CSA Global
Mining Industry Consultants

# INDEPENDENT QUALIFIED PERSONS REPORT

## Bald Hill Tantalum and Lithium Project, Western Australia

Prepared for
**Alliance Mineral Assets Limited**

**CSA Global Report № R356.2017**

**9 August 2018**

**www.csaglobal.com**

## Report prepared for

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|---|---|
| Client Name | Alliance Mineral Assets Limited) |
| Project Name/Job Code | AMAADV01 |
| Contact Name | Pauline Gately |
| Contact Title | Chairperson of the Board |
| Office Address | Unit 6, 24 Parkland Road, Osborne Park, Western Australia 6017 |

## Report issued by

| | |
|---|---|
| CSA Global Office | Level 2, 3 Ord Street, West Perth, WA 6005<br>PO Box 141, West Perth WA 6872<br>AUSTRALIA<br>T +61 8 9355 1677<br>F +61 8 9355 1977<br>E csaaus@csaglobal.com |
| Division | Corporate |

## Report information

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## Author and Reviewer of the Independent Qualified Persons Report (IQPR)

| Name | Position | Role | Professional designation | Employer | Independent of AMA |
|---|---|---|---|---|---|
| Philip A. Jones | Consultant Geologist | Project Manager and IQPR preparation | MAIG, MAusIMM | CSA Global | [Yes] |
| Matthew Cobb | Geologist and Geostatistician | Competent Person for Mineral Resources | MAusIMM | CSA Global | [Yes] |
| Karl Van Oden | Principal Mining Engineer | Competent Person for Ore Reserves | FAusIMM | CSA Global | [Yes] |
| Graham Jeffress | Geologist | Peer Reviewer | FAusIMM | CSA Global | [Yes] |
| Ivy Chen | Consulting Geologist | Peer Reviewer | MAusIMM | CSA Global | [Yes] |
| Aaron Green | Director and Geologist | Overall supervision | MAIG | CSA Global | Yes |

# Executive Summary

The Bald Hill Tantalum and Lithium Project ("Bald Hill Project" or "the Project") is located within the state of Western Australia (WA), approximately 580 km east of the state capital, Perth within the Eastern Goldfields Province of the Archaean Yilgarn Block. The Bald Hill Project area is located about 60 km southeast of the mining town, Kambalda, and 50 km east of Widgiemooltha in the Coolgardie Mineral Field of WA (Figure 1).

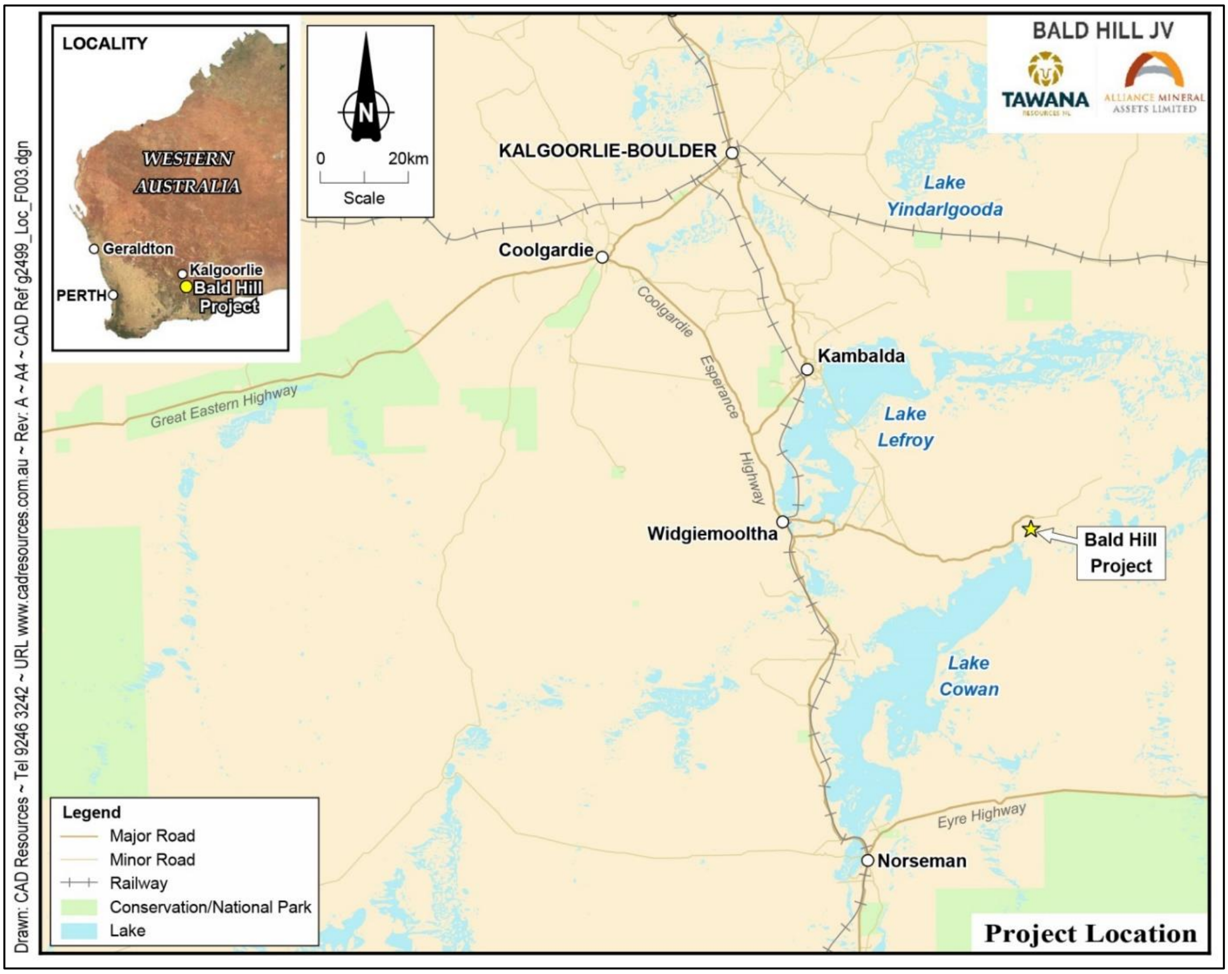


*Figure 1: Location map of the Bald Hill Tantalum and Lithium Project*

Alliance Mineral Assets Limited ("AMAL" or "the Company") has a portfolio of mineral tenements covering approximately 79,400 ha comprising mining leases, exploration licences, prospecting licences, miscellaneous licences and a general-purpose lease, and a retention lease.

AMAL's primary interest in the area is tantalum and lithium mineralisation hosted in a series of pegmatite sheets and veins intruded into an Archaean metasediment sequence. These sheets and veins are developed along a north-south trend and vary in geometry, extent and dip, both to the west and east. The pegmatites contain tantalite (tantalum ore), spodumene, columbite, cassiterite and other accessory minerals. A tantalite and spodumene resource has been identified at the Bald Hill Project and the development of this resource is the primary objective of AMAL and its joint venture (JV) partner, Lithco No.2 Pty Ltd (Lithco), a wholly-owned subsidiary of Tawana Resources NL (Tawana) which is an Australian Securities Exchange (ASX) publicly listed company. The exploration potential for additional tantalum and lithium resources on AMAL's tenements is considered high, based on previous exploration results.

Modern exploration for tantalum commenced in the area in the early 1980s and continued in campaigns by several companies until 2000, when a feasibility study established the technical and economic viability for an open-pit mine with an on-site process plant to produce a tantalite-bearing concentrate. Mining and processing operations were profitably undertaken by Haddington International Resources Limited (Haddington) from 2001 to 2005, when operations ceased after then current market conditions forced their sole customer, Gwalia Consolidated Limited's Greenbushes Tin mine, to stop buying the Bald Hill mine's concentrates. At the time of mine closure, Haddington reported that there was approximately 2.0 million tonnes (Mt) of Indicated Mineral Resources remaining in and adjacent to several open pits. The mine site was put into care and maintenance in 2005, but Haddington continued exploration over the property until 2009.

In 2009, Living Waters Mining (Australia) Pty Ltd (Living Waters) acquired the Project from Haddington and also acquired a number of additional tenements north of the main Project area. The Property was transferred to HRM Resources Australia Limited (HRM) via a Sale and Purchase Agreement on 20 December 2010. On 13 March 2014, HRM changed its name to Alliance Mineral Assets Limited, and on 25 July 2014 the Company listed on the Singapore Stock Exchange, Catalist Board.

Between 2009 and 2016, Living Waters (and subsequently, HRM/AMAL) undertook work aimed at re-commissioning the process plant and site preparations for mining the remaining tantalite resources. Some limited exploration north and east of the main mining area was also completed.

AMAL signed a binding terms agreement on 3 June 2016 with Tawana. This agreement granted Tawana sole and exclusive exploration and prospecting rights over all minerals within an area enclosed by the external boundaries of the Company's tenements, and within an agreed 10 km radius of the tenements. Tawana undertook to spend, by 31 December 2017 (or such later date as mutually agreed by the Parties), a minimum of A$7.5 million on exploration, evaluation and feasibility (including administrative and other overhead costs in relation thereto) to entitle Tawana to 50% of all rights to lithium minerals from the tenements; and to spend a further A$12.5 million in capital expenditure required for upgrading and converting the plant for processing ore derived from the tenement area, infrastructure costs, pre-stripping activities and other expenditures including operating costs entitling Tawana to a 50% legal and beneficial interest in the whole Project.

AMAL and Tawana announced on 28 June 2017 that Tawana had earned 50% of all rights to the lithium minerals from the tenements, having spent the required A$7.5 million on exploration and mine development on the Bald Hill tenements. AMAL and Tawana announced on 24 October 2017 that Tawana had spent the required A$12.5 million to earn a 50% interest in the Bald Hill Project (being all minerals from the tenements and the processing plant and infrastructure at Bald Hill, located in the Eastern Goldfields, WA), satisfying the Bald Hill JV Agreement with Tawana (via Lithco) and AMAL, each having an equal 50:50 legal and beneficial interest in the Bald Hill Project.

During the past 12 months from the date of this report, Tawana has completed a substantial drilling program and metallurgical testwork which has been followed up with a prefeasibility study (PFS). Tawana has effectively re-drilled the previously reported central deposits and re-estimated the resources for this area, this time including an estimate of the lithium content of these resources.

Since the last Independent Qualified Persons Report (IQPR) in October 2017, Tawana has completed further infill drilling within the area previously reported as Inferred Resources at Central, upgrading these resources to Indicated in these areas. This report covers the updated resource and reserve estimates by CSA Global Pty Ltd (CSA Global) based on the results of this recent drilling, which is reported in accordance with the JORC Code (2012). Figure 2 illustrates the additional drillholes (in red) and Figure 25 illustrates the classified model.

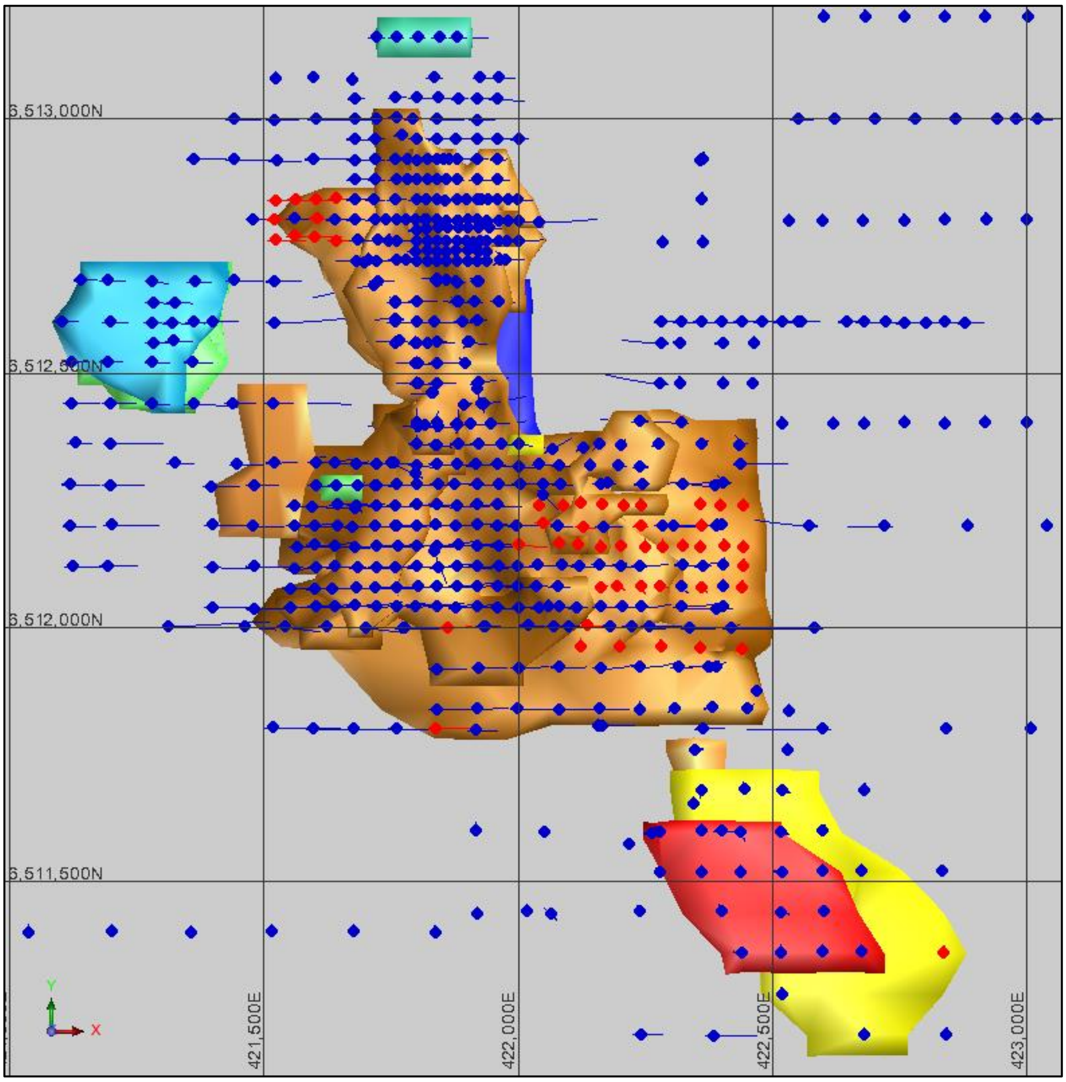


*Figure 2: Updated Bald Hill deposit wireframes with additional infill drillholes since previous 11 October 2017 Resource Statement shown in red*

Since there was only infill drilling since the last resource report in October 2017, there has been no significant net increase of the Bald Hill Project total resources above the previously reported lower cut-off of 0.5% $Li_2O$, which remains at 25.7 Mt of tantalite and spodumene ore; however, some 2.7 Mt of the Inferred Resource was upgraded to Indicated. An additional 7.7 Mt of resource was also added between 0.3% $Li_2O$ and 0.5% $Li_2O$ as studies in May 2018 have shown that this lower grade resource can be economically extracted (Table 1). This resource upgrade was followed up with a revised Ore Reserve estimate taking into account the additional Indicated Resources.

This increased Ore Reserves underpins a mine life of 9 years at the current processing rate of 1.2Mtpa. However, given the large quantity of Inferred Resources awaiting infill drilling, strong market demand and superior economics of increased throughput rates, Tawana and AMAL are actively reviewing options for significant expansion in processing capacity and concentrate production.

In addition to resource drilling, Tawana carried out outcrop mapping and sampling on R15/01 to identify new pegmatites for further drilling. Several outcropping spodumene and tantalite pegmatites were located. A total of 75 rock chip and channel samples were collected over a wide area, of which 54 contained visual spodumene or anomalous lithium, tantalum or tin.

Mining of overburden from the open pit commenced during the last quarter of 2017 with 810,000 bank cubic metres mined in April.

Production of spodumene concentrate commenced following commissioning of the dense media separation (DMS) plant during the first quarter of 2018. The first shipment of spodumene concentrate was loaded in early May 2018. Tantalite pre-concentrate production at Bald Hill commenced in April with recoveries from the spodumene circuit exceeding expectations. Please note that Table 1 has been depleted for mined pits as at 30 April 2018, and does not include this material.

*Table 1: Resource and Reserve summary for Bald Hill outside mined pits as at 30 April 2018*
*(Resources are inclusive of Reserves)*

| JORC category | Mineral type | Gross attributable to licence | | | Net attributable to issuer | | | |
|---|---|---|---|---|---|---|---|---|
| | | Tonnes (Mt) | Grade* $Ta_2O_5$ (ppm) | Grade* $Li_2O$ (%) | ##Tonnes (Mt) | Grade* $Ta_2O_5$ (ppm) | Grade* $Li_2O$ (%) | #Change from previous update (tonnes %) |
| **Reserves – Central** (Tawana, 2017) | | | | | | | | |
| Proved | Tantalum | 0.0 | 0 | 0.00 | 0.0 | 0 | 0.00 | No change |
| Probable | Tantalum | 2.0 | 313 | 0.16 | 1.0 | 313 | 0.16 | 43% |
| | **Subtotal** | **2.0** | **313** | **0.16** | **1.0** | **313** | **0.16** | **43%** |
| Proved | Tantalum + Lithium | 0.0 | 0 | 0 | 0.0 | 0 | 0.00 | No change |
| Probable | Tantalum + Lithium | 11.3 | 160 | 1.01 | 5.7 | 160 | 1.01 | 163% |
| | **Subtotal** | **11.3** | **160** | **1.01** | **5.7** | **160** | **1.01** | 163% |
| **TOTAL RESERVES** | | **13.3** | **183** | **0.88** | **6.7** | **183** | **0.88** | **133%** |
| **Resources – Creekside** (carried over from previous IQPR, by AMC 2014) and Central and Boreline (Tawana, June 2018) | | | | | | | | |
| Measured | Tantalum | 0.0 | 0 | | 0.0 | 0 | | No change |
| Indicated | Tantalum | 3.3 | 340 | | 1.7 | 340 | | -14% |
| Inferred | Tantalum | 1.4 | 340 | | 0.7 | 340 | | -18% |
| **Total** | | **4.7** | **340** | | **2.4** | **340** | | **-15%** |
| **Resources – Central and Boreline** (Tawana, June 2018) | | | | | | | | |
| Measured | Tantalum + Lithium | 0.0 | 0 | 0.00 | 0.0 | 0 | 0.00 | No change |
| Indicated | Tantalum + Lithium | 14.4 | 168 | 1.02 | 7.2 | 168 | 0.51 | 80% |
| Inferred | Tantalum + Lithium | 12.1 | 123 | 0.90 | 6.1 | 126 | 0.46 | 11% |
| **Total** | | **26.5** | **149** | **0.96** | **13.3** | **149** | **0.49** | **40%** |

\# *The upgrade of some Inferred Resources from the previous estimate to Indicated has resulted in -ve% change in current gross Inferred Resources and +ve% change in Indicated. However, despite all the drilling since the previous resource estimate being infill drilling, the overall resource tonnes have increased and grades dropped slightly as a result of the lower cut-off grade for the spodumene resources being reduced from 0.5% $Li_2O$ to 0.3% $Li_2O$ in line with the findings of the updated PFS in May 2018.*

\## *Since 24 October 2017, Tawana has earnt 50% of the total resources and reserves including both their lithium and tantalum content. Previously Tawana had only earnt 50% of the lithium content of the resources and reserves (the additional 0.3 Mt difference in the Indicated tonnage derives from Creekside, which is not included in the Tawana tabulation). The reduction of the attributable resource and reserve tonnages reflect this arrangement, not a reduction of the actual resources and reserves.*

* *AMC (2014) used 100 ppm $Ta_2O_5$ lower cut-off grade for Creekside, CSA Global used 200 ppm $Ta_2O_5$ and 0.3% $Li_2O$ as their lower cut-off grade for all other deposits except Creekside.*

Tantalite will be recovered from three streams. Primary tantalite ore will be processed through the existing Tantalite Processing Facility (TPF) once it has been refurbished. The TPF comprises a screening and crushing circuit feeding a three-stage spiral circuit. The TPF is expected to come on line in early 2019. Tantalite in -1 mm fines from the spodumene plant is currently being recovered in a separate spiral plant (T2), which was commissioned just after the main spodumene plant. Concentrates containing 2–6% $Ta_2O_5$ are being stored for later processing over tables which will be installed. This table concentrate will be further upgraded by toll treatment at Nagrom Pty Ltd in the interim. Gravity pre-concentrates produced from the TFP will be combined with tantalite pre-concentrates from T2 and sent to a concentrate upgrade shed for further upgrading by tabling and magnetic separation.

The final lithium-bearing spodumene concentrate can also contain significant quantities of tantalite, depending on the type of ore being processed. The first shipment contained around 0.8 kg/t tantalite. Plans are currently being finalised to install a relatively low cost stand-alone jigging circuit (T3) to recover the majority of this tantalite before concentrates are shipped.

An offtake agreement is in place at a favourable fixed price for AMAL spodumene concentrate output for the first two years of production. A nonbinding term sheet has also been signed with HC Starck for the supply of a minimum 600,000 pounds of contained tantalum pentoxide to December 2020 AMAL are still in the process of negotiating the terms of a binding definitive agreement.

CSA Global concludes that there are sufficient Ore Reserves at a sufficient grade to warrant AMAL's planned full-scale mining and production of high-quality tantalite and spodumene concentrates.

The Bald Hill site is an operating mine site with all required permits. Ongoing variations and additional permitting will be required from the Department of Water and Environmental Regulation and the Department of Mines, Industry Regulation and Safety for additional clearing, mining pits or pit extensions, waste dumps, tailing facilities, and water. There are no known impediments to extending the currently permitted active mining area and associated infrastructure.

CSA Global also concludes that there is potential to increase the tantalum and lithium Mineral Resource because there are several prospects that have been previously drill tested and shown to host significant tantalite and spodumene mineralisation. Additionally, there are other prospects where surface sampling and geological mapping has identified tantalite and spodumene mineralisation that requires further exploration.

Negotiations are continuing with the Native Title claimants of the Bald Hill area, the Ngadju people, to gain access to the areas outside the main mining licence (M15/400) for mining and exploration.

CSA Global makes the following recommendations with respect to further evaluating and increasing confidence in the Project:

- Further drilling is recommended to infill the existing wider spaced drilling on the periphery of the current Central resource block currently drilled on an 80 m x 80 m grid, to a grid spacing of 40 m x 40 m to raise the confidence of the Inferred Resource estimates in these areas to Indicated.
- Further drilling is warranted to extend the known resources in all directions from the modelled resource, with extensions to the south and southeast most likely to be relatively shallow with high lithium and tantalum grades.
- In the light of recent mapping and sampling along with historical drilling results, further drilling is warranted on R15/1 to redefine the resources at Creekside and other prospects.
- It may be possible to further refine some of the economic modifying factors with subsequent revisions and updates of the Ore Reserves. Monitoring of any potential mining loss or dilution in ongoing production records will allow these considerations.
- Debottlenecking studies are recommended to investigate increased production through the existing plant.
- Studies are also recommended to investigate the possibility of improving recovery from treatment of fines, and increase throughput, with an additional DMS circuit.

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# 1 Introduction

This report has been prepared by CSA Global Pty Ltd (CSA Global) at the request of Alliance Mineral Assets Limited ("AMAL" or "the Company") in relation to reporting of the Mineral Resource and Ore Reserves estimates for the Bald Hill Tantalum and Lithium Project ("Bald Hill Project" or "the Project").

## 1.1 Purpose of this Report

This report has been prepared by CSA Global at the request of, and for the sole benefit of AMAL. Its purpose is to provide an updated Independent Qualified Person's Report (IQPR) of AMAL's Bald Hill Project, including updated Mineral Resource and Ore Reserve estimates.

The statements and opinions contained in this report are given in good faith and in the belief that they are not false or misleading. The conclusions are based on AMAL's announcement dated 6 June 2018 with reference to Ore Reserves and resource estimates depleted for mining up to 30 April 2018, and could alter over time depending on exploration results, mineral prices and other relevant market factors.

This report provides updated Mineral Resource and Ore Reserve estimates at the Bald Hill spodumene and tantalite property ("the Property") located in Western Australia (WA) and owned 50:50 by AMAL and Tawana Resources NL (Tawana). The report has been prepared by CSA Global in accordance with Singapore Exchange Securities Trading Limited (SGX-ST) mineral, oil and gas rules, having been classified and reported using the guidelines of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia, December 2012 (JORC Code 2012).

Mining for tantalite, a tantalum-bearing mineral ($Ta_2O_5$), has previously taken place on the Property. AMAL re-established the mining and processing operation during 2015–2016 in preparation for producing a tantalite concentrate. The processing plant at Bald Hill was re-commissioned and a small quantity of concentrate produced from weathered pegmatite mined at Boreline which was transported to Perth and shipped to Japan in 2016. The mining and mineral processing was then suspended again due to the low tantalite concentrate market prices at the time.

A farm-in agreement was then signed with Lithco No.2 Pty Ltd (Lithco), which is now a wholly-owned subsidiary of Tawana (an Australian Securities Exchange (ASX) publicly listed company), whereby Tawana was required to spend A$7.5 million on exploration related activities to earn 50% of the lithium rights at Bald Hill and an additional A$12.5 million capital expenditure to earn 50% of the whole Bald Hill Project. Tawana, as required by this agreement, funded an ongoing drilling program, metallurgical testwork and had independent consultant's model and estimate new Mineral Resources and Ore Reserves for the areas drilled, focusing on the lithium mineralisation. Both Tawana and AMAL announced on 24 October 2017 that Tawana had spent the required A$12.5 million to earn a 50% interest in the Bald Hill Project (being all minerals from the tenements and the processing plant and infrastructure at Bald Hill, located in the Eastern Goldfields, WA) satisfying the Bald Hill Joint Venture (JV) Agreement with Tawana (via Lithco) and AMAL, each having an equal 50:50 legal and beneficial interest in the Bald Hill Project.

## 1.2 Use of Report

This report summarises the Mineral Resource and Ore Reserve estimates for the Bald Hill Tantalum and Lithium Project as at 30 April 2018 and should not be used or relied upon for any other purpose. This report has been prepared to meet the SGX Catalist rules and fulfil the requirements specified in Practice Note 4C.

## 1.3 Reporting Standard

The SGX Catalist Rules for mineral company listings (Practice Note 4C)[1] require that an IQPR be prepared in accordance with one of several allowable international reporting standards.

For the purposes of this report, CSA Global has adopted the JORC Code (2012)[2] as the reporting standard. The JORC Code (2012) requires that a public report concerning a company's exploration targets, exploration results, Mineral Resources, or Ore Reserves must be based on, and fairly reflect, the information and supporting documentation prepared by a Competent Person. SGX Catalist rules also use the term Qualified Person that includes extra provisions in their definition of a Competent Person. In this report, whenever reference is made to a Competent Person it also refers to a Qualified Person as per SGX Catalist rules.

The information in this report that relates to Mineral Resources is based on information compiled by Dr Matthew Cobb, an employee of CSA Global. Dr Cobb takes overall responsibility for the Mineral Resources included in this report as Competent Person. Dr Cobb is a Member of the Australasian Institute of Mining and Metallurgy and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person in terms of the 2012 Edition of the JORC Code. The Competent Person, Dr Matthew Cobb, has reviewed the Mineral Resource statement and consents to the publication of this information in the form and context within which it appears.

The information in this report that relates to Ore Reserves is based on information compiled by Mr Daniel Grosso and reviewed by Mr Karl van Olden, both employees of CSA Global. Mr Karl van Olden takes overall responsibility for the Reserves included in this Report as Competent Person. Mr Karl van Olden is a Fellow of the Australasian Institute of Mining and Metallurgy and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person in terms of the 2012 Edition of the JORC Code. The Competent Person, Karl van Olden, has reviewed the Ore Reserve statement and consents to the publication of this information in the form and context within which it appears.

## 1.4 Basis, Scope and Limitations of this Report

This IQPR has been prepared in accordance with the requirements of the JORC Code (2012) as adopted by the Australian Institute of Geoscientists and the Australasian Institute of Mining and Metallurgy.

The information presented in this report is based on technical reports provided by AMAL and Tawana, supplemented by CSA Global's enquiries. At the request of CSA Global, copies of relevant technical reports and agreements were made available. This, coupled with general knowledge of the area and the recent site visit, provides sufficient information to form an opinion as to the current status of the mineral assets. AMAL has provided CSA Global with all available technical, relevant financial and other information required for the purposes of preparing this report.

In performing its services utilising the JORC Code guidelines, CSA Global has relied upon the accuracy and completeness of all material information that has been provided to it by AMAL and its service providers. CSA Global has no reason to believe that the information provided by AMAL or its service providers are materially inaccurate, misleading, or incomplete. CSA Global has not audited the information provided to it. However, it has satisfied itself as to the reasonableness of the information used.

[1] SGX Listing Rules, Practice Note 4C Disclosure Requirements for Mineral, Oil and Gas Companies.

[2] Australasian Joint Ore Reserves Committee (JORC), Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code), 2012 edn, effective December 2012, 44 pp., available <http://www.jorc.org/docs/jorc_code2012(4).pdf>, viewed 5 February 2014.

## 1.5 Site Visits

CSA Global personnel have visited the Bald Hill site as part of the Project assessments and resource estimates completed by CSA Global. Dr Matthew Cobb, Competent Person for the Mineral Resource estimate, completed a site visit to the Bald Hill deposit during July 2017. Mr Karl van Olden of CSA Global visited the Bald Hill Project in May 2018 and inspected the locations of the open pit, waste dumps, transport corridors, and processing plants. Mr Phil Jones, the project manager for this IQPR, undertook an initial site visit to the Bald Hill Tantalum and Lithium Project for AMAL during March 2015, with other site visits taking place during December 2015, April 2016, August 2016 and November 2016.

## 1.6 Statement of Independence

This report has been prepared by Mr Philip A. Jones, BAppSc (App. Geol), a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists, a geologist with over 40 continuous years in the industry.

Both Dr Matthew Cobb, being the Competent Person for Mineral Resources and Mr Karl Van Oden, being the Competent Person for Ore Reserves, have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" prepared by the Joint Ore Resources Committee, the Australian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists.

All the contributors to this IQPR (including Matthew Cobb and Karl Van Olden as Competent Persons) are independent of AMAL, its directors and substantial shareholders. The author does not hold any interests (direct or indirect) in AMAL and its subsidiary or in any mineral properties which are subject to this report. AMAL will be invoiced and expected to pay a fee for the preparation of this report. This fee comprises a normal commercial daily rate plus expenses in accordance to CSA Global's standard rates and is no way contingent upon the conclusion or findings of this report.

## 1.7 Tenure

AMAL is 100% holders of 12 exploration licences (EL), one general purpose licence (GPL), 10 miscellaneous licences (L), six mining leases (ML), eight prospecting licences (PL) and one retention licence (RL) – see Table 2 and Figure 3. These tenements covering approximately 79,300 ha are all mineral licences located in the Bald Hill area, approximately 105 km southeast of Kalgoorlie in the Eastern Goldfields of WA. Philip A. Jones independently checked with the WA Department of Mines, Industry Regulation and Safety (DMIRS) and the titles are in good standing as stated below in Table 2.

*Table 2: Summary of AMAL tenements at 22 January 2018*

| Asset name | Holder | Issuer's interest (%) | Development status | Status | Date granted | Licence expiry date# | Area | Unit |
|---|---|---|---|---|---|---|---|---|
| E 15/1058 | AMAL | 100 | EL | Live | 12-03-2009 | 11-03-2019 | 9 | block |
| E 15/1066 | AMAL | 100 | EL | Live | 20-08-2009 | 19-08-2019 | 23 | block |
| E 15/1067 | AMAL | 100 | EL | Live | 20-08-2009 | 19-08-2019 | 23 | block |
| E 15/1161 | AMAL | 100 | EL | Live | 25-01-2011 | 24-01-2021 | 1 | block |
| E 15/1162 | AMAL | 100 | EL | Live | 10-01-2011 | 09-01-2021 | 3 | block |
| E 15/1166 | AMAL | 100 | EL | Live | 31-08-2010 | 30-08-2020 | 5 | block |
| E 15/1212 | AMAL | 100 | EL | Live | 02-05-2011 | 01-05-2021 | 10 | block |
| E 15/1353 | AMAL | 100 | EL | Live | 05-08-2013 | 04-08-2018 | 70 | block |
| E 15/1492 | AMAL | 100 | EL | Live | 23-02-2017 | 22-02-2022 | 51 | block |
| E 15/1493 | AMAL | 100 | EL | Live | 24-02-2017 | 23-02-2022 | 26 | block |
| E 15/1555 | AMAL | 100 | EL | Live | 16-03-2017 | 15-03-2022 | 20 | block |

| Asset name | Holder | Issuer's interest (%) | Development status | Status | Date granted | Licence expiry date[#] | Area | Unit |
|---|---|---|---|---|---|---|---|---|
| E 15/1556 | AMAL | 100 | EL | Live | 16-03-2017 | 15-03-2022 | 16 | block |
| G 15/28 | AMAL | 100 | GPL | Live | 25-05-2017 | 24-05-2038 | 1.4325 | ha |
| L 15/264 | AMAL | 100 | MISC | Live | 11-10-2006 | 10-10-2027 | 3.85 | ha |
| L 15/265 | AMAL | 100 | MISC | Live | 11-10-2006 | 10-10-2027 | 2.33 | ha |
| L 15/266 | AMAL | 100 | MISC | Live | 11-10-2006 | 10-10-2027 | 1.44 | ha |
| L 15/267 | AMAL | 100 | MISC | Live | 11-10-2006 | 10-10-2027 | 3.56 | ha |
| L 15/268 | AMAL | 100 | MISC | Live | 11-10-2006 | 10-10-2027 | 5.77 | ha |
| L 15/269 | AMAL | 100 | MISC | Live | 11-10-2006 | 10-10-2027 | 7.19 | ha |
| L 15/270 | AMAL | 100 | MISC | Live | 11-10-2006 | 10-10-2027 | 7.49 | ha |
| L 15/348 | AMAL | 100 | MISC | Live | 05-09-2014 | 04-09-2035 | 3.16 | ha |
| L 15/365 | AMAL | 100 | MISC | Live | 19-07-2017 | 18-07-2038 | 15.4919 | ha |
| L 15/366 | AMAL | 100 | MISC | Live | 19-07-2017 | 18-07-2038 | 61.519 | ha |
| M 15/1305 | AMAL | 100 | ML | Live | 29-12-2000 | 28-12-2021 | 97.89 | ha |
| M 15/1308 | AMAL | 100 | ML | Live | 29-12-2000 | 28-12-2021 | 92.53 | ha |
| M 15/1470 | AMAL | 100 | ML | Live | 13-05-2010 | 12-05-2031 | 400 | ha |
| M 15/1840 | AMAL | 100 | ML | Pending | | | 972.6945 | ha |
| M 15/400 | AMAL | 100 | ML | Live | 30-08-1988 | 07-09-2030 | 501 | ha |
| M 59/714 | AMAL | 100 | ML | Live | 27-10-2009 | 26-10-2030 | 191.8659 | ha |
| P 15/5465 | AMAL | 100 | PL | Live | 21-07-2010 | 20-07-2018 | 149 | ha |
| P 15/5466 | AMAL | 100 | PL | Live | 21-07-2010 | 20-07-2018 | 150 | ha |
| P 15/5467 | AMAL | 100 | PL | Live | 21-07-2010 | 20-07-2018 | 150 | ha |
| P 15/5862 | AMAL | 100 | PL | Live | 15-10-2014 | 14-10-2018 | 199.8208 | ha |
| P 15/5863 | AMAL | 100 | PL | Live | 15-10-2014 | 14-10-2018 | 199.8018 | ha |
| P 15/5864 | AMAL | 100 | PL | Live | 15-10-2014 | 14-10-2018 | 199.8564 | ha |
| P 15/5865 | AMAL | 100 | PL | Live | 15-10-2014 | 14-10-2018 | 199.8589 | ha |
| P 15/5866 | AMAL | 100 | PL | Live | 15-10-2014 | 14-10-2018 | 198.8084 | ha |
| R 15/1 (M15/1811) | AMAL | 100 | RETENTION | Live | 09-06-2010 | 08-06-2019 | 973 | ha |

*All licences are for minerals exploration and where applicable mining.*

** Block = a graticular block = one minute of latitude x one minute longitude = approximately 3 km$^2$.*

*# All the tenements will be renewed, relinquished or converted to MLs by their expiry date depending on their perceived exploration potential after considering the whole project's exploration results and mining plans.*

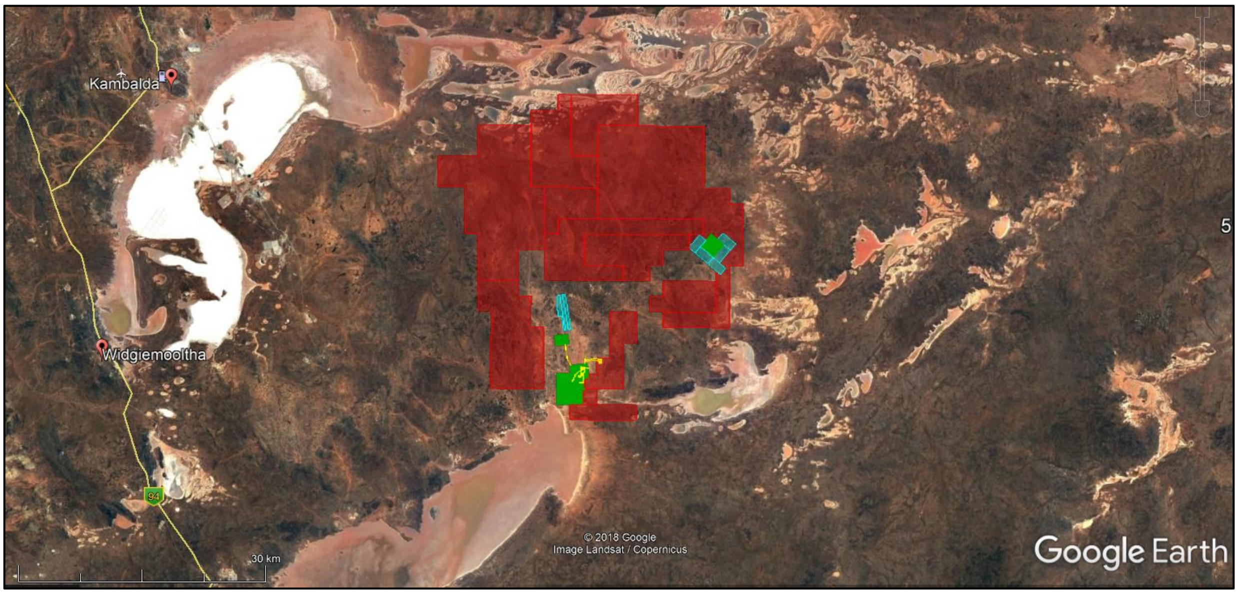



*Figure 3: AMAL tenements at 22 January 2018*

*Note: Green = ML; red = EL, blue = PL, yellow = Misc.*

All current mining and processing activities are contained on granted mining lease M15/400 owned by the JV partners and part of a larger tenement package. M15/400 was granted in 1988 and its second extension of term will expire 7 September 2030. It pre-dates Native Title and has been the subject of prior mining and production. Apart from state government royalties, M15/400 is not subject to royalties.

Two additional mining leases are expected to be required within three to five years: an application is currently underway for one of these licences; and an application for the second licence will be made in the coming months. Both areas are currently under tenure owned by the JV partners.

The Bald Hill site is an operating mine site with all required permits. Ongoing variations and additional permitting will be required from the Department of Water and Environmental Regulation (DWER) and the Department of Mines, Industry Regulation and Safety (DMIRS) for additional clearing, mining pits or pit extensions, waste dumps, tailing facilities, and water. There are no known impediments to extending the currently permitted active mining area and associated infrastructure.

## 1.8 Native Title

There are no local Aboriginal communities on or near to the Project area, although the region is part of the Native Title Claim of the Ngadju-speaking people.

Within WA, the *Native Title Act 1993* (Commonwealth), also referred to as “NTA”, is administered by the State government. This legislation provides for Aboriginal people to claim native title and a process for negotiation and compensation where the land is to be leased out by the State.

Native Title over all the Company’s MLs has been determined to be extinguished, including the main mining lease M15/400, but a State Deed is required before exploration or mining can proceed on the Company’s other tenements. Pending mining lease M15/1811 (currently R15/1) and parts of E15/1212 have been cleared for drilling in the areas covered by Program of Works (POW) number 60176 which covers the Tawana 2017 drilling program.

The mining lease application (M15/1811) over the retention licence (R15/1) containing the known Creekside and Fenceline prospects, is now subject to stakeholder consultations and negotiations with the Native Title Holders.

Regional Standard Heritage Agreements are in place for the ELs and PLs.

All areas proposed for disturbance by mining activities have had ethnographic surveys completed that have shown that they are clear of Native Title and included in another Mining Proposal that is being assessed for mining by the DMIRS. An ethnographic survey has also been completed for Creekside Pit on R15/1 but no Mining Proposal has as yet been submitted to the DMIRS for mining this deposit.

Should AMAL propose to disturb areas that have not been surveyed or cleared of Aboriginal heritage issues, further ethnographic surveys will be carried out. AMAL will liaise with the Goldfields Land and Sea Council regarding a Regional Standard Heritage Agreement for each new area to be disturbed.

### *1.8.1 Royalty*

A royalty is payable to the Western Australian government for all tantalite, spodumene and other minerals produced at Bald Hill. The royalty is as follows:

- Concentrate material (subject to substantial enrichment through a concentration plant) – 5.0% of the royalty value
- Metal – 2.5% of the royalty value.

This system takes into account processing costs incurred after the mine-head point, price fluctuations, the grade of material and the change in the value as mined ore is processed and value is added.

An ad valorem royalty is calculated as a proportion of the “royalty value” of the mineral. The “royalty value” and components used to calculate the “royalty value” are defined under Regulation 85 of the *Mining Regulations 1981* (WA).

# 2 Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Bald Hill Project is located in the Eastern Goldfields of WA approximately 50 km due east of Widgiemooltha, 62 km southeast of Kambalda and 105 km southeast of Kalgoorlie, (Figure 4). Access to site is via a well-maintained gravel road for 65 km from the bitumen Coolgardie–Esperance Highway. The site is accessible all year round except during periods of high rainfall when the gravel road may be closed by the Shire for short periods to prevent damage to the road by the passing traffic until the road dries out.

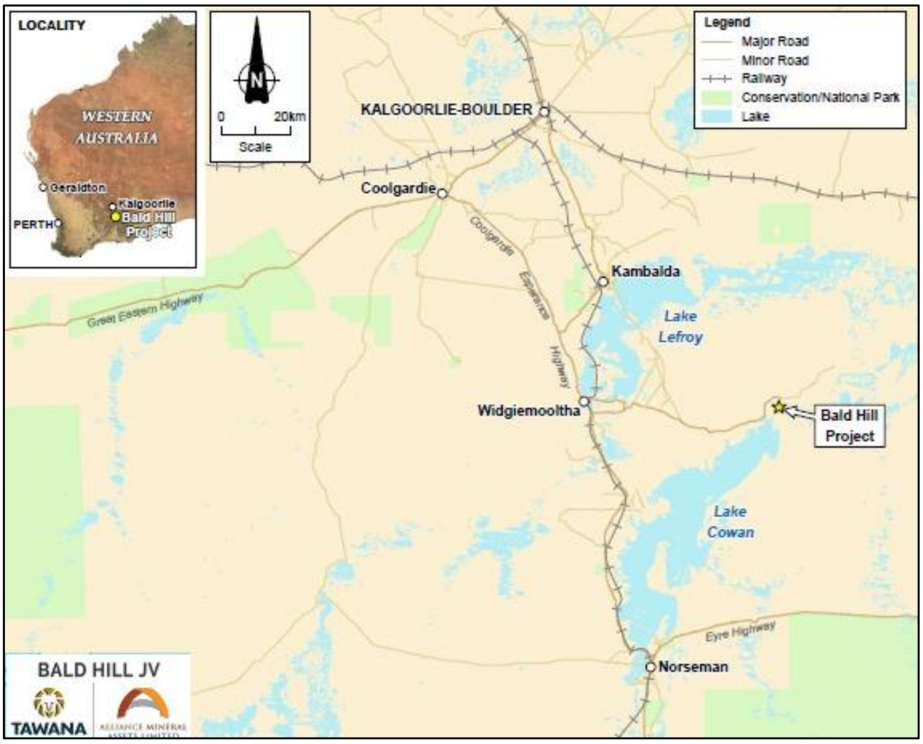



*Figure 4: Location map of the Bald Hill Tantalum and Lithium Project*

Bald Hill has a semi-arid climate, with the closest weather stations at Norseman, Balladonia and Kalgoorlie–Boulder recording annual rainfall averages to 2007 of 288 mm, 225 mm and 261 mm respectively. Rainfall is most consistent during the winter months. However, isolated thunderstorms and remnants of tropical cyclones in the summer months provide sporadic and heavy downfalls that produce substantial runoff. Temperatures in the summer months commonly exceed 35°C, and minimum temperatures during winter commonly drop below 5°C with occasional frosts.

*Table 3: Climate data for Kalgoorlie (100 km to northwest)*

| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Record high (°C) | 46.5 | 44.9 | 44.5 | 38.9 | 33.4 | 27.6 | 28.7 | 32 | 36.8 | 40.9 | 42.9 | 45 | 46.5 |
| Average high (°C) | 33.6 | 32.1 | 29.5 | 25.2 | 20.6 | 17.5 | 16.7 | 18.6 | 22.3 | 25.8 | 28.9 | 31.9 | 25.2 |
| Average low (°C) | 18.2 | 17.8 | 16 | 12.6 | 8.7 | 6.2 | 5 | 5.5 | 8 | 11 | 14 | 16.5 | 11.6 |
| Record low (°C) | 8.8 | 8.5 | 5.7 | 1.7 | −1.8 | −3.0 | −3.4 | −2.4 | −0.6 | −1.0 | 3.1 | 5.5 | −3.4 |
| Average precipitation (mm) | 23.6 | 31.2 | 24 | 21.3 | 26.5 | 28.9 | 24.9 | 21.4 | 14 | 14.8 | 17.8 | 16.4 | 264.8 |
| Average precipitation days (≥0.2 mm) | 3.9 | 4.5 | 4.3 | 5.3 | 7.1 | 8.7 | 9.2 | 7.5 | 5.6 | 4.3 | 4.1 | 3.8 | 68.3 |

*Source: after Wikipedia*

The physiography of the Bald Hill area is largely controlled by basement rock types that have been overlain by extensive regolith and the Cowan paleo-drainage system that incised the regolith during the Jurassic.

Relief is typically low with areas dominated by granitic rocks forming an irregular terrain of gentle undulations interspersed by sheet wash zones and deep regolith cover with clay pans and sink holes. The metasedimentary rocks and minor mafic and ultramafic rocks are overlain by extensive sandplains. The sandplains adjacent to the northern extent of Lake Cowan has an average elevation of about 275 m above Australian Height Datum (AHD) and is part of the south to south-westerly draining Cowan paleo-drainage channel. The northern margin of Lake Cowan is dominated by a broad east-north-easterly trending ridge formed by the Paleoproterozoic Binneringie Dyke, which rises from the lake floor to an elevation of about 320 m above sea level. The Proterozoic Woodline Formation forms large north-easterly trending, rock-covered ridges and small, isolated conical hills.

A great deal of the original woodland vegetation was cleared for timber for mining operations in the middle of the last century. However, stands of trees untouched by fire or timber cutters indicate a dominance of mixed woodland to open woodland with saltbush understorey. The broad low ridges and sheet wash plains that dominate the Bald Hill area are mainly covered by mixed eucalypt woodland including Eucalyptus salmonophloia (salmon gum), Eucalyptus salubris (gimlet), E. flocktoniae (merrit) and patches of giant mallee (E. oleosa) and black butt (E. lesouefi i, E. dundasii). The eucalypts are intermingled with tall shrubs dominated by broom bush (Eremophila scoparia), grey bush (Cratystylis concephala), bluebush (Maireana sedifolia), and saltbush (Atriplex vesicaria), with a patchy ground layer of grasses and ephemeral herbs.

Wattle, mulga (Acacia sp.), and broom bush are common on granite-derived soils. Shrubs observed less frequently include Exocarpos aphyllus, Santalum acuminatum (quandong), and Santalum spicatum (sandalwood). In areas where there is a sandy to rubbly outcrop of granitic rock, tall trees are absent and replaced by thickets of broom bush (Eremophila scoparia). Where there are thick patches of sand overlying granitic rocks, a rich Kwongan flora grow, including sedges such as Lepidosperma drummondi. Patches of spinifex are common on granitic and felsic volcanic rocks.

In and around the playa lake system, vegetation is dominated by samphire (Halosarcia sp.), saltbush, bluebush, and greybush. Rounded-leaf pigface (Disphyma crassifolium) commonly grows where quartz dykes are exposed in the salt-lake beds and lake edges.

# 3 Exploration and Mining History

Alluvial tantalite has been mined at Bald Hill periodically from the early 1970s. Gwalia Consolidated Limited (Gwalia) undertook exploration for tantalite-bearing pegmatites from 1983 to 1998 including mapping, costeaning and several phases of drilling using rotary air blast (RAB), reverse circulation (RC) and diamond coring methods. This work identified mineral resources that were considered uneconomic at the time.

Haddington International Resources Limited (Haddington) entered into an agreement with Gwalia's subsidiary, Greenbushes Tin, to develop the resource whereby the tantalite concentrate would be sold to Greenbushes Tin. Mining commenced in 2001 and continued until 2005 when Greenbushes Tin no longer took third party concentrates for processing. It is estimated that Haddington had mined a total of approximately 1.35 million tonnes (Mt) of pegmatite ore for approximately 822,353 pounds of $Ta_2O_5$ as tantalite concentrate sold to Greenbushes Tin during this period.

Haddington continued with exploration until 2009 when Living Waters Mining (Australia) Pty Ltd (Living Waters) acquired the Project along with a number of additional tenements north of the main Project area. Living Waters continued with limited exploration to the north of the main pit area.

The Property was transferred to HRM Resources Australia Limited (HRM) on 20 December 2010. On 13 March 2014, HRM changed its name to Alliance Mineral Assets Limited. AMAL continued with RC drilling, especially testing for extensions of the Boreline, North and South open pits, until the Tawana JV Agreement was signed. AMAL mined the oxide pegmatite resource at Boreline as part of the commissioning of the Company's processing plants at both Bald Hill and Boulder in early 2016.

AMAL signed a binding terms agreement on 3 June 2016 with Lithco, a wholly-owned subsidiary of Tawana. This agreement granted Tawana sole and exclusive exploration and prospecting rights over all minerals within an area enclosed by the external boundaries of the Company's tenements and within an agreed 10 km radius of the tenements. Tawana undertook to spend by 31 December 2017 a minimum of A$7.5 million on exploration, evaluation and feasibility (including administrative and other overhead costs in relation thereto) to entitle Tawana to 50% of all rights to lithium minerals from the tenements; and to spend a further A$12.5 million in capital expenditure required for upgrading and converting the plant for processing ore derived from the tenement area, infrastructure costs, pre-stripping activities and other expenditures including operating costs entitling Tawana to a 50% legal and beneficial interest in the whole Project.

On 28 June 2017, Tawana announced that it had earned their 50% of all rights to the lithium minerals from the tenements, having spent the required A$7.5 million on exploration and mine development on the Bald Hill tenements.

Furthermore, on 24 October 2017, Tawana announced it had spent the required A$12.5 million to earn a 50% interest in the Bald Hill Project (being all minerals from the tenements and the processing plant and infrastructure at Bald Hill, located in the Eastern Goldfields, WA), satisfying the Bald Hill JV Agreement with Tawana (via Tawana) and AMAL, each having an equal 50:50 legal and beneficial interest in the Bald Hill Project.

During the past year from the date of this report, Tawana has completed a substantial drilling program and metallurgical testwork that has been followed up with a prefeasibility study (PFS). Tawana has effectively redrilled the previously reported central deposits and re-estimated the resources for this area, this time including an estimate of the lithium content of these resources. Since the last IQPR in October 2017, Tawana has further extended the drilling to the south and east of the previously reported tantalite only resource at Boreline and upgraded parts of the Inferred Resources at Central to Indicated by infilling the wide spaced drilling in these areas.

In addition to resource drilling, Tawana carried out outcrop mapping and sampling on the retention licence R15/01 immediately east of the main mining lease M 15/400 to identify new pegmatites for further drilling. Several outcropping spodumene and tantalite pegmatites were located. A total of 75 rock chip and channel samples were collected over a wide area, of which 54 contained visual spodumene or anomalous lithium, tantalum or tin.

# 4 Geological Setting and Mineralisation

## 4.1 Regional Geology

Bald Hill straddles the boundary between the Geological Survey of Western Australia (GSWA) map sheets Mount Belches and Yardina and lies within the southern part of the Eastern Goldfields Super-terrane of the Archean Yilgarn Craton. Granitic and metasedimentary rocks are the main bedrock types, with greenstones to the east and west. The Bald Hill pegmatites intrude the Archaean Mount Belches Formation. Flat-lying Cainozoic Eundynie Group sedimentary rocks unconformably overlie the Archean basement and are commonly found on the western margins of playa lakes.

Open to tight upright D2 folds are well developed in metamorphosed sedimentary rocks of the Mount Belches Formation. D2 folds have a well-developed axial-planar foliation and fold axes plunge moderately to the northwest and are the result of east-northeast west-southwest crustal shortening. Regional metamorphism, which probably post-dates D2, ranges from greenschist to amphibolite grade and is overprinted by retrograde chlorite replacing garnet and cordierite. Gentle warping of D2 folds is rare, but is attributed to the collision of the south-eastern margin of the Yilgarn Craton with East Antarctica as part of the Mawson Craton during the 1,345–1,140 Ma Albany–Fraser Orogeny (D5). D5 Albany–Fraser Orogeny-related deformation is also observed in the Proterozoic rocks of the Woodline Formation, with fold axes of open upright folds and gentle warps trending northeast and broadly parallel to the Yilgarn Craton – Albany–Fraser Orogeny contact.

Archean granitic rocks to the west of Bald Hill are dominated by massive to moderately foliated monzogranites to quartz monzonites (–biotite–hornblende). Minor rock types include syeno-granites and a clinopyroxene-bearing syenite.

## 4.2 Mount Belches Formation

The Mount Belches Formation is a thick sequence of metamorphosed turbiditic rocks. The Mount Belches Formation is a large fault bound block of metasedimentary rocks that forms a dome above a series of large granitic bodies. Sensitive high-resolution ion microprobe (SHRIMP) U–Pb zircon ages on detrital zircons from Mount Belches Formation sandstone indicate maximum depositional ages of 2,666 ± 5 Ma (Krapez *et al*., 2000) or c. 2,667 Ma (Bodorkos *et al*., 2006). The sequence probably represents deposition by mass-flow traction and turbidity currents in a submarine environment (Painter and Groenewald, 2001).

Mount Belches Formation rocks are dominated by metamorphosed steeply dipping, fine- to coarse-grained sandstone, siltstone and mudstone, with minor conglomerate. Banded iron formation and chert do not outcrop; however, aeromagnetic data suggests folded chert at depth beneath Proterozoic rocks of the Woodline Formation and Cainozoic sediments. The sandstone–siltstone sequences commonly display graded bedding, parallel and cross-laminations, scours, Bouma sequences, and soft-sediment deformation. Many beds have mudstone as the uppermost interval (now dominated by medium-grained metamorphic biotite or amphibole). In thin section, the coarse-grained sandstones and granular conglomerates contain relict detrital-quartz grains (up to 5 mm) interspersed with biotite clots and poikiloblastic plagioclase crystals, with subordinate hornblende, chlorite, muscovite and carbonate, and accessory magnetite, zircon, titanite, tourmaline, pinitized cordierite and apatite. A similar mineral assemblage is found in the mudstone layers, but staurolite, andalusite and garnet are present where the metamorphic grade is higher and there is a strong schistosity.

Hornfelsed and metasomatized units of the Mount Belches Formation are most common where metasedimentary rocks are intruded by granitic plutons and dykes, pegmatite veins, quartz veins, as at Bald Hill and the Binneringie Dyke.

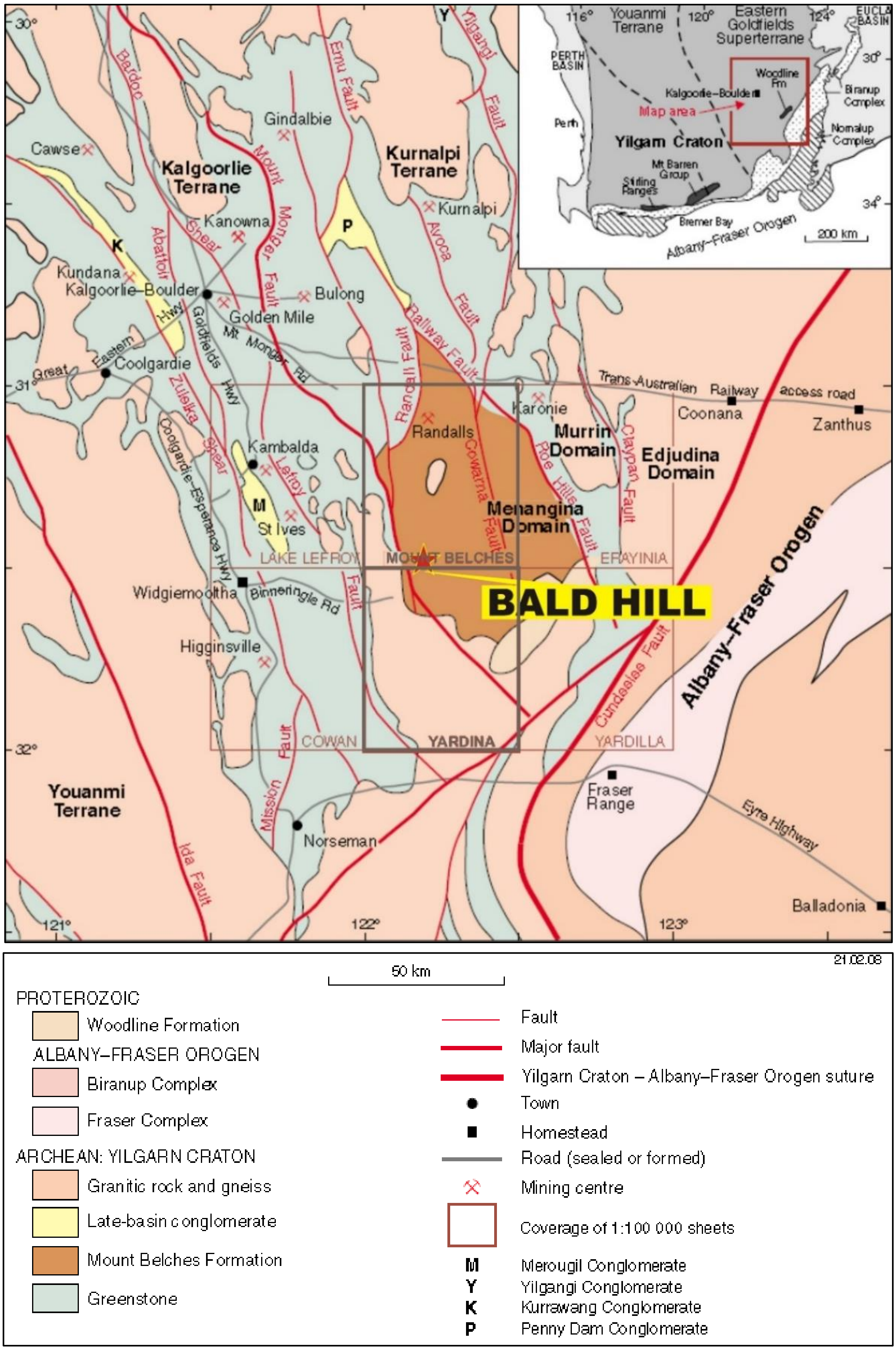



*Figure 5: Regional geology (after Hall and Jones, 2008)*

## 4.3 Pegmatites

Pegmatite dykes and pods, probably Archaean, are common at Bald Hill where they intrude metasedimentary rocks of the Mount Belches Formation and granitic rocks. The pegmatite dykes typically comprise very coarse feldspar, books of muscovite, spodumene and interstitial quartz. Pegmatites are particularly abundant in the Mount Belches Formation near outcrops of granites that are near north-north westerly trending lineaments, faults, or granitic dykes. Thin (centimetre sized) contact metamorphic haloes are present where the pegmatite intrudes metasedimentary rock, and intense quartz veining is localised around some pegmatite dykes and plugs.

Pegmatite dykes 1–8 m thick that intrude the Mount Belches Formation were mined by the previous operators, Haddington, at the Bald Hill mine for tantalum from tantalite and by prospectors in several small workings for tin. The lithium bearing mineral spodumene, although known to be widespread, had not been mined in the past, mainly due to the low prevailing market price for spodumene concentrates.

## 4.4 Economic Minerals at Bald Hill

The two main minerals of economic importance at Bald Hill are tantalite (tantalum) and spodumene (lithium).

### *4.4.1 Tantalum*

Tantalum is a chemical element with symbol Ta and atomic number 73. Tantalum is a rare, hard, blue-grey, lustrous transition metal that is highly corrosion-resistant. It is part of the refractory metals group, which are widely used as minor components in alloys. The chemical inertness of tantalum makes it a valuable substance for laboratory equipment and a substitute for platinum. Tantalum is also used for medical implants and bone repair. Its main use today is in tantalum capacitors in electronic equipment such as mobile phones, DVD players, video game systems and computers. Tantalum, always together with the chemically similar niobium, occurs in the minerals tantalite, columbite and coltan (a mix of columbite and tantalite). Tantalum is a rare metal 15 times less abundant in the universe than gold comprising just $1.5\times10^{-4}$% (average approx. 1.5 ppm) of the Earth’s crust.

Several steps are involved in the extraction of tantalum from tantalite. First, the mineral is crushed and concentrated by gravity separation. This is generally carried out near the mine site. Extraction from the mineral begins with leaching, a step in which the ore is treated with hydrofluoric acid and sulphuric acid to produce water-soluble hydrogen fluorides. The tantalum and niobium hydrogen fluorides are then removed from the aqueous solution by liquid-liquid extraction using organic solvents, such as cyclohexanone or methyl isobutyl ketone. The resulting niobium and tantalum potassium-fluorides ($K_2[TaF_7]$, $K_2[NbOF_5]$) can then be separated by fractional crystallization due to their different water solubilities.

All welding of tantalum must be done in an inert atmosphere of argon or helium in order to shield it from contamination with atmospheric gases. Tantalum is not “solderable”. Grinding tantalum is difficult, especially so for annealed tantalum. In the annealed condition, tantalum is extremely ductile and can be readily formed as metal sheets.

*Uses of Tantalum*

The major use for tantalum, as the metal powder, is in the production of electronic components, mainly capacitors and some high-power resistors. Tantalum electrolytic capacitors exploit the tendency of tantalum to form a protective oxide surface layer, using tantalum powder, pressed into a pellet shape, as one “plate” of the capacitor, the oxide as the dielectric, and an electrolytic solution or conductive solid as the other “plate”. Because the dielectric layer can be very thin (thinner than the similar layer in, for instance, an aluminium electrolytic capacitor), a high capacitance can be achieved in a small volume. The size and weight advantages make tantalum capacitors attractive for portable phones, personal computers, and automotive electronics.

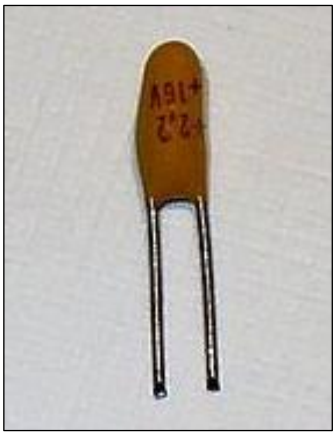


*Figure 6: Tantalum electrolytic capacitor (after Wikipedia)*

Tantalum is also used to produce a variety of alloys that have high melting points, strength, and ductility ideal for making carbide tools for metalworking equipment and in the production of superalloys for jet engine components, chemical process equipment, nuclear reactors, and missile parts. Tantalum can be drawn into fine wires or filaments, which are used for evaporating metals such as aluminium. Since it resists attack by body fluids and is non-irritating, tantalum is widely used in making surgical instruments and implants.

Tantalum is inert against most acids except hydrofluoric acid and hot sulphuric acid, and hot alkaline solutions also cause tantalum to corrode. This property makes it an ideal metal for chemical reaction vessels and pipes for corrosive liquids.

The oxide is used to make special high refractive index glass for camera lenses.

Based on estimates published by the United States Geological Survey (USGS) and Geoscience Australia, the world reserves of tantalum in 2017 totalled >110 kt. The world's largest holder of tantalum resource is Australia with an estimated 78 kt, followed by Brazil with 34 kt.

### *4.4.2 Lithium*

Lithium is a chemical element with symbol Li and atomic number 3. It is a soft, silver-white metal belonging to the alkali metal group of chemical elements. Under standard conditions it is the lightest metal and the least dense solid element.

Estimates for the Earth's crustal content of lithium range from 20 ppm to 70 ppm by weight, making it the 25$^{th}$ most abundant element. Lithium forms a minor part of igneous rocks, with the largest concentrations in granites. Granitic pegmatites provide the greatest abundance of lithium-containing minerals with spodumene, petalite and lepidolite being the most commercially viable sources.

Although lithium markets vary by location, global end-use markets are estimated by the USGS as follows: batteries, 46%; ceramics and glass, 27%; lubricating greases, 7%; polymer production, 5%; continuous casting mould flux powders, 4%; air treatment, 2%; and other uses, 9%. Lithium consumption for batteries has increased significantly in recent years because rechargeable lithium batteries are used extensively in the growing market for portable electronic devices and increasingly are used in electric tools, electric vehicles, and grid storage applications.

According to USGS, three spodumene operations in Australia and two brine operations each in Argentina and Chile accounted for the majority of world lithium production in 2017. All producing mines are increasing their production to meet the expected increased world demand for their product.

Lithium supply security has become a top priority for technology companies in the United States and Asia. Strategic alliances and joint ventures among technology companies and mining companies continued to be established to ensure a reliable, diversified supply of lithium for battery suppliers and vehicle manufacturers. New brine operations were under development in Argentina, Bolivia, Chile, China, and the United States; new spodumene mining operations were under development in Australia, Austria, Canada, China, Czechia, Finland, Mali, Portugal, and Spain; a jadarite mining operation was under development in Serbia; and lithium-clay mining operations were under development in Mexico and the United States.

Owing to continuing exploration, lithium resources have increased substantially worldwide and the total estimated by the USGS to be more than 48 Mt including identified lithium resources in:

- Argentina – 8.8 Mt
- Bolivia – 8.1 Mt
- Chile – 7.6 Mt
- China – 6.3 Mt
- Australia – 4.5 Mt.

*Figure 7: Pegmatite samples with tantalite and spodumene from Bald Hill*

## 4.5 Local Geology

All AMAL's tenements are located within the Mount Belches Formation, generally north-striking steeply dipping Archaean metasediments (schists and greywackes) and granitoids that in part have been intruded by pegmatite dykes. These dykes are typically flat dipping, but they can range from horizontal to vertical and even can appear folded, and host the tantalum (tantalite), lithium (spodumene) and tin (cassiterite) mineralisation.

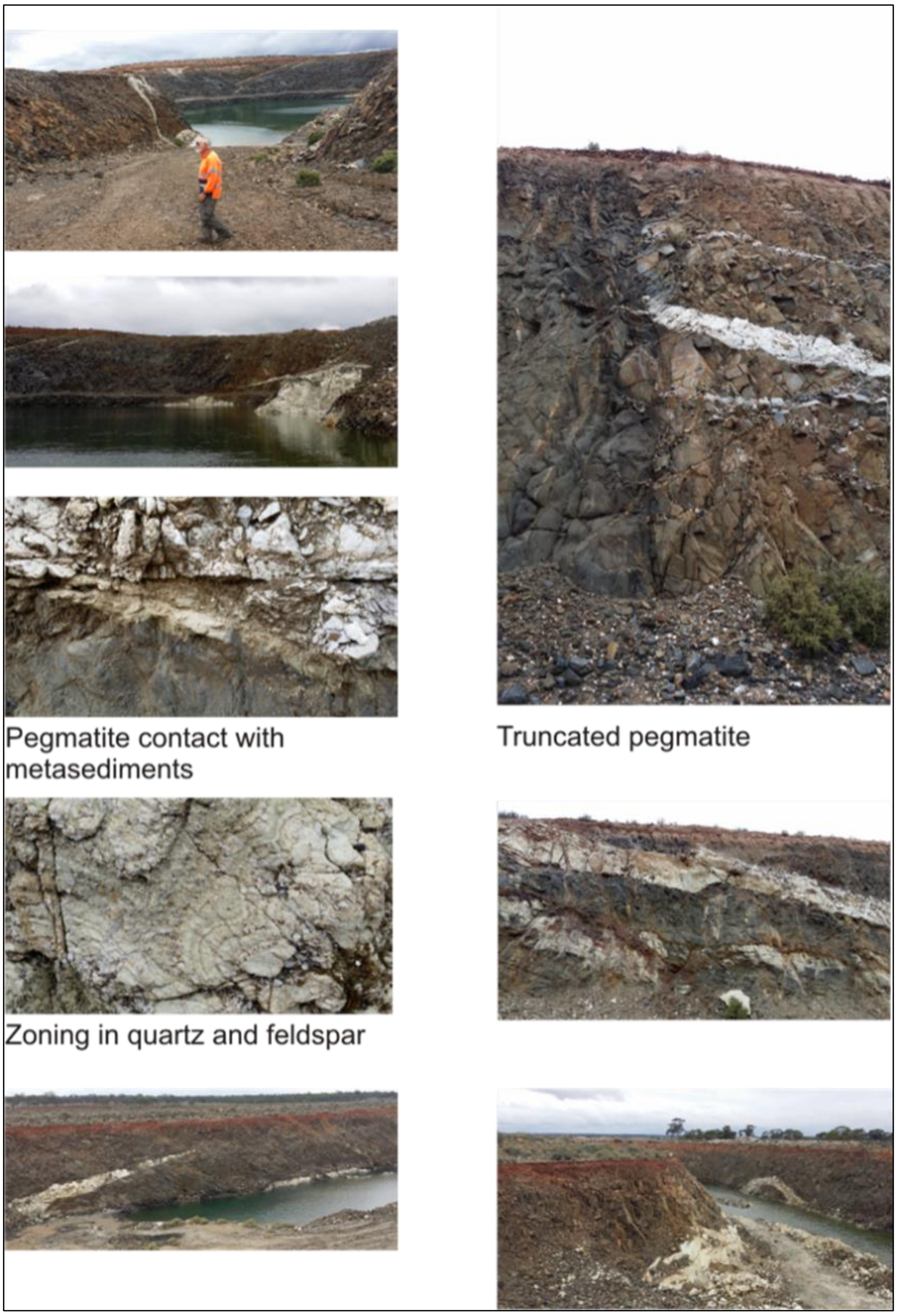



*Figure 8: Photos showing pegmatites and their structural orientations*

Generally, the pegmatites parallel the regional foliation, occurring as gently dipping sheets and occasionally as steeply dipping veins. These pegmatites vary in width from less than a metre to several metres and are generally comprised of quartz-albite-orthoclase-muscovite-spodumene in varying amounts. Late-stage albitisation in the central part of the main outcrop area has resulted in fine grained, banded, sugary pegmatites with visible fine-grained, disseminated tantalite. A thin hornfels characterised by needle hornblende crystals is often observed as an alteration halo in country rocks adjacent to the pegmatites. Tantalite generally occurs as fine disseminated crystals commonly associated with fine-grained albite zones or as coarse crystals associated with cleavelandite. Laths of crystalline spodumene are ubiquitous in the pegmatites averaging approximately 20–25% of the total pegmatite mineralogy.

Weathering of the pegmatites has yielded secondary accumulations of tantalite in alluvial/eluvial deposits.

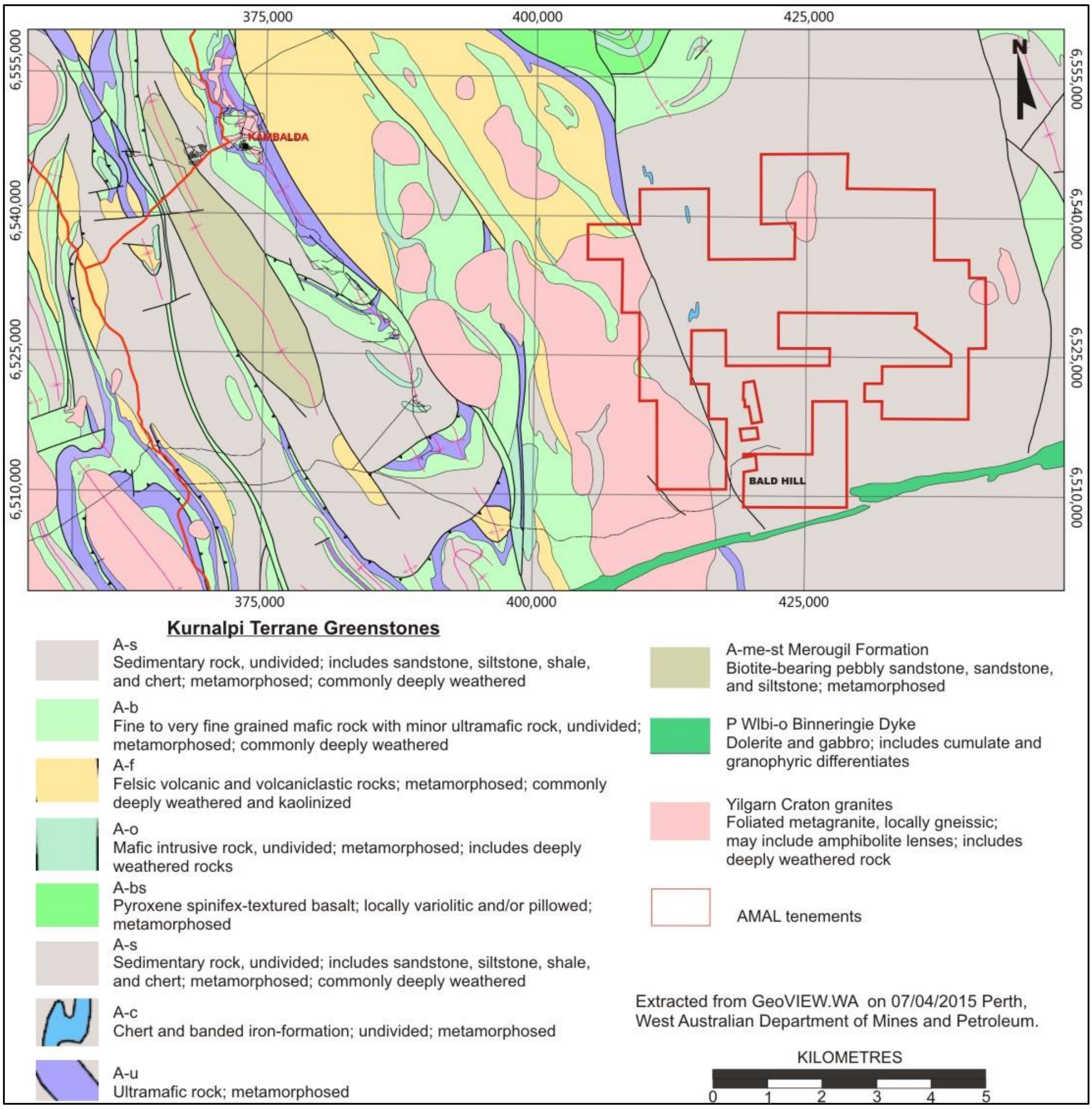



*Figure 9: Local geology*

Geochemical surveys carried out by Haddington, and confirmed by the December 2015 soil sampling by AMAL, have determined that lithium grades in the soil and bedrock are an excellent indicator of mineralised pegmatites.

Rock chip sampling and mapping, aided by air-photography and satellite imagery, has identified numerous pegmatite outcrops and lithium geochemical exploration targets at Bald Hill. Many of these targets, including mapped pegmatites, are being systematically tested by drilling as part of the Tawana agreement.

# 5 Drilling

The Bald Hill deposits have been progressively systematically drilled since Sons of Gwalia commenced their exploration program in 1983. The first phase was exploratory drilling designed to identify the broad location of mineralised pegmatites. These holes were wide spaced vacuum and RAB drilling along wide spaced grid lines.

RAB drilling, being an open hole method, is relatively fast and cheap but the samples can be easily contaminated with material up the hole from the bit, so these drill samples are not normally used for resource modelling. Historically at Bald Hill, these drillholes tended to be only sampled at the end of the hole for a small suite of elements including Li but not Ta as the exploration companies noticed that lithium formed a broad anomalous alteration halo in the country rocks around the pegmatites whereas tantalum did not.

The Li anomalies were then followed up by targeted RC drilling. In RC drilling, the sample passes directly from the drill bit back up through the drilling rods so the samples are less likely to be contaminated with material from further up the hole from the bit. These RC samples are generally suitable for resource modelling; however, the drilling rate is generally slower and more expensive than RAB drilling. Historically, these holes were sampled from the surface at 1 m intervals but only the intervals logged as containing pegmatite were assayed for Ta, but not Li because Li was not considered to be a commercially important mineral at the time.

Because the RC drilling was hardly ever assayed for Li, none of the previous resource estimates include Li although spodumene, through the lithological logging, is known to be widespread at Bald Hill.

Tawana has redrilled, with RC and diamond drill rigs, most of the areas previously drilled for Ta resource modelling as well as extending these areas by drilling for deeper pegmatites. This time the drill samples were assayed for both Li and Ta.

Drilling deeper than previously for mineralised pegmatites is now warranted since on average the value of both the recoverable Ta and Li more than doubles the value of the mineralised pegmatites than when Ta was considered on its own.

## 5.1 Previous Drilling

A total of 2,444 drillholes and 62 costeans were completed at Bald Hill between 1983 and 2016 for a total of 40,593 m of drilling and 1,610 m of costeaning (Table 4, Table 5 and Figure 10).

*Table 4: Drilling and assay statistics (inside AMAL tenements only)*

| Drill type | Intervals | Li | Ta | Sn | Au |
|---|---|---|---|---|---|
| Auger | 334 | 334 | 0 | 0 | 0 |
| Costean | 423 | 0 | 423 | 0 | 0 |
| Diamond | 265 | 0 | 265 | 0 | 0 |
| RAB | 904 | 459 | 475 | 7 | 0 |
| RC | 12,577 | 1,575 | 8,037 | 1,845 | 0 |
| Vacuum | 297 | 296 | 0 | 0 | 288 |
| **Total** | **14,800** | **2,664** | **9,200** | **1,852** | **288** |

The majority of drilling (2,312 holes) is vertical with only 132 drillholes inclined at -60° in the database.

For costeans, an azimuth with a zero or small dip is recorded to define their orientation. The orientation and lengths were validated against available maps and electronic datasets.

The water table in the mine site area is at least 15 m below ground surface and confined to steeply dipping, north-south trending shear zones. Local water bore analyses indicate hypersaline water with total dissolved salts (TDS) >200,000 mg/L and pH 5.8–6.95. Groundwater is not likely to have adversely affected the RC and diamond samples however there is concern that the RAB intersections below the water table could be contaminated.

The digital drilling database inherited when AMAL purchased the Project was found to contain numerous errors and, especially, missing holes and missing some of the suite of assays analysed. When the extent of the problems became apparent, the database was reconstructed from scratch by Al Maynard and Associates (AM&A) in 2016 by downloading all the historical exploration annual reports filed in the Department of Mines and Petroleum WAMEX website for all AMAL's tenements and adjacent tenements owned by other parties along strike of the pegmatites at Bald Hill. This drilling and geochemical sampling data was compiled into new "clean" Microsoft Excel spreadsheets. The newly reconstructed database included 634 new drillholes and their assays. Of most importance was a complete set of lithium assays from Haddington's regional RAB drilling program which included several important lithium anomalies that will assist with the planned lithium exploration focus.

AM&A checked, by referring to original log sheets, the collar locations, drillhole depths, geological logging and assay results for a portion of the database from the 2014 drilling completed by AMAL, and no errors were detected.

*Table 5: Summary of drillholes after drilling database reconstructed by AM&A in 2016*

| Hole series | Type | Date drilled | Operator | Number | Metres drilled | Average depth |
|---|---|---|---|---|---|---|
| C01-C53 | Costean | 1983 | Sons of Gwalia | 62 | 1,610 | 26.0 |
| H01-H12 | RAB | 1983 | Sons of Gwalia | 12 | 122 | 10.2 |
| BH85.08-BH85.31 | RC | 1985 | Sons of Gwalia | 7 | 151 | 21.5 |
| 1-69 | RC | 1987 | Sons of Gwalia | 69 | 1,240 | 18.0 |
| 70-231 | RC | 1988 | Sons of Gwalia | 162 | 1,737 | 10.7 |
| M1-M7 | Diamond | 1996 | Sons of Gwalia | 7 | 98 | 14.0 |
| RRC01-RRC18 | RC | 1996 | Sons of Gwalia | 18 | 311 | 17.3 |
| SOG063-SOG725 | Vacuum | 1996 | Sons of Gwalia | 334 | 668 | 2.0 |
| BHD237-BHD0258 | Diamond | 2000 | Haddington | 22 | 314 | 14.3 |
| BHC260-BHC341 | RC | 2001 | Haddington | 81 | 2,164 | 26.7 |
| BHC342-BHC559 | RC | 2002 | Haddington | 218 | 6,563 | 30.1 |
| BHC560-BHC772 | RC | 2003 | Haddington | 188 | 3,760 | 20.0 |
| BHR0627-BHR0646 | RAB | 2003 | Haddington | 20 | 349 | 17.5 |
| BHC885-BHC912 | RC | 2004 | Haddington | 28 | 1,253 | 44.8 |
| BHR0773-BHR0884 | RAB | 2004 | Haddington | 94 | 2,011 | 21.4 |
| BHV321-BHV768 | Vacuum | 2004 | Haddington | 297 | 758 | 2.6 |
| BHA122-280 | Auger | 2005 | Haddington | 82 | 190 | 2.3 |
| BHC913-BHC1475 | RC | 2005 | Haddington | 180 | 4,053 | 22.5 |
| BHR1045-BHR1859 | RAB | 2005 | Haddington | 313 | 4,711.5 | 15.1 |
| BHC1477-BHC1521 | RC | 2006 | Haddington | 31 | 833 | 26.9 |
| BHR1860-BHR2016 | RAB | 2006 | Haddington | 51 | 1,181.5 | 23.2 |
| BHSC01-BHSC36 | RC | 2010 | HRM(AMAL) | 35 | 1,309 | 37.4 |
| AMBC001-AMBC133 | RC | 2014 | AMAL | 133 | 5,206 | 39.1 |
| **Subtotals** | **RC** | | | **1,150** | **28,580** | **24.9** |
| | **Diamond** | | | **29** | **412** | **14.2** |
| | **RAB** | | | **490** | **8,375** | **17.1** |
| | **Auger** | | | **82** | **190** | **2.3** |
| | **Costean** | | | **62** | **1,610** | **26.0** |
| | **Vacuum** | | | **631** | **1,426** | **2.3** |
| **GRAND TOTAL** | | | | **2,444** | **40,593** | **16.6** |

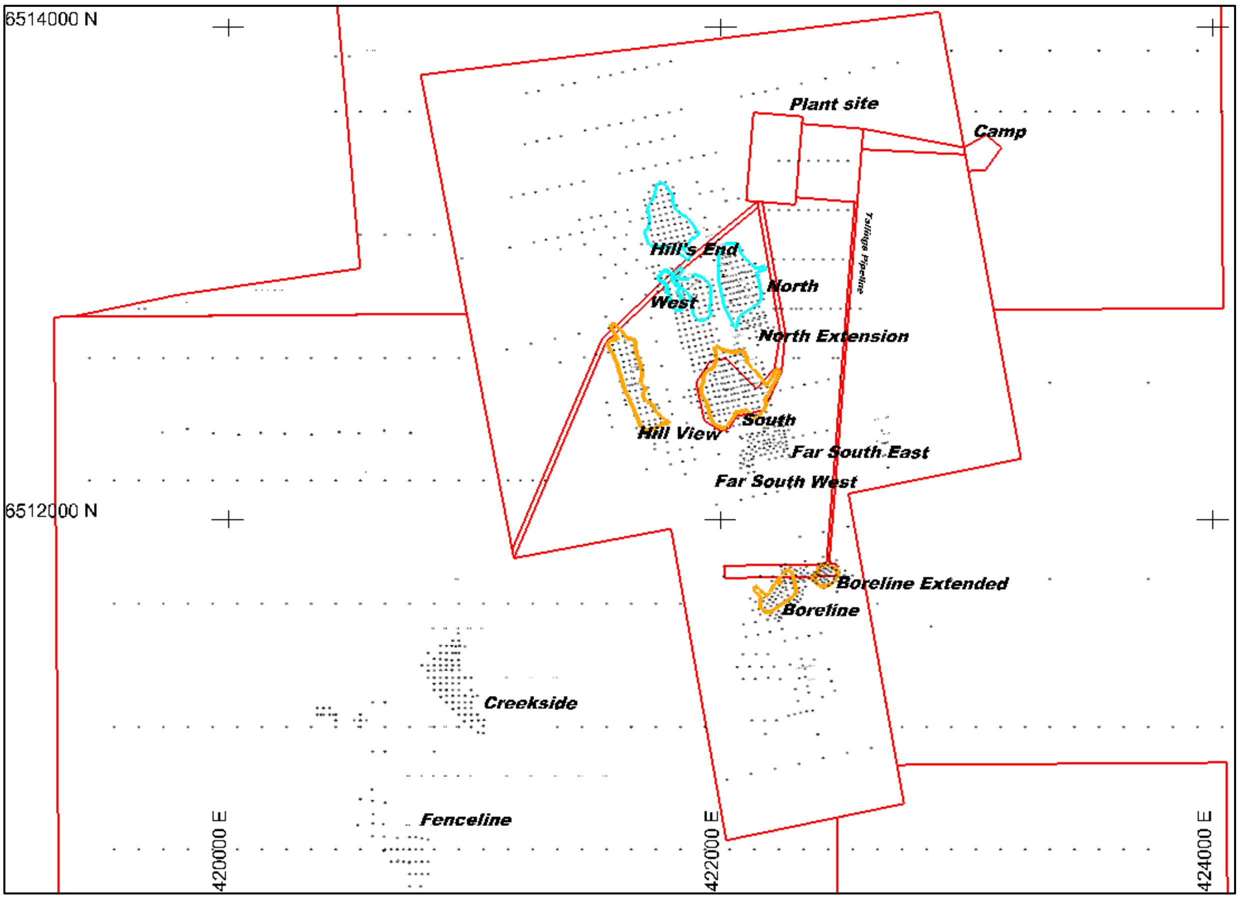



*Figure 10: Map showing pre-Tawana drill collar locations in vicinity of main deposits*

## 5.2 2016–2017 Tawana Drilling

The drilling supporting the Mineral Resource is predominantly RC with minor diamond core drilling (DD) and RC with diamond core tails (RCD) drilled by Tawana. As part of the Tawana agreement, a total of 91,403.29 m of RC drilling from 731 RC drillholes (LRC0001 to LRC0752 Note: non-consecutive numbers) and RC pre-collars with diamond tails (LRCD0006 to LRCD0557 Note: non-consecutive numbers) was completed at Bald Hill between October 2016 and December 2017. Of this total, 37 RC drillholes for 5,195 m were drilled since the last resource update in October 2017. All the historical holes drilled by Haddington and AMAL were removed from the database as they were only assayed for tantalum.

A total of 20,937 RC drill samples and 328 from RC diamond pre-collars at 1.0 m intervals were collected from logged pegmatite intersections by cone splitting, riffle splitting or scoop.

Of the Tawana drilling, all the diamond drillholes and approximately 70% of RC drillholes are inclined, mostly 60° to the east, to achieve approximately orthogonal intersections through the pegmatites, with the remaining holes drilled vertically. The drillholes over the main resource areas were spaced on a 40 m x 40 m grid extending out to 80 m x 80 m on the peripheries of the deposits. A 140 m x 80 m area in the northern portion of the resource area was infilled to a 20 m x 20 m grid.

CSA Global considers this drillhole spacing to be adequate for Mineral Resource estimation at the classifications reported.

### *5.2.1 Sampling Techniques*

RC cuttings were continuously sampled at the drill rig at 1.0 m intervals from the collar to the end of each drillhole using a riffle or cone splitter to produce a subsample of less than 5 kg.

DD core was typically continuously sampled at 2.0 m intervals from the collar to the end of hole. Sampling intervals were limited by logged lithology, mineralisation or alteration boundaries so some samples may be shorter or longer than the typical 2.0 m to correspond with the logged boundaries. The core was cut into half with one half submitted for chemical analysis and the other half retained in the core library for future reference at the project site.

## 5.3 Collar Surveys and Topographic Control (resource drilling only)

The pre-AMAL 2010 drill collar coordinates were originally derived from a pegged 50 m x 50 m local grid surveyed in 1983 that was resurveyed in 1996. These drilling coordinates have been transformed since 2014 to GDA94 coordinates.

All the post-2009 drilling, including the Tawana drilling was surveyed using a differential global positioning system (GPS) by a licenced surveyor using the GDA94 coordinate datum.

The area has a flat relief and topographic control so topographic maps generated from differential GPS surveys of the drillhole collars are of sufficient accuracy for resource estimation and mine planning at Bald Hill.

# 6 Sample Preparation, Analyses and Security

Only the 2014 drilling carried out by AMAL and the Tawana drilling have properly recorded quality assurance and quality control (QAQC) data and adequate reporting of the sampling and assay procedures followed. This section only considers the 2014 drilling and Tawana QAQC unless otherwise stated. This latter drilling makes up most of the holes used to estimate the current reported resources.

## 6.1 Pre-Tawana Drilling Sample Preparation and Chemical Analyses

There are no records of chip recoveries or sample weights for the RC and RAB drilling, so it is not possible to establish if a relationship between sample recovery and sample grades exists. Since most of the tantalite is relatively fine-grained and the larger crystals highly brittle, the opportunity for sample bias is considered negligible.

Geological logs exist for all the drillholes in their entirety but samples have generally only been submitted for assay within and adjacent to the pegmatites.

RC samples in the AMAL 2014 drilling programs were collected at 1.0 m intervals and riffle split at the drill rig to produce a subsample less than 5 kg. The RC drilling sampling and sample size are considered robust for sampling the tantalite mineralisation. The drillhole logs indicate that almost all the samples were dry with very few samples with recovery problems.

The historical pre-2014 sampling and analytical procedures followed by the then current operators, Sons of Gwalia (1983–1996) and Haddington (2000–2009), are believed to be in line with general sampling practices at the time the samples were collected. AMC Consultants (AMC), after carrying out statistical and graphical analyses of the data, determined that quality of the data was sound. CSA Global is therefore of the opinion that the sampling of the RC and diamond drillholes would meet the standards required for resource estimation in the categories nominated. The RAB drilling and costean sampling, which cannot be verified as being accurate, are only suitable for assisting with geological interpretation and not for grade interpolation in resource modelling.

Field duplicates, laboratory standards and laboratory repeats were used at varying frequency through the years to monitor sampling and analyses since 2001.

The samples prior to 2014 were all analysed for tantalum using the x-ray fluorescence (XRF) assay technique. During the period that mining was in operation, the samples were analysed at the site laboratory while the rest of the samples were analysed by independent laboratories. The samples for the July–August 2014 drilling at Boreline and November 2014 drilling in the Central Area were assayed by Sodium Peroxide Fusion/Inductively Coupled Plasma Mass Spectrometry (ICP-MS) analysis by Bureau Veritas, Perth, WA (formerly Ultra Trace Pty Ltd) in five batches.

- **PF100** Sodium Peroxide Fusion and Acid Dissolution: An aliquot of sample is fused with sodium peroxide in either a zirconia crucible or alumina crucible. The melt is dissolved in dilute hydrochloric acid and the solution analysed. This process provides complete dissolution of most minerals including silicates. Volatile elements are lost at the high fusion temperatures.
- **PF102** ICP-MS analysis – six elements (all detection limits in ppm): ICP-MS is a type of mass spectrometry which is capable of detecting metals and several non-metals by ionizing the sample with ICP and then using a mass spectrometer to separate and quantify those ions.

*Table 6: Method codes and elements analysed using XRF102 and detection limits (ppm)*

| Sn | Li | Ta | Nb | Rb | Cs |
|---|---|---|---|---|---|
| 10 | 1 | 0.5 | 5 | 0.5 | 0.5 |

The assays from the Boreline and Central Area drilling were reported in csv files containing the QAQC laboratory standard assays, drill duplicate assays and laboratory duplicate assays. All the standard, laboratory repeats and field duplicate Ta assays were charted for comparison against expected and original results (Figure 11 to Figure 13), and no problems with the sampling and assaying were apparent.

For the July to August and November 2014 drilling, 1,299 original assays were reported and 144 duplicates were reported, so approximately 11% of the assays were drill sample duplicates.

## 6.2 Tawana Sample Preparation and Chemical Analyses

The Tawana sample preparation and assaying was carried out by Nagrom Laboratory in Perth. Nagrom has extensive experience with tantalum and lithium extraction testwork and has ISO9001:2008 accreditation.

Drill samples were jaw crushed and riffle split to 2–2.5 kg before pulverising to 80% passing 75 microns. Prepared samples are fused with sodium peroxide and digested in dilute hydrochloric acid. The resultant solution is analysed by ICP.

This assay technique is considered to be robust as this method offers total dissolution of the sample and is useful for mineral matrices that may resist simple acid digestion.

Tawana maintained a quality assurance (QA) program through the insertion of coarse field duplicate samples and standards (both in-house and certified reference materials (CRMs)) into their analytical sample stream, and also through the pulp duplicate and repeat analyses. All data collected by Tawana, including logging, survey and other metadata is managed in a commercial database by third-party company, Rock Solid Data Consultancy (Rock Solid), to ensure data security and relational integrity; reducing the risk of transcription and data entry errors.

Rock Solid produce routine analytical reports of quality control (QC) data collected during laboratory analyses of Bald Hill samples, and these reports form the basis of CSA Global's commentary pertaining to QC. Generally, analytical precision over the period under consideration is acceptable; however, periods of clear (though minor) cyclical analytical bias are evident in the results from all three standards inserted by Tawana, and in the Nagrom in-house CRM results. Cyclical bias appears to be more prevalent within Ta rather than Li analytical values. Currently, Tawana do not use blanks within their QA program. Tawana make use of three standards to monitor analytical bias. Only one of these standards is certified, and has been sourced from analytical standards manufacturer, GeoStats Pty Ltd. The remaining two standards were prepared internally for Tawana by Nagrom, and do not carry certification or associated confidence interval limits.

While there are aspects of Tawana's QA procedures that offer scope for improvement, it is the opinion of the Competent Person that the dataset presented by Tawana is suitable for use in Mineral Resource estimation.

# 7 Data Verification

The historical pre-Tawana drillhole data used for the Creekside resource estimate was compiled and verified by AMC, consultants to AMAL, in 2014.

## 7.1 Pre-Tawana Drilling

### *7.1.1 Internal Laboratory Standards*

The standards used and their certified grades are shown below in Table 7.

*Table 7: Certified results for laboratory standards*

| Laboratory standard | Li (ppm) | Sn (ppm) | Ta (ppm) |
|---|---|---|---|
| Gannet ST-BM-21/310 | 11 | - | - |
| NCS dc 86304 Lithium Ore | 10,500 | 100 | - |
| SARM 3 NIM – L Lujavrite | 45 | - | 23.5 |
| SY – 4 | 40 | - | 1 |

The laboratory standards results were charted for each standard and the charts below (Figure 11) show the assay results with tolerance lines of ±10%.

It can be seen from Figure 11 that the $Ta_2O_5$assays for most of the standards are generally within ±5% of the expected value but do go to the ±10% limits. It is noted by CSA Global that the standards used are all lower than the average $Ta_2O_5$ grade of the resources but the assay results indicate that the sampling and laboratory assays are sound and properly calibrated therefore meeting the requirements for reliable resource modelling.

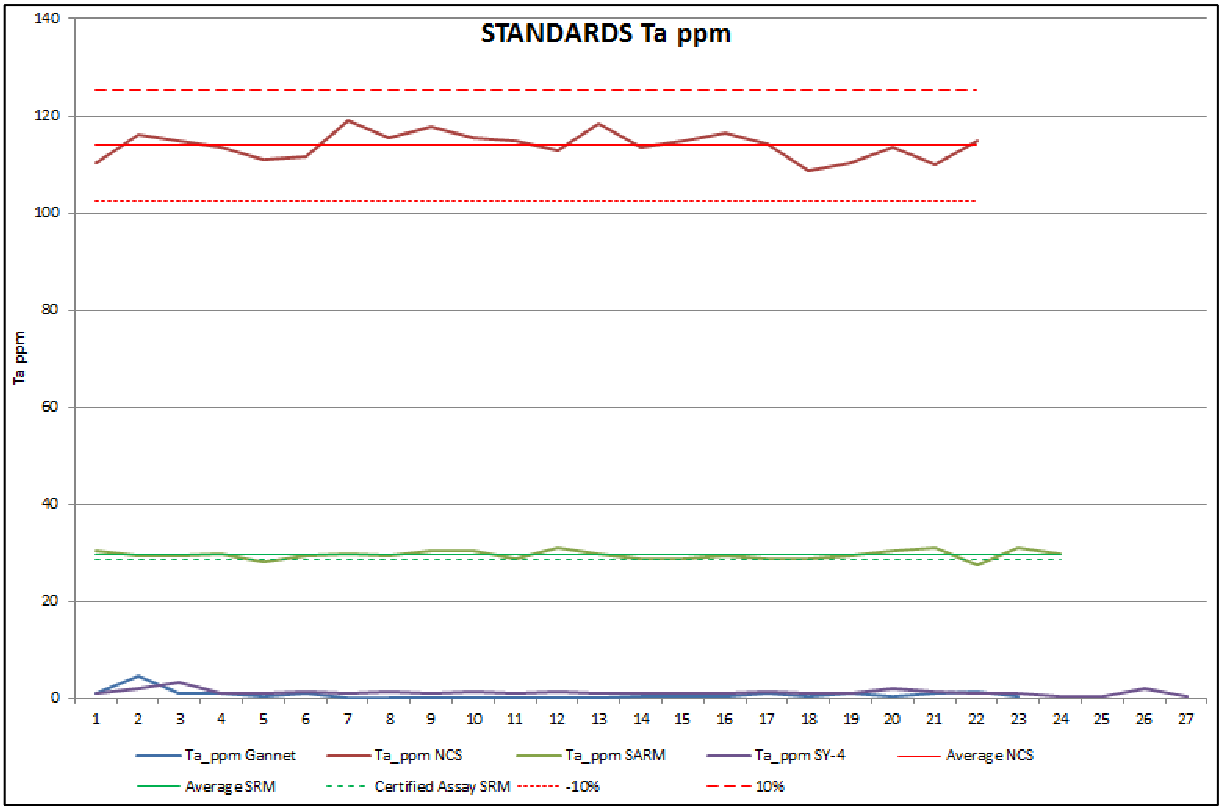



*Figure 11: Laboratory standards results for 2014 RC drilling only*

### *7.1.2 Drill Sample Duplicates*

The drill sample duplicate assays which were taken approximately every tenth drill sample, were compared by plotting a correlation graph between the original and duplicate assays, Figure 12. The two sets of assays correlated well with no unusual outliers indicating that the quality of the sampling and assays is robust.

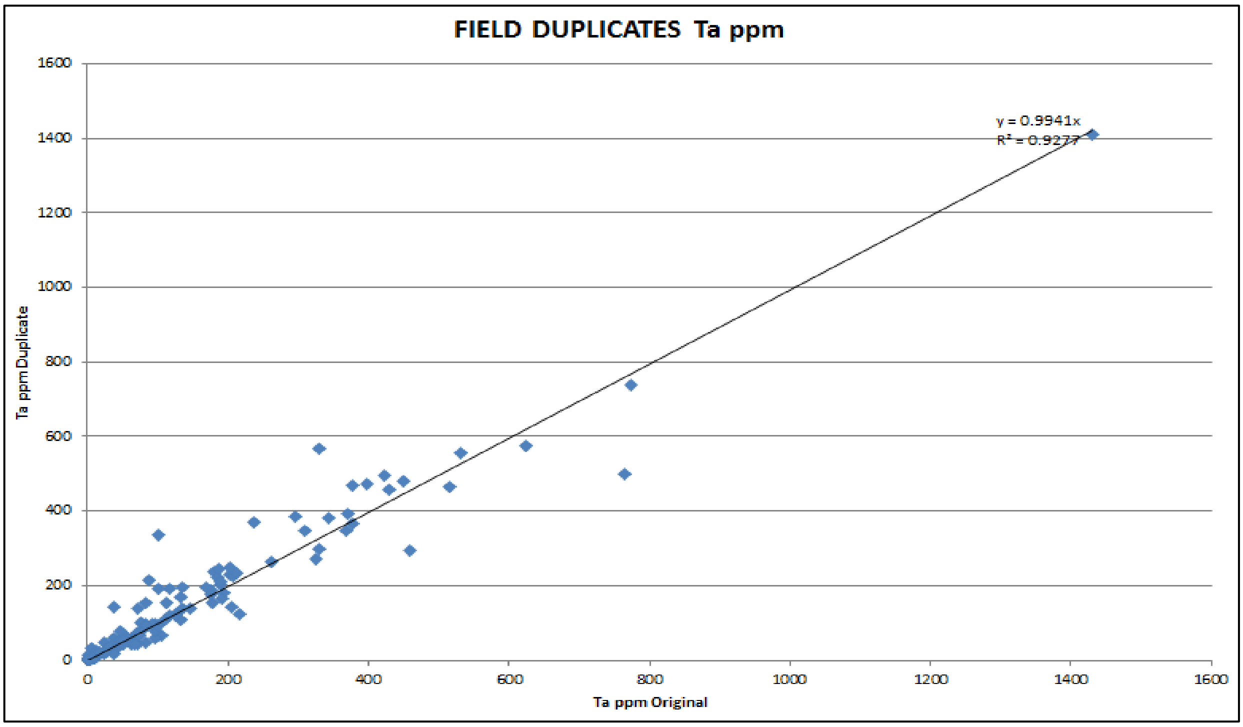



*Figure 12: Correlation graph of original Vs field duplicate sample $Ta_2O_5$ analyses for 2014 drilling only*

The repeat analysis results, with an $R^2$correlation coefficient of 0.9277, are considered to be acceptable for resource estimation for the style of mineralisation being modelled.

### *7.1.3 Internal Laboratory Repeats*

The laboratory processed 87 internal repeat assays for the 1,299 drilling sample assays reported at approximately one for each 15 drilling samples. The assay results were compared by plotting a correlation graph between the original and duplicate assays, Figure 13. The excellent correlation of 0.9937 indicates there are no obvious problems with the laboratory's assay repeatability.

All drilling data has been loaded to a Microsoft Access database and rigorously validated prior to use including graphical verification to confirm that that the $Ta_2O_5$ assays correlated with the assigned downhole lithologies with the pegmatites having the elevated grades.

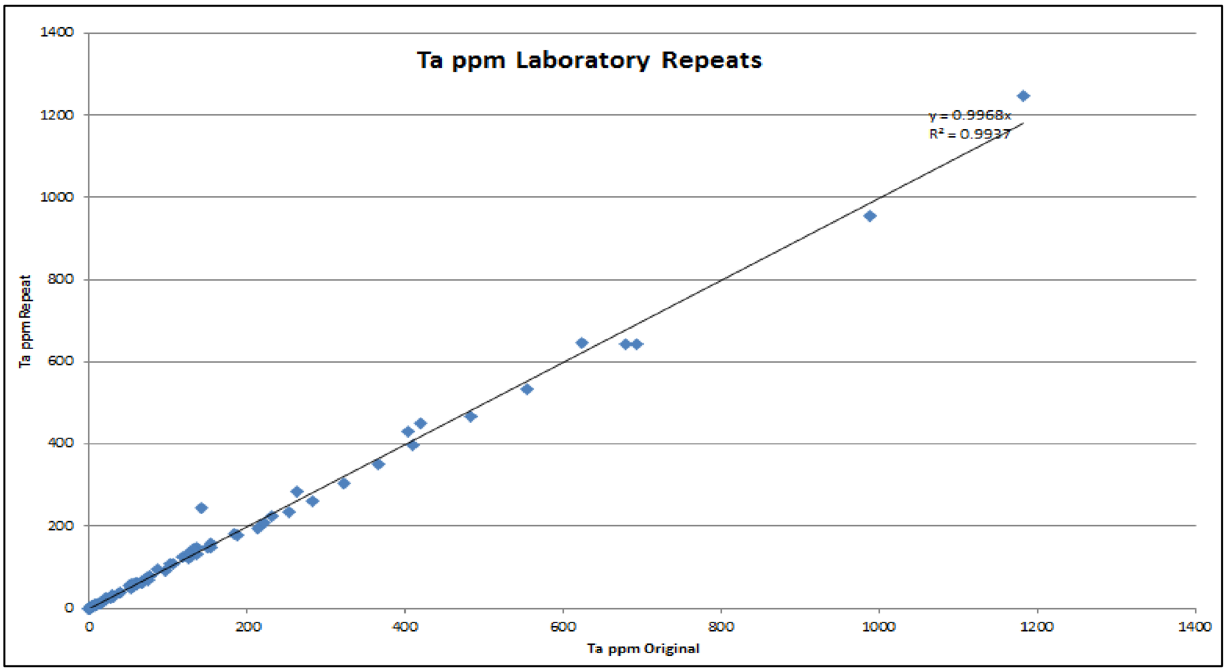



*Figure 13: Laboratory repeat assay results*

## 7.2 Tawana Drilling

The drill samples and QC samples were submitted to Nagrom in Perth for analysis by peroxide fusion digest (zirconium crucibles) with an ICP-MS finish for lithium and tantalum (lab code ICP005).

The samples were jaw crushed and riffle split to 2–2.5 kg for pulverising to 80% passing 75 microns. The prepared samples were then fused with sodium peroxide and digested in dilute hydrochloric acid. The lower detection limits are 10 ppm for lithium and 1 ppm for tantalum. An additional 10 elements were reported by ICP005 with either an ICP-MS or ICP-OES finish. Nagrom reported a total of 98 batches for the Bald Hill RC sampling between October 2016 and March 2017.

## 7.3 Quality Assurance and Quality Control

Rock Solid was commissioned by Tawana to report on the QAQC results for the Tawana drilling between October 2016 and December 2017. Once Rock Solid confirmed the QAQC results were satisfactory, CSA Global was then commissioned by Tawana to compile the maiden lithium Mineral Resource estimate for the Bald Hill Project and update the tantalite resource. The following QAQC description is a precis of the Rock Solid report for the additional Tawana drilling used to update the resource estimate included in this report. Details on the QAQC for the drilling to July 2017 were discussed in the previous resource update report of 19 October 2017.

The number of duplicates and standards reported during the drill sampling campaign are summarised in Table 8 below. Approximately 5% of samples are Tawana duplicates and 5% of samples are Tawana standards. Approximately 16% of the samples are laboratory standards and laboratory duplicates.

*Table 8: Bald Hill batch summary statistics*

| Lab code | Count batches | Drill samples | Drill duplicates | Company standards | Laboratory QC |
|---|---|---|---|---|---|
| NAGROM | 44 | 3,303 | 184 | 168 | 716 |

## 7.4 Standards

### *7.4.1 Tawana Standards*

During the Bald Hill sampling campaign Tawana used two standards; high grade (approximately 2.2% Li) and medium grade (approximately 1.3% Li). These two standards are Bald Hill material prepared for Tawana by Nagrom and do not have control limits. To determine the expected grade of the company standards, 15 samples of each Bald Hill standard were analysed by Genalysis, Ultratrace and ALS Perth. A total of 168 company standards were analysed by Nagrom.

### *7.4.2 Lithium Standards*

The lithium performance results for the company standards are summarised in the charts below (Table 9 and Figure 14).

*Table 9: Company standards summary – lithium*

| Li standard(s) | | | | | No. of samples | Calculated values | | | |
|---|---|---|---|---|---|---|---|---|---|
| Standard grade | Method | Exp. method | Exp. value | Exp. SD | | Mean Li | SD | CV | Mean bias |
| Li_Low | FS_ICPMS | - | - | - | 83 | 12,720 | 233 | 0.0175 | - |
| LI_High | FS_ICPMS | - | - | - | 85 | 21,677 | 481 | 0.0222 | - |

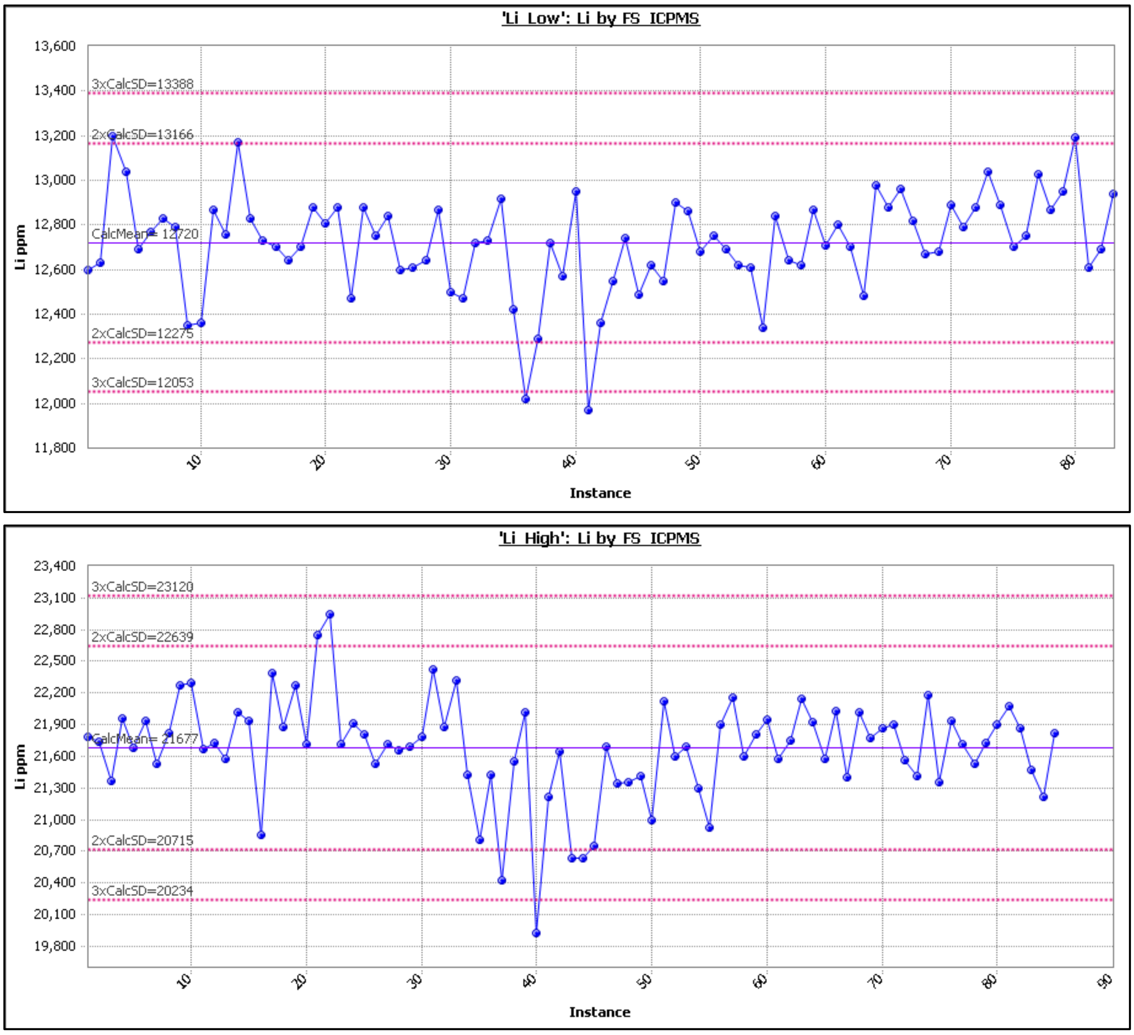



*Figure 14: Bald Hill company Li standards performance (NAGROM 1)*

### 7.4.3 Tantalum Standards

The tantalum performance results for the company standards are summarised in the table and charts below (Table 10 and Figure 15).

*Table 10: Company standards summary – tantalum*

| Ta standard(s) | | | | | No. of samples | Calculated values | | | |
|---|---|---|---|---|---|---|---|---|---|
| Standard grade | Method | Exp. method | Exp. value | Exp. SD | | Mean Li | SD | CV | Mean bias |
| Li_Low | FS_ICPMS | - | - | - | 83 | 3,705 | 83 | 0.0225 | - |
| LI_High | FS_ICPMS | - | - | - | 85 | 1,758 | 53 | 0.0301 | - |

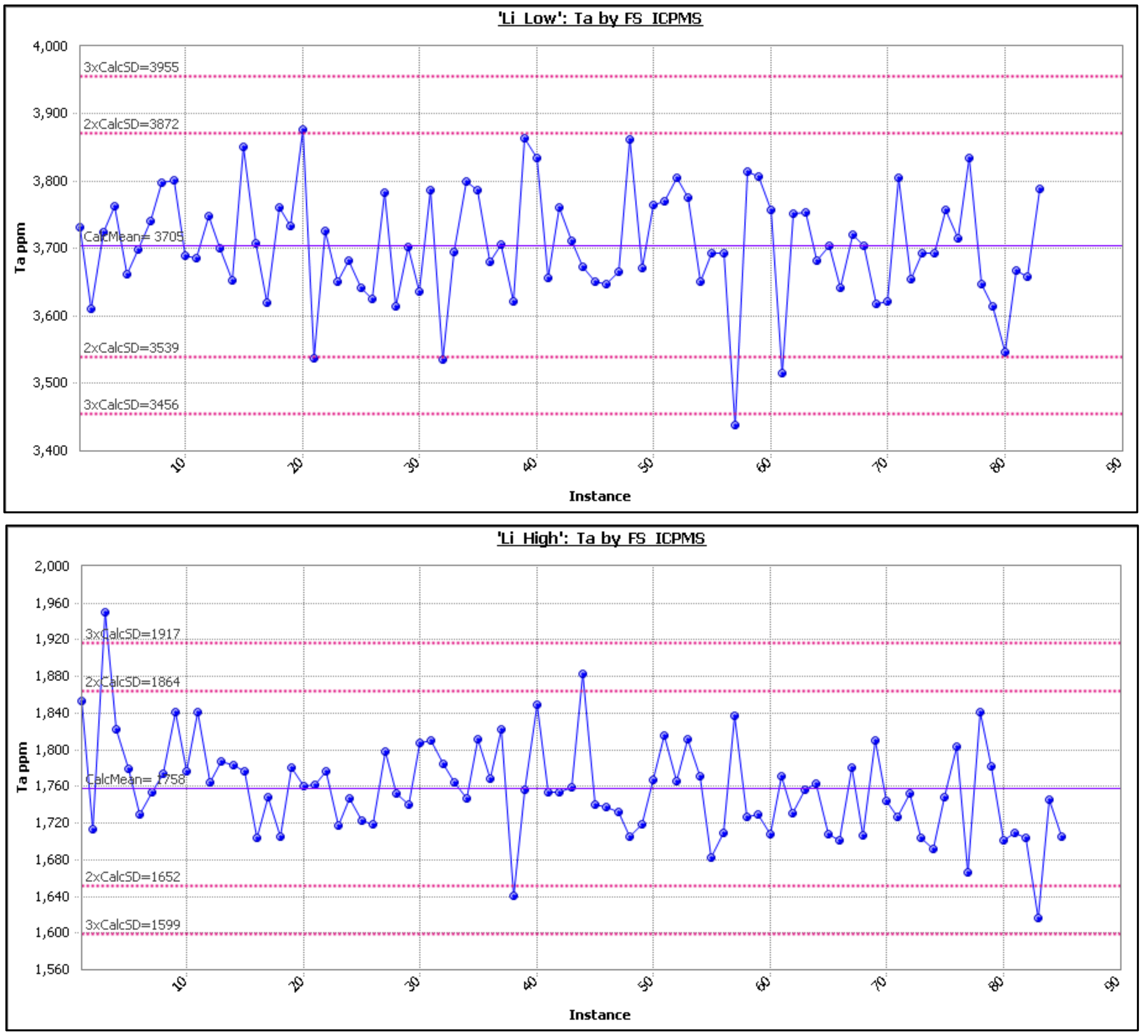



*Figure 15: Bald Hill company Ta standards performance (NAGROM 1)*

### 7.4.4 Laboratory Standards

Nagrom reported three African Mineral Standards (AMIS) during the report period. Rock Solid reported that there were no significant issues with the Nagrom laboratory lithium standards detected but one of the tantalum standard assays exceeded the 3x standard deviation limit.

*Table 11: Nagrom laboratory standards summary – lithium and tantalum*

| Standard code | Method | Exp. method | Exp. value | Exp. SD | No. of samples | Calculated values | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Mean Li | SD | CV | Mean bias |
| **Li standard(s)** | | | | | | | | | |
| AMIS0338 | FS_ICPMS | FS_ICP | 1,742 | 214.5 | 190 | 1759 | 31 | 0.0177 | 0.98% |
| AMIS0339 | FS_ICPMS | FS_ICP | 21,900 | 2,000 | 34 | 22,226 | 277 | 0.0125 | 1.49% |
| AMIS0340 | FS_ICPMS | FS_ICP | 14,300 | 758 | 156 | 14,033 | 185 | 0.0132 | -1.87% |
| **Ta standard(s)** | | | | | | | | | |
| AMIS0338 | FS_ICPMS | FS_ICP | 44 | 4.9 | 190 | 46 | 4 | 0.0840 | 4.45% |
| AMIS0339 | FS_ICPMS | FS_ICP | 333 | 12 | 34 | 339 | 8 | 0.0229 | 1.73% |
| AMIS0340 | FS_ICPMS | FS_ICP | 13,738 | 1,017.5 | 156 | 14,004 | 276 | 0.0197 | 1.93% |

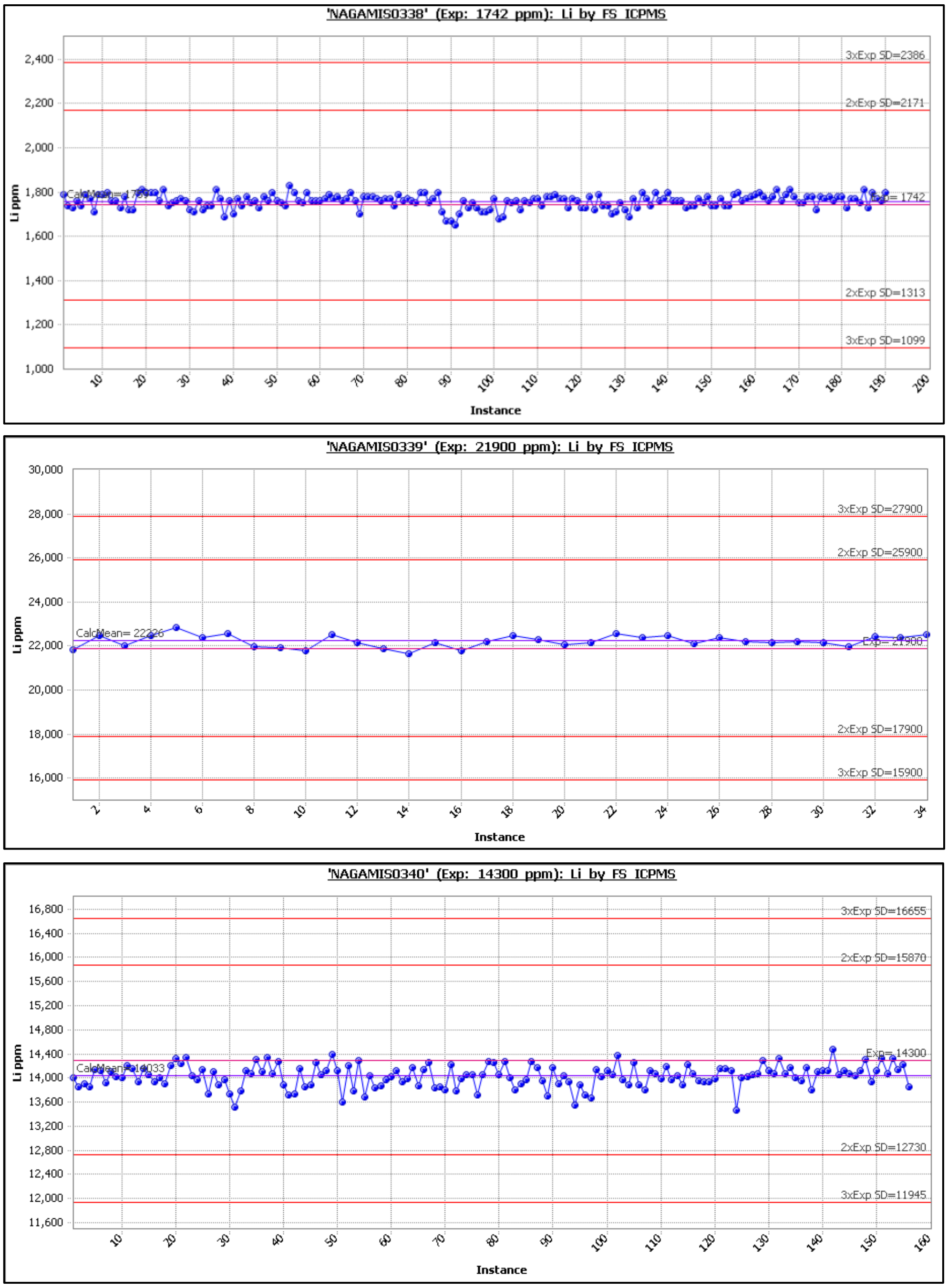



*Figure 16: Nagrom laboratory standard performance – lithium*

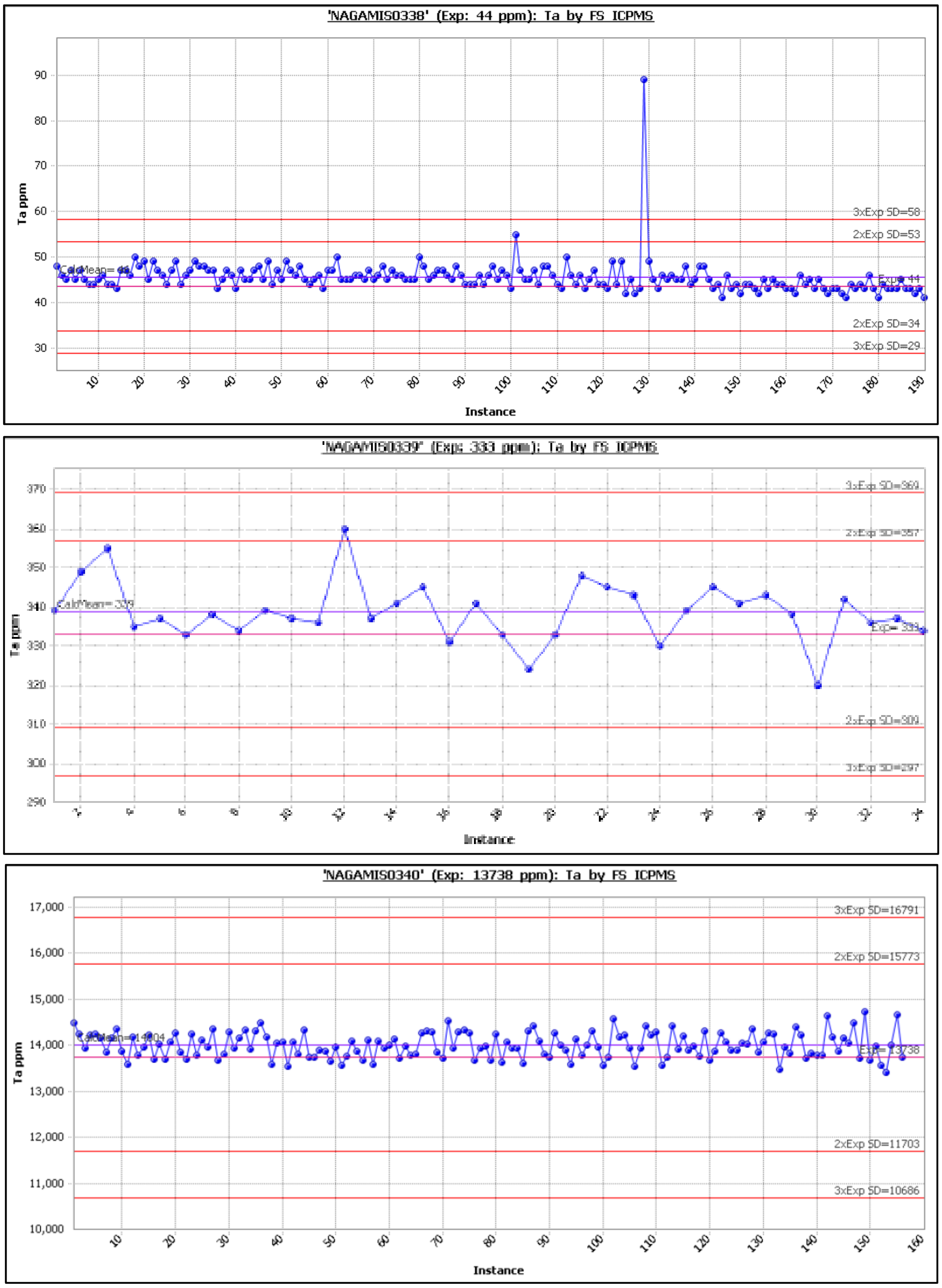
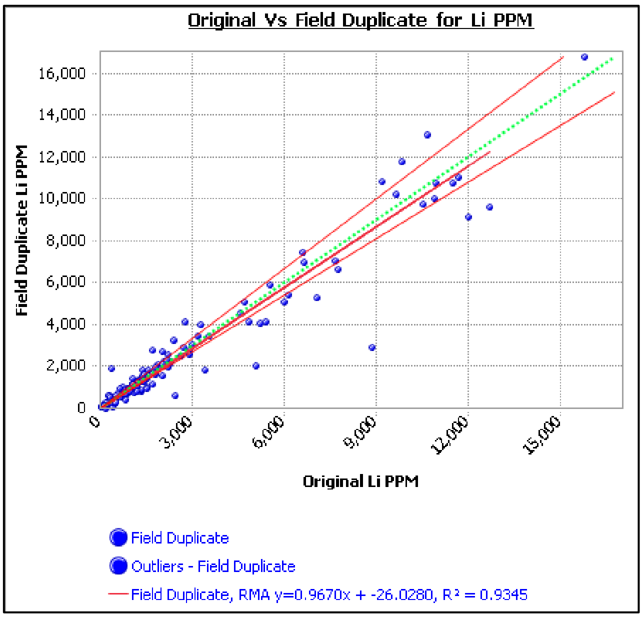



*Figure 17: Nagrom laboratory standard performance – tantalum*

## 7.5 Tawana Duplicates

During the Bald Hill drilling campaign, Tawana collected 185 RC field duplicates by scoop or cone split. The duplicates were analysed for lithium and tantalum by Nagrom in the same batch as the parent sample (Figure 18). The duplicates overall show good repeatability for lithium and tantalum; however, there are a number of outliers indicating possible sampling errors, data collection errors or heterogeneous sample material. The repeatability of the tantalum assays was not as good as for the lithium assays, in most cases probably due to the lower grade and nuggetty nature of the mineralisation although at least one duplicate tantalum pair (sample number T125790) was of concern. This sample also produced a poor correlation in lithium indicating a likely sampling problem for this sample.



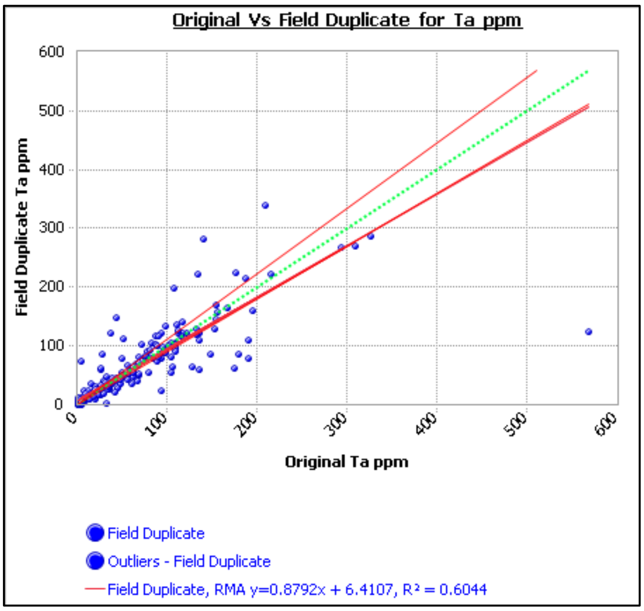




*Figure 18: Field duplicates – lithium and tantalum*

## 7.6 Laboratory Duplicates

Nagrom reported 337 laboratory duplicates in their batches during the report period. Rock Solid reported that overall the performance of the laboratory duplicates was good, with no observable bias across the represented grade range.

## 7.7 CSA Global Comments

CSA Global considers that almost all the QAQC results fall within expected limits of variability and so confirm that the field sampling and laboratory sampling and analyses are over-all robust and suitable for resource modelling. A few anomalous results warrant follow-up to determine if there are any problems with the sampling, but these few anomalous results can generally be explained by the “nuggetty” nature, especially for the tantalite, of the mineralisation.

## 7.8 Bulk Density

Haddington determined and reported the bulk densities for pegmatite spanning the weathering profile from the weathered/oxide surface to fresh at depth (Table 12). Based on these results, bulk densities of 1.92 t/m$^3$ for oxide pegmatite, 2.36 t/m$^3$ for transitional pegmatite and 2.63 t/m$^3$ for fresh pegmatite were used by AMC for resource modelling.

In situ bulk densities for the Bald Hill Mineral Resource were assigned by CSA Global on a lithological basis for both mineralisation and waste, based on measurements taken of 69 cores samples by Nagrom and values used in similar deposits and lithologies. Fixed density values assigned into the block model included waste backfill 1.8 t/m$^3$, transitional pegmatite 2.5 t/m$^3$, fresh metasediment waste 2.74 t/m$^3$, fresh diorite dykes 2.8 t/m$^3$ and fresh pegmatite 2.65 t/m$^3$.

*Table 12: Haddington bulk density results*

| Lithology | Weathering state | Sample location | Bulk density (t/m$^3$) |
|---|---|---|---|
| Pegmatite | Fresh | South Pit | 2.65 |
| | | | 2.63 |
| | | | 2.62 |
| | | | 2.61 |
| | | | 2.64 |
| | **Mean Fresh Pegmatite Bulk Density** | | **2.63** |
| | Transitional | Cotter Costean | 2.41 |
| | | | 2.29 |
| | | | 2.39 |
| | **Mean Transitional Pegmatite Bulk Density** | | **2.36** |
| | Oxidised | Boreline Pit | 1.96 |
| | | | 1.90 |
| | | | 1.90 |
| | **Mean Oxide Pegmatite Bulk Density** | | **1.92** |

# 8 Mineral Processing

The tantalite processing plant used by Haddington was purchased by AMAL and used after small modifications to treat a small parcel of oxidised ore from the Boreline deposit. This plant has during the past year undergone an extensive upgrade and modifications, especially to process spodumene ore, as part of the Tawana JV agreement.

No new metallurgical testwork has been carried out since the previous IQPR of December 2017. The reader is therefore referred to this previous report and Appendix 2 of this report for details on this metallurgical testwork, if required.

*Figure 19: The Bald Hill media separation plant*

*Photo: Tawana*

## 8.1 Metallurgical Recovery Methods

The existing tantalite processing plant previously operated by Haddington has been refurbished and upgraded with an additional dense media separation (DMS) plant added to recover the spodumene.

The Bald Hill Project commenced spodumene concentrate production on 14 March 2018. The mine is currently in ramp-up with the Stage 1 DMS plant performing at name plate throughput with utilisation rates exceeding expectations. The Stage 1 DMS includes a spirals circuit which is producing tantalite pre-concentrates.

The successful Stage 1 DMS plant was constructed on time and on budget by Primero Group (Primero). The JV partners and Primero are undertaking a review of the Stage 1 DMS circuit performance and proposed -1 mm fines circuit design, with the aim of identifying minor design improvements for a possible Stage 2 DMS circuit which will advance the Stage 1 DMS design. The proposed fines circuit and existing slimes thickening facility would be common to both modules.


*Figure 20: Stage 1 DMS plant*

*Photo: Tawana*

More immediate process improvements currently under consideration are to increase mass yield and plant throughput by crushing to a coarser size. Plant performance to date on the -10 mm +1 mm size range has been exceptional and plans are in place to increase the crush size and possibly reduce the bottom size.

Contract crushing services are provided by Cape Crushing and Earthmoving Contractors Pty Ltd on a fixed and variable fee structure, the current contract provides for between 1.55 million tonnes per annum (Mt/a) and 2.5 Mt/a crushing rates and the modular circuit can be expanded with relative ease.

The Bald Hill Project produces high lithium, low iron and low mica, concentrates. The first shipment of spodumene concentrated in early May 2018 averaged 6.3% $Li_2O$ and 0.5% $Fe_2O_3$ and contained less than 0.4% mica. To date, the quality of concentrate and overall recovery is not sensitive to feed grade and this has allowed a reduction in reserve cut off to 0.3% $Li_2O$.

Tantalite will be recovered from three streams:

- Primary tantalite ore which will be processed through the existing 320,000 t/a Tantalite Processing Facility (TPF or T1) once it has been refurbished. The TPF comprises a screening and crushing circuit feeding a three-stage spiral circuit. The TPF is expected to come on line in early 2019.
- Tantalite in -1 mm fines from the spodumene plant is currently being recovered in a separate spiral plant (T2) which was commissioned just after the main spodumene plant. Concentrates containing 2–6% $Ta_2O_5$ are being stored for later processing over tables which were installed in July 2018. This table concentrate will be further upgraded by toll treatment at Nagrom in the interim.
- Gravity pre-concentrates produced from the TPF will be combined with tantalite pre-concentrates from T2 and sent to a concentrate upgrade shed for further upgrading by tabling and magnetic separation.

The final spodumene concentrate can also contain significant quantities of tantalite, depending on the type of ore being processed. The first shipment contained around 0.8 kg/t (0.08%) tantalite. Plans are currently being finalised to install a relatively low cost stand-alone jigging circuit (T3) to recover the majority of this tantalite before concentrates are shipped.

## 8.2 Metallurgical Performance

The updated operational plan assumes average spodumene recoveries of 65.8% in Stage 1 and 80% in Stage 2 and an overall tantalite recovery of 65%.

The DMS circuit was commissioned on low grade semi-oxidised ore which had a head grade of 0.3% to 0.9% $Li_2O$. The -1 mm fines content was higher than design but this was anticipated. Despite this and the low grade, concentrate yields of 4–8% have been achieved at grades in excess of 6% $Li_2O$.

Pit development has advanced to a stage where this semi-oxidised ore is almost depleted and the yield of concentrate is expected to improve significantly once fresh ore with a grade of >1% $Li_2O$, is processed from late May 2018 onwards.

Overall, operational metallurgical performance of the DMS circuit during ramp-up has been consistent with the original test work with high grade concentrates being produced and high recoveries to primary concentrates and middlings being achieved. The plant has already achieved feed rates of up to 210 t/hour compared to the design feed rate of 161 t/hour and opportunities for increasing the throughput by increasing the crush size to 14 mm and lowering the bottom cut-off size to 0.8 mm are currently being planned.

Tantalite recovery into pre-concentrate from the T2 spirals has exceeded expectation and is estimated to have averaged about 0.36 kg/t of fines feed for the month of April 2018.

## 8.3 Concentrates Sales and Transport

The smaller volumes of tantalite concentrate will be packed into 205-litre drums and/or bulka-bags, sealed and exported via WA's main port at Fremantle near Perth in standard shipping containers.

The spodumene concentrate is being hauled via Binneringie Road to the Port of Esperance. Daily, three to five trucks depart from the Esperance depot and storage facility to complete one cycle between the mine and an off-port bulk storage site per 12-hour shift or two cycles per day. During ship loading, Rotabox/Rotainer containers will be ferried back and forth to the ship loading crane from the bulk storage site or from a container stack at the port.

The Port of Esperance is under the management of Southern Ports Authority and is the ocean-borne export and import hub for the south-eastern corner of WA. Besides mineral exports, such as lithium, nickel and iron ore products and concentrates, the port handles woodchips, agricultural, hydrocarbon and industrial produce and materials.

The first shipment of approximately 3,250 metric tonnes of spodumene concentrate was loaded at the Port of Esperance at the beginning of May 2018 destined for the Port of Zhenjiang in China. A second shipment of spodumene concentrate was shipped later in May with further shipments expected regularly thereafter. The third shipment had also completed. The spodumene concentrate from Bald Hill is sold under offtake agreements with Hong Kong based Burwill Lithium Company Limited (formerly known as Burwill Commodity Limited).

# 9 Prefeasibility Study and Operational Plans

During July 2017, Tawana and the consulting firms it engaged (Table 13), contributed to a PFS in the areas of geology, resource, geotechnical, mining, metallurgy, engineering, tailings, and cost estimating, project implementation, operations, and health, safety, environmental and social aspects. The PFS, previously described in detail in the 19 October 2017 resource update announcement, was based on the previously reported CSA Global resource model of June 2017. The PFS recommended that the Bald Hill mine is developed.

*Table 13: Main proponents – PFS*

| Area of focus | Responsibility |
|---|---|
| Spodumene process plant design, capital and operating cost | Primero |
| Spodumene metallurgical work | Nagrom and Trinol Pty Ltd |
| Mining study | Marcus Jacobs and Mark Gell |
| Logistics | GDC Services Pty Ltd |
| Geotechnical | Dempers & Seymour Pty Ltd |
| Tailings storage facility | Klohn Crippen Berger Ltd |
| Environmental studies | Ecotech (WA) Pty Ltd |
| Resource estimation | CSA Global |
| Social, health and safety | Tawana (as owner and operator) |

Upon the completion of the latest resource upgrade drilling program and revision of the Mineral Resource estimates, detailed geotechnical analyses were completed, and pit designs based on these geotechnical parameters were used to update the Bald Hill May 2018 Ore Reserve estimate. This new Ore Reserve underpins the next nine years of production at the current processing rate of 1.2 Mt/a.

However, given the large quantity of Inferred Resources awaiting infill drilling, strong market demand and superior economics of increased throughput rates, the JV partners are actively reviewing options for significant expansion in processing capacity and concentrate production.

The Ore Reserve estimation reported in compliance with the JORC Code (2012) for the Bald Hill Project, as published by Tawana on 6 June 2018, is supported by the original PFS and the current operational plans, that have taken into account updated geological, metallurgical, geotechnical, process engineering and mining engineering considerations. It has an overall nominal accuracy of ±25%.

The Bald Hill Project has a clearly positive net present value (NPV) and internal rate of return (IRR). Sensitivity analyses indicates that the Project NPV is robust in terms of cost and revenue variations. The Project is most sensitive to price variations for spodumene concentrates.

All estimates are based on local costs in Australian dollars. Standard industry practices have been used in the estimation process. The Bald Hill Project is currently in the commissioning and early operations phase and therefore recent and relevant costs have been utilised where available.

Capital expenditure estimates are considered to be within -5/+10% accuracy and a substantial amount of the original project capital expenditure has been completed. Operating expenditure estimates are considered to be within ±25% accuracy.

There has been limited lithium production to date so no comprehensive comparison or reconciliation of data has been made. Current initial performance of the process aligns with expectations. There is significant historic tantalum recovery records and these have been used as a basis for estimating future recovery.

## 9.1 Geotechnical Analysis

An updated geotechnical analysis was completed by the experienced geotechnical consultant, Gary Dempers from Dempers and Seymour Pty Ltd Geotechnical and Mining Consultants (Dempers and Seymour), in April 2018. The geotechnical analysis identified the following geotechnical domains in Figure 21 and the subsequent pit parameters in Table 14.

The optimisation and pit design that this Ore Reserve estimate is based on is from an earlier geotechnical assessment. An analysis has been completed by the Competent Person, using the revised geotechnical domains and wall parameters in Whittle™ software to compare the difference in waste movement. Minor pit design edits are required but it was concluded that the difference between the old geotechnical parameters and the new geotechnical parameters are not material to the Project.

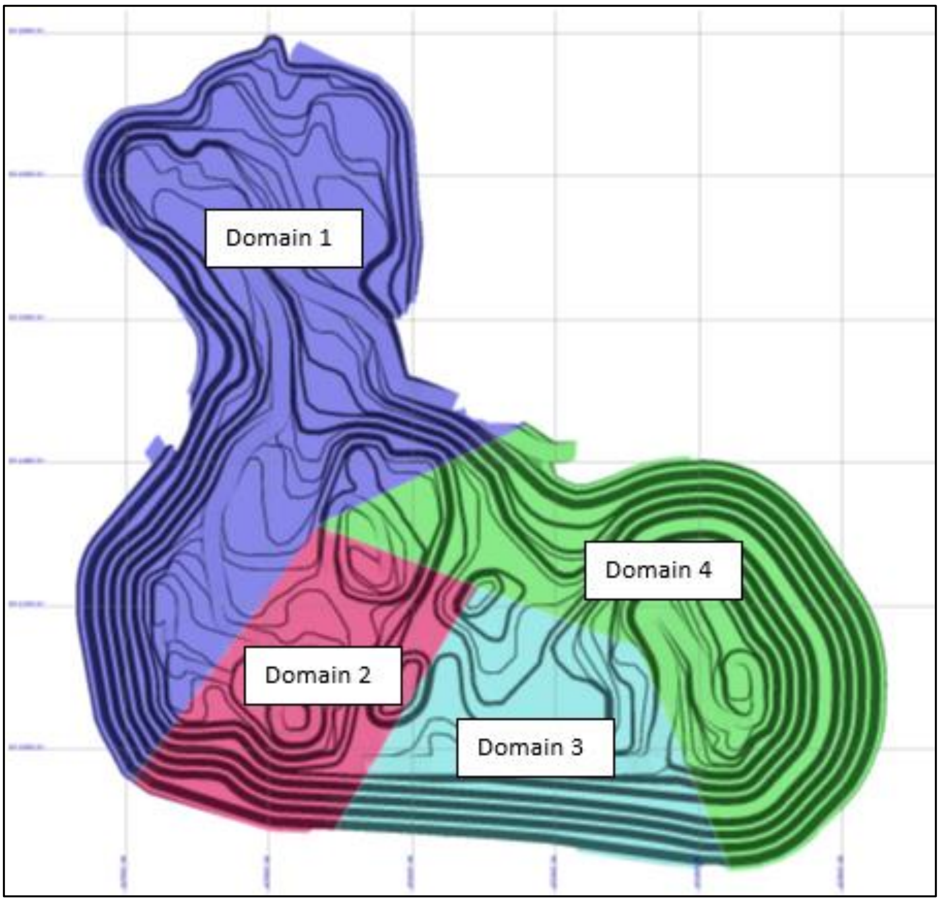



*Figure 21: Geotechnical domains as per Dempers and Seymor (May 2018) Bald Hill Slope Design Report*

*Table 14: Pit wall parameters as per Dempers and Seymor (May 2018) Bald Hill Slope Design Report*

| Domain | From | To | Bench height (m) | Berm width (m) | Batter angle (°) | Inter-ramp slope angle (toe to toe) |
|---|---|---|---|---|---|---|
| D1 | Surface | 270 | 10 | 6 | 50 | 35 |
| | 270 | 250 | 20 | 6 | 55 | 45 |
| | 250 | 230 | 20 | 6 | 60 | 49 |
| | 230 | 150 | 20 | 6 | 65 | 53 |
| D2 | Surface | 270 | 10 | 6 | 50 | 35 |
| | 270 | 250 | 20 | 6 | 55 | 45 |
| | 250 | 230 | 20 | 6 | 60 | 49 |
| | 230 | 130 | 20 | 6 | 65 | 53 |
| D3 | Surface | 260 | 10 | 6 | 50 | 35 |
| | 260 | 240 | 20 | 6 | 55 | 45 |
| | 240 | 160 | 20 | 6 | 60 | 49 |
| D4 | Surface | 270 | 10 | 6 | 50 | 35 |
| | 270 | 250 | 20 | 6 | 55 | 45 |
| | 250 | 230 | 20 | 8 | 60 | 49 |
| | 230 | 90 | 20 | 8 | 65 | 50 |

Mining and processing has commenced with the first spodumene concentrate produced on 14 March 2018. During April 2018, 810,000 bank cubic metres (BCM) of ore and overburden was mined.

## 9.2 Financial Evaluation

The Ore Reserve has been estimated with reference to a detailed master budget for the Bald Hill operation. The budget is based on a bottom-up estimation approach, addressing all aspects of the operation from July 2018 to the depletion of the Ore Reserve.

The operating cost budget comprises categories shown in Table 15.

*Table 15: Operating cost budget categories*

| Operating cost category |
|---|
| Site admin/HSE/camp/warehouse |
| Mining |
| Crushing |
| Lithium plant processing |
| Lithium plant maintenance |
| Tantalum processing |
| Lab/Geology/Road maintenance/development |
| Product transportation |
| Corporate |
| Rise and fall (cost escalation) |
| Rehabilitation |

A cash flow model (100% basis) has been used, based on the single DMS 1.2mtpa option, to reflect cash flow from the operations, as of July 2018 to the end of the currently defined life (see Figure 22). The model indicates a positive net cash flow from the Project. The Project capital costs are mostly complete and the final capital cost elements are budgeted for expenditure in 2018/2019 and 2019/2020, total remaining capital expenditure is $37.4M.

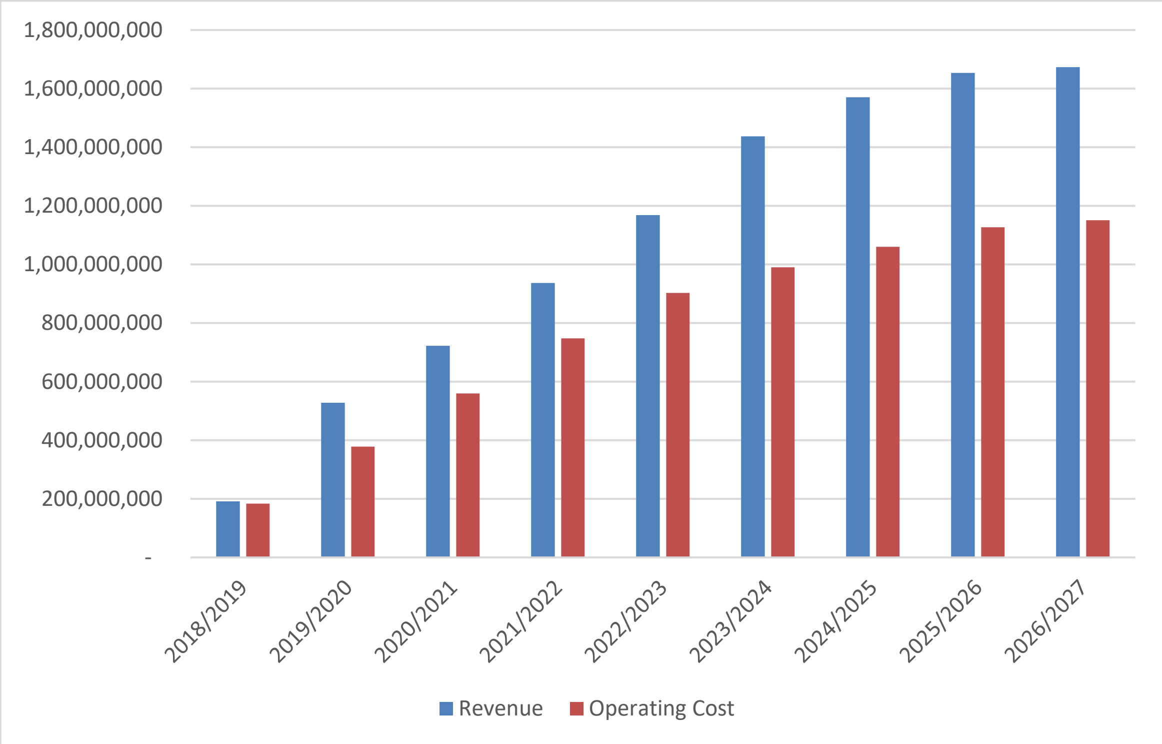



*Figure 22: Bald Hill cash flow (AUD) from operations for life of Reserve (July 2018 real)*

The key highlights for the financial model (on a 100% of Project basis) are presented in Table 16. Capital expenditure for the Project is complete after 2018/2019.

*Table 16: Base Case (1.2mtpa) model parameters*

| Summary of key parameters from revised financial model | | |
|---|---|---|
| Revised Life of reserve (LOR) | years | 9 |
| LOR ore mined (spodumene) | Mt | 11.3 |
| LOR ore mined (tantalite) | Mt | 2.0 |
| LOR waste mined | Mt | 131.7 |
| LOR strip ratio | (waste: ore) | 9.9:1 |
| Plant feed rate (spodumene stage 1) | t/a | 1,200,000 |
| Plant feed rate (tantalite) | t/a | 320,000 |
| Average spodumene ore feed grade | % $Li_2O$ | 1.01 |
| Average spodumene recovery (Stage 1) | % | 65.8 |
| Average spodumene recovery (Stage 2) | % | 80.0 |
| Average spodumene concentrate production (yrs 1-8) | t/a | 185,000 (@6% $Li_2O$) |
| Average tantalite recovery | % | 65 |
| Average tantalite production (yrs 1-8) | lbs $Ta_2O_5$ pa | 270,000 |
| Average tantalite sale grade | $Ta_2O_5$ | 25% |
| Product (SC6%) sale price (after royalty) | US$/t | 788 |
| Tantalite forecast price | US$/lb FOB | 70 |
| Forecast FX rate | A$/US$ | 0.75 |
| Average operating costs, Spodumene Concentrate (after tantalite credits) | US$/t product | 568 |
| Average annual EBITDA (years 1-8) | A$M | 66 |
| Average annual EBITDA (years 2-7) | A$M | 84 |

# 10 Mineral Resources

This report, including the resource and reserve estimates, complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code (2012)). Key definitions of this code are as follows:

- A "**Mineral Resource**" is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are subdivided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.
- An "**Inferred Mineral Resource**" is that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to an Ore Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.
- An "**Indicated Mineral Resource**" is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes, and is sufficient to assume geological and grade (or quality) continuity between points of observation where data and samples are gathered. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Ore Reserve.
- A "**Measured Mineral Resource**" is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes, and is sufficient to confirm geological and grade (or quality) continuity between points of observation where data and samples are gathered. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proved Ore Reserve or under certain circumstances to a Probable Ore Reserve.
- An "**Ore Reserve**" is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at prefeasibility or feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. The reference point at which Reserves are defined is usually the point where the ore is delivered to the processing plant.
- "**Modifying Factors**" are considerations used to convert Mineral Resources to Ore Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors.

- A "**Probable Ore Reserve**" is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Ore Reserve is lower than that applying to a Proved Ore Reserve.
- A "**Proved Ore Reserve**" is the economically mineable part of a Measured Mineral Resource. A Proved Ore Reserve implies a high degree of confidence in the Modifying Factors.

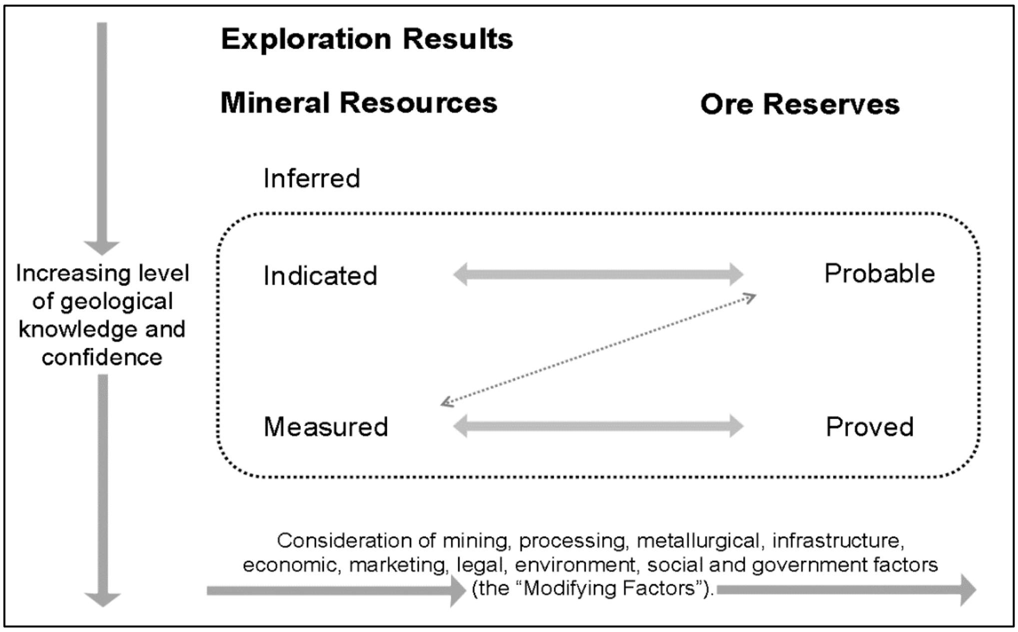



*Figure 23: General relationship between Exploration Results, Mineral Resources and Ore Reserves*

## 10.1 Pre-Tawana Resource Modelling

All the pre-Tawana resource modelling and estimation considered for this report was commissioned by AMAL and carried out by Mr Alex Virisheff of AMC Consultants in June 2014. Mr Virisheff is a Fellow of the Australasian Institute of Mining and Metallurgy and an independent contractor/consultant and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity 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" (the JORC Code).

The available data at the time, as previously described, was compiled into a series of Microsoft Excel spreadsheets for validation purposes. Assay data was checked against original assay sheets where available and, in particular, where the results were considered potentially erroneous by checking graphically of assays against logged lithologies. Errors generated due to from-to and assaying or lithology overlap errors were rectified when the data from the Microsoft Excel spreadsheets was imported into the software used in the estimation.

Exploration and mining history in the Bald Hill area has shown that tantalite mineralisation is confined to pegmatite intrusions. Geological logs and $Ta_2O_5$ grades were used to create a series of pegmatite wireframes that constrain the tantalite mineralisation for the purpose of Mineral Resource estimation. Some of the pegmatites are relatively thin so only pegmatites greater than 1.0 m in thickness were considered. The geometry of the pegmatites can change rapidly over short distances and, as such, knowledge of their distribution is critical to a robust estimate.

Closed wireframes of minimum thickness >1.0 m were constructed according to the geological understanding of the areas and AMC restricted the wireframes so that they only contained $Ta_2O_5$ grades of >= 100 ppm. AMC allowed interstitial lower grades only where the grade intercepts of the pegmatites within the wireframe averaged greater than the chosen cut-off of 100 ppm $Ta_2O_5$. Wireframes were extended halfway between holes and adjacent sections. One-metre drill sample assays from within each of the wireframes separately were interpolated into block models of 10 m(Y) x 10 m(X) x 2 m(Z) (AMC). Wireframe percentages were calculated for each block. Block estimates were made only for $Ta_2O_5$ using ordinary kriging controlled by anisotropic variogram models which reflected the overall geology. All estimates used ellipsoid sample searches orientated to the variogram directions. Since there were no significant high grade outliers, no top-cuts were applied to the assay data used for interpolating the grades.

Resources reported in the IQPR prepared by AMC which was included in the AMAL's offer document in 2014 for Creekside are quoted with a lower cut-off for the model cells of 160 ppm $Ta_2O_5$.

It was assumed that selective open-pit mining methods will be applied, similar to those that operated from 2001 to 2005 with a minimum mining thickness greater than 1 m.

In April 2015, 27,000 tonnes of ore were mined from the Boreline oxide resource and used to commission AMAL's gravity processing plant at Bald Hill, and have been excluded from the current resource inventory.

Mr Al Maynard of Al Maynard & Associates (AM&A) was the Competent Person responsible for the AMAL IQPR in 2016 in which resource estimates by AMC at Creekside were reported. The Company confirms it is not aware of any new information or data that materially affects the information included on Creekside in the AMAL IQPR of 2016 and the Company confirms that all material assumptions and technical parameters underpinning the AMC Creekside estimates in the AMAL IQPR of 2016 continue to apply and have not materially changed.

AMAL also confirms that the form and context in which the Competent Person's findings in this report are presented have not been materially modified.

## 10.2 Tawana Resource Modelling

The mineralisation at Bald Hill was modelled using a combination of lithological logging of the presence of pegmatite, a nominal 3,500 ppm $Li_2O$ lower cut-off, and a nominal minimum 3 m intercept thickness. Within the total mineralisation/pegmatite wireframes, visual appraisal of $Li_2O$ grade continuity, and assessment of the log-probability plot of $Li_2O$ grade distributions indicated the likelihood of higher grade $Li_2O$ domains, occurring internally to the modelled pegmatite body. These high-grade domains were modelled using a nominal 7,500 ppm $Li_2O$ cut-off, and minimum 3 m intercept thickness.

Figure 24 presents an oblique view of the modelled pegmatite bodies.

Based on raw sample length analysis, samples were composited to 3 m (using Surpac) for further statistical and geostatistical analysis. This occurred on a per-domain basis, with composites for the high-grade domain within the pegmatite body being created separately from those for the remaining pegmatite (mineralisation) body.

For the purposes of domain coding, input data selection and estimation, the pegmatite and internal high grade domain boundaries were treated as hard boundaries. $Li_2O$ and $Ta_2O_5$ were estimated into each mineralised domain via ordinary kriging using two search passes of an oriented ellipsoid. With each successive pass, estimation parameters such as minimum number of informing samples, and restrictions on informing composites contributed from individual drillholes were relaxed. Blocks not estimated after two passes for either variable were assigned the Sichel mean of the composites belonging to that object.

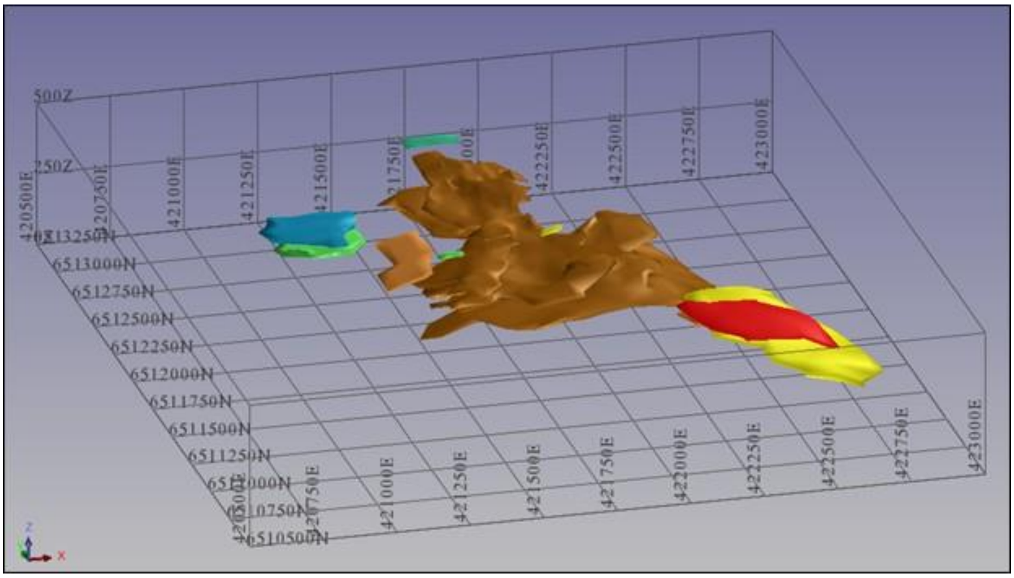



*Figure 24: Oblique view of the Bald Hill pegmatite bodies as modelled (looking down from southwest)*

## 10.3 Mineral Resource Classification

The Mineral Resource has been classified in accordance with guidelines contained in the JORC Code. The classification applied reflects the author's view of the uncertainty that should be assigned to the Mineral Resources reported herein. Key criteria that have been considered when classifying the Mineral Resource are detailed in JORC Table 1 which is contained in Appendix 1.

The Tawana and previous Mineral Resource estimates have been classified as either Indicated or Inferred categories after assessment and understanding of the deposit style, geological and grade continuity, drillhole spacing, input data quality, interpolation parameters used in ordinary kriging, and an assessment of the available density data.

## 10.4 Mineral Resource Estimates

The resource estimates as at 30 April 2018 for the Bald Hill deposits totalling some 31.2 Mt of tantalite and spodumene resources are summarised in Table 17. Where the Tawana resource modelling at least in part overlays the previous modelling, the previous modelling has been superseded and replaced by the Tawana model. This has meant that the previous resource estimates for Central, Boreline and Hillside have been totally superseded while the previous estimates for Creekside has been retained. It should also be noted that these retained resource estimates do not include $Li_2O$ grades because $Li_2O$ was not assayed at the time they were drilled, but it is expected that these deposits will have $Li_2O$ grades similar to the nearby Tawana resources. The area covered by the Tawana modelling is shown in Figure 25.

The Mineral Resource estimate update for the Bald Hill Project was prepared for Tawana by Competent Person, Dr Matthew Cobb. This Mineral Resource estimate was depleted by Dr Cobb based on Tawana's April end of month survey. Dr Cobb is a full-time employee of CSA Global and is a Member of the Australasian Institute of Mining and Metallurgy. Dr Cobb has sufficient experience relevant to the style of mineralisation under consideration and to the activity he is undertaking to qualify as a Competent Persons as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code).

The Mineral Resource estimate has been completed with the inclusion of historical and recent validated drillhole information with a data cut-off date of 30 April 2018. Drilling has continued beyond this date but has not been included in this Mineral Resource estimate or the subsequent Ore Reserve estimate.

*Table 17: Resource summary for Bald Hill outside mined pits at 30 April 2018*
*(Resources are inclusive of Reserves)*

| Category | Mineral type | Gross attributable to licence | | | Net attributable to issuer | | | |
|---|---|---|---|---|---|---|---|---|
| | | Tonnes (Mt) | Grade* $Ta_2O_5$ (ppm) | Grade* $Li_2O$ (%) | ##Tonnes (Mt) | Grade* $Ta_2O_5$ (ppm) | Grade* $Li_2O$ (%) | #Change from previous update (tonnes %) |
| **Resources – Creekside** (carried over from previous IQPR, by AMC 2014) and Central and Boreline (Tawana, May 2018) | | | | | | | | |
| Measured | Tantalum | 0.0 | 0 | | 0.0 | 0 | | No change |
| Indicated | Tantalum | 3.3 | 340 | | 1.7 | 340 | | -14% |
| Inferred | Tantalum | 1.4 | 340 | | 0.7 | 340 | | -18% |
| **Total** | **Tantalum** | **4.7** | **340** | | **2.4** | **340** | | **-15%** |
| **Resources – Central and Boreline** (Tawana, May 2018) | | | | | | | | |
| Measured | Tantalum + Lithium | 0.0 | 0 | 0.00 | 0.0 | 0 | 0.00 | No change |
| Indicated | Tantalum + Lithium | 14.4 | 168 | 1.02 | 7.2 | 168 | 0.51 | 80% |
| Inferred | Tantalum + Lithium | 12.1 | 126 | 0.91 | 6.1 | 126 | 0.46 | 11% |
| **Total** | **Tantalum + Lithium** | **26.5** | **149** | **0.97** | **13.3** | **149** | **0.49** | **40%** |

*Notes:*

*# Upgrade of some Inferred Resources from previous estimate to Indicated has resulted in -ve% change in current gross Inferred Resources and +ve% change in Indicated. Despite all the drilling since the previous resource estimate being infill drilling, the overall resource tonnes have increased and grades dropped slightly as the lower cut-off grade for the lithium resources has been reduced from 0.5% $Li_2O$ to 0.3% $Li_2O$ in line with the findings of the PFS.*

*## Since 24 October 2017, Tawana has earnt 50% of the total resources and reserves including both their lithium and tantalum content. Previously Tawana had only earnt 50% of the lithium content of the resources and reserves (the additional 0.3 Mt difference in the Indicated tonnage derives from Creekside, which is not included in the Tawana tabulation). The reduction of the attributable resource and reserve tonnages reflect this arrangement, not a reduction of the actual resources and reserves.*

*Figures above may not sum due to rounding.*

*Significant figures do not imply an added level of precision.*

*Stockpiles have not been included in this tabulation.*

*The depleted Mineral Resource estimates noted above are represented for tabulation purposes only and are not to be considered Ore Reserves and as such do not take into account any mining related aspects beyond those required during estimation.*

** AMC (2014) used 100 ppm $Ta_2O_5$ lower cut-off grade for Creekside, CSA Global used 200 ppm $Ta_2O_5$ and 0.3% $Li_2O$ as their lower cut-off grade for all other deposits except Creekside.*

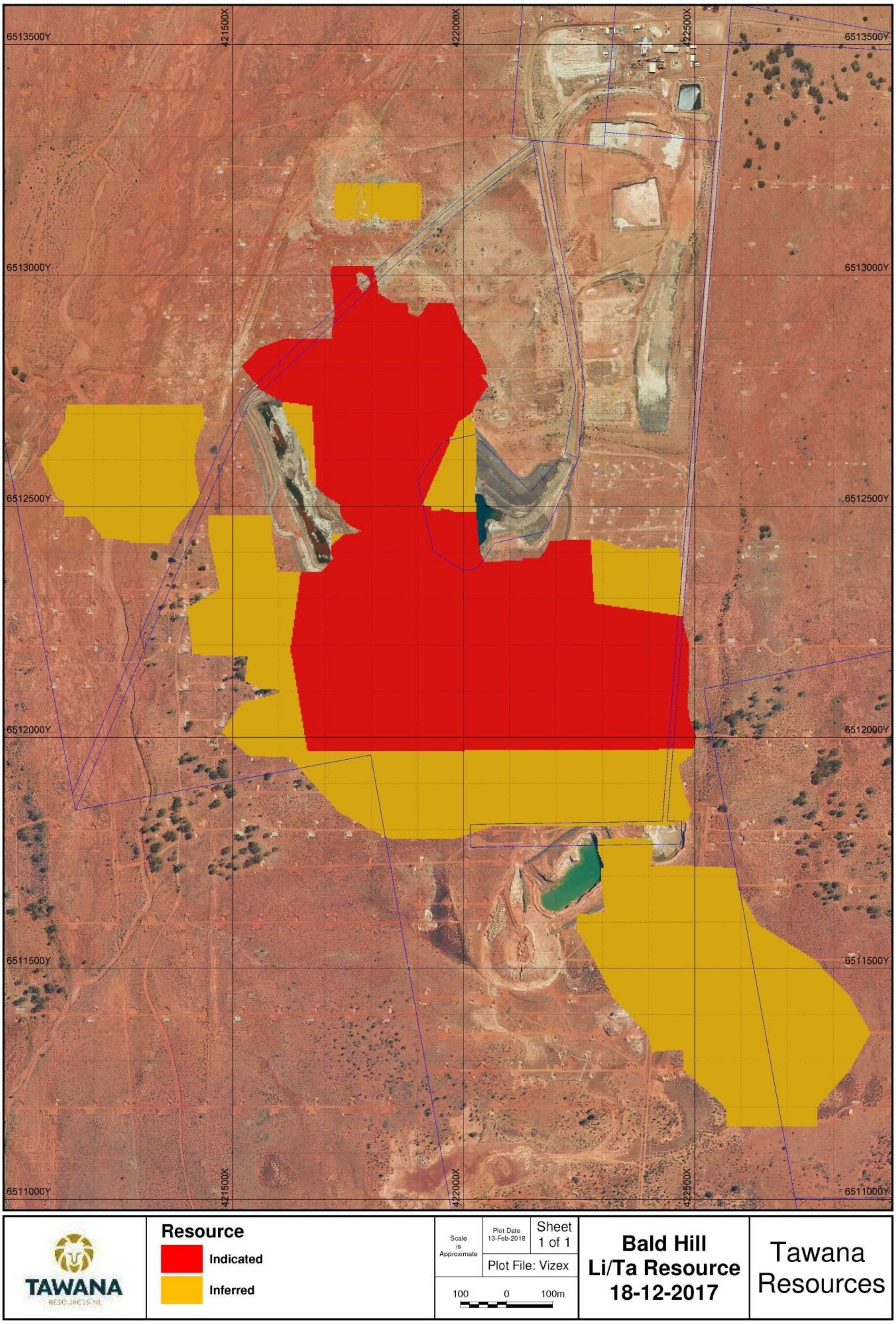



*Figure 25: CSA Global Resource model at Central coloured according to resource category*

## 10.5 Mineral Resource Estimate Summary

This summary is provided in terms of illustrative geological cross-sections, summary statistical and geostatiscal data analysis, expanded information on information on modelling, estimation parameters, and model validation parameters. These estimation related parameters have remained consistent in all material terms from the Maiden Mineral Resource estimate declared by Tawana on 14 June 2017. The most recent Mineral Resource estimate update declared on 11 October 2017 varies only in having slightly more data (see Figure 2) allowing an increase in tonnage and confidence categorisation.

### *10.5.1 Site Visit*

Matthew Cobb, Competent Person for the Mineral Resource estimate, completed a site visit to the Bald Hill deposit during July 2017. During this time, the following actions were completed:

- RC chips were inspected
- The RC drill rig which was operating at the time was inspected, including sampling systems
- The controls to the mineralisation were discussed with Tawana's Exploration Manager and Senior Project Geologist
- Sectional interpretations for Bald Hill were reviewed and discussed
- The collar positions of three holes were checked with a handheld GP) instrument and compared with the surveyed coordinates in the drillhole database, with no significant differences
- Geological data collection systems were reviewed
- QA protocols were reviewed.

Data collection systems were found to be consistent with industry good practice. Furthermore, geological controls to the mineralisation were sufficiently understood to enable a Mineral Resource to be reported in accordance with the JORC Code.

### *10.5.2 Data Collection Techniques*

The cut-off date for inclusion of analytical data when preparing the Mineral Resource estimate was 5 October 2017. Drilling has continued beyond this date and it is likely that updates to the current Mineral Resource estimate will be required in the future.

Drilling was a mix of RC, diamond and RC pre-collar holes with a diamond tail. The overwhelming majority of drillholes in the current database are RC holes. Face sampled rock chips are lifted to surface via compressed air and split via a vibrating cone splitter. Bagged sample splits are taken directly off the cone splitter at a nominal 12.5% split per bag.

A description of data collection techniques for all phases of drilling is available in "CSA Global Report R222.2017 – Mineral Resource Estimate, Bald Hill Pegmatite deposit, Western Australia".

Tawana maintain a QA program through the insertion of coarse field duplicate samples and standards (both in-house and CRMs) into their analytical sample stream, and also through the pulp duplicate and repeat analyses. To ensure data security and relational integrity; reducing the risk of transcription and data entry errors, all data collected by Tawana, including logging, survey and other metadata is managed in a commercial database by third-party company, Rock Solid.

Rock Solid produce routine analytical reports of QC data collected during laboratory analyses of Bald Hill samples, and these reports form the basis of CSA Global's commentary pertaining to QC. Generally, analytical precision over the period under consideration is acceptable; however, periods of clear (though minor) cyclical analytical bias are evident in the results from all three standards inserted by Tawana, and also in the Nagrom in-house CRM results. Cyclical bias appears to be more prevalent within Ta rather than Li analytical values. Currently, Tawana do not use blanks within their QA program. Tawana make use of three standards to monitor analytical bias. Only one of these standards is certified, and has been sourced from analytical standards manufacturer, GeoStats Pty Ltd. The remaining two standards were prepared internally for Tawana by Nagrom, and do not carry certification or associated confidence interval limits.

While there are aspects of Tawana's QA procedures that offer scope for improvement, it is the opinion of the Competent Person that the dataset presented by Tawana is suitable for use in Mineral Resource estimation.

Please see Section 5 (Drilling) and Section 6 (Sample Preparation and Security) for details.

### *10.5.3 Deposit Geology and Mineralisation Controls Summary*

The Bald Hill pegmatite is hosted within the Mount Belches Group; described as a steeply dipping homogenous package of metasediments (schists), greywackes and granitoids. Bedding and foliation are considered coincident. These metasediments are occasionally intruded by hypabyssal dykes of dioritic composition. Pegmatites post-date diorite intrusion and are seen to crosscut them in exposed pit walls.

The Bald Hill pegmatite swarm is considered mineralised in its entirety, with anomalous $Li_2O$ and $Ta_2O_5$ values occurring throughout, resulting from the crystallisation of spodumene and tantalite as significant phases within the pegmatite mineralogy. The pegmatites vary in width and are generally comprised of quartz-albite-muscovite-spodumene in varying amounts. Late-stage albitisation in the central part of the main outcrop area has resulted in fine-grained, banded, sugary pegmatites with visible fine-grained, disseminated tantalite.

The Bald Hill pegmatite is known to form part of a much larger pegmatite swarm within the local area and has not been sufficiently closed off by current drilling; remaining open to the south.

Please see Section 4 (Geological Setting and Mineralisation) for detailed discussion.

### *10.5.4 Quality Assurance*

Please see Section 7.3 for details.

### *10.5.5 Geological Modelling and Mining Depletion to end-April 2018*

Please see also Section 10.2).

Preliminary statistical analysis for the Bald Hill deposit was conducted in Supervisor version 8.6 and GeoAccess version 2.1.12.0.5. Typically, both $Li_2O$ and $Ta_2O_5$ displayed pseudo-lognormal grade distributions within the samples flagged as pegmatite. Bivariate statistical and geostatistical analysis indicates little correlation between $Li_2O$ and $Ta_2O_5$ grade distributions.

On this basis, and given that the Bald Hill pegmatite typically showed either anomalous $Li_2O$ or $Ta_2O_5$ values in nearly all drillhole intercepts, mineralisation modelling was tantamount to the geological modelling of the host pegmatite. To that end, Mineralisation at Bald Hill was modelled using a combination of lithological logging of the presence of pegmatite, a nominal 3,500 ppm $Li_2O$ lower cut-off, and a nominal minimum 3 m intercept thickness.

The resultant pegmatite model comprises multiple individual bodies (objects), dominated by a large central object with an elongate north-south strike and an overall sub-horizontal to gentle westerly dip.

Within the total mineralisation/pegmatite wireframes, visual appraisal of $Li_2O$ grade continuity, and assessment of the log-probability plot of $Li_2O$ grade distributions indicated the likelihood of higher grade $Li_2O$ domains, occurring wholly internally to the modelled pegmatite body. These high-grade domains were modelled using a nominal 7,500 ppm $Li_2O$ cut-off, and minimum 3 m intercept thickness.

As described in Section 10.5.3, the Bald Hill pegmatite is hosted entirely within the metasediments of the Mount Belches Formation and intruded by multiple dykes of dioritic composition and of varying thickness.

Along the eastern margin of the Bald Hill deposit, these dykes are sufficiently thick and continuous to model. Observations in pit walls indicate that the mineralised pegmatite post-dates the diorite dykes.

Wireframes models have been built for the pegmatite using the principles described above, and for the diorite dykes, using logged lithological codes (Figure 26). Surfaces were also generated for regolith profiles, with logged oxidation states being used to define base of complete oxidation (BOCO)/transitional and transitional/fresh weathering boundaries.

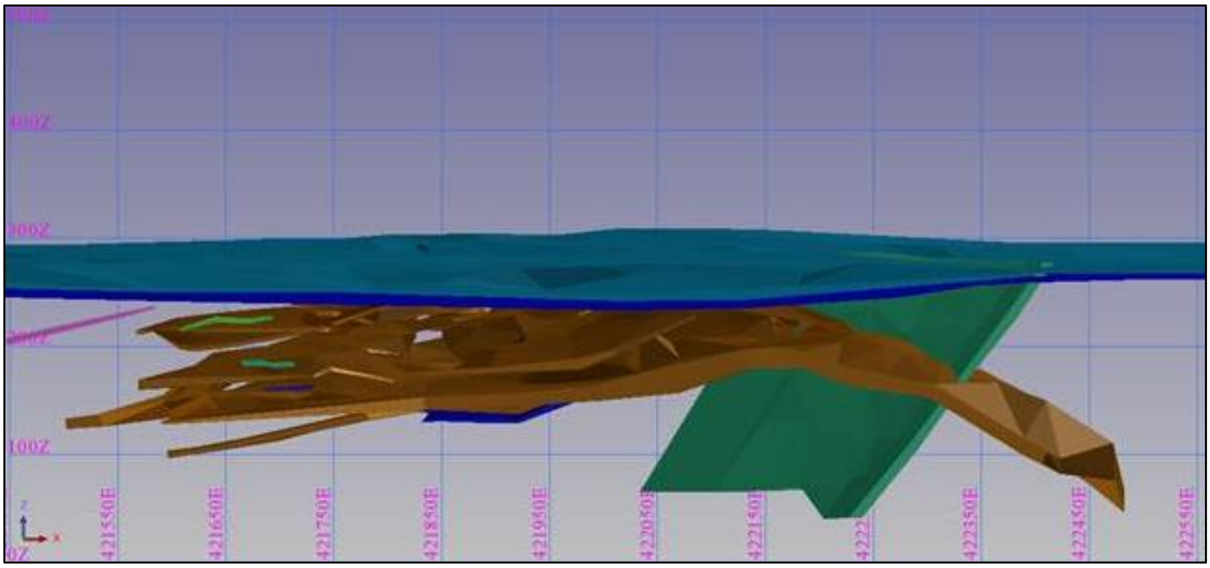



*Figure 26: BOCO (light blue), top of fresh rock (dark blue) and diorite dyke modelled surfaces and shapes, in relation to the pegmatite; section view looking north*

As outlined in Section 10.2, the mineralisation at Bald Hill was modelled using a combination of lithological logging of the presence of pegmatite, a nominal 3,500 ppm $Li_2O$ lower cut-off, and a nominal minimum 3 m intercept thickness. Within the total mineralisation/pegmatite wireframes, visual appraisal of $Li_2O$ grade continuity, and assessment of the log-probability plot of $Li_2O$ grade distributions indicated the likelihood of higher grade $Li_2O$ domains, occurring internally to the modelled pegmatite body. These high-grade domains were modelled using a nominal 7,500 ppm $Li_2O$ cut-off, and minimum 3 m intercept thickness.

The following techniques were employed whilst interpreting the mineralisation:

- Each cross section was displayed on screen with a clipping window equal to half the distance from the adjacent sections.
- All interpreted strings were snapped to drillhole intervals.
- If a mineralised envelope did not extend to the adjacent drillhole section, it was projected halfway to the next section and terminated. The general direction and dip of the envelopes was maintained.
- The mineralised lenses were extended “up-dip” to breach the topographic surface where necessary, to ensure adequate capture of the mineralised shapes to surface.

Figure 24 presents an oblique view of the modelled pegmatite bodies.

The topographic surface used for the Bald Hill Project was supplied by Tawana and comprises a LiDAR generated surface with a vertical resolution of ±0.5 m. This surface included areas of historic open pits that have been backfilled. In order to properly define these areas, particularly for waste tonnage calculations, a further set of surfaces comprising final pit surveys were also used, in order to properly capture the volumes of backfill. The final surveyed pit surface for the end of April 2018 was used to deplete the model for mined tonnes.

### *10.5.6 Statistical Analysis*

The two variables under consideration were $Li_2O$ ppm and $Ta_2O_5$ ppm. Table 18 and Table 19 summarise the statistical parameters of the low-grade and high-grade domains respectively, and Table 20 presents the percentile values of the two domains.

*Table 18: Summary statistics; Bald Hill pegmatite low-grade domain 1 m composites*

| | Count | Minimum | Maximum | Mean | Median | Variance | Coefficient of variation | Sichel mean |
|---|---|---|---|---|---|---|---|---|
| $Li_2O$ | 2,497 | 80 | 28,958 | 2,974.9 | 1,938 | 1,0714,936.02 | 1.1 | 3,248 |
| $Ta_2O_5$ | 2,487 | 1 | 5,833 | 222.1 | 156 | 81,623.94 | 1.286 | 239 |

*Table 19: Summary statistics; Bald Hill pegmatite high-grade domain 1 m composites*

| | Count | Minimum | Maximum | Mean | Median | Variance | Coefficient of variation | Sichel mean |
|---|---|---|---|---|---|---|---|---|
| $Li_2O$ | 2,052 | 108 | 67,087 | 12,987 | 11,906 | 65,371,078.01 | 0.62 | 14,297 |
| $Ta_2O_5$ | 2,052 | 5 | 9,556 | 206 | 147 | 98,677.81 | 1.52 | 200 |

*Table 20: Percentile values; Bald Hill pegmatite*

| Percentiles | Low-grade domain | | High-grade domain | |
|---|---|---|---|---|
| | $Li_2O$ | $Ta_2O_5$ | $Li_2O$ | $Ta_2O_5$ |
| 10 | 344.00 | 43.00 | 3,625.60 | 50.00 |
| 20 | 603.00 | 72.00 | 6,734.12 | 72.00 |
| 30 | 926.00 | 100.00 | 8,590.00 | 92.00 |
| 40 | 1,335.00 | 126.90 | 10,313.00 | 120.00 |
| 50 | 1,938.00 | 156.00 | 11,906.00 | 147.00 |
| 60 | 2,670.00 | 197.00 | 13,690.00 | 178.00 |
| 70 | 3,531.00 | 245.00 | 15,635.48 | 216.00 |
| 80 | 4,663.20 | 310.60 | 18,089.80 | 277.00 |
| 90 | 6,653.00 | 437.00 | 22,468.40 | 389.00 |
| 95 | 9,301.00 | 563.65 | 26,873.80 | 517.40 |
| 97.5 | 12,318.73 | 755.73 | 33,020.90 | 667.30 |
| 99 | 16,169.96 | 1,153.72 | 41,582.48 | 992.68 |

Figure 27 to Figure 30 provide examples of the distributions for each of the variables in the largest domain, (object 1) each of the domains.

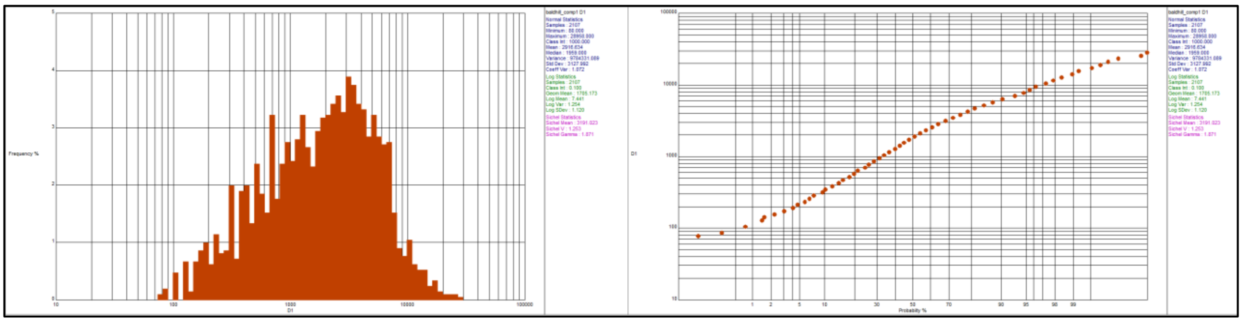


*Figure 27: $Li_2O$ composite distribution; low-grade domain (main object)*

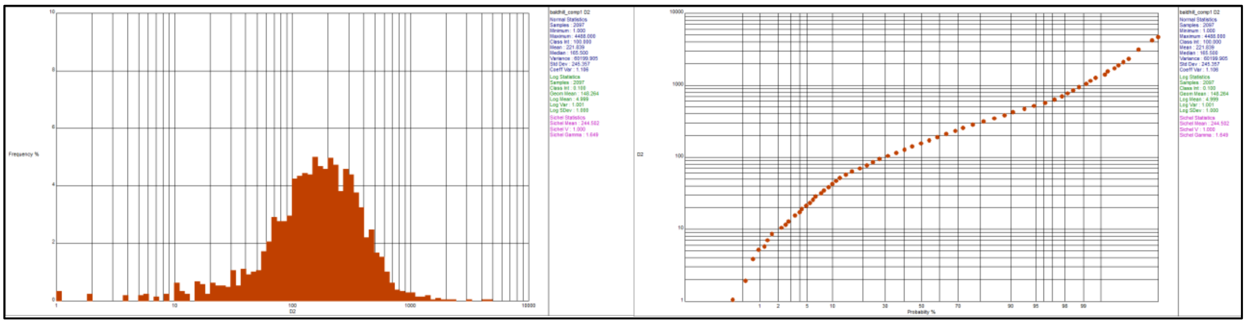


*Figure 28: $Ta_2O_5$ composite distribution; low-grade domain (main object)*

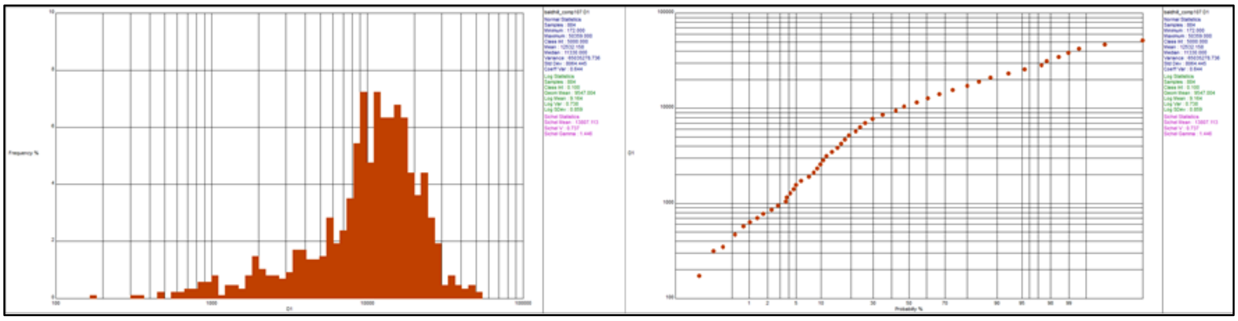


*Figure 29: $Li_2O$ composite distribution; high-grade domain (main object)*

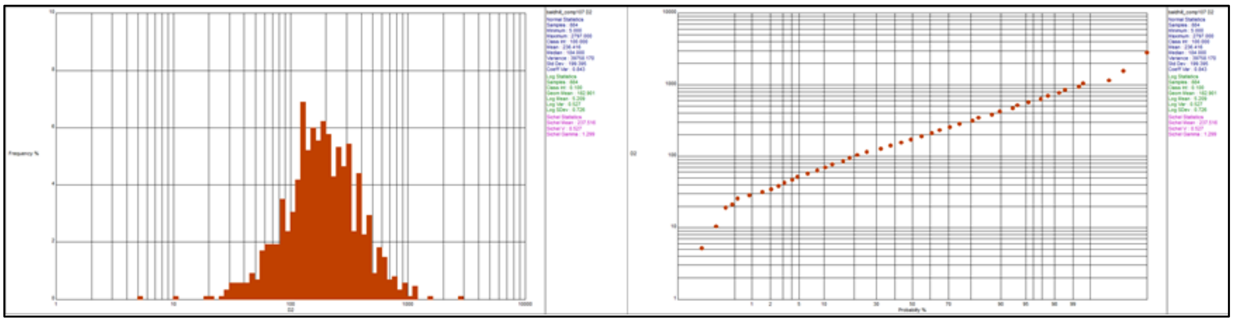


*Figure 30: $Ta_2O_5$ composite distribution; high-grade domain (main object)*

Data were reviewed by domain to assess the presence of outliers which, while representing real values within the dataset, may unduly influence the result of estimation through kriging, artificially inflating grades of surrounding blocks. Top-cuts were applied where significant outliers were identified.

Top-cuts were selected following statistical review of the sample population. The cutting strategy was applied based on the following:

- Skewness of the data
- Probability plots
- Spatial position of extreme grades.

The list of top-cuts for both $Li_2O$ and $Ta_2O_5$ is presented in Table 21 for the low-grade domains and Table 22 for the high-grade domains.

*Table 21: Low-grade pegmatite domain top-cut values, by domain object*

| Low-grade domain object | $Li_2O$ cut (ppm) | $Ta_2O_5$ cut (ppm) |
|---|---|---|
| 1 | 24,000 | 2,000 |
| 2 | 15,000 | 2,000 |
| 3 | 10,000 | 400 |
| 4 | No cut | No cut |
| 5 | 20,000 | 300 |
| 11 | No cut | No cut |
| 13 | No cut | No cut |
| 15 | No cut | No cut |
| 17 | No cut | No cut |
| 18 | No cut | No cut |
| 19 | No cut | No cut |

*Table 22: High-grade domain top-cut values, by domain object*

| High-grade domain object | $Li_2O$ cut (ppm) | $Ta_2O_5$ cut (ppm) |
|---|---|---|
| 100 | 60,000 | 1,000 |
| 101 | No cut | No cut |
| 102 | No cut | No cut |
| 103 | 30,000 | 400 |
| 104 | No cut | No cut |
| 105 | 40,000 | 1,000 |
| 106 | 40,000 | 4,000 |
| 107 | No cut | 1,300 |
| 108 | No cut | 1,000 |
| 109 | No cut | No cut |
| 110 | 40,000 | 400 |
| 111 | No cut | 500 |

### *10.5.7 Variography and Estimation Parameters*

Variography for the Bald Hill deposit was conducted using Supervisor™ 8.6 software. Experimental semi-variograms were generated for both $Li_2O$ and $Ta_2O_5$ utilising the input composites from the most well-informed wireframe objects from both the low-grade halo and the high-grade core domains. Model semi-variograms were fitted to these results along the three principal directions of anisotropy, Figure 31 and Figure 32 illustrate the lithium variograms.

Using the semivariogram model for $Li_2O$ within the high-grade domain, quantitative kriging neighbourhood analysis (QKNA) was used to define an optimal block size. Estimation quality parameters (kriging efficiency and slope of regression) were assessed for a variety of block sizes, in both a well and poorly informed portion of the deposit. The final block size selected was 10 m x 10 m x 5 m (XYZ) which represents approximately half the drillhole spacing in the well-informed portions of the deposit.

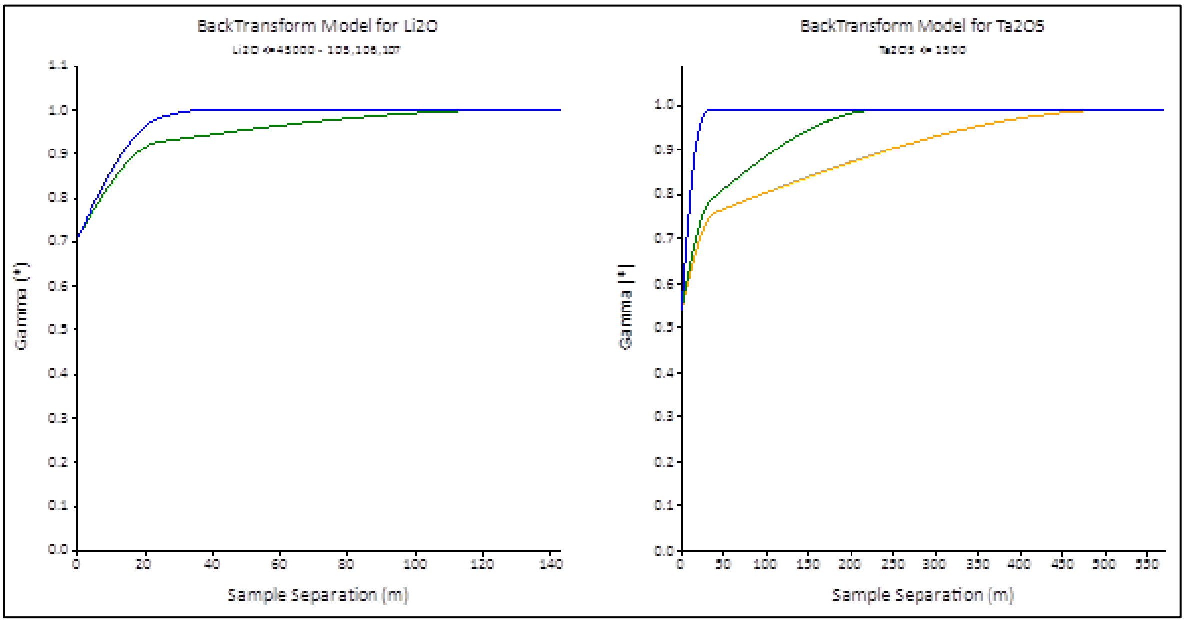



*Figure 31: Li$_2$O high-grade domain*

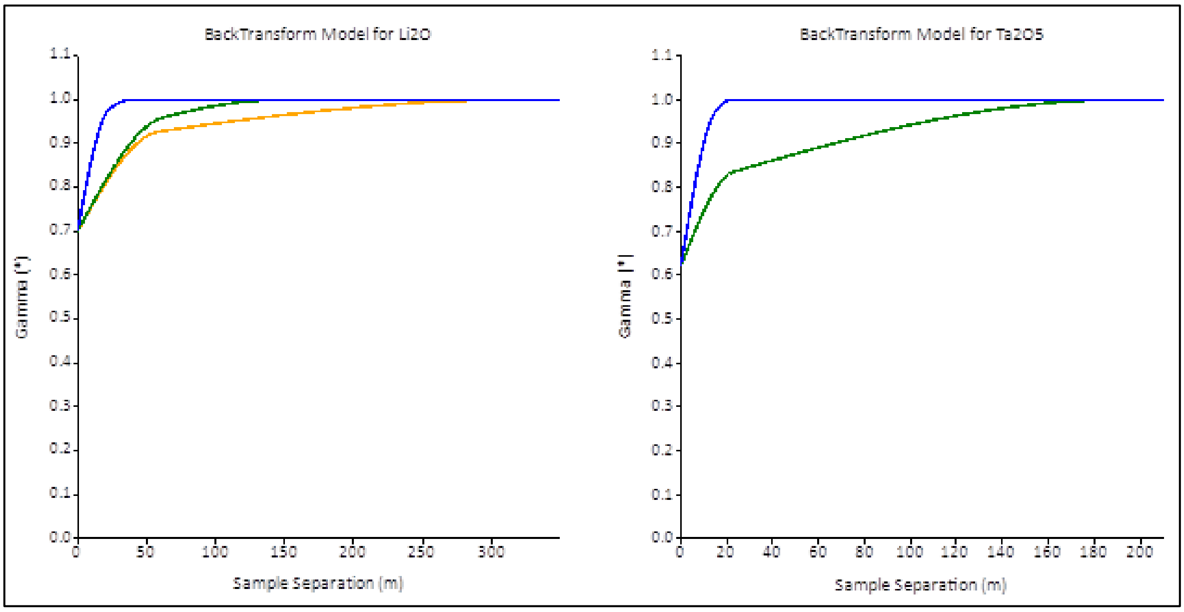



*Figure 32: Li$_2$O low-grade domain*

The final block size selected was 10 m x 10 m x 5 m (XYZ) which represents approximately half the drillhole spacing in the well-informed portions of the deposit. Based on block size parameters selected during QKNA, a block model was built for the Bald Hill deposit with the dimensions and parameters presented in Table 23, which also lists the attributes of the block model.

The block model was then coded using the appropriate wireframes for mineralisation domain (pegmatite or high-grade domain) and for lithology (pegmatite, host metasediments/diorite dyke). Additionally, the weathering profile surfaces and the topographic surface were used to code the model for oxidation state and air.

*Table 23: Block model, Bald Hill deposit*

| **Parameter** | **X** | **Y** | **Z** |
|---|---|---|---|
| Minimum coordinates | 420,900 | 6,511,600 | -65 |
| Maximum coordinates | 422,800 | 6,513,500 | 400 |
| Nominal block size | 10 | 10 | 5 |
| Minimum block size | 2.5 | 2.5 | 1.25 |
| **Attribute name** | **Description** | | |
| ave_dis_li$_2$o_cut | Average distance $Li_2O$ | | |
| ave_dis_ta$_2$o$_5$_cut | Average distance $Ta_2O_5$ | | |
| bd | Bulk density value | | |
| bv_li$_2$o_cut | Block variance $Li_2O$ | | |
| bv_ta$_2$o$_5$_cut | Block variance $Ta_2O_5$ | | |
| class | Can be Measured, Indicated, Inferred or unclassified | | |
| class_code | Can be 1, 2, 3 or 0 – Measured to  unclassified | | |
| ke_li$_2$o_cut | Kriging efficiency $Li_2O$ | | |
| ke_ta$_2$o$_5$_cut | Kriging efficiency $Ta_2O_5$ | | |
| kv_li$_2$o_cut | Kriging variance $Li_2O$ | | |
| kv_ta$_2$o$_5$_cut | Kriging variance $Ta_2O_5$ | | |
| lag_li$_2$o_cut | Lagrange multiplier $Li_2O$ | | |
| lag_ta$_2$o$_5$_cut | Lagrange multiplier $Ta_2O_5$ | | |
| li$_2$o_cut | Cut $Li_2O$ grade | | |
| min | Can be min, waste or air | | |
| min_dis_li$_2$o_cut | Minimum distance $Li_2O$ | | |
| min_dis_ta$_2$o$_5$_cut | Minimum distance $Ta_2O_5$ | | |
| negwt_li$_2$o_cut | Negative weights $Li_2O$ | | |
| negwt_ta$_2$o$_5$_cut | Negative weights $Ta_2O_5$ | | |
| num_sam_li$_2$o_cut | Number of informing samples $Li_2O$ | | |
| num_sam_ta$_2$o$_5$_cut | Number of informing samples $Ta_2O_5$ | | |
| pass_li$_2$o_cut | Estimation pass $Li_2O$ cut | | |
| pass_ta$_2$o$_5$_cut | Estimation pass $Ta_2O_5$ cut | | |
| pod | Wireframe object number | | |
| rock | Can be xms, peg, dio or air | | |
| slope_li$_2$o_cut | Slope of regression $li_2O$ | | |
| slope_ta$_2$o$_5$_cut | Slope of regression $Ta_2O_5$ | | |
| ta$_2$o$_5$_cut | Cut $Ta_2O_5$ grade | | |
| type | Can be fresh, transition, oxide, fill or air | | |

Subsequent to block size selection, other estimation parameters such as minimum and maximum informing sample counts, search ellipse dimensions and block discretisation point counts were also tested in both the well and poorly informed areas of the deposit for each variable on a per-domain basis. Table 24 presents the resulting search parameters for each variable, per domain.

The south eastern limb of the Bald Hill deposit displays a substantially different dip to that of the bulk of the deposit. Defined by an easting boundary at 422,200 mE, the rotation parameters applied to the search ellipses and semivariogram models were changed to reflect the orientation. The supplementary rotations are presented in Table 25.

*Table 24: Search parameters for Mineral Resource estimation; Bald Hill deposit*

| Pass | Domain | Variable | Minimum samples | Maximum samples | Maximum per hole | Surpac rotation | | | Range | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | X | Y | X | 1 | 2 | 3 |
| 1 | High-grade | $Li_2O$ | 4 | 26 | 4 | 95 | 5 | -9 | 86 | 86 | 25 |
| | | $Ta_2O_5$ | 4 | 24 | 4 | 345 | 8 | 6 | 342 | 155 | 21 |
| | Halo | $Li_2O$ | 4 | 24 | 4 | 30 | 10 | 0 | 210 | 97 | 25 |
| | | $Ta_2O_5$ | 4 | 24 | 4 | 116 | 7.5 | -13 | 126 | 126 | 14.5 |
| 2 | High-grade | $Li_2O$ | 2 | 26 | 4 | 95 | 5 | -9 | 86 | 86 | 25 |
| | | $Ta_2O_5$ | 2 | 24 | 4 | 345 | 8 | 6 | 342 | 155 | 21 |
| | Halo | $Li_2O$ | 2 | 24 | 4 | 30 | 10 | 0 | 210 | 97 | 25 |
| | | $Ta_2O_5$ | 2 | 24 | 4 | 116 | 7.5 | -13 | 126 | 126 | 14.5 |

*Table 25: Supplementary rotation parameters*; Bald Hill deposit*

| Domain | Variable | Axis plunge – Surpac rotation (rotation clockwise around axis) | | |
|---|---|---|---|---|
| | | X | Y | Z |
| High-grade | $Li_2O$ | 95 | -20 | -9 |
| | $Ta_2O_5$ | 345 | 8 | -20 |
| Halo | $Li_2O$ | 30 | -15 | 0 |
| | $Ta_2O_5$ | 116 | -20 | 5 |

** South-eastern limb*

### *10.5.8 Density*

Tawana submitted 65 samples from 12 individual drill holes to Nagrom to test the in-situ bulk densities of both the metasediment host rock and the pegmatites of Bald Hill, via water immersion methods. The average density results for these two rock types are presented in Table 26. In addition to these values, nominal densities were selected for other encountered waste lithologies; diorite and backfill, which are also presented in Table 26.

*Table 26: Average density results; Bald Hill host, pegmatite and nominal waste*

| Lithotype | Density value (t/m³) |
|---|---|
| XMS (host metasediment unit) | 2.74 |
| Pegmatite | 2.65 |
| Diorite (nominal waste) | 2.8 |
| Backfill (nominal waste) | 1.8 |

### *10.5.9 Grade Estimation*

For the purposes of domain coding, input data selection and estimation, the pegmatite and internal high-grade domain boundaries were treated as hard boundaries. $Li_2O$ and $Ta_2O_5$ were estimated into each mineralised domain via ordinary kriging using two search passes of an oriented ellipsoid. With each successive pass, estimation parameters such as minimum number of informing samples, and restrictions on informing composites contributed from individual drillholes were relaxed. Blocks not estimated after two passes for either variable were assigned the Sichel mean of the composites belonging to that object.

### *10.5.10 Block Model Validation*

Post estimation, the Bald Hill block model was validated by:

- Visual on-screen checks of the estimated block grades against input composite grades, on a section-by-section basis, to ensure there were no gross errors within the results
- Generation of swath plots in the X, Y and Z orientations for comparison of swath averages of informing composites against resultant block grades in a quasi-local sense.

Figure 33 and Figure 34 present typical sections of the Bald Hill Project, showing estimated block grades against input drillhole data.

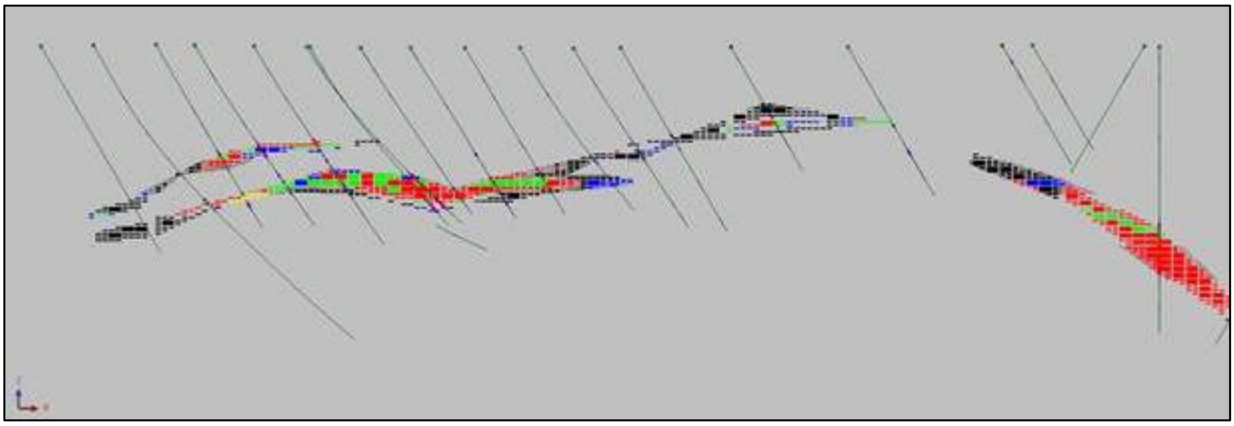


*Figure 33: Section 6,512,200 mN; Bald Hill deposit*

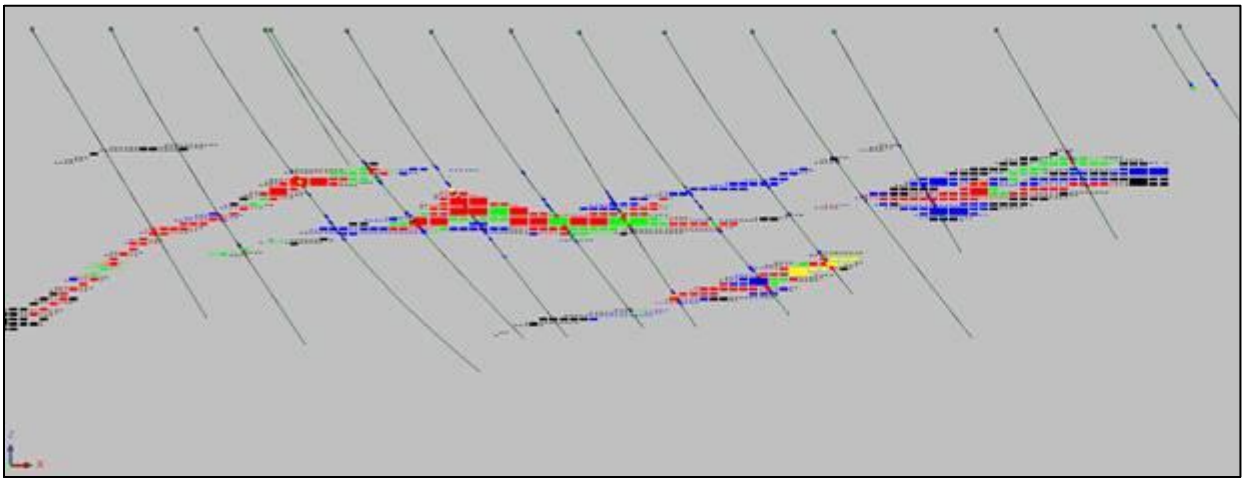


*Figure 34: Section 6,512,280 mN; Bald Hill deposit*

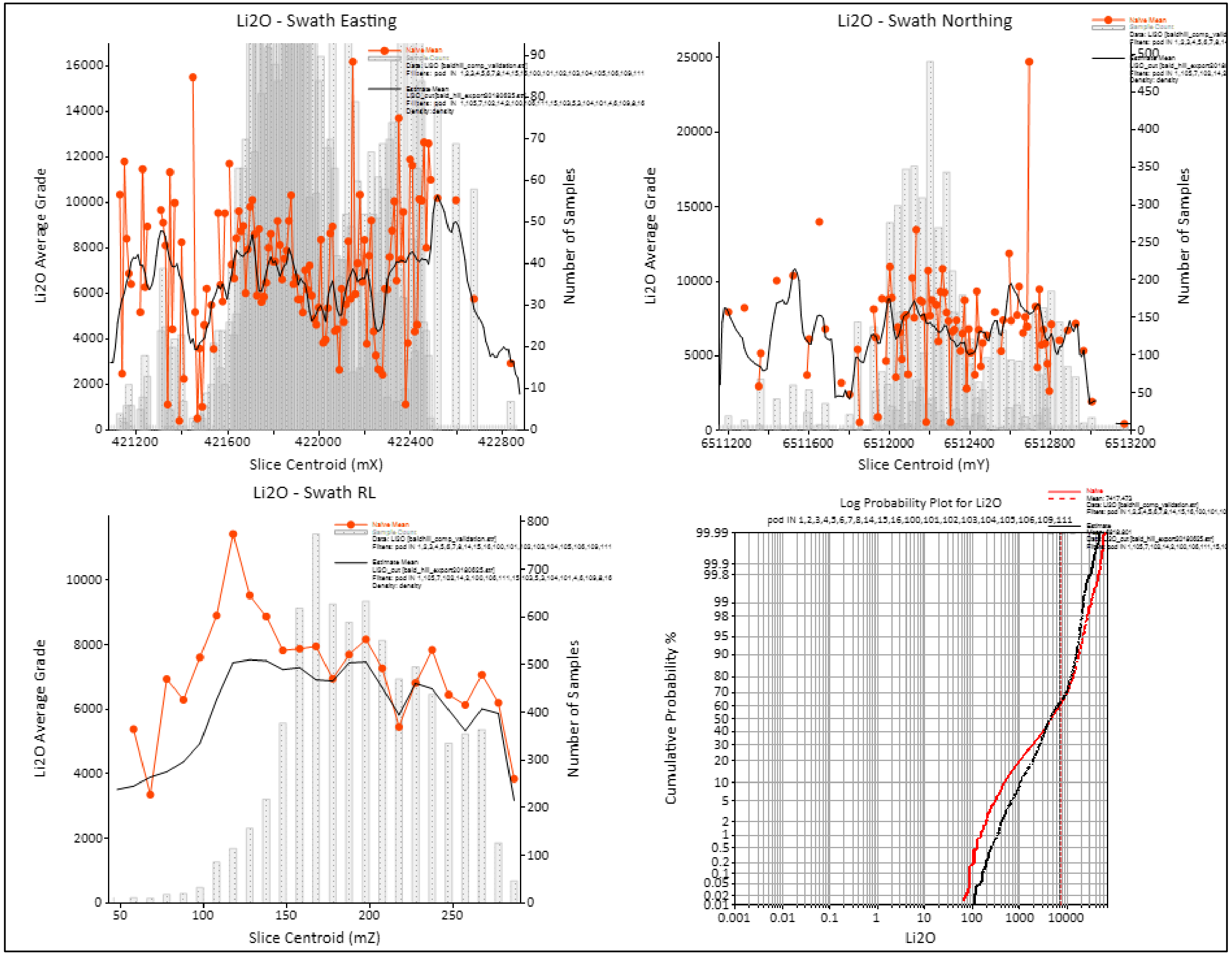



*Figure 35: Validation swath plot, $Li_2O$*

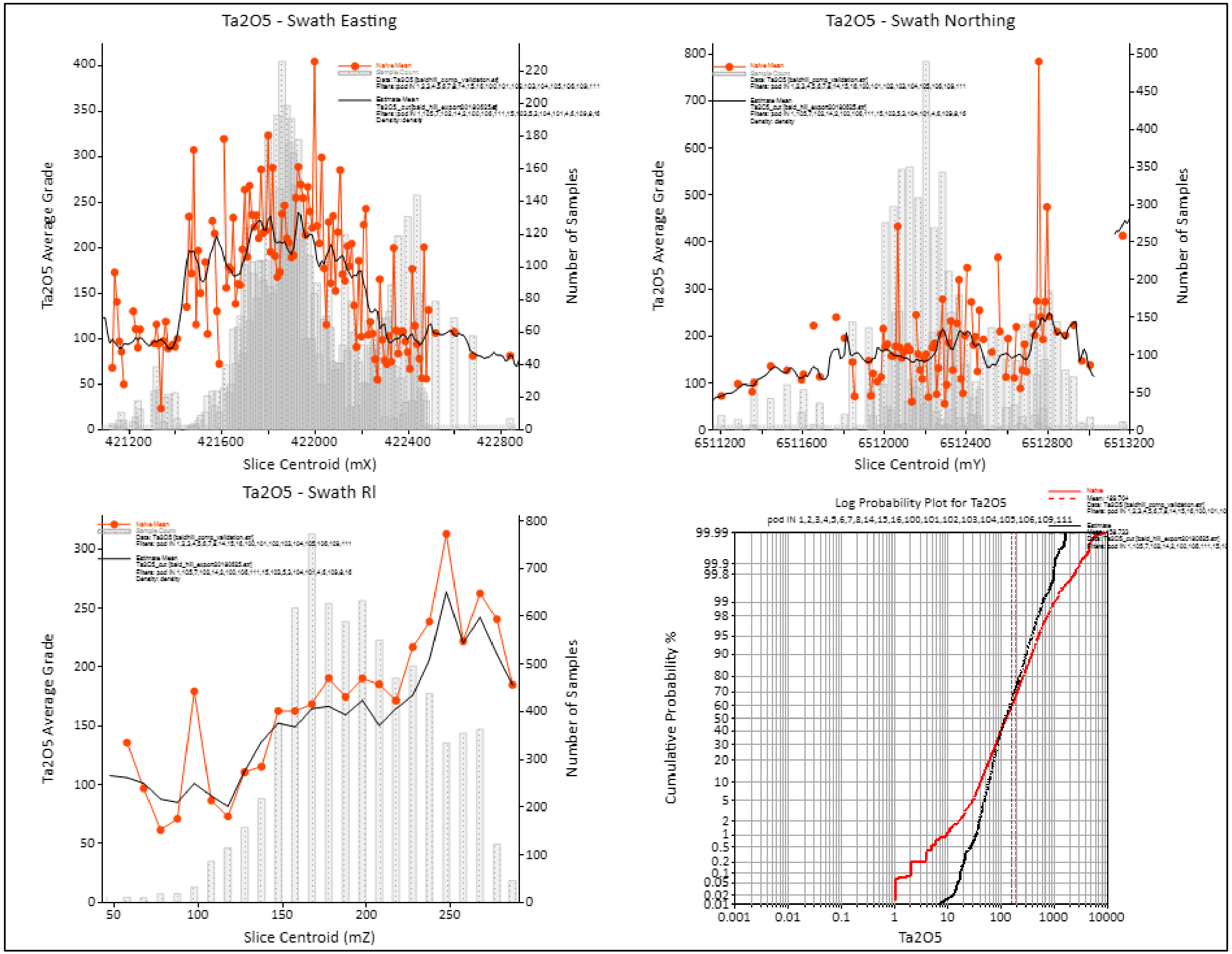



*Figure 36: Validation swath plot, $Ta_2O_5$*

#### *10.5.11 Eventual Economic Extraction*

Clause 20 of the JORC Code requires that all reports of Mineral Resources must have reasonable prospects for eventual economic extraction, regardless of the classification of the resource.

The Competent Person deems that there are reasonable prospects for eventual economic extraction of mineralisation on the following basis:

- The mineralisation forms continuous coherent zones which should allow mining with only moderate dilution, subject to the adoption of robust grade control processes
- The mineralisation reported lies close to surface and is therefore potentially amenable to open pit mining
- The deposit has been mined successfully in the recent past and all the necessary infrastructure currently exists and mining and mineral processing operations have commenced
- Recent optimisation work indicates that the Bald Hill pegmatite can be extracted profitably under market conditions comparable to those that exist at the time of reporting.

There is some potential to increase the Mineral Resource with additional drilling.

The Mineral Resource has been classified in accordance with guidelines contained in the JORC Code. The classification applied reflects the Competent Person's (Dr Matthew Cobb, of CSA Global) view of the uncertainty that should be assigned to the Mineral Resources reported herein. Key criteria that have been considered when classifying the Mineral Resource are detailed in JORC Table 1 which is contained in Appendix 2.

This classification is based upon assessment and understanding of the deposit style, geological and grade continuity, drillhole spacing, input data quality, interpolation parameters using in ordinary kriging, and an assessment of the available density data.

The Mineral Resource estimate report is as outlined earlier in Table 17, depleted for mining up to the end of April 2018.

### 10.6 Exploration Potential

Further RC and diamond drilling is warranted at the various deposits on the main mining lease (M15/400) and adjacent tenements to explore for additional resources and improve the understanding of the current resources.

# 11 Ore Reserves

Tawana has published an Ore Reserve statement for the Bald Hill Project according to the reporting requirements of the JORC Code (2012) on 6 June 2018 on the ASX. The Ore Reserve is based on the Mineral Resource published on 11 October 2017 on the ASX, modifying factors aligned to the current operating plan and the July 2017 PFS.

The technical details supporting the Ore Reserve estimate are described in Sections 8, 9, 12, 13 and 14 of this document and in the JORC Table 1 included as Appendix 2.

The Tawana Ore Reserve estimates, based on the CSA Global Mineral Resource estimate of 11 October 2017 which was depleted for mining up to the end of April 2018 for lithium and tantalite in the Central area of Bald Hill, are summarised in Table 27.

*Table 27: Bald Hill Project Ore Reserves*

| Category | Mineral type | Gross attributable to licence | | | Net attributable to issuer | | | |
|---|---|---|---|---|---|---|---|---|
| | | Tonnes (Mt) | Grade $Ta_2O_5$ (ppm) | Grade $Li_2O$ (%) | ##Tonnes (Mt) | Grade $Ta_2O_5$ (ppm) | Grade $Li_2O$ (%) | #Change from previous update (tonnes %) |
| **Reserves – Central** (Tawana, 2018) | | | | | | | | |
| Proved | Tantalum | 0.0 | 0 | 0.00 | 0.0 | 0 | 0.00 | No change |
| Probable | Tantalum | 2.0 | 313 | 0.16 | 1.0 | 313 | 0.16 | 43% |
| | **Subtotal** | **2.0** | **313** | **0.16** | **1.0** | **313** | **0.16** | **43%** |
| Proved | Tantalum + Lithium | 0.0 | 0 | 0 | 0.0 | 0 | 0.00 | No change |
| Probable | Tantalum + Lithium | 11.3 | 160 | 1.01 | 5.7 | 160 | 1.01 | 163% |
| | **Subtotal** | **11.3** | **160** | **1.01** | **5.7** | **160** | **1.01** | 163% |
| **TOTAL RESERVES** | | **13.3** | **183** | **0.88** | **6.7** | **183** | **0.88** | **133%** |

*## At 24 October 2017, Tawana had earned 50% of the project so the tonnes have been halved to represent the remaining share attributable to AMAL.*

*Notes:*

- *Excludes Inferred Resources.*
- *Excludes mineralised backfill in prior pits.*
- *Allows for mining ore loss (5%) and dilution (5%).*
- *Tantalum only reserves are <0.3% $Li_2O$ and >200 ppm $Ta_2O_5$ cut-offs.*
- *Tantalum + lithium reserves are >0.3% $Li_2O$ cut-off.*

## 11.1 Basis of Cut-Off Grade Applied

The lithium and tantalum cut-off grade has been calculated using the conventional marginal cut-off grade formula applied within Whittle™. The marginal cut-off grade takes into account all processing costs including General and Administration (G&A) charges, metallurgical recovery, and net product prices for separate spodumene and tantalite concentrates.

The marginal cut-off grade used for these Ore Reserves are 0.3% for $Li_2O$ and 200 ppm for $Ta_2O_5$. These cut-offs apply for oxide, transitional and fresh material.

## 11.2 Estimation Methodology

Whittle™ pit optimisation software has been used to identify the preferred pit shell on which the pit design was based for the recovery of oxide, transitional and fresh Indicated Mineral Resources.

Inputs used for the optimisation have been based on the PFS. A detailed open pit mine design has been developed from the initial optimised pit shells to confirm the mined volumes and inform the mining schedule.

### 11.3 Competent Person

The information in this report that relates to Ore Reserves is based on information compiled by Mr Daniel Grosso and reviewed by Mr Karl van Olden, both employees of CSA Global. Mr Karl van Olden takes overall responsibility for the Reserves reported in this report as Competent Person. Mr Karl van Olden is a Fellow of the Australasian Institute of Mining and Metallurgy and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as Competent Person in terms of the JORC Code (2012 Edition). The Competent Person, Karl van Olden, has reviewed the Ore Reserve statement and given permission for the publication of this information in the form and context within which it appears.

# 12 Mining Methods

Previously all the hard rock mining at Bald Hill has been by conventional open cut methods producing approximately 1.35 Mt of pegmatite ore from six pits. All but three of these pits; Boreline, South and Hillview were backfilled with mining overburden and tailings.

The spodumene and tantalite ore is being mined by contract open pit mining undertaken by SMS Innovative Mining Solutions Pty Ltd. The mining of staged open pits uses a conventional truck/excavator mining method.

*Figure 37: Current Stage 1 pit*

*Photo: Tawana Resources*

Current key mining equipment on site includes 1 x 360-t Excavator, 1 x 200-t excavator, 1 x 120-t Excavator, a fleet of Cat785/777 trucks and ancillary equipment including dozers, graders, loaders and water carts. Drill and blast is being undertaken under subcontract by JSW Australia utilising a combination of top hammer and downhole hammer drill rigs. The revised mining schedule identifies the requirement for one addition to the fleet in the 360-t excavator range, for the bulk removal of waste between July 2019 and May 2021.

To minimise ore loss and dilution, ore is being mined in blocks of shallow bench height of 2.5 m with drill and blast limited to 5 m depth in areas containing ore. Bulk waste is mined utilising 5 m to 10 m benches, with bulk waste drill and blast targeting 10 m benches.

The mining sequence provides advance dewatering, grade control drilling and modelling, followed by drill and blast, survey control and load and haul operations, with strong visual controls during ore mining.

To establish revised mineable quantities and grades a number of optimisations were completed on the Resource model completed by CSA Global using Whittle Four-X pit optimisation software (Whittle). These results were then analysed with a set of current price and costs to determine their respective value and an optimal shell was selected for the study based on both value and risk.

An ultimate pit was designed using only Indicated Mineral Resources. Pit shells created from Whittle™ optimisations inclusive of Inferred Mineral Resources are only used as a guide to infill drilling (for detailed geotechnical information, see Section 9.1).

*Figure 38: Oblique view of latest pit design*

*(dark magenta = Indicated, light magenta = Inferred, mineral resources)*

# 13 Environmental Studies, Permitting and Social or Community Impact

The WA DMIRS promotes best environmental management practices by delivering environmental regulatory and policy services to maximise the responsible development of the State's mineral resources.

The DMIRS Environment Division assesses mineral exploration and development applications made within WA and audits and inspects mineral activities to ensure their operation is consistent with the principles of responsible and ecologically sustainable exploration and development.

Environmental approvals are granted in accordance with the *Mining Act 1978* (WA). Clearing permits are granted under delegation from the DWER in accordance with the provisions of the *Environmental Protection Act 1986* and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*.

The existing tantalum operation at the Bald Hill Project has an existing mine and infrastructure with existing mining, processing, tailings, and environmental approvals. The Bald Hill Project has formal DMIRS approval for the addition of spodumene mining and production activities. The DWER has also approved the revised spodumene mining and production activities. Detailed progress reports are required to be submitted annually by the company to the DMIRS. A mine closure plan was submitted to support the granting of updated approvals. The costs of closure and rehabilitation have been included in the operational budget for the planned operations.

Ongoing variations and additional permitting will be required from the DWER and the DMIRS, for additional clearing, mining pits or pit extensions, waste dumps, tailing facilities, and water. There are no known impediments to extending the currently permitted active mining area and associated infrastructure.

Table 28 details the status of the key permits required for the project development at May 2018, as provided by Ecotec Environmental Management.

*Table 28: Summary of major permits and approvals*

| Document | Regulator | Status | Activity/Comments |
|---|---|---|---|
| Mining Proposal Version 2 October 2017 | DMIRS | Approved | Full extent of Central pit.<br>Extended Main and Boreline waste dumps, new North and Rejects waste dumps.<br>Tailings disposal to Boreline pit, reclaim storage in Boreline Extended pit.<br>Revised site layout. |
| Licence L8830/2014/1 | DWER | Approved | 1.5 Mt/a production capacity.<br>Power station.<br>Fuel storage – 350,000 litres.<br>In-pit tailings disposal (Boreline and Boreline Extended). |
| Clearing Permit CPS 6131/3 | DMIRS | Approved | Up to 258 ha of clearing on M15/400 and G15/28. |
| Licence to Take Water GWL174305(1) | DWER | Approved | 507,500 kL pa. |
| Licence L8830 – amendment | DWER | Under assessment | New tailings storage facility (TSF).<br>Increased capacity and revised location of landfill.<br>Increased fuel storage to 780,000 litres.<br>Currently on hold pending provision further information relating to dry stacked tailings. |
| Mining Proposal Version 3 January 2018 | DMIRS | Under assessment | New TSF.<br>Water storage dam.<br>Proposed site layout as per Figure 2. |

| Document | Regulator | Status | Activity/Comments |
|---|---|---|---|
| Annual Environmental Report | DMIRS | Submitted on 09/04/2018 and currently under assessment | Online submission.<br>Requires current extent of clearing. |
| Annual Environmental Report and Annual Audit Compliance Report | DWER | Submitted on 09/04/2018 and currently under assessment | |
| Mining Rehabilitation Fund Report | DMIRS | To be prepared (due date: 30/06/2018) | Usually completed by Hetherington's using information supplied by site.<br>Suggest clearing data as at 30/05/2018 be used. |
| Clearing Permit Report | DMIRS | To be prepared (due date: 31/07/2018) | |
| Licence Amendment Compliance Report | DWER | Submitted on 10/04/2018 and currently under assessment | Provide a report detailing compliance with the approved plant design and commitments made in the 2017 licence amendment to expand the processing plant. |
| **Future document requirements** | | | |
| Mining Proposal Version 4 | DMIRS | To be prepared | Details of new camp (requires additional/revised tenure – refer to Figure 2).<br>Southern bore field and associated infrastructure. |
| Licence L8830 - amendment | DWER | To be prepared | WWTP at new camp. |
| H2 Hydrological Assessment | DWER | To be prepared<br>Due date: 8/9/2018 | |

## 13.1 Safety Management Systems

Safety management systems are in place and all statutory approvals have been obtained for construction of Spodumene processing plant.

## 13.2 Environmental Management Systems

Environmental management systems are in place.

## 13.3 Tailings Disposal

Initially it is planned to dispose of the processing plant tailings in the already completed Boreline pit. Environmental approval for in-pit tailings disposal has been granted with a works approval being issued.

Another new larger tailings storage dam is being designed with the intention of it being approved and constructed before the Boreline pit is full.

## 13.4 Radiation Registration for Concentrate Transport and Storage

Bald Hill beneficiation plant has achieved radiation registration. Radiation management plans have been approved and radiation safety officer appointed.

## 13.5 Statutory Appointments

All necessary statutory appointments have been made, this includes such positions as:

- Registered mine manager
- Radiation safety officer
- Electrical supervisor.

## 13.6 Native Title Agreements

Agreements with the registered Native Title applicants, the Ngadju people, have been obtained for mining on the main mining licence M15/400 as it was granted prior to the Native Title Act.

# 14 Pricing and Revenue

## 14.1 Tantalite

The price for tantalite concentrate during the last 12 months from the date of this report has ranged between US$123/kg and US$159/kg. Prior to 2012, the price was at about US$80/kg. The marked price increase in early 2012 was due to sudden increased demand in the electronics industry and reduced supply from traditional suppliers, mainly in Australia, as reserves were depleted.

The price AMAL will receive for its tantalite concentrate will depend on several factors including both the tantalum grade of the concentrate and physical and chemical characteristics of its contained tantalite. The concentrate will contain impurities that will dilute the tantalite content and the tantalum content of the mineral tantalite varies depending on its chemical composition. The mineral tantalite $(Fe,Mn)(Ta,Nb)_2O_6$ has a tantalum content of between 52% $Ta_2O_5$ and 86% $Ta_2O_5$ depending mainly on its Nb (niobium) content which is in solid solution with tantalum.

Other factors that could affect the price received for AMAL's concentrate, due to possible problems for the refinery producing pure products from the concentrate, include:

- Levels of deleterious elements in the concentrate such as uranium, thorium, arsenic and antinomy
- The presence of nuisance minerals like clay
- And the size of the tantalite grains.

Historically, the concentrate produced at Bald Hill by Haddington, and more recently by AMAL in their tantalite plant commissioning trials, was a high quality concentrate with very low levels of uranium, thorium, arsenic and antinomy as well as clay. As a result, the Bald Hill tantalite concentrate had been sold at a premium price to Greenbushes Limited so it could be blended with poorer quality, inferior concentrates from other sources to produce a smelter feed that had acceptable smelting properties.
AMAL with Tawana have a non-binding term sheet with HC Starck for the supply of a minimum 600,000 pounds of contained tantalum pentoxide to December 2020. The Parties are still in the process of negotiating the terms of a binding definitive agreement.

## 14.2 Spodumene

The price for lithium carbonate, produced from spodumene, has risen considerably since late-2015. This rapid price increase was possibly due to sudden increased demand in the electronics industry for battery manufacture along with probable market speculation.

Battery applications are expected to drive growth for lithium consumption in the foreseeable future. Electric vehicle developments will head this growth underpinned by consumption of portable electronics, like tablets, storage batteries for solar power systems and power tools – the vast majority of which use lithium-ion technology.

The manufacture of ceramics and glass will continue to require lithium concentrates, especially in Asia where the industry is seeing rapid growth. Industrial applications like lithium's use in grease (predominately lithium hydroxide), aluminium and continuous castings will continue to underpin the industry, fluctuating in line with global industrial activity.

AMAL with Tawana have negotiated a binding offtake with Burwill for the supply of spodumene concentrate from the Bald Hill Project over an approximate initial five-year term. The key terms of the offtake are as follows:

- A fixed price for all production for 2018 and 2019 of US$880/t (FOB Esperance) for 6% $Li_2O$ with price adjustment increment/decrement of US$15/t based on grade variation of 0.1%.
- From 2020 to 2023, the sales price and volumes are to be negotiated based upon prevailing market conditions at the time.

# 15 Other Relevant Data and Information

There is no other data not included or referred to in this report and known to CSA Global that would assist with the understanding of the Bald Hill Project.

# 16 Risks

The following risk analysis has been adopted by the Competent Person in assigning risk factors to various aspects. Risk has been classified from major to minor as follows:

- **Major Risk**: The factor poses an immediate danger of a failure which, if uncorrected, will have a material effect (>15% to 20%) on the Project cash flow and performance and could potentially lead to project failure.
- **Moderate Risk**: The factor, if uncorrected, could have a significant effect (10% to 15%) on the Project cash flow and performance unless mitigated by some corrective action.
- **Minor Risk**: The factor, if uncorrected, will have little or no effect (<10%) on project cash flow and performance.

The likelihood of a risk event occurring within a nominal seven-year timeframe has been considered as:

- **Likely**: Will probably occur
- **Possible**: May occur
- **Unlikely**: Unlikely to occur.

The degree or consequence of a risk and its likelihood are combined into an overall risk assessment, as shown below.

*Table 29: Risk assessment guidelines*

| Likelihood of risk (within 7 years) | Consequence of risk | | |
|---|---|---|---|
| | Minor | Moderate | Major |
| Likely | Medium | High | High |
| Possible | Low | Medium | High |
| Unlikely | Low | Low | Medium |

This section identifies the areas that Competent Person regards as the major risks associated with an investment in the Bald Hill Project.

*Table 30: Summary of project risks*

| Risk issue likelihood consequence | Likelihood | Consequence rating | Risk |
|---|---|---|---|
| **Geological** | | | |
| Resource tonnes and grades significantly not achieved beyond the limits implied by the JORC resource classifications | Unlikely | Moderate | Low |
| **Mining risk** | | | |
| Orebody continuity | Unlikely | Moderate | Low |
| Non-technical | Unlikely | Moderate | Low |
| Legislative changes | Possible | Moderate | Low |
| **Economic conditions** | | | |
| Commodity price | Possible | Moderate | Medium |
| Loss of demand | Unlikely | Major | Medium |
| Inflation increase | Possible | Moderate | Medium |
| Change in interest rate | Possible | Moderate | Medium |
| Sovereign risk | Unlikely | Moderate | Low |
| **Environmental** | | | |
| Unexpected unauthorised ecological damage | Unlikely | Moderate | Low |
| Extra costs in environment restoration | Possible | Minor | Low |
| Contamination of local water system | Possible | Minor | Low |

| Risk issue likelihood consequence | Likelihood | Consequence rating | Risk |
|---|---|---|---|
| **Capital and operating costs** | | | |
| Capital costs | Possible | Moderate | Medium |
| **Operational risk** | | | |
| Operating costs | Possible | Major | Medium |

The main risks can be described generally as follows, and are summarised specifically with respect to the Bald Hill Project in Table 30:

- Resource risk due to changes in geological interpretation, assumed mining and processing parameters and new geological information and or sampling data.
- Commodity prices and exchange rates are constantly changing in response to changes in market demand.
- Risks inherent in exploration and mining include, among other things, successful exploration and identification of Ore Reserves, satisfactory performance of mining operations if a mineable deposit is discovered and competent management.
- Risks associated with obtaining renewal of tenements upon expiry of their current term, including the grant of subsequent titles where applied for over the same ground. The grant or refusal of tenements is subject to ministerial discretion and there is no certainty that the renewal of tenements will be granted.
- The risk of material adverse changes in the government policies or legislation of WA that may affect the level and practicality of mining activities.
- Environmental management issues with which the AMAL may be required to comply from time to time. There are very substantive legislative and regulatory regimes with which the AMAL needs to comply for land access and mining which can lead to significant delays.
- Native Title is believed to be extinguished over the mining leases. The status of Native Title over the other leases and licences that make up AMAL's tenement package has not been determined by the Competent Person as they do not cover the reported resource and planned mining areas.
- Poor weather conditions over a prolonged period which might adversely affect mining and exploration activities and the timing of earning revenues.
- Unforeseen major failures, breakdowns or repairs required to key items of mining and processing equipment, mining plant and equipment or mine structure resulting in significant delays, notwithstanding regular programs of repair, maintenance and upkeep.

This is not an exhaustive list. Further clarification of the risk categories in Table 30 are as detailed in Sections 16.1 to 16.5.

## 16.1 Geological Risk

Estimates of Mineral Resources may change when new information becomes available or new modifying factors arise. Interpretations and assumptions on the geology and controls on the mineralisation on which Resource or Reserve estimates based on may be found to be inaccurate after further mapping, drilling and sampling or through future production. Any adjustment could affect the development and mining plans, which could materially and adversely affect the potential revenue from the project and the valuation of the Project. If the Resources are overestimated in either quantity or quality of ore, the profitability of the Project will be adversely affected. If however the quantity or quality is underestimated the profitability of the Project will be enhanced.

Geological risk is unlikely to present a significant threat to the Bald Hill Project as there is sufficient confidence in the estimates, as evidenced by the declared Probable Ore Reserves and the significant amounts of Indicated Mineral Resources mining and mineral processing has commenced at the Bald Hill

Project. Mineral value fluctuations, dilution, grade and mining losses all could potentially impact the Mineral Resource estimate, but the quantum of the change is not anticipated to be significant.

## 16.2 Mining Risk

Mining risks include the uncertainties associated with projected continuity of an ore deposit, fluctuations in grades and values of the product being mined, and unforeseen operational and technical problems.

Mining may be adversely affected or hampered by a variety of non-technical issues such as limitations on activities due to seasonal changes, industrial disputes, land claims, legal challenges associated with land ownership, environmental matters, mining legislation and many other factors beyond the control of AMAL, including many that are partly or wholly unforeseeable.

Changes in the WA mining law and regulations may affect the feasibility and profitability of any mining operations. However, in the context of the Bald Hill Project, no significant or material changes are foreseeable, and the mining risks have been assessed to be low.

## 16.3 Economic Conditions

AMAL's project is prospective for mainly tantalite (tantalum), spodumene (lithium) and various other minerals as perceived by the Company. Therefore, it would be reasonable to expect that AMAL's market appeal, and in the event it commences mining any of the other commodities besides tantalite and spodumene, its revenue will be affected by the price of such minerals. Mineral and metal prices and currency exchange rates may fluctuate widely and are affected by numerous industry factors beyond AMAL's control.

General economic conditions may affect inflation and interest rates, which in turn may impact upon AMAL's operating costs and financing. Other factors that may adversely affect the AMAL's activities in WA include changes in government policies, natural disasters, industrial disputes, and social unrest. Some of these risks include:

- In the context of the Bald Hill Project, there is low sovereign risk in WA, and no immediate risk is apparent.
- Changes in global economic conditions are less easy to predict as they are dependent on global economic demand. This risk has been assessed as medium.

## 16.4 Taxation

Changes to tax legislation and regulation or their interpretation may affect the value of mine output. This is out of AMAL's control, but Australia is generally considered to be a stable taxation environment and no sudden changes are anticipated.

## 16.5 Unforeseeable Risks

There are likely to be risks that CSA Global is unaware of or do not fully appreciate at any point in time. Over time or with the benefit of hindsight, these sometimes become apparent. Such risks may be related to legislation, regulation, business conditions, land access, conflicts and disputes at a local or international level, data issues and a variety of other unforeseen eventualities.

# 17 Interpretation and Conclusions

During the past 12 months, the Bald Hill Project has evolved to a very active spodumene-tantalite project, which has commenced mining and shipment of concentrate.

Tawana and the consulting firms it engaged with their appropriate Competent Persons, contributed to an update of the Ore Reserves in the areas of geology, resource, geo-technical, mining, metallurgy, engineering, tailings, cost estimating, project implementation, operations, and health, safety, environmental and social aspects. As a result, new Ore Reserves were reported for the area modelled for Tawana (Table 31).

*Table 31: Resource and Reserve summary for Bald Hill outside mined pits as at 30 April 2018*
*(Resources are inclusive of Reserves)*

| JORC category | Mineral type | Gross attributable to licence | | | Net attributable to issuer | | | |
|---|---|---|---|---|---|---|---|---|
| | | Tonnes (Mt) | Grade* $Ta_2O_5$ (ppm) | Grade* $Li_2O$ (%) | ##Tonnes (Mt) | Grade* $Ta_2O_5$ (ppm) | Grade* $Li_2O$ (%) | #Change from previous update (tonnes %) |
| **Reserves – Central** (Tawana, 2017) | | | | | | | | |
| Proved | Tantalum | 0.0 | 0 | 0.00 | 0.0 | 0 | 0.00 | No change |
| Probable | Tantalum | 2.0 | 313 | 0.16 | 1.0 | 313 | 0.16 | 43% |
| | **Subtotal** | **2.0** | **313** | **0.16** | **1.0** | **313** | **0.16** | **43%** |
| Proved | Tantalum + Lithium | 0.0 | 0 | 0 | 0.0 | 0 | 0.00 | No change |
| Probable | Tantalum + Lithium | 11.3 | 160 | 1.01 | 5.7 | 160 | 1.01 | 163% |
| | **Subtotal** | **11.3** | **160** | **1.01** | **5.7** | **160** | **1.01** | 163% |
| **TOTAL RESERVES** | | **13.3** | **183** | **0.88** | **6.7** | **183** | **0.88** | **133%** |
| **Resources – Creekside** (carried over from previous IQPR, by AMC 2014) and Central and Boreline (Tawana, June 2018) | | | | | | | | |
| Measured | Tantalum | 0.0 | 0 | | 0.0 | 0 | | No change |
| Indicated | Tantalum | 3.3 | 340 | | 1.7 | 340 | | -14% |
| Inferred | Tantalum | 1.4 | 340 | | 0.7 | 340 | | -18% |
| **TOTAL** | | **4.7** | **340** | | **2.4** | **340** | | **-15%** |
| **Resources – Central and Boreline** (Tawana, June 2018) | | | | | | | | |
| Measured | Tantalum + Lithium | 0.0 | 0 | 0.00 | 0.0 | 0 | 0.00 | No change |
| Indicated | Tantalum + Lithium | 14.4 | 168 | 1.02 | 7.2 | 168 | 0.51 | 80% |
| Inferred | Tantalum + Lithium | 12.1 | 123 | 0.90 | 6.1 | 126 | 0.46 | 11% |
| **TOTAL** | | **26.5** | **149** | **0.96** | **13.3** | **149** | **0.49** | **40%** |

*# The upgrade of some Inferred Resources from the previous estimate to Indicated has resulted in -ve% change in current gross Inferred Resources and +ve% change in Indicated. However, despite all the drilling since the previous resource estimate being infill drilling, the overall resource tonnes have increased and grades dropped slightly as a result of the lower cut-off grade for the spodumene resources being reduced from 0.5% $Li_2O$ to 0.3% $Li_2O$ in line with the findings of the PFS.*

*## Since 24 October 2017, Tawana has earnt 50% of the total resources and reserves including both their lithium and tantalum content. Previously Tawana had only earnt 50% of the lithium content of the resources and reserves (the additional 0.3 Mt difference in the Indicated tonnage derives from Creekside, which is not included in the Tawana tabulation). The reduction of the attributable resource and reserve tonnages reflect this arrangement, not a reduction of the actual resources and reserves.*

** AMC (2014) used 100 ppm $Ta_2O_5$ lower cut-off grade for Creekside, CSA Global used 200 ppm $Ta_2O_5$ and 0.3% $Li_2O$ as their lower cut-off grade for all other deposits except Creekside.*

Key changes as a result of the most recent Ore Reserve update are:

- High-grade Indicated Resources increased to 10.6 Mt at 1.25% $Li_2O$, additional Indicated low-grade Resource of 3.8 Mt at 0.39% $Li_2O$ added by reduction of lower lithium cut-off grade from 0.5% $Li_2O$ down to 0.3% $Li_2O$ due to improved actual processing performance than predicted in the July 2017 PFS.
- Lithium Ore Reserve of 11.3 Mt at 1.0% $Li_2O$ and 160 ppm $Ta_2O_5$ – representing an increase of 105% in contained lithium from the July 2017 Reserve estimate and previously announced by AMAL on 8 August 2017.
- Tantalum Ore Reserve of 2.0 Mt at 313 ppm $Ta_2O_5$ – an increase of 43% from the July 2017 Reserve estimate and previously announced by AMAL on 8 August 2017.
- Ore Reserve underpins the nine years of lithium concentrate production at an average of 183,000 t/a..

# 18 Bald Hill Project Recommendations

The following recommendations are made with respect to further evaluating and increasing confidence in the Project:

- Further drilling is recommended to infill the existing wider spaced drilling on the periphery of the current Central resource block currently drilled on an 80 m x 80 m grid to a grid spacing of 40 m x 40 m to raise the confidence of the Inferred Resource estimates in these areas to Indicated
- Further drilling is warranted to extend the known resources in all directions from the Tawana modelled resource, with extensions to the south and southeast most likely to be relatively shallow with high lithium and tantalum grades
- It may be possible to further refine some of the economic modifying factors with subsequent revisions and updates of the Ore Reserves, Monitoring of any potential mining loss or dilution in on going production records will allow these considerations.
- Debottlenecking studies are recommended to investigate increased production through the existing plant.
- Studies are also recommended to investigate the possibility of improving recovery from treatment of fines, and increase throughput, with an additional DMS circuit.

# 19 Abbreviations and Acronyms

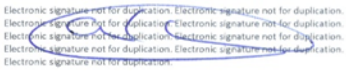
| | |
|---|---|
| % | percent |
| ° | degrees |
| °C | degrees Celsius |
| AHM | Australian Height Datum |
| AM&A | Al Maynard and Associates |
| AMAL | Alliance Mineral Assets Limited |
| AMC | AMC Consultants |
| ASX | Australian Securities Exchange |
| BCM | bank cubic metres |
| BOCO | base of complete oxidation |
| cm | centimetre(s) |
| CRM | certified reference material |
| CSA Global | CSA Global Pty Ltd |
| DD | diamond core drilling |
| DMIRS | Department of Mines, Industry Regulation and Safety |
| DMS | dense media separation |
| DTM | digital terrain model |
| DWER | Department of Water and Environmental Regulation |
| EL | exploration licence |
| FOB | free on-board |
| g | gram(s) |
| G&A | General and Administration (costs) |
| GPL | general purpose licence |
| GPS | global positioning system |
| GSWA | Geological Survey of Western Australia |
| Gwalia | Gwalia Consolidated Limited |
| ha | hectare(s) |
| Haddington | Haddington International Resources Limited |
| HRM | HRM Resources Australia Limited |
| ICP-MS | inductively coupled plasma – mass spectrometry |
| IQBR | Independent Qualified Persons Report |
| IRR | internal rate of return |
| JV | joint venture |
| kg | kilogram(s) |
| km, $km^2$ | kilometres, square kilometres |
| L | miscellaneous licence |

| | |
|---|---|
| lb | pounds |
| Lithco | Lithco No.2 Pty Ltd |
| Living Waters | Living Waters Mining (Australia) Pty Ltd |
| LOR | life of Reserve |
| m, $m^2$, $m^3$ | metre(s), square metre(s), cubic metre(s) |
| ML | mining lease |
| mm | millimetre(s) |
| Mt | million tonnes |
| Mt/a | million tonnes per annum |
| NPV | net present value |
| NTA | Native Title Act 1993 (Commonwealth) |
| PFS | prefeasibility study |
| PL | prospecting licence |
| POW | Program of Works |
| Primero | Primero Group |
| QA | quality assurance |
| QAQC | quality assurance and quality control |
| QC | quality control |
| QKNA | quantitative kriging neighbourhood analysis |
| RAB | rotary air blast |
| RC | reverse circulation |
| RCD | reverse circulation with diamond core tails |
| RL | retention licence |
| Rock Solid | Rock Solid Data Consultancy |
| SD | standard deviation |
| SHRIMP | sensitive high-resolution ion microprobe |
| t/a | tonnes per annum |
| $t/m^3$ | tonnes per cubic metre |
| Tawana | Tawana Resources NL |
| TDS | total dissolved salts |
| TOFR | top of fresh rock |
| TPF | tantalite processing facility |
| USGS | United States Geological Survey |
| WA | Western Australia |
| XRF | x-ray fluorescence |

# 20 Director and Independent Qualified Person Statements

## 20.1 CSA Global Director – Mr Aaron Green

I, Aaron Green, confirm that I am a Director of CSA Global Pty Ltd (CSA Global) and that I directly supervised the production of the report titled "Independent Qualified Person's Report of the Bald Hill Tantalum and Lithium Project, Western Australia" dated 9 August 2018, in accordance with SGX Catalist Rule 442.



__________________________

Aaron Green

Director of CSA Global

9 August 2018

## 20.2 Competent Person for Mineral Resources and Ore Reserves

### *20.2.1 Competent Person for Mineral Resources*

I, Matthew Cobb, confirm that I am a Principal Consultant Geologist of CSA Global Pty Ltd (CSA Global) and that I am the Independent Qualified Person responsible for the report titled "Independent Qualified Person's Report of the Bald Hill Tantalum and Lithium Project, Western Australia" with an effective date of 9 August 2018, in accordance with SGX Catalist Rule 442.

I confirm that CSA Global's directors, substantial shareholders and their associates and I are independent of Alliance Mineral Assets Limited (AMAL), its directors, and substantial shareholders. In addition, my firm's partners, directors, substantial shareholders and their associates and I have no interest, direct or indirect, in AMAL and will not receive benefits other than remuneration paid to CSA Global in connection with the Independent Qualified Person's Report (IQPR). Remuneration paid to CSA Global in connection with the IQPR is not dependent on the findings of this report.

I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).

I am a Competent Person as defined by the JORC Code (2012 Edition) and meet all the requirements for an Independent Qualified Person under the Catalist Rule 442, having greater than five years' experience that is relevant to the style of mineralisation and type of deposit described in this report for which I am accepting responsibility.

I also verify that this report is based on and fairly and accurately reflects, in the form and context in which it appears, the information in my supporting documentation relating to Mineral Resources for which I am accepting responsibility.

I am a Member of the Australasian Institute of Mining and Metallurgy in good standing. I have not been found in breach of any relevant rule or law and am not denied or disqualified from membership of, subject to any sanction imposed, the subject of any disciplinary proceedings or the subject of any investigation which might lead to a disciplinary action by any regulatory authority or any professional association.

I have reviewed the report, to which this Consent Statement applies, and I consent to the release of this report.

__________________________

9 August 2018

Matthew Cobb, Competent Person

Principal Consultant Geologist of CSA Global

### *20.2.2 Competent Person for Ore Reserves*

I, Karl van Olden, confirm that I am a Principal Mining Engineer and Manager of Mining of CSA Global Pty Ltd (CSA Global) and that I am the Independent Qualified Person responsible for the report titled "Independent Qualified Person's Report of the Bald Hill Tantalum and Lithium Project, Western Australia" with an effective date of 9 August 2018, in accordance with SGX Catalist Rule 442.

I confirm that CSA Global's directors, substantial shareholders and their associates and I are independent of Alliance Mineral Assets Limited (AMAL), its directors, and substantial shareholders. In addition, my firm's partners, directors, substantial shareholders and their associates and I have no interest, direct or indirect, in AMAL and will not receive benefits other than remuneration paid to CSA Global in connection with the Independent Qualified Person's Report (IQPR). Remuneration paid to CSA Global in connection with the IQPR is not dependent on the findings of this report.

I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).

I am a Competent Person as defined by the JORC Code (2012 Edition) and meet all the requirements for an Independent Qualified Person under the Catalist Rule 442, having greater than five years' experience that is relevant to the style of mineralisation and type of deposit described in this report for which I am accepting responsibility.

I also verify that this report is based on and fairly and accurately reflects, in the form and context in which it appears, the information in my supporting documentation relating to Ore Reserves for which I am accepting responsibility.

I am a Fellow the Australasian Institute of Mining and Metallurgy in good standing. I have not been found in breach of any relevant rule or law and am not denied or disqualified from membership of, subject to any sanction imposed, the subject of any disciplinary proceedings or the subject of any investigation which might lead to a disciplinary action by any regulatory authority or any professional association.

I have reviewed the report, to which this Consent Statement applies, and I consent to the release of this report.

______________________________

9 August 2018

Karl van Olden, Competent Person

Principal Mining Engineer and Manager of Mining of CSA Global

# 21 References

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U.S. Geological Survey, 2018, Mineral commodity summaries 2018: U.S. Geological Survey, 200 p., pp 98-99, 164-165 https://doi.org/10.3133/70194932.

Virisheff, A., Thomas, M. June 2014: Independent Qualified Person Report on the Bald Hill Tantalum Project, Western Australia. Prepared for Alliance Mineral Assets Limited and submitted to SGX.

## 21.1 Tawana ASX Announcements

Lithium Ore Reserve Increase at Bald Hill Jun 6, 2018 – http://tawana.com.au/wp-content/uploads/sites/37/2018/06/01988118.pdf

TAW and AMAL complete First Shipment of Lithium Concentrate May 3, 2018 – http://tawana.com.au/wp-content/uploads/sites/37/2018/05/01978393.pdf

First Bald Hill lithium concentrate on its way to Esperance port | The West Australian April 26, 2018 – https://thewest.com.au/business/mining/first-bald-hill-lithium-concentrate-on-its-way-to-esperance-port-ng-b88815804z

Bald Hill Lithium Haulage Commences April 24, 2018 – http://tawana.com.au/wp-content/uploads/sites/37/2018/04/01973908.pdf

Bald Hill Plant Achieves Key Milestones March 29, 2018 – http://spcagent.co/tawana/wp-content/uploads/sites/37/2018/03/1786495.pdf

Lithium Production Commences at Bald Hill March 14, 2018 – http://tawana.com.au/wp-content/uploads/sites/37/2018/03/140318-Lithium-Production-Commences-at-Bald-Hill_final.pdf

Commissioning Commences at Bald Hill Lithium Plant February 15, 2018 – http://spcagent.co/tawana/wp-content/uploads/sites/37/2018/02/01950770.pdf

Significant Exploration Results Continue at Bald Hill December 6, 2017 – http://spcagent.co/tawana/wp-content/uploads/sites/37/2017/12/01930677.pdf

## 21.2 Worldwide Web

### *21.2.1 Geoscience Australia*

http://www.australianminesatlas.gov.au/aimr/commodity/tantalum.html

### *21.2.2 Wikipedia*

http://en.wikipedia.org/wiki/Tantalite

http://en.wikipedia.org/wiki/Tantalum

http://en.wikipedia.org/wiki/Lithium

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# Appendix 1: JORC Code Table 1 – Bald Hill Fenceline Resource (for post-2014 drilling prior to Tawana drilling)

## Section 1: Sampling Techniques and Data

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

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Sampling techniques** | *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*<br>*Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>*Aspects of the determination of mineralisation that are Material to the Public Report.*<br>*In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.* | **1983–1988**<br>Surveying, mapping and analysis of costeans, reverse circulation (RC), rotary air blast (RAB) drillholes.<br>Costeans sampled along walls.<br>2–3 kg drill samples collected at 1 m intervals.<br>Samples jaw crushed and riffle split to 100–150 g for pulverising by roll milling and ring grinding.<br>X-ray fluorescence (XRF) determination of $Ta_2O_5$, $Nb_2O_5$ and Sn by SGS Australia.<br>No evidence of certified standards or blanks. Field duplicates submitted at 1:25 in drilling and 1:10 costeaning.<br>Assays greater than 800 ppm $Ta_2O_5$ repeated by laboratory.<br>Check assays completed at Greenbushes Analytical Laboratories (1996–1999)<br>**2000–2009**<br>RC and RAB samples collected at 1 m intervals in intersected pegmatites.<br>Samples riffle split to two 2.5 kg samples pulverised and analysis at laboratory as duplicates. Average of assays in database.<br>Field duplicates added to end of 2004 drilling.<br>Certified blanks and standards of appropriate $Ta_2O_5$ grade reported in laboratory results.<br>Repeat analyses on approximately 10% of samples (2001–2013).<br>**2014**<br>RC samples at 1 m intervals.<br>Samples split to 3–4 kg pulverised and analysis at laboratory.<br>Standards of appropriate grade and lab repeats reported in laboratory results.<br>Field duplicates taken and submitted for analysis at 1:10 in drilling. |
| **Drilling techniques** | *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).* | RC and RAB drilling conducted in line with general industry standards.<br>Most drilling is vertical. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Drill sample recovery** | *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>*Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>*Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.* | Chip recovery or weights for RC and RAB drilling were not conducted. Not possible to establish if relationship between sample recovery and sample grades exists.<br>Tantalite is relatively fine-grained.<br>Opportunity for sample bias is considered negligible. |
| **Logging** | *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*<br>*Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*<br>*The total length and percentage of the relevant intersections logged.* | Geological logs exist for all drillholes with lithological codes via an established reference legend.<br>Drillholes have been geologically logged in their entirety but assays have generally only been submitted through and adjacent to the pegmatites. |
| **Subsampling techniques and sample preparation** | *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>*If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br>*For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>*Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>*Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.*<br>*Whether sample sizes are appropriate to the grain size of the material being sampled.* | RC samples were collected at 1 m intervals and riffle split on-site to produce a subsample less than 5 kg.<br>The RC drilling samples are considered robust for sampling the tantalite mineralisation.<br>It appears most samples were dry.<br>Sampling is in line with general sampling practices of that time.<br>Field duplicates, laboratory standards and laboratory repeats were used to monitor analyses.<br>Sample size for RC drilling is considered appropriate for the tantalite mineralisation. |
| **Quality of assay data and laboratory tests** | *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*<br>*For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.*<br>*Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.* | The XRF assay technique is considered to be robust. Standards, blanks and duplicates were submitted in varying frequency throughout the exploration campaigns.<br>Bald Hill operated as a producing mine until 2006, during which verification of assay results from drilling was conducted.<br>No geophysical methods were used to determine assay results. |
| **Verification of sampling and assaying** | *The verification of significant intersections by either independent or alternative company personnel.*<br>*The use of twinned holes.*<br>*Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>*Discuss any adjustment to assay data.* | The correlations made between closely spaced holes are considered reasonable.<br>The $Ta_2O_5$ assays show a marked correlation with the pegmatite intersections via elevated downhole grades.<br>Drill logs exist for all holes either as electronic files or hardcopy.<br>All drilling data has been loaded to a database and rigorously validated prior to use.<br>Graphical verification was made to see that elevated $Ta_2O_5$ assays correlated with the assigned downhole lithology. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Location of data points** | *Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*<br>*Specification of the grid system used.*<br>*Quality and adequacy of topographic control.* | Collar coordinates were derived from a 1983 50 m x 50 m local grid. This was resurveyed in 1996.<br>The drilling coordinates prior to 2014 have been transformed to produce GDA94 coordinates.<br>Current drilling is surveyed via a differential global positioning system (GPS) to produce GDA94 coordinates.<br>The area is of low relief and topographic control is of reasonable accuracy. |
| **Data spacing and distribution** | *Data spacing for reporting of Exploration Results.*<br>*Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.*<br>*Whether sample compositing has been applied.* | Boreline area.<br>The majority of the drillholes are nominally spaced at 20 m x 20 m on a rectangular grid rotated approximately 35° to the east. Some of the holes prior to 2014 are closer spaced. The spacing of holes is considered adequate for the Mineral Resource estimation and classification.<br>There is no evidence of sample compositing. |
| **Orientation of data in relation to geological structure** | *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*<br>*If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.* | The majority of drilling is vertical.<br>The tantalite-bearing pegmatites are generally flat to shallowly dipping in nature. Therefore, the majority of drilling intercepts are assumed to be only marginally greater than true width, with minimal opportunity for sample bias. |
| **Sample security** | *The measures taken to ensure sample security.* | The procedures applied were aligned to the industry practices prevailing at the time of sample collection, despatch, and analysis. Given the relative grade and value of the commodity, the procedures are considered to be adequate. |
| **Audits or reviews** | *The results of any audits or reviews of sampling techniques and data.* | Prior to 1989 Fugro Spatial Solutions Pty Ltd were commissioned to confirm collar locations of a selected number of drillholes. |

## Section 2: Reporting of Exploration Results (for post-2014 drilling prior to Tawana drilling)

(Criteria listed in the preceding section also apply to this section.)

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Mineral tenement and land tenure status** | *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*<br>*The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.* | The portfolio of mineral tenements, comprising mining leases, exploration licences, prospecting licences, miscellaneous licences, a general-purpose lease, and a retention licence are in good standing. |
| **Exploration done by other parties** | *Acknowledgment and appraisal of exploration by other parties.* | Alluvial tantalite has been mined periodically from the early 1970s.<br>Gwalia Consolidated Limited (Gwalia) undertook exploration for tantalite-bearing pegmatites from 1983 to 1998. Work included mapping, costeaning, and several phases of drilling using RAB, RC and diamond methods. The work identified mineral resources that were considered uneconomic at the time.<br>Haddington entered agreement to develop the resource and mining commenced in 2001 and continued until 2005. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | Haddington International Resources Limited (Haddington) continued with exploration until 2009.<br>Living Waters Mining (Australia) Pty Ltd (Living Waters) acquired the Project in 2009 and continued with limited exploration to the north of the main pit area. |
| **Geology** | *Deposit type, geological setting and style of mineralisation.* | The Bald Hill area is underlain by generally north-striking, steeply dipping Archaean metasediments (schists and greywackes) and granitoids.<br>Felsic porphyries and pegmatite sheets and veins have intruded the Archaean rocks. Generally, the pegmatites parallel the regional foliation, occurring as gently dipping sheets and as steeply dipping veins.<br>The pegmatites vary in width and are generally comprised quartz-albite-orthoclase-muscovite-spodumene in varying amounts. Late-stage albitisation in the central part of the main outcrop area has resulted in fine grained, banded, sugary pegmatites with visible fine grained, disseminated tantalite. A thin hornfels characterised by needle hornblende crystals is often observed in adjacent country rocks to the pegmatitic intrusives. Tantalite generally occurs as fine disseminated crystals commonly associated with fine-grained albite zones, or as coarse crystals associated with cleavelandite.<br>Weathering of the pegmatites yields secondary mineralised accumulations in alluvial/eluvial deposits. |
| **Drillhole information** | *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:*<br>• *easting and northing of the drillhole collar*<br>• *elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar*<br>• *dip and azimuth of the hole*<br>• *down hole length and interception depth*<br>• *hole length.*<br>*If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.* | All drillholes have northing and easting collar coordinates in GDA94.<br>Although most drillholes have a collar elevation (relative to mean sea level), there were 127 drillholes with no collar elevation and a further 74 drillholes where there was mismatch with the topography digital terrain model (DTM). The collar elevations for these 201 drillholes were derived from the topography DTM.<br>The majority of drilling is vertical. There are 132 (–60°) angled drillholes in the database. For 38 angled drillholes, the set up survey is duplicated at the bottom of the drillhole. A total of 54 drillholes in the database have no downhole survey and were treated as vertical.<br>For costeans, an azimuth with a zero or small dip is recorded to define their orientation. The orientation and lengths were validated against available maps and electronic datasets.<br>AMC conducted checks of the collar locations, drillhole depths, geological logging, assay results for a portion of the database from reports, and electronic datasets. |
| **Data aggregation methods** | *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*<br>*Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.*<br>*The assumptions used for any reporting of metal equivalent values should be clearly stated.* | No aggregated intercepts are reported.<br>Metal equivalents have not been used. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Relationship between mineralisation widths and intercept lengths** | *These relationships are particularly important in the reporting of Exploration Results.*<br>*If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.*<br>*If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').* | The majority of drilling completed at Bald Hill was vertical holes. The tantalite-bearing pegmatites are generally flat to shallowly dipping in nature. Therefore, the majority of drilling intercepts are assumed to be only marginally greater than true width. |
| **Diagrams** | *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.* | Drilling locations are shown in the report. |
| **Balanced reporting** | *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.* | Not applicable. |
| **Other substantive exploration data** | *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.* | The water table in the mine site area is at least 15 m below ground surface and confined to steeply dipping, north-south trending shear zones. Local water bore analyses indicate hypersaline water with total dissolved salts (TDS) >200,000 mg/L and pH 5.8–6.95. |
| **Further work** | *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*<br>*Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | Further RC and diamond drilling is warranted at the various deposits to explore for additional resources and improve the understanding of the current resources prior to mining. |

# Appendix 2: JORC Code Table 1 (Central Resources and Boreline – Tawana drilling only)

## Section 1: Sampling Techniques and Data

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

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Sampling techniques** | *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.* | Drilling consists of ~99% RC, RC with diamond core tails (RCD) and diamond drilling (DD) for a total 1,128 holes for 104,465.89 m of drilling in the Bald Hill Project database. The Bald Hill Mineral Resource is based on assay data from 699 RC holes, 17 RCD holes and 12 DD holes.<br>RC cuttings were continuously sampled at 1 m intervals through all pegmatite intercepts including 2 m of waste above and below each intercept.<br>DD core is typically continuously sampled at 2 m intervals through pegmatite intercepts. Where required by changes in lithology, mineralisation, or alteration, core samples may be shorter or longer than the typical 2 m. |
| | *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* | The majority of drillhole collars are accurately surveyed using RTK differential GPS equipment.<br>Drill samples are logged for lithology, weathering, structure (diamond core), mineralogy, mineralisation, colour and other features.<br>Half diamond core was collected and placed in marked plastic sacks, and shipped to the assay laboratory.<br>RC samples were collected and placed in marked plastic bags which were placed in sacks and then shipped to the assay laboratory. |
| | *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.* | Drill samples were jaw crushed and riffle split to 2–2.5 kg for pulverising to 80% passing 75 microns. Prepared samples are fused with sodium peroxide and digested in dilute hydrochloric acid. The resultant solution is analysed by ICP by Nagrom Laboratory in Perth.<br>The assay technique is considered to be robust as the method used offers total dissolution of the sample and is useful for mineral matrices that may resist acid digestions. |
| **Drilling techniques** | *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).* | RC was drilled using 4.5-inch (140 mm) rods with a nominal 5.9-inch (150 mm) diameter hole. Diamond core used PQ, NQ2 or HQ3 diameter core. Core was oriented where possible.<br>All DD holes and ~98% of RC drillholes are angled; the remainder were drilled vertically. |
| **Drill sample recovery** | *Method of recording and assessing core and chip sample recoveries and results assessed.* | Chip recovery or weights for RC drilling were not recorded. Core recovery is very good through the mineralised zones and estimated to be greater than 90%. |
| | *Measures taken to maximise sample recovery and ensure representative nature of the samples.* | RC drilling generally utilised an external booster to keep samples dry and maximising recoveries. The majority of RC holes are shallow (<150 m) with very few wet samples encountered. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.* | No relationship between grade and recovery has been identified. |
| **Logging** | *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* | Geological logs exist for all drillholes with lithological codes via an established reference legend.<br>Drill samples were logged for lithology, weathering, structure (diamond core), mineralogy, mineralisation, colour and other features. Logging and sampling has been carried out to "industry standards" to a level sufficient to support the Mineral Resource estimate. |
| | *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* | Drillholes have been geologically logged in their entirety. Where logging was detailed, the subjective indications of spodumene content were estimated and recorded. |
| | *The total length and percentage of the relevant intersections logged.* | All drillholes are logged in full, from start to finish of the hole. |
| **Subsampling techniques and sample preparation** | *If core, whether cut or sawn and whether quarter, half or all core taken.* | Where sampled, core is cut in half onsite using a core saw, to produce two identical halves. |
| | *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* | Dry RC samples were collected at 1 m intervals and riffle or cone split on-site to produce a subsample less than 5 kg. |
| | *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* | Sample preparation is according to industry standard, including oven drying, coarse crush, and pulverisation to 80% passing 75 microns. |
| | *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* | Subsampling is performed during the preparation stage according to the assay laboratories' internal protocol. |
| | *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.* | Field duplicates, laboratory standards and laboratory repeats are used to monitor analyses. |
| | *Whether sample sizes are appropriate to the grain size of the material being sampled.* | Sample sizes are considered to be appropriate and correctly represent the style and type of mineralisation. |
| **Quality of assay data and laboratory tests** | *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* | The assay technique is considered to be robust as the method used offers total dissolution of the sample and is useful for mineral matrices that may resist acid digestions. |
| | *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* | None were used. |
| | *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.* | Standards and duplicates were submitted in varying frequency throughout the exploration campaign and internal laboratory standards, duplicates and replicates are used for verification. |
| **Verification of sampling and assaying** | *The verification of significant intersections by either independent or alternative company personnel.* | Significant intersections have been verified by alternative Tawana Resources NL personnel and by CSA Global Pty Ltd Competent Person Matthew Cobb.<br>The Ta and Li assays show a marked correlation with the pegmatite intersections via elevated downhole grades. |
| | *The use of twinned holes.* | Twinning of holes undertaken to date show reasonable continuity and representivity of the mineralised intervals. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* | Drill logs exist for all holes as electronic files and/or hardcopy (all 2017 logging has been input directly to field logging computers).<br>Digital log sheets have been created with inbuilt validations to reduce potential for data entry errors.<br>All drilling data has been loaded to a database and validated prior to use. |
| | *Discuss any adjustment to assay data.* | For the Mineral Resource estimate, adjustments were made to a number of downhole surveys. These adjustments were made where angled holes were blocked well before the end of hole, or where downhole surveys had not yet been undertaken but surveys had been completed for nearby holes.<br>Where the drillhole was blocked, the last survey was copied to the end of hole depth. Where no down hole survey was completed or the hole was blocked at surface, the downhole surveys from a nearby hole, drilled by the same rig (and preferably same driller), was copied and applied to the hole. Some of these holes may need to be re-entered, cleaned and surveyed in the future. All changes were marked as "nominal" in the database.<br>In all cases, corrections to downhole surveys were reviewed against surrounding drillholes and pegmatite intervals to ensure error was minimised. |
| **Location of data points** | *Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* | Prior to drilling, collar coordinates are situated using handheld GPS (considered accurate to within 4 m). Following drilling, accurate surveying using RTK differential GPS is undertaken by trained site personnel.<br>Hole collars are preserved until completion of downhole surveying. A significant portion of holes are surveyed using downhole digital instruments dominated by gyroscopic tools. |
| | *Specification of the grid system used.* | Grid used is MGA 94 Zone 51. |
| | *Quality and adequacy of topographic control.* | Topographical survey is generated from detailed airborne survey with points generated on a 1 m x 1 m grid. Areas mined have been defined by final mine surveys. |
| **Data spacing and distribution** | *Data spacing for reporting of Exploration Results.* | Drilling has been conducted on a 40 m x 40 m grid extending to 80 m x 80 m on the peripheries of the deposit, with a 140 m x 80 m area in the northern portion of the deposit drilled out at 20 m x 20 m. |
| | *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* | The spacing of holes is considered of sufficient density to classify the Mineral Resource as "Indicated" or "Inferred" in accordance with the JORC Code. |
| | *Whether sample compositing has been applied.* | There has been no sample compositing. |
| **Orientation of data in relation to geological structure** | *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* | Drilling has been angled to achieve the most representative intersections through mineralisation.<br>The majority of drilling is angled. Some vertical holes have been drilled in areas where access is limited or the pegmatites are interpreted to be flat lying. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.* | The spodumene tantalite-bearing pegmatites are generally flat to shallowly dipping in nature. The true width of pegmatites is generally considered 80–95% of the intercept width, with minimal opportunity for sample bias. |
| **Sample security** | *The measures taken to ensure sample security.* | The drill samples are taken from the rig by experienced personnel, stored securely and transported to the laboratory by a registered courier and handed over by signature. |
| **Audits or reviews** | *The results of any audits or reviews of sampling techniques and data.* | No audits have been undertaken to date. |

## Section 2: Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Mineral tenement and land tenure status** | *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* | The Bald Hill Resource is situated on mining lease M15/400 comprising 501 ha. M15/400 is 100% owned by Australian incorporated, Singapore Exchange listed Alliance Mineral Assets Limited (AMAL).<br>The mining lease is subject to an earn-in agreement between AMAL and Tawana Resources NL (Tawana).<br>There are no other third-party interests or royalties. Government royalties are 5% for spodumene or tantalite mineral concentrates. |
| | *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.* | The portfolio of mineral tenements, comprising mining leases, exploration licences, prospecting licences, miscellaneous licences, a general-purpose lease, and a retention licence are in good standing. |
| **Exploration done by other parties** | *Acknowledgment and appraisal of exploration by other parties.* | Alluvial tantalite has been mined periodically from the early 1970s.<br>Gwalia undertook exploration for tantalite-bearing pegmatites from 1983 to 1998. Work included mapping, costeaning, and several phases of drilling using RAB, RC, and DD methods. The work identified Mineral Resources that were considered uneconomic at the time.<br>Haddington entered an agreement to develop the resource and mining commenced in 2001 and continued until 2005. Haddington continued with exploration until 2009.<br>Living Waters acquired the Project in 2009 and continued with limited exploration to the north of the main pit area. |
| **Geology** | *Deposit type, geological setting and style of mineralisation.* | The Bald Hill area is underlain by generally north-striking, steeply dipping Archaean metasediments (schists and greywackes) and granitoids.<br>Felsic porphyries and pegmatite sheets and veins have intruded the Archaean rocks. Generally, the pegmatites crosscut the regional foliation, occurring as gently dipping sheets and as steeply dipping veins.<br>The pegmatites vary in width and are generally comprised quartz-albite-muscovite-spodumene in varying amounts. Late-stage albitisation in the central part of the main outcrop area has resulted in fine-grained, banded, sugary pegmatites with visible fine-grained, disseminated tantalite. A thin hornfels |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | characterised by needle hornblende crystals is often observed in adjacent country rocks to the pegmatite intrusives. Tantalite generally occurs as fine disseminated crystals commonly associated with fine-grained albite zones, or as coarse crystals associated with cleavelandite.<br>Weathering of the pegmatites yields secondary mineralised accumulations in alluvial/elluvial deposits. |
| **Drillhole information** | *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:*<br>• *easting and northing of the drillhole collar*<br>• *elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar*<br>• *dip and azimuth of the hole*<br>• *downhole length and interception depth*<br>• *hole length.* | Not applicable – not reporting exploration results. |
| | *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.* | Not applicable – not reporting exploration results. |
| **Data aggregation methods** | *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* | Not applicable – not reporting exploration results. |
| | *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* | Not applicable – not reporting exploration results. |
| | *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | Not applicable – not reporting exploration results. |
| **Relationship between mineralisation widths and intercept lengths** | *These relationships are particularly important in the reporting of Exploration Results.* | Not applicable – not reporting exploration results. |
| | *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* | The majority of drilling is angled. Some vertical holes have been drilled in areas where access is limited or the pegmatites are interpreted to be flat lying.<br>The spodumene tantalite-bearing pegmatites are generally flat to shallowly dipping in nature. The true width of pegmatites is generally 85–95% of the intercept width, with minimal opportunity for sample bias. |
| | *If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').* | Not applicable – not reporting exploration results. |
| **Diagrams** | *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.* | Not applicable – not reporting exploration results. |
| **Balanced reporting** | *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.* | Not applicable – not reporting exploration results. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Other substantive exploration data** | *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.* | Metallurgical testwork has been conducted by the analytical laboratory Nagrom. Nagrom has extensive experience with tantalite and spodumene extraction testwork and has ISO9001:2008 accreditation. Results have demonstrated that the Bald Hill pegmatite is amenable to the production of Li and Ta concentrates. |
| **Further work** | *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* | Further RC and diamond drilling is warranted at the deposit to explore for additional resources and improve the understanding of the current resources prior to mining. |
| | *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | Diagrams have been included in the body of this report. |

## Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Database integrity** | *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* | Logging is completed onto templates using standard logging codes into Toughbook laptops. Analytical results are imported directly into the database by a database specialist.<br>The central database, from which the extract used for Mineral Resource estimation was taken, is managed by Tawana. Upon receipt of the extract, CSA Global validated the database for internal integrity as part of the import process for modelling in Surpac. |
| | *Data validation procedures used.* | Data were validated for internal database integrity as part of the import process for use in Surpac. This includes logical integrity checks for data beyond the hole depth maximum, and overlapping from-to errors within interval data. Visual validation checks were also made for obviously spurious collar or downhole survey values, collars which were not assigned a proper RL value, and collars which may lack substantial downhole survey data. |
| **Site visits** | *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* | CSA Global Pty Ltd Competent Person for the Tawana resource and reserve update announcements; Matthew Cobb, has visited site and reviewed the drilling, sample collection, and logging data collection procedures, along with conducting a review of the site geology. The outcome of the site visit was that data has been collected in a manner that supports reporting a Mineral Resource estimate in accordance with the JORC Code, and controls to the mineralisation are well understood. |
| | *If no site visits have been undertaken indicate why this is the case.* | Not applicable. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Geological interpretation** | *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* | The geological model developed is based on lithological logging of pegmatites within a metasedimentary host, with occasional hypabyssal intrusions of dioritic composition. The deposit geology is very well understood based on previous mining history and open pit exposures, and this is reflected in the generally high confidence in both the mineralisation and geological interpretations. |
| | *Nature of the data used and of any assumptions made.* | The input data used for geological modelling has been derived from the qualitative and quantitative logging of lithology, alteration, geochemical composition of samples returned from RC and DD drilling. |
| | *The effect, if any, of alternative interpretations on Mineral Resource estimation.* | The geological model developed has a solid lithological basis, and is controlled by the presence of visually distinct pegmatite within drillholes. Pegmatite structures have been modelled as predominantly low angle/sub-horizontal structures on the basis of a high density of input drillhole data and confirmation of the interpretation on the basis of mapping. The data do not readily lend themselves to alternative interpretations, and it is unlikely that such alternatives would yield a more geologically reasonable result. |
| | *The use of geology in guiding and controlling Mineral Resource estimation.* | The model developed for mineralisation is geologically driven; controlled by the presence or absence of pegmatite. |
| | *The factors affecting continuity both of grade and geology.* | Geological continuity is controlled by the preference for fractionated pegmatitic fluids to follow preferential structural pathways through the host rocks (an intercalated pile of metasediments and metavolcanics. Grade within this pegmatite is controlled by numerous factors such as fluid residence time, degree of fluid fractionation and pegmatite thickness. |
| **Dimensions** | *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.* | The Bald Hill Mineral Resource comprises one large, main, sub horizontal pegmatite body, striking north-south, with a strike length of 1,070 m, and a width at its widest point of 775 m. This main body is surrounded by several smaller discrete pegmatite bodies, sub-parallel to the main, which result in a total strike length for the whole resource of 1,245 m, and a total width of 990 m. The Mineral Resource has a total vertical depth of 195 m, beginning 20 m below the natural surface and plunging gently to the south along its entire strike length. |
| **Estimation and modelling techniques** | *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* | The Bald Hill Mineral Resource has been estimated using ordinary kriging in a Surpac block model. The variables $Li_2O$ ppm and $Ta_2O_5$ ppm were estimated independently in a univariate sense. The pegmatites on which this Mineral Resource was defined was domained internally on the basis of a 7,500 ppm $Li_2O$ cut-off, which itself was determined from exploratory data analysis as a point of inflection within the $Li_2O$ grade distribution. This resulted in a high-grade core of $Li_2O$ mineralisation surrounded by lower grade pegmatite, and is an interpretation supported by the petrogenetic model for the formation of $Li_2O$ bearing pegmatites.<br>Samples were composited to 1 m intervals based on assessment of the raw drillhole sample intervals. Various high grade cuts were used for both $Li_2O$ |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | (ranging from 10,000 ppm to 50,000 ppm) and $Ta_2O_5$ (ranging from 300 ppm to 4,000 ppm) based on statistical review of each object. Composites for some objects remained uncut depending on the statistical review.<br>High and low grade domains were estimated independently with hard boundaries assumed between domains. Parameters for estimation and search ellipsoids were determined from quantitative kriging analysis performed within the Supervisor™ software package, which was also used to define semivariogram models for each variable. The parameters defined for the largest, most populated domains (main mineralised body and its high-grade core) were used to inform all smaller subsidiary domains during estimation.<br>A two search pass strategy was employed, with successive searches using more relaxed parameters for selection of input composite data, and a greater search radius. Blocks not informed for any given variable after two passes were assigned the Sichel mean of the input data from that particular domain.<br>All geological modelling and grade estimation was completed using Surpac software. |
| | *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* | This Mineral Resource estimate is an incremental update from previous recent estimates, and compares well, with only the expected minor incremental changes to grades and tonnages. Historical estimates for the Bald Hill deposit focussed on $Ta_2O_5$ only, and as such are not directly comparable to the current estimate for which $Li_2O$ is the primary target variable. |
| | *The assumptions made regarding recovery of by-products.* | The only significant by-product to be considered is $Ta_2O_5$ which has been estimated within the domains defined by $Li_2O$. |
| | *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* | No deleterious elements have been identified or estimated. |
| | *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* | Block model dimensions used for the Bald Hill Mineral Resource estimate were 10 m x 10 m x 5 m (XYZ) sub-celled to 2.5 m x 2.5 m x 1.25 m for resolution of volumes at lithological boundaries. This compares to an average drillhole spacing of 20 m within the more densely informed areas of the deposit. This 20 m spacing increases to up to 80 m between drillholes in less well informed portions of the deposit.<br>Kriging neighbourhood analysis (KNA) was conducted within the Supervisor™ software package to test a variety of block sizes in both well and poorly informed areas of the deposit. The chosen block size represents the smallest block size that yields a robust set of estimation statistics, which are comparable to the results also yielded from larger blocks sizes. |
| | *Any assumptions behind modelling of selective mining units.* | No assumptions were made regarding selective mining units. |
| | *Any assumptions about correlation between variables.* | The two variables under consideration; $Li_2O$ and $Ta_2O_5$ are uncorrelated within both the pegmatite as a whole, and within the high-grade domain (correlation coefficient of -0.04). Consequently, no correlation between variables was considered. Both variables were treated in a univariate sense. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *Description of how the geological interpretation was used to control the resource estimates.* | The nature of the mineralised body is such that the definition of the pegmatite host also defines the mineralisation. Within that, and based on a combination of petrogenetic process and statistical appraisal, an internal high-grade $Li_2O$ domain was defined. |
| | *Discussion of basis for using or not using grade cutting or capping.* | Domained data for both variables were assessed using histogram and log probability plots to define potential top-cuts to data. Where the Competent Person observed likely breaks in the continuity of the grade distributions, a top-cut was chosen and applied. This was conducted on a per-domain basis. |
| | *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.* | The results of estimation into the block model for the Bald Hill Mineral Resource were validated visually and statistically. Estimated block grades were compared visually in section against the corresponding input data values. Additionally, trend plots of input data and block estimates were compared for swaths generated in each of the three principal geometric orientations (northing, easting and elevation). |
| **Moisture** | *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.* | Tonnages are reported on a dry basis. |
| **Cut-off parameters** | *The basis of the adopted cut-off grade(s) or quality parameters applied.* | Modelling of mineralisation for the resource was based on a combination of pegmatite lithological logging. Within this mineralisation shape, a higher grade core was defined on the basis of a 7,500 ppm $Li_2O$ cut-off.<br>The Mineral Resource is reported using a 0.5% $Li_2O$ cut-off which approximates a conservative cut-off grade used for potential open pit mining as determined from preliminary pit optimisations. |
| **Mining factors or assumptions** | *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.* | The methods used to design and populate the Bald Hill Mineral Resource block model were defined under the assumption that the deposit is likely to be mined via open pit methods. |
| **Metallurgical factors or assumptions** | *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.* | The material targeted for extraction predominantly comprises the mineral spodumene, for which metallurgical processing methods are well established. No specific detail regarding metallurgical assumptions have been applied in the estimation the current Mineral Resource, however at the current level of detail available, the Competent Person for this report believes with sufficient confidence that metallurgical concerns will not pose any significant impediment to eventual economic extraction. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Environmental factors or assumptions** | *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.* | No assumptions have been made regarding waste products; however the Mineral Resource has previously been mined by open pit methods with a processing facility, stacked waste dumps and tailings storage facilities on site. It is reasonable to assume that in the presence of this infrastructure, the creation and storage of waste products on site will not be of concern for future mining activities. |
| **Bulk density** | *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* | In situ bulk densities for the Bald Hill Mineral Resource have been assigned on a lithological basis for both mineralisation and waste, based on historical values derived from mining and values taken from those used in similar deposits and lithologies.<br>The Competent Person considers the values chosen to be suitably representative. |
| | *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vughs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* | Densities have been assigned on a lithological basis based on a total of 44 metasediment and 25 pegmatite core samples measured at the Nagrom laboratory and values derived from surrounding deposits and rock types. |
| | *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.* | Bulk densities have been applied on a lithological unit basis. Values assigned were as follows:<br>• Fresh pegmatite mineralisation 2.65 t/m$^3$<br>• Transitional pegmatite 2.5 t/m$^3$<br>• Fresh diorite 2.8 t/m$^3$<br>• Transitional diorite 2.6 t/m$^3$<br>• Fresh metasediments 2.74 t/m$^3$<br>• Transitional metasediments 2.6 t/m$^3$<br>• Oxide metasediments 2.2 t/m$^3$<br>• Waste fill 1.8 t/m$^3$.<br>Additional bulk density testwork utilising drill core across the mineralised zones and less common waste units is recommended for future estimates. |
| **Classification** | *The basis for the classification of the Mineral Resources into varying confidence categories.* | The Mineral Resource has been classified as Indicated and Inferred on a qualitative basis; taking into consideration numerous factors such as drillhole spacing, estimation quality statistics (kriging slope of regression), number of informing samples used in the estimate, average distance to informing samples in comparison to the semivariogram model ranges, and overall coherence and continuity of the modelled mineralisation wireframes. |
| | *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* | The classification reflects areas of lower and higher geological confidence in mineralised lithological domain continuity based on the intersecting drill sample data numbers, spacing and orientation. Overall mineralisation trends are reasonably consistent within the various lithology types over numerous drill sections. |
| | *Whether the result appropriately reflects the Competent Person's view of the deposit.* | The Mineral Resource estimate appropriately reflects the Competent Person's views of the deposit. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Audits or reviews** | *The results of any audits or reviews of Mineral Resource estimates.* | Internal audits were completed by CSA Global which verified the technical inputs, methodology, parameters and results of the estimate.<br>The current model has not been audited by an independent third party. |
| **Discussion of relative accuracy/ confidence** | *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* | The Mineral Resource accuracy is communicated through the classification assigned to the deposit. The Mineral Resource estimate has been classified in accordance with the JORC Code (2012 Edition) using a qualitative approach. All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this Table. |
| | *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* | The Mineral Resource statement relates to a global estimate of in-situ tonnes and grade. |
| | *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.* | The deposit has been historically mined for tantalite ($Ta_2O_5$); however, no accounting for $Li_2O$ had been undertaken, and therefore no production records are available for comparison to the current estimate. |

## Section 4: Estimation and Reporting of Ore Reserves

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Mineral Resource estimate for conversion to Ore Reserves** | *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.*<br>*Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.* | The Mineral Resource estimate was compiled by Dr Matthew Cobb of CSA Global Pty Ltd in R148.2018 Bald Hill Mineral Resource Update February 2018.<br>The Mineral Resource estimate was depleted by Dr Matthew Cobb in R276.2018 Bald Hill Mineral Resource Estimate – April 2018 Depletion.<br>The Mineral Resource estimate is reported inclusive of the Ore Reserve estimate. |
| **Site visits** | *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*<br>*If no site visits have been undertaken indicate why this is the case.* | Mr Karl van Olden of CSA Global, who estimated the reserves visited the Bald Hill Project in May 2018 and inspected the locations of the open pit, waste dumps, transport corridors, and processing plants. |
| **Study status** | *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.*<br>*The Code requires that a study to at least Prefeasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.* | A prefeasibility study (PFS) was prepared and released in July 2017 by Tawana for a 1.2 Mt/a spodumene dense media separation (DMS) circuit adjacent to the existing tantalite processing facility (TPFS). The PFS addressed mining and processing costs, geotechnical parameters and placement of waste material. The additional studies completed in July 2018 and actual project construction and commissioning costs have produced more recent mining and processing costs and first indication of plant performance. An initial optimisation study and pit design was completed in December 2017 by CSA Global which was updated in May 2018. Tawana also completed a detailed mining schedule and cost model in May 2018. An updated geotechnical analysis was completed by Dempers and Seymour Pty Ltd (Dempers and Seymour) in April 2018. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | The work undertaken to date has addressed all material Modifying Factors required for the conversion of a Mineral Resources estimate into an Ore Reserve estimate and has shown that the mine plan is technically feasible and economically viable. |
| **Cut-off parameters** | *The basis of the cut-off grade(s) or quality parameters applied.* | The economic cut-off grade has been estimated as 3,000 ppm for $Li_2O$ and 200 ppm for $Ta_2O_5$ based on relevant processing costs and metallurgical recoveries, a fixed 6% $Li_2O$ concentrate price of A$1,170 and $Ta_2O_5$ price of A$87/lb. |
| **Mining factors or assumptions** | *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).*<br>*The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.*<br>*The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc), grade control and pre-production drilling.*<br>*The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).*<br>*The mining dilution factors used.*<br>*The mining recovery factors used.*<br>*Any minimum mining widths used.*<br>*The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.*<br>*The infrastructure requirements of the selected mining methods.* | Input parameters for pit optimisations were; mining costs based on mining contract rates; mineral processing costs and recoveries both from site and the Primero Group Limited (Primero) PFS; commodity prices of A$1,170 for a 6% $Li_2O$ concentrate price and a A$87/lb $Ta_2O_5$ price. These input parameters were reviewed by CSA Global. They are considered appropriate for the current lithium and tantalum world markets. An updated resource block model for the Bald Hill deposit was optimised using Whittle™ software. The current pit design is considered suitable for Ore Reserve estimation.<br>Geotechnical analysis has been undertaken by Dempers and Seymour after the initial design was completed. Some areas of the design require minor adjustment to align with the latest geotechnical recommendations. These changes will not impact on the value of the pit or the Ore Reserve estimate. The proposed pit slopes are considered likely to be stable for the current pit designs.<br>The mineral resource model was estimated by CSA Global. The resource block model was used for optimisation and mine planning after inclusion of additional attributes. The block model has block sizes of 10 m x 10 m x 5 m for the pit designs which is considered suitable for the proposed mining method and equipment. All pit designs have catch berms every 20 vertical metres and are appropriate for a 5 m bench height.<br>Fixed values for mining dilution and recovery of 7.5% and 92.5% were adopted for both the optimisation and determination of Ore Reserves. A grade of 0% $Li_2O$ and 0% $Ta_2O_5$ was assumed for dilution material. These levels are considered suitable for the deposit geometry, mining method, and size of mining equipment.<br>A minimum mining width of 30 m was used in the pit design.<br>Inferred Mineral Resources have not been included in the pit design or Ore Reserves. Inferred material has been included in the mining schedule and treated as waste, Inferred mined material does not make a material impact on the Bald Hill Project's overall financial viability.<br>Mine infrastructure is mostly in place and the Project is in operation. |

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| **Metallurgical factors or assumptions** | *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.*<br>*Whether the metallurgical process is well-tested technology or novel in nature.*<br>*The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.*<br>*Any assumptions or allowances made for deleterious elements.*<br>*The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.*<br>*For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?* | For spodumene ore the economic analysis has only considered Phase one processing, comprising dense media gravity separation (DMS) of the 1 mm to 10 mm fraction after P100 crushing to 10 mm. This process is considered the lowest risk methodology for the coarse grained, spodumene pegmatite of the Bald Hill Project. To further reduce processing risk the DMS circuit will treat 1–5.6 mm and 5.6–10 mm separately, with partial mica removal from the 1–5.6 mm fraction using a reflux classifier (RFC). -1 mm material (spodumene fines) along with low-grade DMS concentrates (middlings) will be treated at a later date through a spodumene fines circuit (LFS). For tantalite ore, the PFS has only considered tantalite recovery from direct ore feed to the existing tantalite spiral plant and from additional spirals to remove a portion of the tantalite from the spodumene fines prior to stockpiling for future treatment through the LFS. Testwork has shown additional tantalite concentrate recovery can be obtained from treatment of DMS concentrate through jigs; however, this has not been considered by the PFS.<br>All technologies proposed are proven and well tested with easily sourced components. The spodumene processing plant is commissioned and producing within design specifications.<br>Samples used for metallurgical testwork were sourced from existing open pits and 10 diamond core holes distributed across the Indicated Resource area. Variability test work and mineralogy was undertaken, and a composite drill core sample was used for design purposes. A bulk sample collected from open pit material was processed to obtain approximately 1.5 tonnes of spodumene concentrates averaging 6.23% $Li_2O$ for downstream testwork by lithium converters. The variability, composite and bulk samples all show the same metallurgical characteristics with no apparent variation or domaining across the deposit. About 99% of the Resources are fresh rock and the remaining 1% is transitional to fresh rock.<br>For spodumene concentrates, potential deleterious elements have been observed at low concentrations in concentrates or are non-existent. Key deleterious minerals and elements are; lepidolite and petalite, not present in testwork; iron, concentrates to date contain less than the 0.8% total Fe and 8% moisture content, being the key contractual requirements; mica, concentrates to date contain less than 3% mica and The Port of Esperance allows a limit of 5% mica. Detailed mineral product quality and safety chemical and micro mineral analysis undertaken on concentrates for the Port of Esperance returned favourable results.<br>A bulk sample was processed through a DMS250 at Nagrom. A total 3,887 kg of material was treated through the DMS after removal of fines and partial mica for recovery of 1,490 kg of combined concentrates averaging 6.23% $Li_2O$ at a recovery of 95.9% of contained lithium in the DMS feed or net recover of 84.9% after taking into account lithium contained in fines and RFC rejects. The iron content of the combined concentrate was 0.21%. This is a significantly better result than the composite testwork used for engineering mass balance and PFS recoveries. |

| Criteria | JORC Code explanation | Commentary |
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| | | The exceptionally high recoveries were due in part to the higher than expected head grade of the bulk sample feed resulting in middlings being able to be blended with primary concentrates and grades in excess of 6% being maintained.<br>The Ore Reserve has been based on being able to produce concentrates of at between 5.5% and 7.0% $Li_2O$. |
| **Environmental** | *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.* | The site is a "brownfields" site with existing workings and infrastructure. The mine has environmental approvals for the pre-existing open pit, waste rock dumps, and tailings facility. The Bald Hill Project has formal Department of Mines, Industry Regulation and Safety (DMIRS) approval for the addition of spodumene production. The Department of Water and Environmental Regulation (DWER) has approved a license to take water, the 1.5 Mt/a production capacity, power station, fuel storage, and in pit tailings disposal. Additional approvals for the larger open pit, waste rock dumps, and the long-term tailings facility are still under assessment. Studies have shown that there are no significant additional environmental impacts for the spodumene circuit or extensions to the existing permitted pits. |
| **Infrastructure** | *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.* | The Bald Hill project is located in the Goldfields region of Western Australia where suitable infrastructure is available for mining projects. A sealed highway and unsealed public road with RAV-7 approval provides access from the port of Esperance to within 1.8 km of the plant site where an existing private access road has been upgraded for the increased traffic load. Process water requirements are available from water resources within the mine area, as per the existing water permits. Potable water is transported to site until the new mine camp is constructed. Power is produced on site using diesel generators. Product will be shipped via the port of Esperance located approximately 360 km south of Bald Hill via road. The site will operate on a fly-in/fly-out basis to Kalgoorlie with a village constructed to house operations personnel whilst on site. During construction and operations a combination of the existing village and a leased neighbouring village will be used. |
| **Costs** | *The derivation of, or assumptions made, regarding projected capital costs in the study.*<br>*The methodology used to estimate operating costs.*<br>*Allowances made for the content of deleterious elements.*<br>*The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.*<br>*The source of exchange rates used in the study.*<br>*Derivation of transportation charges.*<br>*The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.*<br>*The allowances made for royalties payable, both Government and private.* | Remaining Project capital expenditure was derived using actual site data where available or from the PFS. The Primero PFS was based on budget pricing and Primero's database of recent project costs. Tawana provided the projected operating costs and has been reviewed by CSA Global.<br>Updated mine operating costs have been based on actual site data. Processing costs are a combination of site data where available and the PFS.<br>Due to the low concentration of Fe and mica in the concentrates, no allowance has been made for deleterious elements.<br>Exchange rates were applied based on external sources and at current levels. |

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| | | Transport and port charges were derived from quotations by reputable contractors and include storage and re-handling costs.<br>Based on the offtake agreement, concentrates must contain 5.5% $Li_2O$.<br>Allowances were made for State Government royalties. No other royalties are payable for production from M15/400. |
| **Revenue factors** | *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.*<br>*The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.* | Exchange rate of 0.75 A$:US$. Transportation and port loading charges have been allowed for. Spodumene revenue factors were: variable head grade averaging 1.04% $Li_2O$ over five years of the mine life after dilution and ore loss; processing recoveries applied at 65% for the first year and then 80%. Tantalite revenue factors were: direct tantalite feed averaging 327 ppm $Ta_2O_5$ over five years of the mine life with a recovery of 65% to saleable concentrates. Secondary production of 39,000 kg of $Ta_2O_5$ from the spodumene circuit fines.<br>AMAL has a binding offtake agreement to sell their share of the spodumene concentrate and a non-binding term sheet in relation to selling its share of the tantalite concentrate. The commodity pricing for spodumene concentrate is based on a price of US$880/t (FOB Esperance) for 6% $Li_2O$ fixed for a two-year period. The key terms of the agreement are: a fixed price for all production for 2018 and 2019 of US$880/t (FOB Esperance) for 6% $Li_2O$ with price adjustment increment/decrement of US$15/t based on grade variation of 0.1%; from 2020 to 2023 the sales price and volumes are to be negotiated and agreed based on prevailing market conditions at the time. For the purposes of the estimate, reference prices of US$800/t for 2020, US$800/t for 2021 and US$750/t for 2022 and beyond at 6% $Li_2O$ concentrates.<br>The commodity price for tantalite is based on a price of US$60/lb (FOB Esperance) for +25% $Ta_2O_5$. The assumed spot price is US$70/lb for 2018 to 2020, then US$60/lb from 2021 to 2023 and a premium (based on historical sales from Bald Hill) of US$5/lb has been assumed due to the low radiation and past sales history from the Bald Hill mine. |
| **Market assessment** | *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.*<br>*A customer and competitor analysis along with the identification of likely market windows for the product.*<br>*Price and volume forecasts and the basis for these forecasts.*<br>*For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.* | Medium and long-term supply and demand modelling for spodumene concentrates is difficult to predict due to the rapid growth in demand and promise of supply. AMAL has signed a binding offtake agreement for their share of all the production for the first two years which includes substantial prepayments.<br>Lithium demand growth will likely be driven by demand for electric cars and energy storage systems. There are several large Lithium projects that are expected to come into production in late 2018 and 2019. These may result in a period of oversupply from 2020. However, based on history, supply has significantly lagged in analysts' predictions.<br>The commodity pricing for spodumene concentrates is based on a price of US$880/t (FOB Esperance) for 6% $Li_2O$ |

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| | | Concentrates produced during bulk metallurgical testwork are within the contractually acceptable limits of grade and impurities. |
| **Economic** | *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.*<br>*NPV ranges and sensitivity to variations in the significant assumptions and inputs.* | The economic analysis is based on cash flows driven by the production schedule. The cash flow projections include: initial and sustaining capital estimates; mining, processing and concentrate logistics costs to the customer based on FOB pricing; revenue estimates based on concentrate pricing adjusted for fees, charges and royalties; and a 10% discount factor.<br>Sensitivity analyses were generated by varying the salient economic variables. The Project is most sensitive to grade, recovery of lithium and exchange rate. The Bald Hill Project is robust against a 20% negative change to recovery, grade, metal pricing, foreign exchange rates, capital or operating costs. |
| **Social** | *The status of agreements with key stakeholders and matters leading to social licence to operate.* | The site is a brownfields operation however over time the larger project footprint will have a marginal impact on pastoral leases. Tawana is working with the lessee to mitigate impacts. The licence pre-dates Native Title however Tawana has been in dialog with the Ngadju Native Title Group on neighbouring tenements. |
| **Other** | *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:*<br>*Any identified material naturally occurring risks.*<br>*The status of material legal agreements and marketing arrangements.*<br>*The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.* | No material naturally occurring risks have been identified.<br>AMAL has a binding offtake agreement for the supply of spodumene concentrate from the Bald Hill Project. Apart from the Bald Hill JV agreements that govern the Bald Hill Project, there are no other relevant material legal agreements.<br>There are no apparent impediments to obtaining all government approvals required for the Bald Hill Project. |
| **Classification** | *The basis for the classification of the Ore Reserves into varying confidence categories.*<br>*Whether the result appropriately reflects the Competent Person's view of the deposit.*<br>*The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).* | Probable Ore Reserves were determined from Indicated Resources as per the JORC (2012) guidelines. The Bald Hill Project has no Measured Resource, therefore there are no Proved Ore Reserves.<br>Mr Karl van Olden, the Competent Person for the Ore Reserve estimation, have reviewed the work undertaken to date and considers that it is sufficiently detailed and relevant to the deposit to allow those Ore Reserves derived from Indicated Mineral Resources to be classified as Probable.<br>Zero (0) % of Probable Ore Reserves have been based on Measured Mineral Resources. |
| **Audits or reviews** | *The results of any audits or reviews of Ore Reserve estimates.* | The PFS capital costs and operating estimate, and scope of work were externally reviewed. Ore Reserve estimates have been reviewed internally. Mine design, scheduling, and financial model has been reviewed by CSA Global. No material flaws have been identified and the Ore Reserve is considered appropriate for a PFS level of study. |

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| **Discussion of relative accuracy/ confidence** | *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.*<br>*The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.*<br>*Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.*<br>*It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.* | This Ore Reserve estimation is supported by the PFS and the current operational plans that have taken into account geological, metallurgical, geotechnical, process engineering and mining engineering considerations. It has a nominal accuracy of +25%.<br>The Bald Hill project has an internal rate of return (IRR) and net present value (NPV) which makes it robust in terms of cost variations. The Project is most sensitive to price variations for spodumene concentrates.<br>All estimates are based on local costs in Australia dollars. Standard industry practices have been used in the estimation process. The Bald Hill Project is currently in the commissioning and early operations phase and therefore recent and relevant costs have been utilised where available.<br>Capital expenditure estimates are considered to be within -5/+10% accuracy and a substantial amount of the original project capital expenditure has been completed. Operating expenditure estimates are considered to be within 25% accuracy.<br>There has been limited spodumene production via DMS to date so no comprehensive comparison or reconciliation of data has been made. Current initial performance of the process aligns with expectations. There are significant historic tantalite recovery records and these have been used as a basis for estimating future recovery. |

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