of TSF1 from the SEC reserve,
  - 25% due to commodity price assumptions, and
  - 50% due to limiting production from CY40 due to a current constrain on waste storage capacity which may require future land purchases and permitting.



# Appendix B: Greenbushes JORC Code Table 1

#### Section 1: Sampling techniques and data

JORC Criteria	Explanation
Sampling techniques	<ul> <li>Talison has drill-sampled the Greenbushes Central Lode, Kapanga and TSF1 MRE volumes, with the Central Lode and Kapanga drilled by RC drilling and DD. The TSF1 MRE volume was drilled using sonic drilling (SD).</li> <li>The holes drilled from surface at the Central Lode and Kapanga have collar spacings ranging from 25 to 50m across an along strike. The DD holes drilled from underground workings at the northern end of the Central Lode have a close spaced pattern, fanning out from the workings. The underground infill drilling took place from the hangingwall and footwall mine infrastructure. The TSF1 SD holes are drilled on a nominal 200m grid spacing.</li> <li>Apart from a few holes drilled to collect geotechnical information, the Central holes drilled from surface generally plunge towards local mine grid east to intersect the mineralisation at a high angle. Sample representativity has been ensured by monitoring core recovery to minimise sample loss. SD holes drilled to test the TSF1 resource are vertical</li> <li>For the 31 Aug 2023 the combined Central Lode and Kapanga MRE was modelled using a database containing approximately 731 diamond core holes equating to approximately 158 km of drilling, and approximately 892 RC holes including those with diamond tails equating to 147 km of drilling. These holes were drilled in numerous programs conducted between 1977 and 2023.</li> <li>For the TSF1 MRE, the drill hole database include 34 SD drillholes for a total length of 759m.</li> </ul>
Drilling techniques	<ul> <li>RC drilling using face-sampling bits was used for shorter near-surface holes with hole diameters of either 5½ inch (140mm) or 5¼ inch (133mm).</li> <li>DD has been used for deeper holes and for drilling from underground platforms, with a few diamond tail extensions drilled to extend RC holes</li> <li>Triple tube DD has been used in areas of broken ground to improve core recovery.</li> <li>The core from some DD holes drilled to collect data for geotechnical studies has been oriented.</li> <li>The DDs drilled for Central Lode and Kapanga MRE work include several different core diameters including 36.4mm (BQ), 47.6mm (NQ) and 63.5mm (HQ2, HQ3).</li> <li>The TSF1 MRE drilling comprised SD to collect 3-inch (76.2mm) cores.</li> </ul>
Drill sample recovery	<ul> <li>RC recovery:         <ul> <li>Selected RC holes have had the cuttings from 1m downhole intervals weighed over the entire hole length to provide data for assessment of the expected mass against the actual recovered mass. A few of the older RC hole have had samples collected over 2m down hole intervals.</li> <li>Generally, RC recovery is logged qualitatively as 'good' to 'poor' with recovery generally logged as 'good' except for samples collected within the first few metres from surface.</li> <li>The lithia grades from nearby RC and DD holes have been compared to assess the potential for grade bias due to RC fines losses. No material biases between the two drill methods have been identified for the Central Lode data. Review of several pairs of twinned holes contained in the Kapanga dataset showed apparent biases for Li<sub>2</sub>O, raising the possibility of preferential loss of light minerals during RC drilling.</li> <li>DD recovery:</li></ul></li></ul>
Logging	<ul> <li>RC cuttings and DD and SD cores have been logged geologically and geotechnically with reference to standardised logging codes, to levels of detail that support MRE work, Ore Reserve estimation (ORE) and metallurgical studies. The information collected is considered appropriate to support any downstream studies by the Competent Person.</li> <li>Qualitative logging includes codes for lithology, regolith, and mineralisation for RC, DD, and SD samples, with sample quality data recorded for RC such as moisture and recovery and in 10% of RC sample mass. DD subsampling size is recorded.</li> <li>DD cores are photographed, qualitatively structurally logged with reference to orientation measurements where available.</li> <li>Geotechnical quantitative logging includes QSI, rock quality designation (RQD), matrix and fracture characterisation.</li> <li>The total lengths of all drill holes have been logged.</li> </ul>



IOPC Criteria	ng techniques and data – Greenbushes
JORC Criteria Sub-sampling techniques and sample preparation	<ul> <li>Explanation</li> <li>RC sampling:         <ul> <li>RC sampling:</li> <li>RC samples were collected from a splitter (riffle, static cone, and rotary cone) that collected a 3 to 5kg split of the primary lot from each downhole sampling interval.</li> <li>Most samples were collected from dry ground conditions.</li> <li>The main protocol to ensure the RC samples were representative of the material being collected was visual logging of sample recovery, weighing sample return on 5 to 10% of holes and, collection and assay of 5% field duplicates of primary samples.</li> </ul> </li> <li>DD cores samples have been collected over intervals determined by geological boundaries but generally targetin a 1m length within the same zone of contiguous geology.</li> <li>Cores were generally haft-core sampled with the core cut longitudinally using a core saw having a wet diamond impregnated cutting blade.</li> <li>Some of the larger diameter HQ core collected for metallurgical test was quarter core sampled.</li> <li>SD sampling:</li> <ul> <li>The TSF1 SD sample intervals are 1.5m down hole with the SD core captured in half plastic pipe and cut with a blade or wire to prepare a 'half core' tailings sample.</li> <li>Talison Laboratory preparation:                 <ul></ul></li></ul></ul>
	<ul> <li>The precision half absolute relative difference values for DD field duplicates having grades ≥0.2% Li<sub>2</sub>O is less than ±10% relative for 85% of duplicates collected since 2016.</li> <li>The precision half absolute relative difference values for RC field duplicates having grades ≥0.2% Li<sub>2</sub>O is less that ±10% relative for 80% of duplicates collected since 2016.</li> <li>Sample size versus grain size:</li> </ul>
Quality of assay	<ul> <li>Lithia bearing spodumene typically comprises between 15 to 55% of the mineralisation, and as such is in relative high concentration.</li> <li>The sample sizes collected at the primary and sub-sampling stages are considered appropriate by the Competer Person.</li> <li>No geophysical tools have been used to determine any analyte concentrations for MRE work</li> </ul>
lata and aboratory tests	<ul> <li>No geophysical tools have been used to determine any analyte concentrations for MRE work</li> <li>Talison Laboratory analysis:         <ul> <li>A small aliquot of the sample preparation pulp was collected and digested in sodium peroxide and the resulting solution concentration of lithia</li> <li>A suite of 36 accessory analytes were also determined using fusion digestion and X-ray fluorescence (XRF), however these additional analytes are not included in the Publicly Reported MRE, albeit iron grade has been use to assist in the interpretation of zones of TG mineralisation.</li> </ul> </li> </ul>



JORC Criteria	Explanation
	<ul> <li>Laboratory internal quality systems include replicate (pulp repeat) laboratory analyses, analysis of known standards by XRF, and round-robin interaction with other laboratories.</li> <li>Li<sub>2</sub>O in geological drill samples is not analysed in replicates; instead, the AAS machine is recalibrated before ever batch of samples</li> <li>Known solution standards and blanks are embedded in each batch and the accuracy of the calibration is monitored regularly during analysis. The precision of the AAS analysis technique for lithium is statistically monitored by the laboratory.</li> <li>External Laboratory analysis Bureau Veritas Canning Vale:         <ul> <li>A small aliquot of the sample preparation pulp was collected and fused with sodium peroxide and the melt dissolved in dilute hydrochloric acid and the resulting solution analysed for lithia by ICP-AES and rubidium and caesium by ICP-MS.</li> <li>A suite of 25 accessory analytes were also determined using X-ray fluorescence (XRF) following fusion with lithium borate flux, however these additional analytes are not included in the Publicly Reported MRE, albeit iron grade has been used to assist in the interpretation of zones of TG mineralisation</li> <li>Talison's technical staff maintains standard work procedures for all data management steps, with an assay importing protocol established that ensures quality control samples are checked and accepted before data can be loaded.</li> </ul> </li> </ul>
Verification of sampling and assaying	<ul> <li>Significant drill hole intersections of mineralisation have been routinely verified by Talison's senior geological staff and have also been inspected by several independent external auditors.</li> <li>Twin holes have been drilled to compare assay results from RC and DD drilling.</li> <li>A 36 element assay suite is compared to lithology which has high contrast between pegmatite and host rocks. From these comparisons Talison's geologist consider that there is no material down hole smearing of grades in the RC drillin and sampling.</li> <li>There have been no adjustments or scaling of lithium assay data.</li> </ul>
Location of data points	<ul> <li>Throughout years of data collection up to date industry standard equipment available at the time has been used. Most of the recent drill hole collar locations were surveyed by company surveyors using real time kinematic differential global positioning system equipment (RTK-DGPS), to a reported accuracy of less than 10 cm.</li> <li>Underground DD collars were surveyed using total station equipment during the time of underground mining.</li> <li>The plunges of drill hole paths have been surveyed using single shot cameras for holes drilled prior to 2007, and gyroscopic or Reflex electronic survey tools for more recent drilling. Generally, holes have the plunge recorded every ~10m for angled holes and ~30m for vertical holes. A few early RC holes have not been surveyed and the short vertical SD holes in TSF1 do not have hole path surveys.</li> <li>The mine grid eastings are approximately aligned to the strike of the main pegmatites with the trend of mine grid north approximately 11° west of Magnetic North and 15.7° west of True North.</li> <li>The transformation between local and Map Grid Australia (MGA) grid is a two point transform using the following paired coordinates:</li> </ul>
	Location Local X Local Y MGA X MGA Y
	A 10,166.941 10,524.225 414,290.966 6,251,535.324
	B 9.833.499 12,778.814 413,362.002 6,253,615.642
	<ul> <li>Talison adds constant of 1,000m to the mine grid elevations relative to Australian Height Datum (AHD) elevations.</li> <li>The digital terrain model is a synthesis of photogrammetric surveys and regular pit surveys and of good quality for MRE work.</li> <li>The precision of the TSF1 survey is considered have a precision of ±1m in three dimensions.</li> </ul>
Data spacing and distribution	- For the Central Lode the drill section spacing is typically 50 m, with spacings of approximately 50 m along section.



Section 1: Sampling	techniques and data – Greenbushes
JORC Criteria	Explanation
Orientation of data in relation to geological structure	- Nearly all drill holes are oriented to intersect the mineralisation at a high angle and as such, the Competent Person considers that a grade bias effect related to the orientation of data is highly unlikely.
Sample security	<ul> <li>The sample chain-of-custody is managed by Talison's technical personnel. Samples were collected in pre-numbered bags, for transport from the primary collection site either to the Site laboratory or to the exploration compound where samples are collated in bulka bags job lots before road transport.</li> <li>Sample dispatch sheets are verified against samples received at the laboratory and other issues such as missing samples and so on are resolved before sample preparation commences.</li> <li>Following sample reconciliation processes, the Competent Person considers that the likelihood of deliberate or accidental loss, mix-up or contamination of samples is very low.</li> </ul>
Audits or reviews	<ul> <li>Field quality control data and assurance procedures are reviewed by Talison's technical staff on a daily, monthly, and quarterly basis</li> <li>RSC conducted a review of the 2021 MRE and found no fatal flaws and recommended additional twinned holes in the Kapanga deposit.</li> <li>The sampling quality control and assurance of the sampling was reviewed by consultants Quantitative Geoscience in the 2000s, Behre Dolbear Australia in 2018, and as part of IGO's due diligence work by Snowden Mining Industry Consultants in 2019. No adverse material findings were reported in any of these reviews,</li> <li>A 2021 review by SRK Consulting Australasia (SRK) noted that Talison rigorous quality control programs for assay, which have been in place since 2007, cover ~40% of the Central Lode data and effectively all the Kapanga drilling. In a recent Competent Person Report review by Behre Dolbear Australia (BDA), BDA noted that there is an apparent positive bias for lithia when comparing nearby RC and DD samples, which may be material give most of the Kapanga drilling is RC. BDA further noted that a similar bias is observed by Talison in pit grade control samples, with a 5% factor applied to adjust higher grades down for forecasting plant head grades.</li> <li>Consultants AMC conducted a review of the 2023 ORE and found it to be completed using appropriate processes and inputs.</li> </ul>



#### Section 2: Exploration Results

	Explanation									
Mineral tenement and land tenure status	<ul> <li>Greenbushes is 100% owned by Talison. Talison is 51% owned by Tianqi Lithium Energy Australia Pty Ltd (TLEA) which is the holding company for the Tianqi Lithium (51%) and IGO (49%) JV. The remaining 49% of Talison is owned by Albermale Corporation.</li> <li>The WA mineral tenements relevant to Greenbushes' MREs and OREs are tabulated below.</li> </ul>									
		Tenement type	Name	Date Granted Expiry		Area (ha)				
		Mining	M01/02	28 Dec 1984	27 Dec 2026	969				
			M01/03 M01/04	28 Dec 1984 28 Dec 1984	27 Dec 2026 27 Dec 2026	1000 999				
			M01/05 M01/06	28 Dec 1984 28 Dec 1984	27 Dec 2026 27 Dec 2026	999 985				
			M01/07	28 Dec 1984	27 Dec 2026	998				
			M01/08 M01/09	28 Dec 1984 28 Dec 1984	27 Dec 2026 27 Dec 2026	999 987				
			M01/10 M01/11	28 Dec 1984 28 Dec 1984	27 Dec 2026 27 Dec 2026	1000 999				
			M01/16	28 Sep 1994	27 Dec 2036	19				
			M01/18 M70/765	28 Dec 1984 20 Jun 1994	27 Dec 2026 19 Jun 2028	70.4 3				
		Exploration	E70/5540	08 Mar 2021	07 Mar 2026	222.6				
		General purpose	G01/01 G01/01	17 Nov 1986 17 Nov 1986	5 Jun 2028 5 Jun 2028	10 10				
		Miscellaneous	L01/01	19 Mar 1986	27 Dec 2026	9				
		general purpose lease se agreement betweer				rights to all non	-lithium metals o			
Exploration done by other parties	<ul> <li>1886, making Gr</li> <li>The first tin miner tin sluicing opera</li> <li>From 1945 to 199 commenced ope</li> <li>Hard rock open p now near completion</li> </ul>	enbushes region has b eenbushes the longes in the area was the Bu tions from 1935 to 194 56 tin dredging comme n pit mining of oxidised it tin-tantalum mining a ted Cornwall Pit. This en the process capacit	t continuously inbury Tin Mi 3. Inced using m I soft rock be and processir mining includ	y operating mine ning Co in 1888 nore modern equ low surface. ng at 0.8Mt/a cor led underground	in WA. followed by Vulc ipment and in 19 nmenced in 1992 mine developme	an Mines who 969, Greenbush 2 with the ore s ent in 2001 to s	carried out oxide nes Tin NL ourced from the ource high grade			
	tantalum/tin treat Greenbushes Lim 1985. The mining concentrate prod including the pro Resource Capital creating the lithiu Talison Lithium v lithium minerals of	ment plant was placed ited commenced open g and processing asse uction capacity was in duction of chemical gra Fund purchased the G m and tantalum comp vith the lithium rights o	into care and pit mining in ts were subsecreased to th ade lithium co creenbushes any Talison M n the teneme	d maintenance. 1983 and comm equently acquired e 100kt/a in the o ncentrate. Mine tenement p dinerals. RCF the nt package and o	iissioned a 30kt/ d by Sons of Gw early 1990s, ther backage from the en split Talison N	a lithium minera alia Ltd (SOG) n increased to 1 administrators finerals into the	in 1989 and the 50kt/a by 1997, of SOG in 2009 two companies			



JORC Criteria	Explanation
	<ul> <li>Greenbushes' lithium bearing pegmatites present as a series of linear dykes and/or en echelon pods that range from a few meters in strike length up to 3km, and with true thickness ranging from 10 to 300m. The pegmatites have intruded at the boundaries between the major sequences of country rocks.</li> <li>The Kapanga Deposit is a satellite deposit ~300m mine-grid east of the Central Lode with similar geology but with pegmatites generally thinner. The Kapanga pegmatites comprise a package of sub-parallel stacked lodes and pods of variable thickness</li> <li>Several compositional zones are recognised in the pegmatite, with lithium rich zones observed to occur preferentially of the footwall and hangingwall zones of the Central Lode pegmatite. Tin and tantalum occur in the albite zone of the pegmatite and were the motivation for the historic mining at Greenbushes, mainly from the Cornwall Pit. Generally, the mineralisation presents as stacked higher grade lenses within a low grade alteration envelope. The zonation at Kapanga is broadly similar, with concentration of spodumene in the upper parts of the local sequence.</li> <li>The high-grade lithium zone of the pegmatite comprises mostly spodumene and quartz, with local parts of the zone containing up to 50% of the lithium bearing mineral spodumene, which has a lithium concentration of ~8% Li<sub>2</sub>O.</li> <li>Greenbushes' TSF1 mineral resource is the processing waste from earlier phases of tin and tantalum mining and processing from the Central Lode deposits. As such the tailings have similar mineralogy to the Central Lode pegmatite</li> <li>The TSF1 'geology' is characterised by a ~7 minick upper layer of clay tailing which in turn overlies the pre-existing natural surface.</li> <li>All rocks have been extensively lateritised during peneplain formation in the Tertiary, with weathering and lithium leaching effects reaching to depths of up 40m below surface.</li> </ul>
Drill hole Information	<ul> <li>A summary of the many holes used to prepare the Greenbushes MREs is impractical for this Public Report.</li> <li>The Competent Person considers the MREs give a balanced view of all the drill hole information used to prepare the MRE.</li> <li>Recent examples of exploration results in the report are from diamond core holes collared at surface and drilling fans targeting the dip plane of the pegmatite on a 100mN x 50mE grid. As such the dips and azimuths vary but intersect the target at high angles resulting in intersections with true thickness approximately 80% of stated down hole thicknesses</li> <li>Recent examples of Central Lode diamond core holes are HQ diameter with half core assays.</li> </ul>
Data aggregation methods	- Stated drill hole intersections are aggregations of interval length multiplied by interval grade
Relationship between mineralisation widths and intercept lengths	<ul> <li>Apart from a few geotechnical drill holes and selected underground fan DD holes, the majority of the MRE related drilling intersects the mineralisation at a high angle and as such true thicknesses are 80% or more of stated down hole thickness.</li> <li>The Competent Person considers that the risk of a grade bias introduced due to a relationship between intersection angle and grade is very low.</li> </ul>
Balanced Reporting	<ul> <li>The Competent Person considers that the MREs are based on all available data and provide a balanced view of the deposits under consideration.</li> <li>Reported example drill hole intersections are from hanging wall to foot wall through the pegmatite inclusive of all grade intervals. Where it exists, any internal host rock dilution &lt;5m down hole in the form of xenoliths and cross cutting dolerites is incorporated into stated drill hole intersections.</li> </ul>
Other substantive exploration data	<ul> <li>During core logging, spodumene is the only lithium mineral observed in the pegmatite above trace concentrations.</li> <li>Mineralogy observed in recent exploration results is consistent with the MRE</li> <li>For this active mine there is no other substantive exploration data material to the MRE and exploration results.</li> </ul>
Diagrams	- Representative diagrams of the geology and mineral resource extents are included in the main body of this Public Report.
Further work	- Exploration and resource development drilling is planned to continue within the Greenbushes tenements during 2024 targeting extension of pegmatites in the areas of Kapanga, Central Lode, White Wells and Cornwall Hill.

#### **Section 3: Mineral Resources**

Section 3: Mineral Res	Section 3: Mineral Resources – Greenbushes					
JORC Criteria	Explanation					
Database integrity	<ul> <li>Talison capture all geoscientific drill hole information for MRE work using laptop interfaces. The data is then stored in an SQL Server database and managed using acQuire software, which is a well-recognised industry software for geoscientific data storage, manipulation, and validation.</li> <li>Much of the older drill hole data was manually captured on hard copy log sheets which have since been transcribed into electronic documents and imported into the SQL database. Not all of the geological logging detail in historic holes has been captured in the SQL database. However, as many of these occur in the mined void the Competent Person considers that the lack of geology detail in these few holes to be not material.</li> </ul>					



Section 3: Mineral	Resources – Greenbushes
JORC Criteria	Explanation
	<ul> <li>Talison selected a random sample of historical assay data following transfer into the SQL database and compared the results to the original records to confirm the loading of historical assay records was correct – no material issues were found in this audit process.</li> <li>Talison validates all data following loading through visual inspection of results on-screen both spatially and using database queries and cross section plots. Typical checks carried out against original records to ensure data accuracy include items such as overlapping records, duplicate records, missing intervals, end of hole checks and so on.</li> <li>The Competent Person considers the risk of data corruption through transcription errors between initial collection and use in the MRE process to be very low risk.</li> </ul>
Site visits	- The Competent Person for the MRE is the Geology Superintendent for Greenbushes and as such has detailed knowledge of the data collection, estimation, and reconciliation procedures for this MRE revision.
Geological interpretation	<ul> <li>Central Lode and Kapanga:         <ul> <li>A combined Central Lode and Kapanga pegmatite model was prepared by SRK using Leapfrog Geo implicit modelling techniques. The model was reviewed and revised by Talison.</li> <li>A second 3D digital wireframe was generated in a similar process for the highly mineralised pegmatite using a ≥0.7% Li<sub>2</sub>O threshold on drill assays. The high-grade wireframe was nested inside the larger volume pegmatite wireframe.</li> <li>The models were prepared using extensive datasets that included geological logging data and geochemical data acquired from resource definition drilling.</li> <li>Grade control data was also used for Central Lode pegmatite modelling but not in estimation. The models account for the main lithological units, structural features, and grade domains</li> <li>The deposits show significant complexity, which is common for most pegmatite deposits. Alternative interpretations are possible for both the geometry and extents of the pegmatites, which have been defined using probabilistic approaches. However, given the relatively good trill coverage, is it unlikely that alternative interpretations will report significantly different grades and tonnages. It is considered that the uncertainty in the geology model is adequately accounted for in the resource classifications.</li> <li>A depth of weathering surface was prepared to allow modelling of the oxidised near surface parts of the deposit.</li> </ul> </li> <li>TSF1:         <ul> <li>Multiple current staff at the mining operation were present in the creation of this man made structure. This along with the survey data that constrains the dam provides for an indicated level of confidence in the geological interpretation of the deposit with respect to spatial constraints and depositional process.</li> <li>Geology logging provides a clear indication of the domain boundaries of the natural surface, unmine</li></ul></li></ul>
Dimensions	<ul> <li>Central Lode and Kapanga:         <ul> <li>The pegmatite zone in the MRE model is ~3.6km strike length (north-south in mine grid) and horizontal eastwest widths ranging up to ~300m.</li> <li>The maximum MRE modelled depth is ~850m below surface with depth varying along strike as a function of maximum drill depths on drill sections.</li> <li>The Publicly Reported MRE is constrained by a revenue factor 1.01 main pit optimisation shell that has dimensions of 4km along strike 2km wide horizontally and extending to a maximum depth of 740m below surface. And an additional satellite pit to the south 1km along strike and 650m wide with a depth of 260m.</li> </ul> </li> <li>TSF1:         <ul> <li>TSF1's MRE is has dimensions of ~1km north south and ~0.7km east west in the mine grid system.</li> <li>The mean depth of the combined mineralised tailings of the layers of Enriched Zone (EZ) and Depleted Zone (DZ) tailings ranges between 8 to 15m below current surface.</li> </ul> </li> </ul>



JORC Criteria	Explanation
Section 3: Mineral Res JORC Criteria Estimation and modelling techniques	<ul> <li>Explanation</li> <li>Central Lode and Kapanga: <ul> <li>Consultants SRK prepared the Central Lode/Kapanga MRE for Talison through a collaborative process of regular review and feedback. Talison reviewed the outputs and accepted the interpretation for MRE work making minor refinement to geological interpretation.</li> <li>The Mineral Resource Estimates were prepared using conventional block modelling and geostatistical estimation techniques.</li> <li>The same model framework was used for Central Lode and Kapanga.</li> <li>Leapfrog Edge was used to prepare the combined Central Lode/Kapanga model. The model was exported to Surpac for handover to Talison's mine planning team.</li> <li>KNA studies were used to assess a range of parent cell dimensions, and a size of 20 × 20 × 10 m (XYZ) was considered appropriate given the drill spacing, grade continuity characteristics, and expected end-user requirements for the combined model. Sub-celling down to 5 × 5 × 2.5 m was applied to enable the wireframe volumes to be accurately modelled.</li> <li>The domain wireframes were applied as soft boundary estimation constraints in the combined Central Lode/Kapanga model.</li> <li>Probability plots were used to assess for outlier values. Grade cuts were not applied, but distance restrictions were derived from continuity variography studies. Dynamic anisotropic searching was used to adjust the local search orientations to match any localised changes more closely to the strike and dip of the pegmatite units in the geological model.</li> <li>A multiple-pase selimation to historic mining</li> <li>Comparison to previous estimate</li> <li>Theoretical reconciliation in bistoric mining</li> <li>Comparison to previous estimate and model data</li> </ul> </li> <li>TSF1:</li> <ul> <li>Talison prepared a digital block model in Surpac software in mine grid coordinates.</li> <li>The parent block dimensions were set to 80m squares in the horizontal and 1.5m vertical to ensure acceptable precisio by block volume of the wireframe volumes de</li></ul></ul>
	<ul> <li>A minimum of three and a maximum of 16 composites were required for a block to be estimated.</li> <li>The grade estimate is supported by the model to mill reconciliation, which results in 103% Li<sub>2</sub>O grade reconciliation.</li> </ul>
Moisture	- Tonnages for both the Central Lode, Kapanga and TSF1 were estimated on a dry basis.
Cut-off parameters	<ul> <li>Central Lode and Kapanga:         <ul> <li>Talison reported the estimate using a ≥0.5% Li<sub>2</sub>O block model cut-off within a revenue factor 1.01 pit optimisation shell. The cut-off grade is consistent with the operations' process tailing grades at the time the estimate was prepared.</li> <li>In addition, the reported resource is constrained to the north by the current mine development envelope as the mining approach north of this point is uncertain.</li> </ul> </li> <li>TSF1:         <ul> <li>Talison reported the estimate using a ≥0.7% Li<sub>2</sub>O block model cut-off which, for the particle size distribution and characteristics was deemed the acceptable grade for processing of tailings through the tailings</li> </ul> </li> </ul>
Mining factors or assumptions	<ul> <li>retreatment plant (TRP).</li> <li>Central Lode and Kapanga:         <ul> <li>Talison has assumed that mining will continue by conventional open pit drill and blast, and load and haul as currently used in the active Central Lode pits.</li> </ul> </li> </ul>
	<ul> <li>RC grade control will be used to define ore prior to mining, and close spaced patterns will be used to delineate pods of TG ore.</li> <li>The resource model will contain some internal dilution, but external dilution has not been intentionally added t the resource model. It is expected that Kapanga will be mined using techniques that that similar to those currently used at Central Lode.</li> </ul>



JORC Criteria	Explanation
	<ul> <li>A series of pit shells were generated, and the Mineral Resource has been limited to the pegmatite contained within the pit shell based on a revenue factor = 1.01.</li> <li>TSF1:         <ul> <li>The tailings will be mined by conventional load and haul surface methods without blasting and processed through the TRP.</li> </ul> </li> </ul>
Metallurgical factors or assumptions	<ul> <li>Central Lode and Kapanga:         <ul> <li>Ore will be processed through the existing spodumene concentration plants to produce TG and chemical grade (CG) saleable spodumene concentrates.</li> <li>Proposed new plants will have similar or superior design parameters and features to the existing plants.</li> <li>Process plant recovery factors and mineralogy for the existing plants are based on historical processing metrics, with these recoveries considered achievable in new proposed chemical grade plants.</li> <li>Preliminary metallurgical test work on Kapanga indicates similar mineralogy and that saleable spodumene concentrates are achievable.</li> <li>The process flowsheets keep deleterious elements at acceptable levels for customer products and multi-finge stockpile blending is also used to assist in meeting product specifications.</li> <li>The technical grade concentrate produced ranges from 5.0 to 7.2% Li<sub>2</sub>O and &lt;0.17% Fe, and chemical grade concentrate grades 6.0% Li<sub>2</sub>O.</li> </ul> </li> <li>TSF1:         <ul> <li>The tailings will continue to be processed through the TRP and produce a saleable concentrate.</li> </ul> </li> </ul>
Environmental factors or assumptions	<ul> <li>Talison's senior management has confirmed to the Competent Person that Greenbushes Operation expects to secure any additional approvals required to mine, process, and extract spodumene concentrates, and that there ar no known impediments to gaining additional approvals for additional process plants, expanded infrastructure and water supply. See the relevant Ore Reserve sections further below for more details.</li> </ul>
Bulk Density	<ul> <li>Central Lode and Kapanga:         <ul> <li>In situ density of pegmatite was determined using conventional water displacement methods on 2,537 drill cores.</li> <li>Unweathered core is relatively impermeable, and porosity is not a significant issue when performing the water immersion tests</li> <li>The data was used to derive a regression equation to estimate MRE block density for pegmatite based on lithia grade – where Density (t/m3) = 2.629 + 0.06× % Li<sub>2</sub>O.</li> <li>The <i>in situ</i> density of host rock lithologies was also determined using conventional water displacement methods.</li> <li>The data was used to derive average MRE block densities for lithologies, dolerite 3.04 t/m3 from 278 samples amphibolite and ultramafic 3.03 t/m3 from 419 samples, granofels 2.79 t/m3 from 264 samples.</li> <li>A value of 2.3 t/m3 was applied to the transitional lithologies based on mining reconciliation information.</li> <li>A value of 1.8t/m3 was applied to the oxidised near surface materials, based on mining reconciliation information.</li> </ul> </li> <li>TSF1:         <ul> <li>Test work in November 2022 consisting of six push tube and sand replacement tests throughout the deposit produced a consistent average density of 1.38t/m3. This density was supported by the mill reconciliation to 3' December 2023 , resulting in a 104% tonnage reconciliation. The TSF1 resource model density was updated to 1.38t/m3 for all tailings (both EZ and DZ).</li> </ul> </li> </ul>
Classification	<ul> <li>The MRE has been classified into the JORC Code categories of Measured, Indicated and Inferred Mineral Resource based on Talison's and the Competent Persons assessment of data quality, data spacing and estimation quality.</li> <li>JORC Code Measured Mineral Resources were assigned to broken ore stockpiles, where grade control has given high confidence in the lithia grades.</li> <li>Indicated Mineral Resources were assigned to volumes with average wider spaced data, and Inferred Resources have been assigned at depth and at the peripheries of the MRE, where the data is widely spaced.</li> <li>The outcome of the MRE process reflects the Competent Person's view of the estimates.</li> </ul>
Audits or reviews	<ul> <li>Prior MRE estimates and the Talison's estimation processes have been reviewed in 2018 at a high level by Behre Dolbear Australia Pty Ltd, who concluded that the estimates were consistent with the requirements of the prevailing JORC Code and that reasonable prospects of eventual economic extraction had been demonstrated.</li> <li>In 2020, Snowden Mining Industry Consultants reviewed the prior estimates and process for IGO and concluded there were no fatal flaws in the MRE processes applied for the Central Lode and TSF1 and the estimates were generally low risk.</li> <li>The 2021 MRE revision has been reviewed internally by Talison's senior geological staff.</li> <li>A December 2021, fatal flaw independent review prepared by resource and mining consultants RSC found no fatal flaws in Talison's method of preparation or reporting of the Aug-21 MRE and ORE.</li> <li>Consultants AMC conducted a review of the 2023 ORE and found it to be completed using appropriate processes and inputs.</li> </ul>



Section 3: Mineral Resources – Greenbushes	
JORC Criteria	Explanation
Relative Accuracy/Confidence	<ul> <li>Central Lode and Kapanga         <ul> <li>No specific statistical studies have been completed to quantify the estimation precision of either the Central Lode, Kapanga or TSF1 estimates.</li> <li>The 2023 survey reconciled mining against 2023 reserve model recovered 90% of modelled tonnes. If the contaminated ore stockpile is included in these figures the reconciliation is 98% of modelled tonnes.</li> </ul> </li> <li>TSF1:         <ul> <li>The TSF1 grade estimate is supported by model to mill reconciliation to 31 December 2023, which results in 103% Li<sub>2</sub>O grade reconciliation.</li> <li>The TSF1 mining depletion to 31 December 2023 has a tonnage reconciliation of 104% against the mill.</li> </ul> </li> </ul>

#### **Section 4: Ore Reserves**

JORC Criteria	Explanation
Mineral Resource estimate for conversion to Ore Reserves	<ul> <li>The Mineral Resource is Inclusive of Ore Reserves.</li> <li>The Mineral Resource geological model underpins the reported Ore Reserve.</li> <li>The MRE was calculated as at 31 August 2023, with depletion applied to calculate an ORE as at 31 December 2023.</li> <li>Relative precision of the MRE has been carried over to the ORE. As such, Ore Reserve reporting has been limited to 2 significant figures.</li> </ul>
Site Visits	- The Competent Person for the estimate is Andrew Payne, who is a qualified mining engineer, and an employee of Talison Lithium who holds the position of Mine Planning Superintendent.
Study Status	<ul> <li>The Central Lode open pit mine has been in operation since the mid-1980s.</li> <li>The Aug-2023 ORE study is based on operational budgets, well understood OPEX and CAPEX costs with the level of study equivalent to Feasibility Study or better as defined in the prevailing JORC Code. Process expansions have been costed and scheduled for in-house studies at least a PFS if not FS level.</li> <li>Process expansions have been costed and scheduled for in-house studies at least a Pre-Feasibility if not Feasibility Study level.</li> </ul>
Cut-off parameters	<ul> <li>The cut-off grade is a ≥0.7% Li<sub>2</sub>O ORE model block threshold after application of key Modifying Factors such as mining, processing, and product delivery cost assumptions.</li> <li>An analysis of a breakeven cut-off grade has been completed and is well below 0.7% Li<sub>2</sub>O</li> <li>A cut-off lower than 0.7% Li<sub>2</sub>O is not appropriate for the ORE until test work is completed to test if that material is able to be processed.</li> <li>Material between 0.5% and 0.7% Li<sub>2</sub>O and all pegmatite &lt;0.5% Li<sub>2</sub>O are stockpiles for potential processing later.</li> <li>The Central Lode / Kapanga ORE is reported within the LOM final pit design. The TSF1 ORE is also reported within a final design.</li> </ul>
Mining factors or assumption	<ul> <li>The recovery and yield factors translating Resources to Reserves are determined from process plant performance (Chemical Grade Plant 1) over the last 8 years. A flat rate of 0.414 was used for the Technical Grade Plant (TGP) due to the variance in the quality on concentration of products produced. A model for yield for Chemical Grade Plant 2 (CGP2) was derived from a correlation between lithium grade and yield based on production since September 2019.</li> <li>The Resource-to-Reserve translation factors for the 2023 Reserves are 100% of tonnes and 100% of the lithium grade The Mineral Resource has been reconciled / calibrated to process plant performance, so no factors were necessary.</li> <li>The mining method is contractor mining open pit drill and blast, load, and haul, which has been executed at the operation since the mid-1980s.</li> <li>The pit optimisation that was used to guide the mine design was prepared in Whittle Software using geotechnical parameters recommend by well-respected geotechnical consultants.</li> <li>Inferred Resources are not applied to the pit optimisation determining the Reserve shell and Pit Design; however Inferred Resources have been included in the LOM schedule that underpins the cashflow model. Inclusion of these Inferred Resources is not expected to alter the Ore Reserve.</li> </ul>
Metallurgical factors or assumptions	<ul> <li>Spodumene concentrates have been extracted and sold from Talison's Greenbushes Operation since the mid-1980s using conventional crushing, grinding, gravity, and flotation circuits.</li> <li>The recovery and yield factors translating Resources to Reserves are determined from process plant performance (Chemical Grade Plant 1) over the last 8 years. A flat rate of 0.414 was used for the Technical Grade Plant (TGP) due to the variance in the quality on concentration of products produced. A model for yield for Chemical Grade Plant 2 (CGP2) was derived from a correlation between lithium grade and yield based on production since September 2019.</li> <li>Talison defines 'yield' as the mass percent of ore feed to the process plants that reports to concentrate. The yields are consistent with the lithia (and hence spodumene mineral) grades fed to each respective plant.</li> <li>The technical grade concentrate produced ranges from 5.0 to 7.2% Li<sub>2</sub>O and &lt;0.15% Fe<sub>2</sub>O<sub>3</sub>, and chemical grade concentrate grades 6.0% Li<sub>2</sub>O.</li> </ul>



Section 4: Ore Res	serves – Greenbushes
JORC Criteria	Explanation
	<ul> <li>Greenbushes produces five technical grade products, ranging from 5.0% to 7.2% Li<sub>2</sub>O with different target maximum ferric oxide grades ranging from a 0.12% up to 0.25% Fe<sub>2</sub>O<sub>3</sub>. Chemical grade concentrate grades 6% Li<sub>2</sub>O with a 1.0% Fe<sub>2</sub>O<sub>3</sub> grade.</li> </ul>
Environmental	<ul> <li>Greenbushes operates under the Department of Mines, Industry Regulation and Safety (DMIRS) requirements and a Department of Water and Environmental Regulation (DWER) environmental licence.</li> <li>Current permits allow a processing rate of 7.1Mt/a of beneficiated ore.</li> <li>Approvals to expand the processing capacity to ~9.5Mt/a are in progress with the relevant state and federal authorities and Talison expects that the expansions will be managed under the existing licences described above.</li> <li>To meet a ~9.5Mt/a process rate will require the construction of new surface water catchment sources.</li> <li>All approvals for the extraction of the TSF1 ORE are in place.</li> <li>Greenbushes Operation is within a state forest and Talison are in ongoing consultation with the Department of Biodiversity, Conservation and Attractions with respect to mine closure.</li> </ul>
Infrastructure	<ul> <li>Greenbushes has mined and processed lithium ore since the mid-1980s and all necessary infrastructure is in place to support the currently approved operations.</li> <li>The two planned additional chemical grade plants (CGP3 and CGP4) will require additional power supply and Talison are working with Western Power to install a 133kV powerline from Bridgetown to the mine to power the new processing operations.</li> <li>A 250 room camp is in use. A temporary camp and a permanent village are currently being constructed.</li> <li>Investigations are underway to provide additional catchment water supply from the eastern side of the mine area. Construction of a height increase of Cowan Dam is currently underway. Studies into height raises of the Southampton and Austin's dams are underway.</li> <li>An additional TSF is required to store excess tailings. Strategies for the location of this facility are being formulated. A lack of tailings storage is not expected to impact on planned production targets and therefore Ore Reserves.</li> <li>Strategies are being formulated to provide additional waste dump capacity to support the mining of these Reserves. Land tenure or government approvals are not expected to impact on planned production targets and therefore Ore Reserves.</li> <li>Sufficient water supply for processing is a production risk. Existing dam walls are being raised to capture more surface run-off. Other nearby water sources are being considered. There are reasonable expectations that water supply can be managed and will not impact on the viability of the ORE.</li> <li>No other significant infrastructure is anticipated and sustaining capital costs for infrastructure are included in current plans and supporting studies.</li> <li>With the construction of CGP2, Talison added a concentrate storage shed and associated materials handling facilities at the Port of Bunbury. Additionally, a water treatment plant has be installed at the mine site.</li> <li>The ramp-up schedule</li></ul>
Costs	<ul> <li>Capital costs for production expansions include the cost associated with the completion of CGP3 and the construction of CGP4. The remaining costs for the CGP3 are based on EPCM estimates by the construction contractor and Talison estimates for owner's costs. The costs for CGP4 are based on inhouse Feasibility Studies and Talison's prior experience with the construction of CGP2.</li> <li>Sustaining capital costs are estimated based on Talison's prior experience of cost relative to the value of installed processing operations.</li> <li>Mining costs are based on current open pit contractor mining costs and have been adjusted for 'rise and fall' terms.</li> <li>Processing costs (including tailings costs), product transportation costs and administration costs are based on operating budgets, that have been adjusted for planned increases in production and are based on Talison's past extensive experience relating to fixed and variable costs.</li> <li>WA State royalties are levied at 5% of sales revenue after allowing for deductions of overseas shipping costs, where applicable.</li> </ul>
Revenue factors	<ul> <li>Long term chemical grade product prices and exchange rates are based on reputable, independent forecasts. Long term technical grade product prices are based on current prices and are assumed to remain flat in real terms.</li> <li>Price and foreign exchange assumptions for Greenbushes are managed by Talison. Sales agreements are commercial in confidence but are consistent with independent forecasts.</li> </ul>
Market assessment	<ul> <li>The continued strong growth in the rechargeable battery sector is expected to drive increasing demand for lithium.</li> <li>Talison expects to see a decline in market share as forecast lithium market growth outpaces the rate of growth of Talison's sales because of production expansions.</li> </ul>
Economic	<ul> <li>An inflation rate of 3.9% per annum was assumed for all prices and costs, except salary costs in 2024 where 4.0% was assumed.</li> <li>The NPV of the mine plan was determined using a nominal discount rate of 7.52% per annum.</li> <li>The NPV is most sensitive to changes in product price, exchange rates and sales volumes.</li> </ul>
Social	- Talison has strong working relationships with the local community and key stakeholders and considers that it has a social licence to operate.



Section 4: Ore Reserves – Greenbushes	
JORC Criteria	Explanation
	<ul> <li>Proactive community programs include community programs and projects, tourism, environmental actives, and schools and education programs.</li> <li>Talison is also a significant employer in the local community with most of its workforce living within a 30 minute drive from the operation.</li> </ul>
Other	<ul> <li>Talison considers that there:         <ul> <li>Are no material naturally occurring risks associated with the current operation or planned future expansions.</li> <li>No material issues relating to current legal and marketing agreements.</li> <li>Are reasonable grounds to expect that all necessary government approvals will be received within the timeframes anticipated for the Feasibility Study expansion plans.</li> </ul> </li> </ul>
Classification	<ul> <li>The OREs are classified after due consideration of the MRE classifications with Measured Mineral Resources converting to Proved Ore Reserves and Indicated Mineral Resources converting to Probable Ore Reserves after due consideration of all Modifying Factors as described in the JORC Code.</li> <li>The results reflect the Competent Persons view of the Central Lode and TSF1 OREs.</li> <li>No portion of Probable Reserves is derived from Measured Resources.</li> </ul>
Audits and reviews	<ul> <li>The prior ORE estimates have been reviewed at a high level by AMC Consultants, who concluded that the estimates are consistent with the requirements of the prevailing JORC Code and that reasonable prospects of eventual economic extraction had been demonstrated.</li> <li>Pells Sullivan Meynink (PSM) conducted an external geotechnical review for the Ore Reserve pit design and associated geotechnical parameters. The review incorporated data and analysis from the most recent geotechnical reviews as well as previous data. The review indicated that there are no fatal flaws.</li> </ul>
Discussion of relative accuracy/ confidence	<ul> <li>No specified statistical studies have been completed to quantify the estimation precision of either the Central Lode or TSF1 estimates.</li> <li>The August 2023 ORE is underpinned by a new block model which has been calibrated to historical mine to mill reconciliation and therefore no factors have been applied to neither tonnes nor grade.</li> <li>Reporting of the Ore Reserve has been kept to three (3) significant figures to reflect the relative accuracy of the work completed.</li> </ul>