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***Australian & International Exploration & Evaluation of Mineral Properties***


**INDEPENDENT QUALIFIED PERSON'S REPORT**

**on the**

**BALD HILL TANTALUM and LITHIUM PROJECT**

**WESTERN AUSTRALIA**

**PREPARED FOR**

***Alliance Mineral Assets Limited***


| | |
|---|---|
| Independent Qualified Person: | Philip A. Jones BAppSc(App. Geol), MAIG, MAusIMM |
| Director responsible for report: | Allen J Maynard BAppSc (Geol), MAIG, MAusIMM |
| Company: | Al Maynard & Associates Pty Ltd |
| Date: | 7th August, 2017 |

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# EXECUTIVE SUMMARY

The Bald Hill Tantalum 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 60km south east of the mining town Kambalda and 50 km east of Widgiemooltha in the Coolgardie Mineral Field of Western Australia, Figure 1.


Figure 1: Location map of the Bald Hill tantalite projects.

Alliance Mineral Assets Limited ("AMAL" or the "Company") has a portfolio of mineral tenements 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 Achaean 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, columbite, spodumene, cassiterite, and other accessory minerals. A tantalite and lithium resource has been identified at the Bald Hill project (AMC

2014, Varley 2015 and CSA Global 2017) and the development of this resource is the primary objective of AMAL and their Joint Venture partners Lithco, a wholly owned subsidiary of Tawana Resource NL ("Tawana") which is an ASX publicly listed company. The exploration potential for additional tantalum and lithium resources on the Company's tenements is considered very 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 tantalum-bearing concentrate. Mining and processing operations were profitably undertaken by Haddington International Resources Limited ("Haddington") from 2001 to 2005, when operations ceased. 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 has been on care and maintenance since 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") in 2011. On 13th March 2014, HRM changed its name to Alliance Mineral Assets Limited ("AMAL").

Between 2009 and 2016, Living Waters, and subsequently, HRM/AMAL have undertaken work aimed at re-commissioning the process plant and site preparations for mining the remaining mineral resources. Some limited exploration north and east of the main mining area had also been completed.

As announced by the Company on 3rd June 2016, AMAL signed a binding terms sheet with Lithco No. 2 Pty Ltd, a wholly owned subsidiary of Tawana. This agreement granted Lithco 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 10km radius of the tenements. Lithco undertook to spend, by 31st December 2017 (or such later date as mutually agreed by the Parties), a minimum of A$7,500,000 on exploration, evaluation, and feasibility (including administrative and other overhead costs in relation thereto) to entitle Lithco to 50% of all rights to lithium minerals from the tenements; and spend a further A$12,500,000 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 Lithco to a 50% legal and beneficial interest in the whole Project. Lithco announced on 28th June, 2017 that they had earnt their 50% of all rights to the lithium minerals from the tenements having spent the required A$7,500,000 on exploration and mine development on the Bald Hill tenements.

During the past year the Bald Hill project has evolved from being a tantalite project with development to an operating mine effectively suspended awaiting favourable tantalite concentrate price increases to a very active spodumene-tantalite project that is on track for mining to commence by the end of 2017.

The development of the Bald Hill project has progressed markedly during the last year with the Joint Venture partners Lithco focussing on the lithium potential of the project's pegmatites. Lithco, during the past year, have completed a substantial drilling program and metallurgical testwork that has been followed up with a Pre-Feasibility Study.

Since the previous IQPR report, Lithco have 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. As a result of this work the previously reported resources for the Central and Hillside deposits have been superseded by the Lithco resource estimates. The areas covered by the Lithco modelling and the remaining previous AMC and Varley models are shown in Figure 2. As a result, there has been an overall substantial net increase of the Bald Hill Project resources to some 19 million tonnes of tantalite and spodumene ore, Table 1.

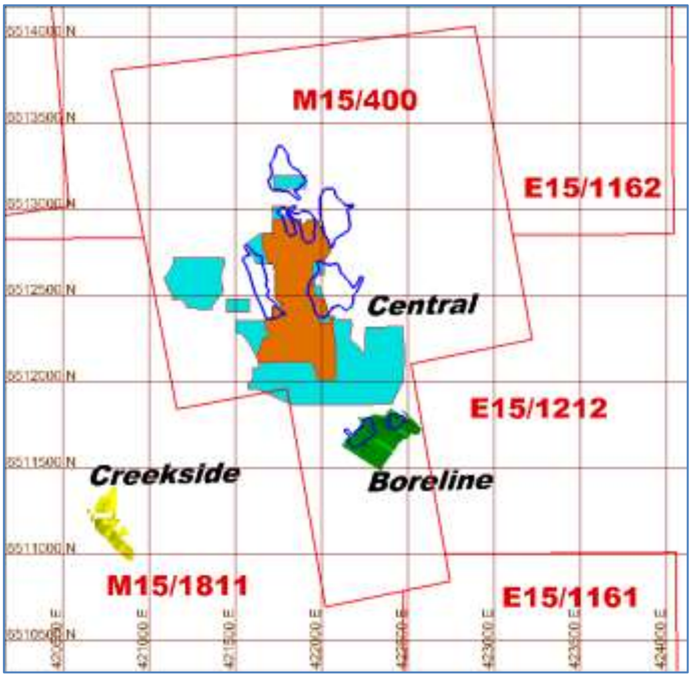


**Figure 2: Areas covered by previous resource models at Boreline (Green) and Creekside (Yellow) and Lithco resource model (Orange=Indicated, Blue=Inferred).**

| Category | Mineral Type | Gross Attributable to Licence | | | Net Attributable to Issuer | | | |
|---|---|---|---|---|---|---|---|---|
| | | Tonnes (millions) | Grade $Ta_2O_5$ (ppm) | Grade $Li_2O$ (%) | Tonnes (millions) | Grade $Ta_2O_5$ (ppm) | # Grade $Li_2O$ (%) | Change from previous update (tonnes %) |
| **Reserves - Central (Lithco, 2017)** | | | | | | | | |
| Proved | Tantalum** | 0.0 | 0 | 0.00 | 0.0 | 0 | 0.00 | 0 |
| Probable | Tantalum** | 1.4 | 317 | 0.21 | 1.4 | 317 | 0.11 | 7000% |
| **Total** | **Tantalum** | **1.4** | **317** | **0.21** | **1.4** | **317** | **0.11** | **7000%** |
| Proved | Tantalum+Lithium* | 0.0 | 0 | 0 | 0.0 | 0 | 0.00 | 0 |
| Probable | Tantalum+Lithium* | 4.3 | 208 | 1.18 | 4.3 | 208 | 0.59 | 100% |
| **Total** | **Tantalum+Lithium** | **4.3** | **208** | **1.18** | **4.3** | **208** | **0.59** | **100%** |
| **TOTAL RESERVES** | | **5.7** | **235** | **0.94** | **5.7** | **235** | **0.47** | **100%** |
| **Resources - Boreline and Creekside (carried over from previous IQPR) and Central (Lithco, 2017)** | | | | | | | | |
| Measured | Tantalum** | 0.0 | 0 | | 0.0 | 0 | | 0% |
| Indicated | Tantalum** | 3.1 | 318 | | 3.1 | 318 | | 28% |
| Inferred | Tantalum** | 2.6 | 299 | | 2.6 | 299 | | 32% |
| **Total** | **Tantalum** | **5.8** | **309** | | **5.8** | **309** | | **28%** |
| **Resources - Central (Lithco, 2017)** | | | | | | | | |
| Measured | Tantalum+Lithium*** | 0.0 | 0 | 0.00 | 0.0 | 0 | 0.00 | 0 |
| Indicated | Tantalum+Lithium*** | 4.6 | 207 | 1.25 | 4.6 | 207 | 0.63 | 100% |
| Inferred | Tantalum+Lithium*** | 8.2 | 130 | 1.14 | 8.2 | 130 | 0.57 | 100% |
| **Total** | **Tantalum+Lithium** | **12.8** | **158** | **1.18** | **12.8** | **158** | **0.59** | **100%** |

**Table 1: Resource and Reserve Summary for Bald Hill outside mined pits as at 11$^{th}$ July 2017. The Resources are inclusive of Reserves.**

*Notes:*

** Lithco used 0.39% $Li_2O$ and 200ppm $Ta_2O_5$ lower cut-offs to report the Ore Reserves*

***AMC Consultants 2014 used 100ppm $Ta_2O_5$ lower cut-off, Varley, 2015 used total pegmatite, Lithco used 0.39% $Li_2O$ and 200ppm $Ta_2O_5$ lower cut-offs*

**** Lithco, 2017 reported the Central lithium Mineral Resources at a 0.5% $Li_2O$ cut-off. Table 18 reports this resource at a 0.39% $Li_2O$ cut-off.*

*# At June 28, 2017 Lithco had earnt 50% of the Lithium so Resource and Reserve $Li_2O$ grades have been halved to represent the share attributable to AMAL.*

Site works have commenced in preparation for a two-phase construction of a spodumene recovery plant and the upgrade of the tantalite recovery circuit. Mining is planned to commence during the last quarter of 2017 with spodumene and tantalite concentrates produced for sale in the first quarter of 2018.

Offtake agreements are in place at favourable prices for the projected tantalite and spodumene concentrates output for the first two years of production.

Tawana Resources NL, and the consulting firms it engaged with their appropriate Competent Persons, contributed to a Pre-Feasibility Study (PFS) in the areas of geology, resource, geo-technical, mining, metallurgy, engineering, tailings, cost estimating, project implementation, operations, and health, safety, environmental & social aspects.

Key findings of this Tawana Pre-Feasibility Study are that the lithium concentrate liberates easily, is clean and of high grade (6.0+%$Li_2O$ ) and that the Project is commercially and economical viable with the Project economics highly positive with a modest capital expenditure. Tawana concluded that this Pre-Feasibility Study demonstrates there are workable mining, processing, transport and shipping options for the production of lithium and tantalite concentrates. The Pre-Feasibility Study concluded that the Bald Hill mine be developed. Key points and the Ore Reserves estimated in from this PFS are summarised in this report.

Tawana announced to the Australian Stock Exchange ("ASX") that early stage earth works has commenced on site, with first production expected in the first quarter of 2018.

AM&A concludes that there are sufficient Ore Reserves at a sufficient grade to warrant the Company's planned full scale mining and production of high quality tantalite and spodumene concentrates.

Radiation registration, statutory appointments, mine design, safety management and environmental management systems applications have all been approved by the relevant WA state departments to start mining and production. Approvals will be required for a second Tailings Storage Facility (TSF 2) and the mining of the expanded resources.

AM&A also concludes that there is excellent 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 tantalum and lithium mineralisation. Additionally, there are many prospects where surface sampling and geological mapping has identified tantalum and lithium 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.

AM&A make the following recommendations with respect to further evaluating and increasing confidence in the Project:

- Further drilling is recommended to in-fill 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 Lithco modelled resource, with extensions to the south and south-east most likely to be relatively shallow with high lithium and tantalum grades.
- Further specific gravity tests on representative samples from a full suite of ore and waste lithologies is recommended to better define bulk densities for future resource modelling.

The Directors

7th August, 2017

Alliance Mineral Assets Limited
Unit 6, 24 Parkland Road
Osborne Park, WA, 6017
Australia

Dear Directors,

# INTRODUCTION

This report has been prepared by AM&A at your request in relation to reporting of the Mineral Resource and Ore Reserves estimates for the Bald Hill Tantalum and Lithium Project, with an effective date of 11 July, 2017.

## Purpose of this report

This report (Report) provides updated Mineral Resource and Ore Reserves estimates at the Bald Hill tantalum and lithium property (the Property) located in Western Australia and owned by Alliance Mineral Assets Ltd (AMAL). The Report has been prepared by Al Maynard & Associates Pty Ltd (AM&A) in accordance with Singapore Stock Exchange (SGX) 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 (the 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 (the Project) during 2015/2016 in preparation for producing a tantalite concentrate grading over 25% tantalite as part of the recently completed re-commissioning of the processing plant. A small quantity of concentrate produced from weathered pegmatite mined at Boreline 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, which is now a wholly owned subsidiary of Tawana Resource NL which is a ASX publicly listed company, whereby Lithco is 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. To date Lithco have funded an on-going drilling program, metallurgical testwork and having independent consultants model and estimate new resources for the areas drilled focussing on the lithium mineralisation. On June 28, 2017 Lithco reported to the ASX that they had met all the conditions having spent the A$7.5 million required to earn its 50% of the Lithium Rights.

## Use of report

The Report summarises the Mineral Resource and Ore Reserve estimates for the Bald Hill Tantalum and Lithium Project as at 11th July, 2017 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.

## Reporting Standard

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

For the purposes of this report, AM&A 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 is refers to a Qualified Person as per SGX Catalist rules.

## Basis, Scope and Limitations of this report

This Qualified Persons Report has been prepared in accordance with the requirements of the JORC Code (2012) as adopted by the Australian Institute of Geoscientists ('AIG') and the Australasian Institute of Mining and Metallurgy ('AusIMM').

The information presented in this report is based on technical reports provided by AMAL and Tawana, supplemented by our own inquiries. At the request of AM&A 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 AM&A with all available technical, relevant financial and other information required for the purposes of preparing the Report.

In performing its services utilising the JORC Code guidelines, AM&A has relied upon and assumed the accuracy and completeness of all material information that has been provided to it by AMAL and its service providers.

AM&A has no reason to believe that the information provided by AMAL or its service providers are materially inaccurate, misleading, or incomplete. AM&A has not audited the information provided to it. However, it has satisfied itself as to the reasonableness of the information used.

## Site Visits

Al Maynard, principal of Al Maynard and Associates ("AM&A") undertook an initial site visit to the Bald Hill Tantalite Project for AMAL on the 18th February, 2014 and carried out another previous field trip to the site for another unrelated client in 2002. Phil Jones, the Competent Person undertook an initial site visit to the Bald Hill Tantalite Project for AMAL during March 2015 with other site visits during December 2015, April 2016, August 2016 and November 2016.

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[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 5th February 2014.

## Statement of Independence

This report has been prepared by Philip A. Jones BAppSc (App. Geol), a member of the Australasian Institute of Mining and Metallurgy (MAusIMM)and the Australian Institute of Geoscientists (AIG), a geologist with over 40 continuous years in the industry. Mr Jones has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration 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 prepared by the Joint Ore Resources Committee, the Australian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. The author does not hold any interests in AMAL 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 AM&A's standard rates and is no way contingent upon the conclusions of this report.

## Tenure

AMAL are 100% holders of twelve Exploration Licences ("EL"), one General Purpose Licence ("GPL"), ten Miscellaneous Licences ("L"), six Mining Leases ("ML"), eight Prospecting Licences ("PL") and one Retention Licence ("RL"), Table 2and Figure 3. These tenements are all mineral licences located in the Bald Hill area, approximately 105km southeast of Kalgoorlie in the Eastern Goldfields of Western Australia. Philip A. Jones ("Independent Qualified Person" or "Competent Person") independently checked with the WA Department of Mines and Petroleum ("DMP") and the titles are in good standing as stated below in Table 2.

| 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 |
| 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 | Hectare |
| L 15/264 | AMAL | 100 | MISC | Live | 11-10-2006 | 10-10-2027 | 3.85 | Hectare |
| L 15/265 | AMAL | 100 | MISC | Live | 11-10-2006 | 10-10-2027 | 2.33 | Hectare |
| L 15/266 | AMAL | 100 | MISC | Live | 11-10-2006 | 10-10-2027 | 1.44 | Hectare |
| L 15/267 | AMAL | 100 | MISC | Live | 11-10-2006 | 10-10-2027 | 3.56 | Hectare |
| L 15/268 | AMAL | 100 | MISC | Live | 11-10-2006 | 10-10-2027 | 5.77 | Hectare |
| L 15/269 | AMAL | 100 | MISC | Live | 11-10-2006 | 10-10-2027 | 7.19 | Hectare |
| L 15/270 | AMAL | 100 | MISC | Live | 11-10-2006 | 10-10-2027 | 7.49 | Hectare |
| L 15/348 | AMAL | 100 | MISC | Live | 05-09-2014 | 04-09-2035 | 3.16 | Hectare |
| L 15/365 | AMAL | 100 | MISC | Live | 19-07-2017 | 18-07-2038 | 15.4919 | Hectare |
| L 15/366 | AMAL | 100 | MISC | Live | 19-07-2017 | 18-07-2038 | 61.519 | Hectare |
| M 15/1305 | AMAL | 100 | ML | Live | 29-12-2000 | 28-12-2021 | 97.89 | Hectare |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| M 15/1308 | AMAL | 100 | ML | Live | 29-12-2000 | 28-12-2021 | 92.53 | Hectare |
| M 15/1470 | AMAL | 100 | ML | Live | 13-05-2010 | 12-05-2031 | 400 | Hectare |
| M 15/1811 | AMAL | 100 | ML | Pending | | | 972.6945 | Hectare |
| M 15/400 | AMAL | 100 | ML | Live | 30-08-1988 | 07-09-2030 | 501 | Hectare |
| M 59/714 | AMAL | 100 | ML | Live | 27-10-2009 | 26-10-2030 | 191.8659 | Hectare |
| P 15/5465 | AMAL | 100 | PL | Live | 21-07-2010 | 20-07-2018 | 149 | Hectare |
| P 15/5466 | AMAL | 100 | PL | Live | 21-07-2010 | 20-07-2018 | 150 | Hectare |
| P 15/5467 | AMAL | 100 | PL | Live | 21-07-2010 | 20-07-2018 | 150 | Hectare |
| P 15/5862 | AMAL | 100 | PL | Live | 15-10-2014 | 14-10-2018 | 199.8208 | Hectare |
| P 15/5863 | AMAL | 100 | PL | Live | 15-10-2014 | 14-10-2018 | 199.8018 | Hectare |
| P 15/5864 | AMAL | 100 | PL | Live | 15-10-2014 | 14-10-2018 | 199.8564 | Hectare |
| P 15/5865 | AMAL | 100 | PL | Live | 15-10-2014 | 14-10-2018 | 199.8589 | Hectare |
| P 15/5866 | AMAL | 100 | PL | Live | 15-10-2014 | 14-10-2018 | 198.8084 | Hectare |
| R 15/1 | AMAL | 100 | RETENTION | Live | 09-06-2010 | 08-06-2019 | 973 | Hectare |

**Table 2: Summary of Alliance Minerals Assets Limited tenements at July31, 2017. All licences are for minerals exploration and where applicable mining.**

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

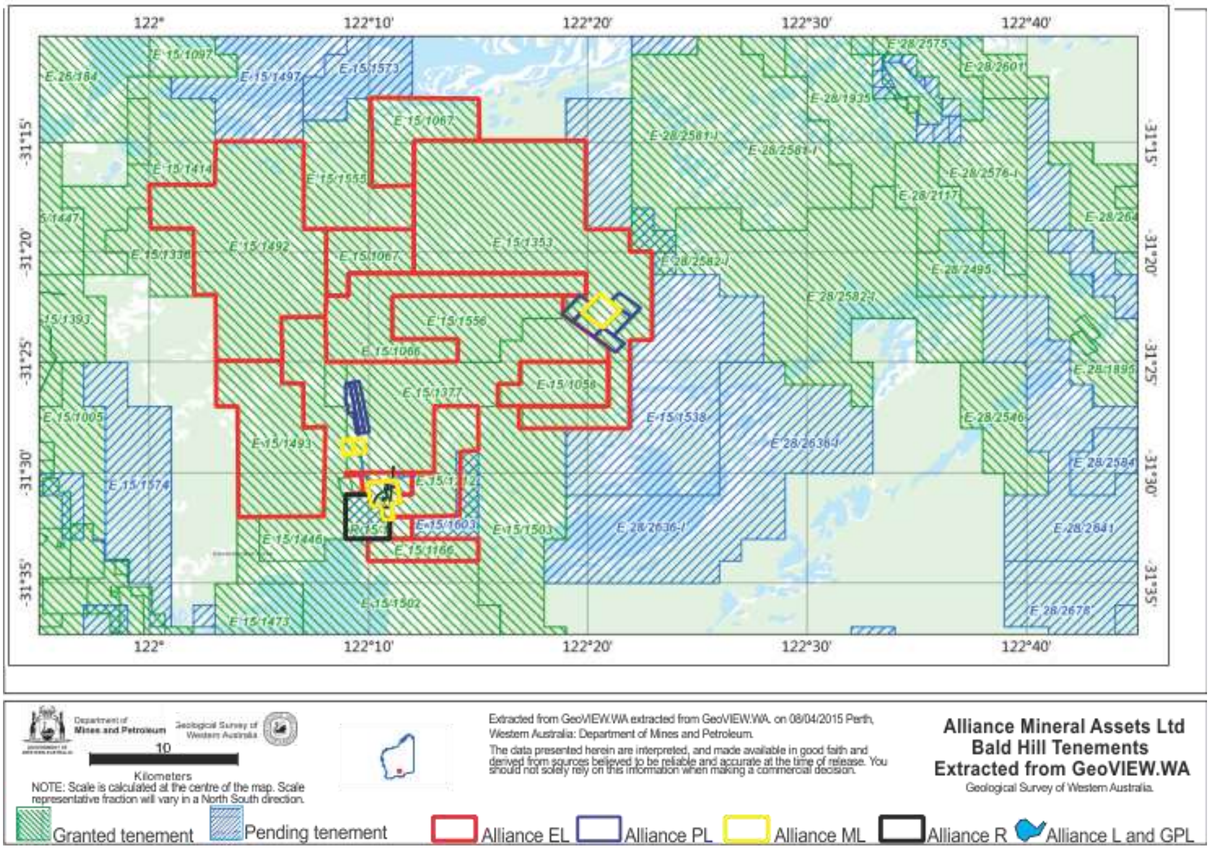


**Figure 3: Alliance Mineral Assets Limited tenements at 1 May 2017.**

## 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 Western Australia 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 Lithco 2017 drilling program.

The Mining Lease Application (M15/1811) over the previous Retention Lease 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.

The current Native Title status of Company tenements are summarised in Table 3.

| Tenement Id | Native Title Status |
|---|---|
| **Granted** | |
| M15/1305 | Native Title determined to be extinguished |
| M15/1308 | Native Title determined to be extinguished |
| M15/1470 | State Mining Deed |
| M15/400 | Pre-Native Title |
| P15/5465 | RSHA executed between Living Waters and Ngadju |
| P15/5466 | RSHA executed between Living Waters and Ngadju |
| P15/5467 | RSHA executed between Living Waters and Ngadju |
| P15/5862 | RSHA accepted |
| P15/5863 | RSHA accepted |
| P15/5864 | RSHA accepted |
| P15/5865 | RSHA accepted |
| P15/5866 | RSHA accepted |
| R15/1/M15/1811 | GLSC has previously indicated an agreement exists |
| G15/28 | Native Title determined to be extinguished |
| E15/1058 | RSHA between Abeh and Ngadju(being replaced by RSHA between AMAL and Ngadju) |
| E15/1066 | RSHA between Abeh and Ngadju(being replaced by RSHA between AMAL and Ngadju) |
| E15/1067 | RSHA between Abeh and Ngadju(being replaced by RSHA between AMAL and Ngadju) |
| E15/1161 | RSHA between Living Waters and Ngadju |
| E15/1162 | RSHA between Living Waters and Ngadju |
| E15/1166 | RSHA between Living Waters and Ngadju |
| E15/1212 | RSHA between Living Waters and Ngadju |
| E15/1353 | RSHA between AMAL and Ngadju |
| M59/714 | State Mining Deed |
| **Pending** | |
| M15/1811 | State Deed required (Mining Agreement with Ngadju) |

**Table 3: Native Title status.** ***RSHA = Regional Standard Heritage Agreement.***

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 DMP. An ethnographic survey has also been completed for Creekside Pit on R15/1 but as yet no Mining Proposal has been submitted to the DMP 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.

### Royalty

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

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

## ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Bald Hill project is located in the Eastern Goldfields of Western Australia approximately 50km due east of Widgiemooltha, 62km southeast of Kambalda and 105km southeast of Kalgoorlie, Figure 4. Access to site is via a well-made gravel road for 60km from the bitumen Coolgardie-Esperance Highway. The site is accessible all year round except during periods of high rainfall when the gravel road maybe closed by the shire for short periods to prevent damage to the road by the passing traffic until the road dries out again.


**Figure 4: Location map of the Bald Hill tantalite 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, 225, 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.

| 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 |
| Avg. precipitation days (≥ 0.2mm) | 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 |

**Table 4: Climate data for Kalgoorlie (100km to northwest) (after Wikipedia).**

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

## HISTORY

Alluvial tantalite has been mined at Bald Hill periodically from the early 1970s.Gwalia Consolidated Limited undertook exploration for tantalite-bearing pegmatites from 1983-1998. Work included mapping, costeaning, and several phases of drilling using RAB, RC, and diamond coring methods. The work identified mineral resources that were considered uneconomic at the time.

Haddington entered into an agreement with Gwalia Consolidated 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 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.

Living Waters acquired the project and also acquired a number of additional tenements north of the main project area in 2009 and continued with limited exploration to the north of the main pit area.

The Property was transferred to HRM Resources Australia Limited in 2011. On 13th March 2014, HRM changed its name to Alliance Mineral Assets Limited (“AMAL”).Since the acquisition AMAL has continued with RC drilling, especially testing for extensions of the Boreline, North and South open pits. AMAL have also completed mining the oxide resource at Boreline as part of the commissioning of the Company’s processing plants at both Bald Hill and Boulder which was completed in early 2016.

# GEOLOGICAL SETTING AND MINERALISATION

## Regional Geology

Bald Hill straddles the boundary between the Geological Survey 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. Bald Hill lies within the Achaean 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.

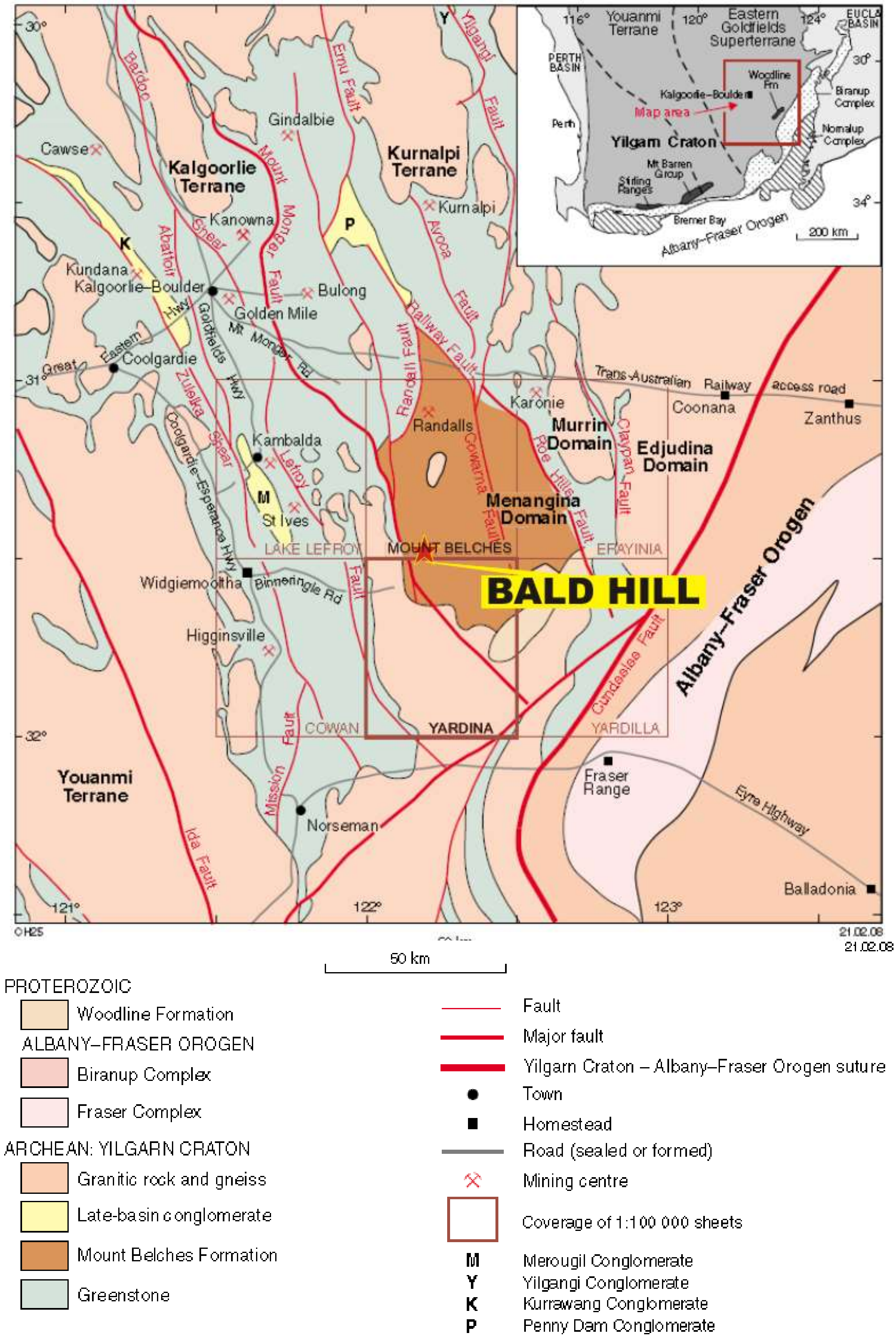


**Figure 5: Regional Geology (after Hall and Jones, 2008).**

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 $D_2$, 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 1345–1140 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.

## 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 2666 ± 5 Ma (Krapez et al., 2000) or c. 2667 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 (Abe-mh) 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 to5 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 (Abe-mls).

Hornfelsed (Abe-mhe) and metasomatized (Abe-mhz) 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.

## Pegmatites

Pegmatite dykes and pods (gp), 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 localized 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.

## Economic Minerals at Bald Hill

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

### 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 fifteen times less abundant in the universe than gold comprising just 1.5×10−4% (average approx. 1.5ppm) 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 a 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*

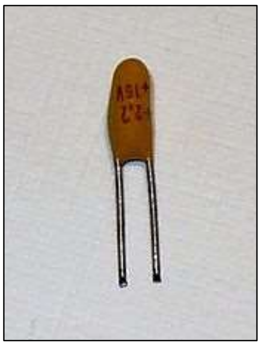

Figure 6: Tantalum electrolytic capacitor (after Wikipedia).

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.

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.

Tantalum is also highly bio-inert and is used as an orthopaedic implant material. 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 resources of tantalum in 2012 totalled 156 kt. The world’s largest holder of tantalum resource is Brazil with an estimated 88 kt, followed by Australia with 60 kt and Canada and Ethiopia with 4 kt each.

Using USGS data, Geoscience Australia estimated world production of tantalum in 2012 to be 765 tonnes (767 tonnes in 2011). Production in 2012 was dominated by Mozambique, with 260 tonnes, which amounted to about 34% of world output. According to the USGS, other main producers were Brazil with 180 tonnes, Congo (Kinshasa) with 95 tonnes, Rwanda with 90 tonnes and Nigeria with 50 tonnes.

## 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 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.

Lithium and its compounds have several industrial applications, including heat-resistant glass and ceramics, lithium grease lubricants, flux additives for iron, steel and aluminium production, lithium batteries and lithium-ion batteries. These uses consume more than three quarters of lithium production.

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

## Local Geology

The Company's tenements all 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.

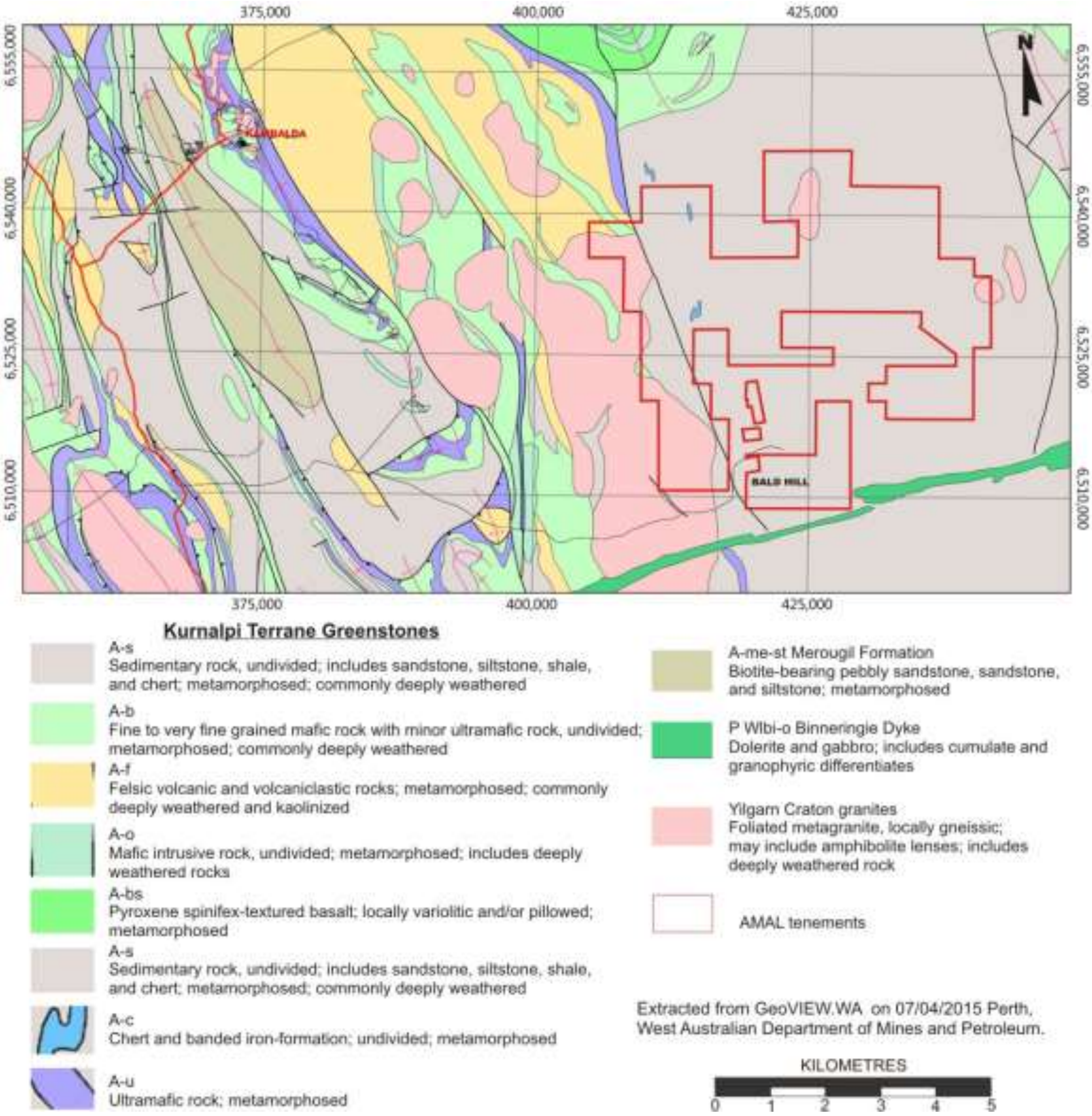


Figure 9: Local Geology.

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 Lithco agreement.

## 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 rotary air blast ("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 drill holes 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 reverse circulation ("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.

Lithco have re-drilled, 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.

## Previous Drilling

A total of 2,444drillholes and 62 costeans were completed at Bald Hill between 1983 and 2016 for a total of 40,593 metres of drilling and 1,610m of costeaning, Table 5, Table 6and Figure 10.

| Drill Type | Intervals Count | Li Count | Ta Count | Sn Count | Au Count |
|---|---|---|---|---|---|
| **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** |

Table 5: Drilling and assay statistics. (Inside AMAL tenements only)

The majority of drilling (2,312 holes) is vertical with only 132 drillholes inclined at -60$^{o}$ 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 data sets.

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 AM&A in 2016 by downloading all the historic exploration annual reports filed in the Department of Mines and Petroleum WAMEX web site for all the Company'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" Excel spreadsheets. The newly reconstructed database included 634 new drill holes 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 help 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.

| 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 | 6563 | 30.1 |
| BHC560-BHC772 | RC | 2003 | Haddington | 188 | 3760 | 20.0 |
| BHR0627-BHR0646 | RAB | 2003 | Haddington | 20 | 349 | 17.5 |
| BHC885-BHC912 | RC | 2004 | Haddington | 28 | 1253 | 44.8 |
| BHR0773-BHR0884 | RAB | 2004 | Haddington | 94 | 2011 | 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 | 4053 | 22.5 |
| BHR1045-BHR1859 | RAB | 2005 | Haddington | 313 | 4711.5 | 15.1 |
| BHC1477-BHC1521 | RC | 2006 | Haddington | 31 | 833 | 26.9 |
| BHR1860-BHR2016 | RAB | 2006 | Haddington | 51 | 1181.5 | 23.2 |
| BHSC01-BHSC36 | RC | 2010 | HRM(AMAL) | 35 | 1,309 | 37.4 |
| AMBC001-AMBC133 | RC | 2014 | AMAL | 133 | 5,206 | 39.1 |
| Total | RC | | | 1,150 | 28,580 | 24.9 |
| Total | Diamond | | | 29 | 412 | 14.2 |
| Total | RAB | | | 490 | 8,375 | 17.1 |
| Total | Auger | | | 82 | 190 | 2.3 |
| Total | Costean | | | 62 | 1,610 | 26.0 |
| Total | Vacuum | | | 631 | 1,426 | 2.3 |
| **Grand Total** | | | | **2,444** | **40,593** | **16.6** |

**Table 6: Summary of drillholes after drilling database reconstructed by AM&A in 2016.**

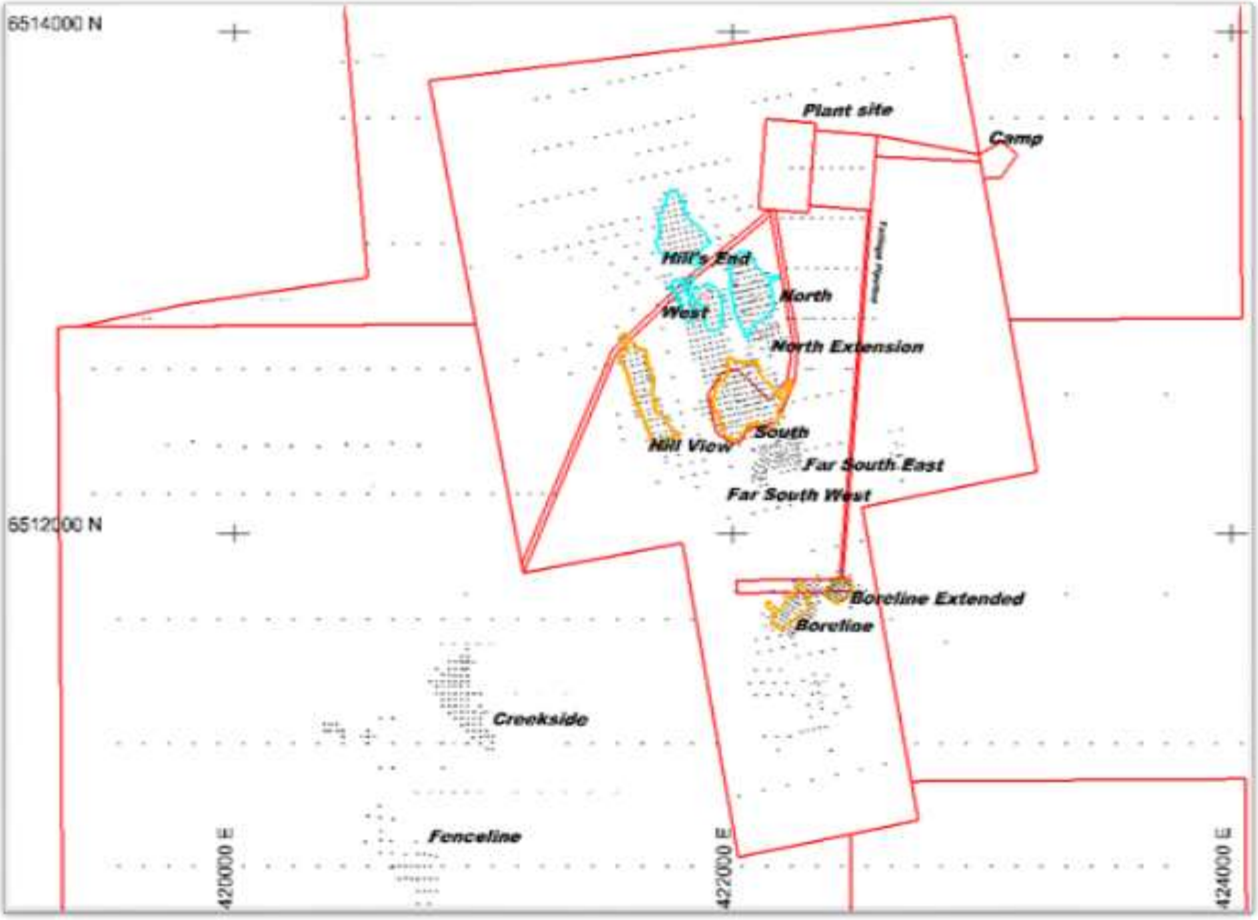


Figure 10: Map showing drill collar locations in vicinity of main deposits.

## 2016/2017 Lithco Drilling

As part of the Lithco agreement, a total of 30,334 m of RC drilling from 321 RC drill holes and RC pre-collars was completed at Bald Hill between October 2016 and March 2017.

A total of 7,765 drill samples at 1.0 m intervals were collected from logged pegmatite intersections by cone splitting, riffle splitting or scoop.

The drilling supporting the Mineral Resource is predominately Reverse Circulation (RC) with minor diamond core drilling (DD) and RC with diamond core tails (RCD). The Bald Hill deposit database includes 728 drill holes for 63,539m of drilling, made up of 716 RC holes (61,621m), 9 RCD holes (1,660m) and 3 DD holes (257.6m). The Mineral Resource is based on assay data from 460 RC holes, 9 RCD holes and 3 DD holes.

All the historical holes drilled by Haddington and AMAL were removed from the database as they were only assayed for tantalum. Some recent drilling undertaken by Tawana was also excluded where collar and/or down hole surveys were not completed and where final assay results had not been received.

Of the Lithco drilling all the diamond drill holes and approximately 98% of RC drill holes are inclined 60$^{o}$ to the east to achieve approximately orthogonal intersections through the pegmatites with the remaining holes drilled vertically. The drill holes over the main resource areas were spaced on a 40m by 40m grid extending out to 80m by 80m on the peripheries of the deposits. A 140m by 80m area in the northern of the resource area was infilled to a 20 m by 20 m grid.

This drillhole spacing is considered by AM&A to be adequate for Mineral Resource estimation at the classifications reported.

### Sampling Techniques

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

DD core was typically continuously sampled at 2.0m 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 2.0m 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.

## Collar Surveys and Topographic Control (Resource drilling only)

The pre-AMAL 2010 drill collar coordinates were originally derived from a pegged 50m by 50m 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 Lithco drilling was surveyed using a Differential 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 drill hole collars are of sufficient accuracy for resource estimation and mine planning at Bald Hill.

# SAMPLE PREPARATION, ANALYSES AND SECURITY

Only the 2014 drilling carried out by AMAL and the Lithco drilling have properly recorded QA/QC data and adequate reporting of the sampling and assay procedures followed. This section only considers the 2014 drilling and Lithco QA/QC unless otherwise stated. This latter drilling makes up most of the holes used to estimate the 2017 resources.

## Pre Lithco 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 1.0m intervals and riffle split at the drill rig to produce a subsample less than 5kg.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 historic 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. Both AMC and Varley, after carrying out statistical and graphical analyses of the data, determined that quality of the data was sound. AM&A therefore is 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 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 / ICP-MS Analysis by Bureau Veritas, Perth, Western Australia (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 – 6 Elements. All Detection Limits in PPM
Inductively coupled plasma mass spectrometry (ICP-MS) is a type of mass spectrometry which is capable of detecting metals and several non-metals by ionizing the sample with inductively coupled plasma and then using a mass spectrometer to separate and quantify those ions.

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

Table 7: Method codes and elements analysed using XRF102 and detection limits (ppm).

The assays from the Boreline and Central Area drilling were reported in csv files containing the QA/QC 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-August and November 2014 drilling 1,299 original assays were reported and 144 duplicates were reported so approximately11% of the assays were drill sample duplicates.

## Internal Laboratory Standards

The standards used and their certified grades are shown below in Table 8.

| Laboratory Standard | Li | Sn | Ta ppm |
|---|---|---|---|

| | ppm | 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 |

Table 8: Certified Results for Laboratory Standards.

The lab 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 11that 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 AM&A 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.

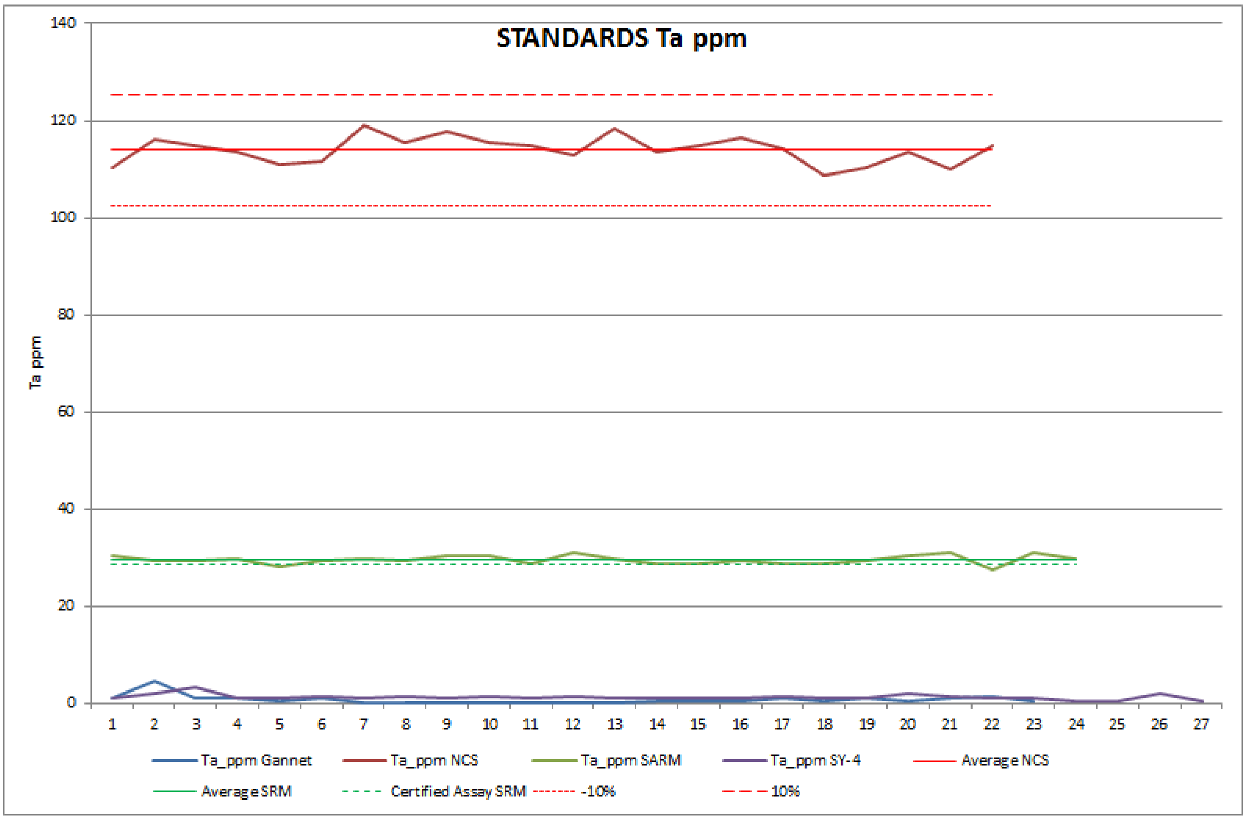


Figure 11: Laboratory Standards results for 2014 RC drilling only.

## 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.

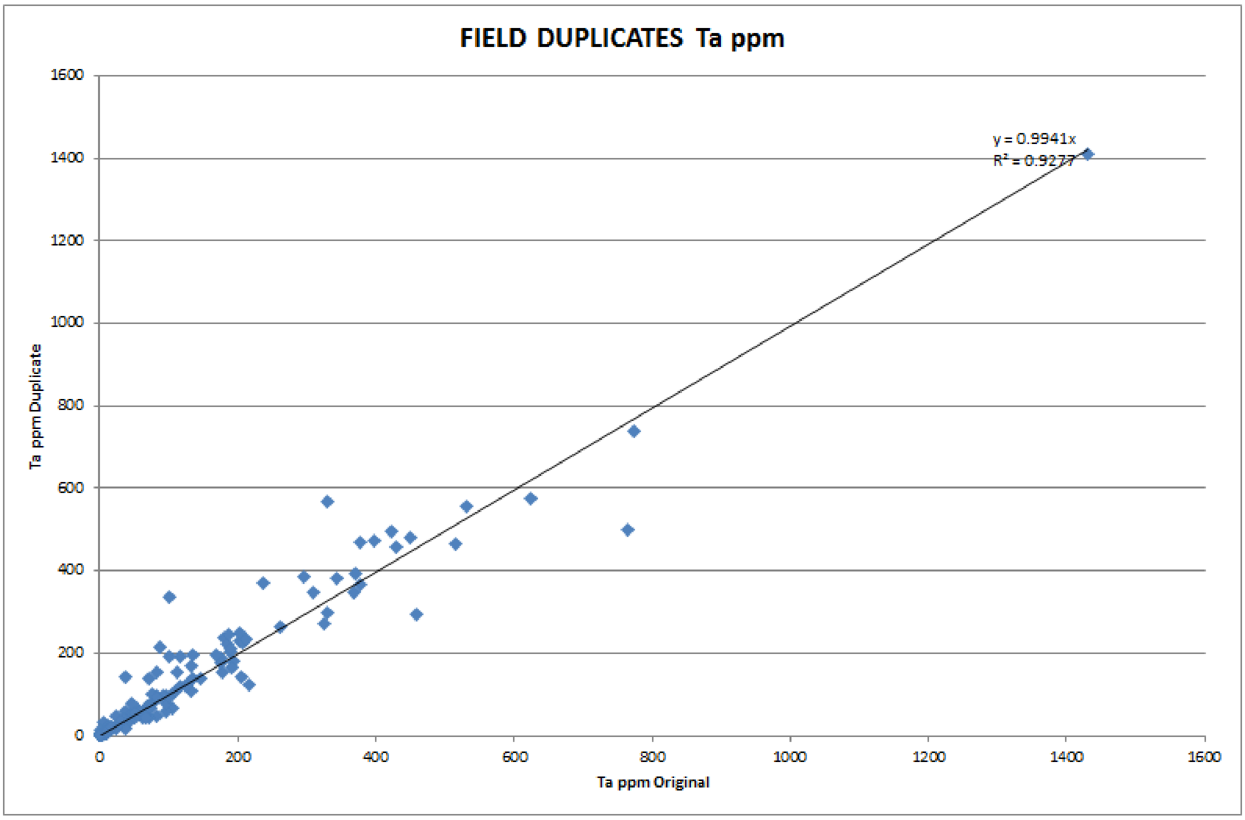


Figure 12: Correlation graph of original Vs field duplicate sample $Ta_2O_5$ analyses for 2014 drilling only.

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.

## Internal Laboratory Repeats

The laboratory processed87 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 that there are no obvious problems with the laboratory's assay repeatability.

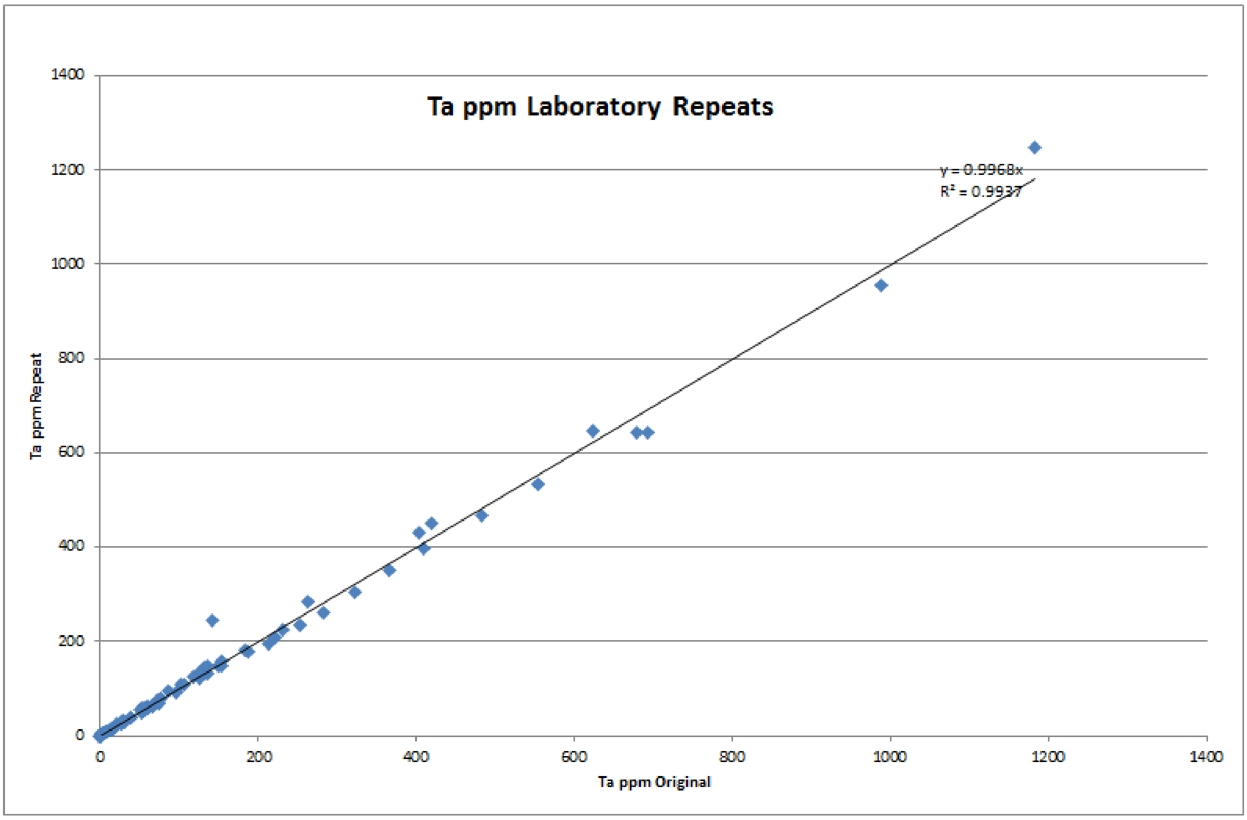


Figure 13: Laboratory repeat assay results.

All drilling data has been loaded to an 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.

## Lithco Sample Preparation and Chemical Analyses

The Lithco 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 2-2.5kg before pulverizing 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.

# DATA VERIFICATION

The historic drillhole data, compiled earlier by AMC, was supplied as an Access file to AMAL which was then imported into Excel and Gemcom software by Ray Varley of Geological Resource Management (GRM) for validation and errors were detected. All the problems were resolved after consultation with Mr T Monks, an AMAL geologist involved with the project since the Haddington era. AMAL supplied the drillhole data for all of the 2014 drilling. This data was also similarly validated and checked by Varley for errors and corrected as required.

The database contains the following:

> Collars, Survey (downhole), Geology/Lithology, Weathering, Assays (original), Assays (for estimation; no negative values or zeros). The survey coordinate grid used is GDA94.

AM&A also validated the combined AMC/2014 drilling database statistically and graphically comparing the geological logging with the assays in MineMap software. AM&A are of the opinion that this data was of sufficient accuracy and reliability for resource estimation modelling.

## Lithco Drilling

The drill samples and quality control 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 pulverizing 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 10ppm for lithium and 1ppm 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.

## QAQC

Rock Solid Data Consultancy Pty Ltd was commissioned by Lithco to report on the QAQC results for the Lithco drilling between October 2016 to May 2017. Once Rock Solid confirmed that the QAQC results were satisfactory, CSA Global Pty Ltd ("CSA") was then commissioned by Lithco to compile the maiden lithium Mineral Resource estimate for the Bald Hill Project and update the tantalum Resource. The following QAQC description is a precis of the Rock Solid report.

The number of duplicates and standards reported during the drill sampling campaign are summarised in Table 9below. Approximately 2% of samples are Lithco duplicates and 2% of samples are Lithco standards. Approximately 16% of the samples are laboratory standards and laboratory duplicates.

| Lab Code | Count Batches | Drill Samples | Drill Duplicates | Company Standards | Laboratory QC |
|---|---|---|---|---|---|
| NAGROM | 156 | 12,854 | 307 | 272 | 2,670 |

**Table 9: Bald Hill Batch Summary Statistics**

## Standards

### Lithco Standards

During the Bald Hill sampling campaign Lithco used 3 standards; high grade (approx. 2.2% Li), medium grade (approx. 1.3% Li) and low grade (8148ppm Li). One standard is certified reference material GTA-03 sourced from GeoStats Perth which is certified for lithium and tantalum by Fusion ICP technique. The other two standards are Bald Hill material prepared for Tawana by Nagrom and these 2 standards 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 272 company standards were analysed by Nagrom.

## Lithium Standards

The lithium performance results for the company standards are summarised in the charts below, Table 10 and Figure 14.

| Li Standard(s) | | | | | No. of Samples | Calculated Values | | | |
|---|---|---|---|---|---|---|---|---|---|
| Std Grade | Method | Exp Method | Exp Value | Exp SD | | Mean Li | SD | CV | Mean Bias |
| GTA03 | FS_ICPMS | FS_ICP | 8148 | 338 | 47 | 8006 | 138 | 0.0172 | -1.75% |
| Li_Low | FS_ICPMS | | | | 110 | 12560 | 1245 | 0.0991 | - |
| Li_High | FS_ICPMS | | | | 115 | 21664 | 588 | 0.0271 | - |

Table 10: Company Standards Summary - Lithium

Figure 14: Bald Hill Company Li Standards Performance.

## Tantalum Standards

The tantalum performance results for the company standards are summarised in the table and charts below, Table 11 and Figure 14.

| Ta Standard(s) | | | | | No. of Samples | Calculated Values | | | |
|---|---|---|---|---|---|---|---|---|---|
| Std Grade | Method | Exp Method | Value | Exp SD | | Mean Ta | SD | CV | Mean Bias |
| GTA03 | FS_ICPMS | FS_ICP | 146 | 18 | 47 | 141 | 9 | 0.0614 | -3.21% |
| Li_Low | FS_ICPMS | | - | - | 110 | 3702 | 392 | 0.1059 | - |
| Li_High | FS_ICPMS | | - | - | 115 | 1768 | 95 | 0.0539 | - |

Table 11: Company Standards Summary - Tantalum

Figure 15: Bald Hill Company Ta Standards Performance.

### Laboratory Standards

Nagrom reported 5 laboratory standards during the report period. Five outliers of the 540 results were detected in the Ta standards but over-all Rock Solid determined that there were no significant issues with the Nagrom laboratory standards.

## Lithco Duplicates

During the Bald Hill drilling campaign Lithco collected 307 RC field duplicates by a mixture of methods including scooped, riffle split and cone split. The duplicates were analysed for lithium and tantalum by Nagrom in the same batch as the parent sample, Figure 16 and Figure 17. Of the 307 field duplicates 26 of the Li and 45 of the Ta pairs produced >50% difference with most of the anomalous results for very low grade intervals which are less significant than the high grade samples.

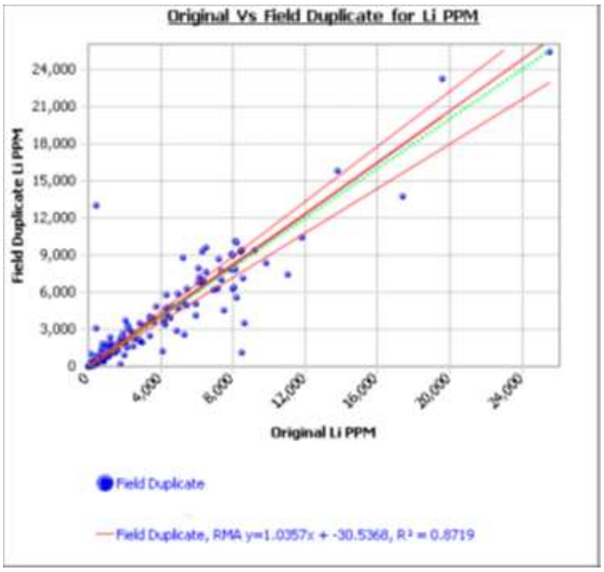


Figure 16: Field duplicates Li.

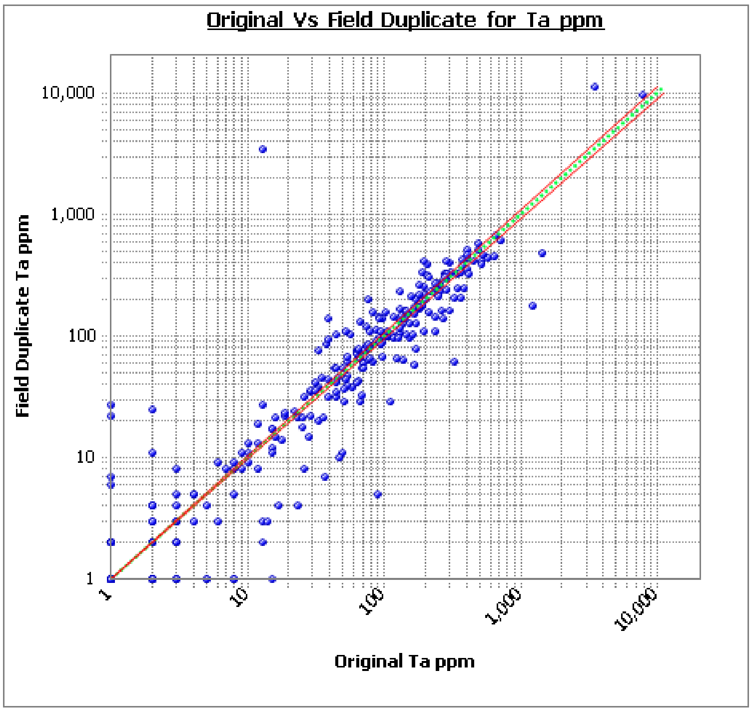


Figure 17: Field duplicates Ta (logarithmic scale).

AM&A considers that 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. The 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 Ta, of the mineralisation.

## 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 1.92t/m3 for oxide pegmatite, 2.36t/m3 for transitional pegmatite and 2.63t/m3 for fresh pegmatite were used by AMC and Varley for resource modelling.

In situ bulk densities for the Bald Hill Mineral Resource were assigned by CSA 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 back-fill - 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 $t/m^3$.

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

**Table 12: Haddington Bulk Density Results.**

The weathering profile logging of the 2014 drill holes AMBC001 to 058 was used by Varley to create base of oxidation and top of fresh rock surfaces. These surfaces were then expanded to cover the extent of the modelled 3D pegmatite solids and then used to inform the block model by assigning the accepted bulk densities to blocks within the oxide, transitional and fresh weathering profile surfaces.

## MINERAL PROCESSING

The processing plant used by Haddington was purchased by the Company and has been used by the Company to treat a small parcel of oxidised ore from the Boreline deposit. This plant, when operated by Haddington, over the mine-life recovered 64.3% of the $Ta_2O_5$ from the ore producing a concentrate averaging 94,900 ppm (9.49%) $Ta_2O_5$.

## PROCESSING PLANT COMMISSIONING

During late 2015/early 2016 the Bald Hill gravity processing plant and Boulder secondary plant were commissioned using ore mined from the Boreline Oxide pit. The re-commissioned plant was then temporarily mothballed because the prevailing tantalite concentrate price meant that the Bald Hill operation would only approximately break-even if a tantalite concentrate only was produced. It was then decided the Company would maximise its return if the spodumene known to be in the pegmatite was also recovered. Nagrom were then commissioned to carry out scoping metallurgical tests to determine the feasibility of economically recovering the spodumene in the ore and historic tailings. These tests were positive.

A Farm-in agreement with Lithco was then signed by the Company to explore for lithium as well as tantalum with the aim of delineating and defining sufficient lithium and tantalum resources to warrant re-commissioning the tantalite recovery plant and install the necessary additional equipment to economically recover the lithium mineral spodumene.

## Spodumene Recovery Metallurgical Testwork

Lithco commissioned Nagrom to carry out a series of tests to determine the recoverability of the spodumene in the Bald Hill ore with the aim of providing a basis for designing additions to the Bald Hill plant to recover the spodumene contained in the Bald Hill pegmatites.

The following description of metallurgical testwork carried out on behalf of Lithco on recovering spodumene and tantalite concentrates from Bald Hill pegmatite samples is a precis of the Metallurgical Section of the Tawana Pre-Feasibility Study document.

### Nagrom Metallurgical Testwork Results

Nagrom mineral processing laboratories, located in Perth Western Australia, carried out a series of metallurgical tests on drill core and bulk samples collected from Bald Hill over the period December 2016 to May 2017.

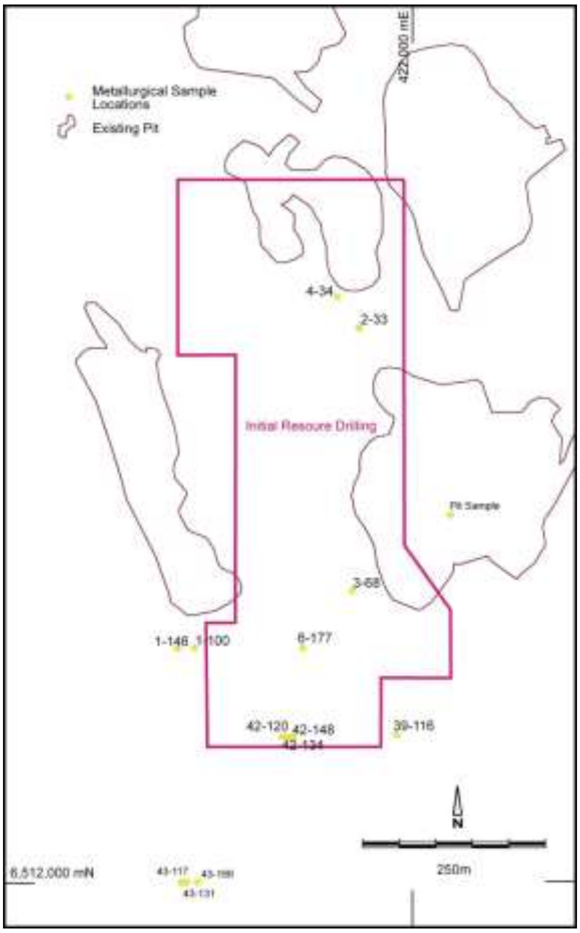


Figure 18: Lithco Metallurgical Sample Locations.

The metallurgical programs were supervised by Noel O'Brien of Trinol Pty Ltd.

### *Density profiling by heavy liquid separation (HLS)*

A total of 14 composites were made up from selected core to provide low, medium and high grade samples with Li grades ranging from 0.12% $Li_2O$ to 1.64% $Li_2O$. These were again crushed to 3.35mm and wet screened at 1mm and 0.045m. Only the +1mm fractions were chosen for examination by HLS, as 1mm represents a practical lower cut-off size for gravity concentration by dense media using a ferrosilicon medium - Dense Media Separation ("DMS").

The HLS test results demonstrated two main findings:

- Concentrates well in excess of the minimum of 5.5% $Li_2O$ could be generated from quite low head grades – from as low as 0.12%. At head grades of 0.6% or better, concentrate grades of 6-7% were obtained. These higher grades were used as justification for crushing further samples to 10mm.
- In almost all tests, the distribution of lithium was predominantly to the 2.9 sink fraction, which demonstrated spodumene mineralogy. This was confirmed by semi-quantitative mineralogy.

### *Larger Scale Composite Metallurgical Tests*

Subsequent to the preliminary and HLS work done on Bald Hill drill core, a larger sample was made by compositing the remaining drill core. The composite weight was 149 kg with an assayed head grade of 1.41% $Li_2O$.

The size analysis indicated higher lithium grades in the +1mm fractions, which contained 91% of the lithium in 87.2% of the mass.

Samples of pegmatite were sent to Bureau Veritas laboratories for determining the physical characteristics of the pegmatite ore. These results show the pegmatite ore is abrasive and of medium hardness.

#### Fines Treatment

The -1mm fraction was de-slimed at 33 microns, with 4.52% of the mass containing 3.47% of the lithium reporting to the overflow, which represents a potential lithium loss.

These results indicate that flotation may be a suitable method of recovering lithium from fines. Test 2 in particular, using oleic acid as the collector, has resulted in a mass yield of 22.6% at a combined grade of 6.41% $Li_2O$.

Further fines treatment test work is currently underway; the focus the current study is on the beneficiation of +1mm material by DMS.

#### Gravity Treatment of -10+1mm material in DMS

The -5.6+1mm fraction was processed in a reflux classifier to remove mica. Visually this appeared to be very successful with 95.12% of the lithium reporting to 87.03% of the mass.

The -5.6+1mm material, after mica removal, was run though a fines DMS at SG 2.7 and 2.9, using a 100mm cyclone. These results showed that 63% of this mass could be directly discarded with minimal lithium loss of 4.9%.

The coarser -10+5.6mm fraction was also processed by DMS at SG 2.7 and 2.9.These results showed a very high grade of 7% $Li_2O$ could be achieved – which is well above marketing requirements.

The 2.7 sinks fraction from the above test was re-processed at lower SG's of 2.85 and 2.8 indicating that 79% of the lithium could be recovered in 17% of this fraction mass at a grade of 6.3%.

The relatively high grade in 2.7 sinks (2.8 overflow) indicated further lithium recovery could be had by crushing this fraction finer and processing it through the -5.6+1mm fines DMS. The fraction was crushed at 3.35mm and reprocessed. This test clearly demonstrated that re-crushing the coarse DMS floats was beneficial and it was recommended that this facility be incorporated into the flowsheet.

### *Amenability of lower grade ore to intermediate beneficiation*

Testson a 165kg composite made up from remaining drill core, with a head grade of 0.60% $Li_2O$ and 430 ppm $Ta_2O_5$, were done to determine if low grade Li ores could be upgraded to potential plant feed.

Three methods were tested after preliminary Heavy Liquid Separation ("HLS") tests- jigging, DMS and Optical Sorting.

### *Low grade HLS*

A sub-sample was crushed to 10mm and wet screened at 5.6mm and 1mm.

These tests indicated that 60 -70% of the mass could be rejected in a DMS operating at a cut SG of 2.7. The corresponding lithium loss would be only about 8% which would be acceptable. However, the tantalum loss would be around 40% and further work is required to better understand and quantify this.

#### Low Grade DMS

These results confirm the significant mass rejection of over 75% at SG 2.7, which is better than that predicted by the HLS results. They also confirm the high lithium yield or deportment at SG 2.7 of over 70% and the loss of over 40% of the tantalum.

Overall, the results indicate that DMS is a suitable method of upgrading low grade ore if tantalum recovery is not a key consideration.

#### Low Grade Jigging

The different size fractions were tested in an Allmineral stratification jig. This is a static test, but provides a very good indication of actual results that can be obtained in an industrial scale jig.

The jigging results were uncharacteristically disappointing. This would normally indicate a lack of liberation, although the HLS and DMS results show otherwise. It obviously indicates that stronger gravitational forces, i.e. centrifugal, are required to separate near size and density materials in the ore – probably more so near density materials.

#### Low Grade Ore Sorting

A sample of +5.6mm crushed low grade ore was sent to Tomra for a preliminary evaluation of the amenability of the ore to optical ore sorting. The results were not encouraging as little increase in the lithium grade was achieved. There was a noticeable decrease in iron grade of the sorter product.

### *Bulk Product Generation*

A parcel of marketable concentrate was produced so potential off-take partners and downstream processors could carry out their own testing of Bald Hill concentrates.

A sample of about 5 tonnes of ore was collected from existing pits and stockpiles by mine geologists and trucked to Perth where it was crushed and processed generally according to the suggested flow sheet at the time, without re-crush of the coarse DMS floats or secondary DMS.

The mass yield of concentrate was:

- 866 kg from the coarse DMS at a grade of 6.37% $Li_2O$, representing a 40.6% mass yield.
- 624 kg from the fines DMS at a grade of 6.05% $Li_2O$, representing a 35.6% mass yield.

In total, 1490 kg of concentrate was produced at a combined grade of 6.24% with an overall mass yield for this high grade sample of 29.1%.

This result is indicative of the range of yields (exclusive of processing -1mm fines) that can be expected in practice and confirming the overall favourable metallurgy of the Bald Hill deposit.

### Lithia Content

Since the spodumene is purchased for its lithium value the purchaser expects the minimum stated lithium content in the concentrate supplied. The Talison SC6.0 is the industry standard and has a $Li_2O$ content of 6%.

Pure spodumene, with the chemical composition $Li_2OAl_2O_3(SiO_2)^4$, is 8.03 wt%. This implies that the SC6.0 is 75% pure spodumene and the balance of the concentrate is made up of minerals such as quartz, mica, feldspar and amblygonite.

Bald Hill particulate spodumene appears to contain 7% to 7.5% $Li_2O$, 0.4% $Fe_2O_3$, 0.5% $Na_2O$ and 0.75% $K_2O$ from included or attached minerals and or lithia replacements. $SiO_2$ and $Al_2O_3$ levels are at about 97% of theoretical levels.

## Tantalum Mineral Recovery

Three potential sources of tantalum concentrates were considered.

- Direct Feed to Tantalum Plant
- -1mm fines from DMS circuit
- Recovery from Spodumene Concentrates

### Direct Feed to Tantalum Plant

Given, if the main target is high lithium ore, that tantalum feed grades would be potentially lower than during the Haddington era, a reduced 65% recovery assumption would be appropriate.

### -1mm fines from DMS circuit

It has been proposed that the -1mm fines from the DMS circuit be treated to recover tantalum prior to grinding and floatation (or another method) to remove spodumene. After completion of preliminary spiral testwork a bulk spiral run was undertaken by Nagrom. Spiral recovery to high grade concentrate was 85.25% subsequent tabling recovered 84.9% to 94.7% into high grade and low-grade concentrates ranging from 24.6% to 0.6% $Ta_2O_5$ indicating net recoveries of approximately

72-80% prior to final clean-up losses. It would be appropriate to discount the recovery to 65% of $Ta_2O_5$ for the fines material which is in line with prior production records for direct tantalum feed at -1.4mm.

### Recovery from Spodumene Concentrates

The bulk DMS run by Nagrom was large enough such that a meaningful indication of tantalum that would report to the spodumene concentrates was achieved. It appears that the -5.6mm spodumene concentrates would contain between 900 to 1,060ppm $Ta_2O_5$ (based on a feed of 335ppm $Ta_2O_5$) of which about 80% would report to the heaviest 5% fraction indicating potential for significant portion of free tantalite (and other tantalum minerals) in the concentrates.

It is difficult to estimate tantalum recoveries at such large size fractions in the laboratory, however a Jig to treat all DMS concentrates at the rate of 20-25t/hr may recover 10-15% of $Ta_2O_5$ within the DMS feed. At a grade of 300ppm this would equate to 75,000 to 120,000 lb of $Ta_2O_5$ in concentrate depending on ore type and tantalite crystal sizing. Another advantage of the Jig would to remove any other heavy iron minerals (including pyrite) that may report to the concentrate thereby reducing any high spikes in Fe.

# Mass Balance Tables

| Stream | | tonnes/ann. | Mass distribution % | $Li_2O$ % | $Li_2O$ contained tonnes | $Li_2O$ distribution % |
|---|---|---|---|---|---|---|
| Inputs | Feed | 1,200,000 | 100.0 | 1.34[1] | 16,093 | 100.0 |
| Rejects | De-slime overflow | 9,180 | 0.8 | 0.71 | 65 | 0.4 |
| | Fines - future processing[2] | 214,140 | 17.8 | 1.09 | 2,334 | 13.8 |
| | Reflux overflow | 69,378 | 5.8 | 0.45 | 312 | 1.8 |
| | -5.6 DMS 2.7 floats | 266,495 | 22.2 | 0.11 | 298 | 1.8 |
| | -5.6 DMS 2.9 floats[3] | 115,107 | 9.6 | 1.53 | 1,761 | 10.4 |
| | +5.6 DMS 2.9 floats-recrush[4] | 62,120 | 5.2 | 1.31 | 814 | 4.8 |
| | Coarse DMS 2.7 floats | 358,801 | 29.9 | 0.16 | 574 | 3.4 |
| **Rejects** | **Total** | **1,095,221** | **91.3** | | **5,345** | **31.6** |
| Product | Fines DMS 2.9 Product | 82,561 | 6.9 | 6.55 | 5,408 | 32.0 |
| | Coarse DMS 2.8 Product | 84,355 | 7.0 | 6.33 | 5,340 | 31.6 |
| **Product** | **Total** | **166,917** | **13.9** | **6.44** | **10,747** | **63.5** |
| Stockpile | For Future Processing | 329,247 | 27.4 | 1.24 | 4,095 | 24.2 |
| **Total** | | **1,200,017** | **100.0** | **1.34** | **16,093** | **100** |

Table 13: Mass Balance Lithium

Notes

1. Calculated $Li_2O$ grade differs from head grade assay of 1.41% $Li_2O$ due to assay 'nugget' effect in various stages of testwork.
2. stockpiled fines (-1mm) represents a significant economic resource for future processing
3. -5.6 DMS 2.9 floats (Middlings) are to be stockpiled and treated with fines or sold as is.
4. +5.6 DMS 2.9 floats are crushed to 3.35mm and recirculated to feed

| Stream | | tonnes/ann. | Mass distribution % | $Li_2O$ % | $Li_2O$ contained tonnes | $Li_2O$ distribution % |
|---|---|---|---|---|---|---|
| Inputs | Feed | 1,200,000 | 100.0 | 335[1] | 402.3 | 100.0 |
| Rejects | De-slime overflow | 9,180 | 0.8 | 430 | 3.9 | 1.0 |
| | Fines - future processing | 214,140 | 17.8 | 730 | 156.3 | 38.9 |
| | Reflux overflow | 69,378 | 5.8 | 70 | 4.9 | 1.2 |
| | -5.6 DMS 2.7 floats | 266,495 | 22.2 | 90 | 24.0 | 6.0 |
| | -5.6 DMS 2.9 floats | 115,107 | 9.6 | 200 | 23.0 | 5.7 |
| | +5.6 DMS 2.9 floats[2] | 62,120 | 5.2 | - | - | - |
| | Coarse DMS 2.7 floats | 358,801 | 29.9 | 170 | 61.0 | 15.2 |
| Rejects | Total | 1,095,221 | 91.3 | | 273.1 | 67.9 |
| Product | Fines DMS 2.9 Product | 82,561 | 6.9 | 870 | 71.8 | 17.9 |
| | Coarse DMS 2.8 Product | 84,355 | 7.0 | 680 | 57.4 | 14.3 |
| Product | Total | 166,917 | 13.9 | 774 | 129.2 | 32.1 |
| Total | | 1,200,017 | 100.0 | 1.34 | 402.3 | 100.0 |
| Treated | Recovered from fines[3] | 17,988 | 1.5 | 5,649 | 101.6 | 25.3 |
| | Recovered from Product[4] | 5,964 | 0.7 | 7,725 | 61.4 | 15.3 |
| Total | | 23,952 | 1.2 | 6,285 | 163.0 | 40.6 |

Table 14: Mass Balance Tantalum

Notes

1. Calculated $Ta_2O_5$ grade.
2. +5.6 DMS 2.9 floats are crushed to 3.35mm and recirculated to feed
3. Recovery from -1mm fines discounted to historic tantalum plant average of 65%
4. Recovery from product concentrates reduced to 47.6%
5. Tantalum concentrates would average 3.5% $Li_2O$

# PRE-FEASIBILITY STUDY

Tawana Resources NL, and the consulting firms it engaged, contributed to a Pre-Feasibility Study (PFS) in the areas of geology, resource, geo-technical, mining, metallurgy, engineering, tailings, and cost estimating, project implementation, operations, and health, safety, environmental & social aspects.

The following costs are quoted from the Tawana PFS report.

## *Financial Evaluation*

*The key commercial results of the PFS are presented below (on a 100% of Project basis).*

| | | |
|---|---|---|
| Life of Mine (LOM) | Years | 3.6 |
| LOM Ore Mined (lithium) | Mt | 4.3 |
| LOM Ore Mined (tantalum) | Mt | 1.4 |
| LOM Waste Mined | Mt | 51.5 |
| LOM Strip Ratio | (waste:ore) | 9:01 |
| Plant Feed Rate (lithium) | tpa | 1,200,000 |
| Plant Feed Rate (tantalum) | tpa | 320,000 |
| Average Lithium Ore Head Grade | % Li2O | 1.18% |
| Average Lithium Recovery | % | 65.80% |
| Average Spodumene Concentrate Production | tpa | 155,000 (@6% Li2O) |
| Average Tantalite Pentoxide Production | lbs Ta2O5 pa | 260,000 |
| Average Tantalum Pentoxide Recovered Grade | Ta2O5 | 25% |
| Tantalite Forecast Price | US$/lb FOB | 60 |
| Forecast FX rate | AUD/USD | 0.75 |
| Initial capital cost (including 10% contingency) | A$M | 42.21 |
| Offtake Prepayment3 | A$M | $25m, received in three instalments being 15 April 2017 ($A7.5m), 15 July 2017 ($8.75m) and 15 September 2017 (A$8.75m). |
| Repayment of Offtake Prepayment | A$M | $25m, 20% of sales until full amount repaid. |
| Sustaining Capital | A$M | $6.12 |
| Average LOM Operating Costs (Real$) | A$t product | 641 |
| Average Operating costs (after tantalite credits) | A$/t product | 508 |
| Average Annual EBITDA | A$M | 83.1 |
| NPV (10% Discount Rate, Before Tax) | A$M | 150.2 |
| IRR | % | 185.03 |
| Payback | Months | 12 |

**Table 15: Key Parameters from the PFS Financial Model**

*Notes:*
*1. Pre-production capital costs exclude pre-production operating costs. They are expected to be between A$10M and A$22M depending on the financing terms with key contractors (mining and crushing). The financial model has included the upper limit of this range and includes a 10% contingency.*

*2. Includes a new tailings dam after production has commenced and $1.0m per year for general sustaining capital. Plant sustaining costs including in process operating costs.*

*3. Binding Prepayment and Offtake Agreement.*

## Capital Cost Estimates

*The capital cost estimate to construct a new 1.2Mtpa Dense Media Separation plant, refurbish the existing tantalum plant and infrastructure at the Bald Hill site, including all direct costs, is approximately A$42.2 million. This estimate includes a contingency of 10%.*

*The capital costs are shown in Table 16.*

| Capital Item | Value - A$M | Source/Comments |
|---|---|---|
| DMS Process Plant | $27.00 | Primero feasibility study and fixed lump sum. |
| Non-DMS Infrastructure | $9.20 | Includes refurbishment of tantalum plant, earthworks, roadworks, communications, electrical supply, site buildings, first fills, light vehicles, camp running costs. |
| Owners Costs | $2.00 | Project and development team salaries. |
| Contingency | $4.00 | 10% on DMS process plant, non-DMS infrastructure capital costs and owners costs.1 |
| **TOTAL** | **$42.20** | |

**Table 16: Capital Costs Estimates**

*Note:*

*1. Any of the $3M contingency saved under the Primero contract is to the benefit of Primero, excess expenditure under the contract scope is to be borne by Primero.*

## Operating Cost Estimates

*The estimated life of mine ("LOM") cash operating costs ranges between A$172-$624/t year on year (FOB, after tantalite credits) of concentrate produced. The LOM average cost of production after tantalum credits is approximately A$508/t concentrate FOB.*

*In addition, the Company will carry A$117/t of operating costs as fines and middlings. It is anticipated that a flotation circuit will be built in the future to process these and/or direct shipped to a market in China.*

*The Project operating costs utilised in the study base case and principal sources are shown in Table 17.*

| Cost Item | Amount | Source/Comments |
|---|---|---|
| Mining Ore and Waste | $3.65/t | Mining contractor rates plus drill and blast, grade control and other costs. Includes mining overheads of $0.24 per tonne mined for the mining team including flights/camp/support costs, light vehicles and grade control. |
| Crusher feeding costs | $9.00/plant feed | Crushing contractor rates plus on-costs. |
| Processing (lithium) | $14.15/t feed | From Primero feasibility study. Assumed a flat rate of feed irrespective of the feed quality from the mine and the process flow required. Also includes contract power station. |
| Processing (tantalum) | $5.58/t feed | Calculated by Tawana and from previous historical production records and new first principles. |
| Product transport and storage (lithium) | $51/t transported | Haulage contractor rates – For transport to Esperance, storage and ship loading. |
| Product transport and storage (tantalum) | $380/t transported | Based on historical numbers shipped from Fremantle. |
| Corporate and Admin | 4.66/t processed of lithium ore or $5.6m pa. | From Primero feasibility study and added additional staff costs/flights/camp/support costs, light vehicles and Lanfranchi camp rental cost. |

Table 17: Operating Costs Estimate Details

*State royalties are calculated separately from the operating costs and is 5% for both lithium and tantalum concentrates.*

Tawana announced to the Australian Stock Exchange (“ASX”) that early stage earth works has commenced on site, with first production expected in the first quarter of 2018 indicating their confidence in the outcome of the PFS.

Key findings of this Tawana Pre-Feasibility Study are as quoted follows:

- *The Project is commercially and economical viable;*
- *The Project has a simple processing route through a Dense Media Separation Plant and an existing Tantalum plant;*
- *The Study has only been completed on the Indicated Resources only and there is significant potential to increase the Resource and extend the Life of Mine;*
- *The Project economics are exceptional; NPV5% = A$ 187.5 M with an IRR = 215.96%;*
- *The capital expenditure including working capital and a 10% contingency is modest at A$65.3m;*
- *The lithium concentrate liberates easily, is clean and of high grade (6.0+%); and*
- *The timing for development and production is ideal for implementing this Project, with high Lithium demand, offtake agreement signed with a high Lithium price.*

- *There is no allowance for recovery of lithium concentrates from fines material and middlings. This could be substantial as about 29% of lithium mined as proposed by the study remains in stockpiles. Importantly the cost of production of lithium concentrates from the fines is expected to be very low due to the fact that it will have already been mined and crushed. Metallurgical testwork is continuing on the fines material.*

- *There has been no allowance for recovery of tantalum from lithium concentrates; this could increase tantalum recovery by 30%.*

*• Tantalum recovery estimates for fines are very conservative in our view due to limitations on testing for tantalum recovery at bench scale. Higher recoveries from the rougher spirals are anticipated.*

*• The significant quantity of Inferred Resource has not been considered as it cannot be added to Reserves. Preliminary Whittle studies undertaken on both Indicated and Inferred resources, recovered about 12Mt of total lithium Resources. With ongoing infill drilling there will be the ability to bring Inferred Resources into Reserves.*

*With the study completed ongoing work will focused be on delivery of project with the view to continually adopt improvements. The Pre-Feasibility Study should be viewed as a snapshot in time and becomes outdated very quickly with ongoing work.*

Tawana concluded that this Pre-Feasibility Study demonstrates there are workable mining, processing, transport and shipping options for the production of lithium and tantalite concentrates. Based on the results of the Pre-Feasibility Study it is recommended that the Bald Hill mine is developed.

## MINERAL RESOURCES AND ORE RESERVES

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 sub-divided, 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 Pre-Feasibility 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.*

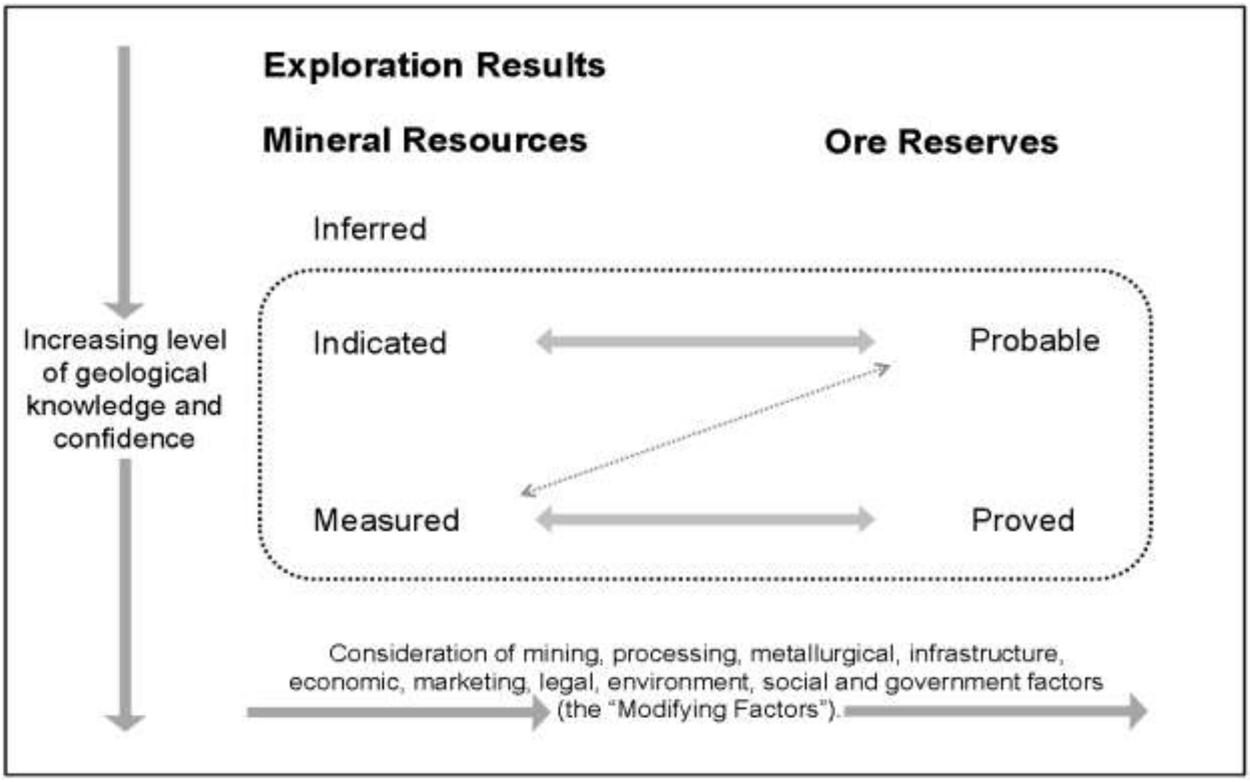


**Figure 19: General relationship between Exploration Results, Mineral Resources and Ore Reserves.**

## Pre-Lithco Resource Modelling

All the pre-Lithco resource modelling and estimation considered for this report was commissioned by AMAL and carried out by Mr Alex Virisheff of AMC Consultants and Ray Varley of Geological Resource Management (GRM) in June 2014 and March 2015 respectively. Mr Virisheff is a Fellow of the Australian Institute of Mining and Metallurgy ('AusIMM') and Mr Varley is a Member of The Australian Institute of Geoscientists ('AIG') and both are independent contractors/consultants and have 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 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 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 >1.0m 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. Varley did not exclude the low grades in his wireframes. 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. 1m drill sample assays from within each of the wireframes separately were interpolated into block models of 10mY by 10X by 2mZ (AMC) and 10mY by 10X by 1mZ (Varley). 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.

AMC resources for Creekside are quoted with a lower cut-off for the model cells of 160ppm $Ta_2O_5$while the resources for the other resources that were estimated by Varley are quoted without a lower cut so thereby including all the wireframed pegmatites.

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 and 1m.

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

Virisheff and Varley continue to be the Competent Persons responsible for their respective resource estimates at Creekside and Boreline that were reported in the previous AMAL IQPR in 2016. The Company confirms that it is not aware of any new information or data that materially affects the information included in the AMAL IQPR of 2016 and the Company confirms that all material assumptions and technical parameters underpinning the estimates in the AMAL IQPR of 2016 continue to apply and have not materially changed.

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

## Lithco Resource Modelling

CSA Global Limited ("CSA") used Surpac software with the digital block model parent cells 10 m X by 10 m Y by 5 m Z which were sub-celled to 2.5 m X by 2.5 m Y by 1.25 m Z for better resolution of lithological boundaries. This compares to an average drillhole spacing of 20m within the more densely drilled areas of the deposit. Kriging Neighbourhood Analysis (KNA) was conducted using Supervisor ™ software to test a variety of block sizes across the deposit.

The drill samples were composited to standard 1 m intervals to eliminate volume variance effects.

Various high grade cuts were used for both $Li_2O$ and $Ta_2O_5$ based on statistical review of each object.

Wireframes were generated of the logged pegmatites using a minimum down-hole width of 3 m. Internal 'high grade' lithium wireframes were generated using a nominal 7,500ppm cut-off grade, determined using data analysis as the point of inflection within the Li2O grade distribution, and a minimum down-hole width of 3 m.

The Lithco Mineral Resource is reported using a 0.5% $Li_2O$ cut-off, a conservative cut-off grade for potential open pit mining based on preliminary pit optimisations.

$Li_2O$ and $Ta_2O_5$ grades for the main mineralised zones were interpolated using ordinary kriging. High and low grade domains were estimated independently with hard boundaries assumed between domains. 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.

In situ bulk densities for both mineralisation and waste were assigned according to the assigned lithologies.

The resource model was validated both visually and statistically prior to final reporting.

## Mineral Resource Classification

The Lithco and previous Mineral Resource estimates have been classified as either Indicated or Inferred categories after considering numerous factors including drillhole spacings, estimation quality statistics (kriging slope of regression),number of informing samples, average distance to informing samples in comparison to the semi-variogram model ranges, and overall coherence and continuity of the modelled mineralisation wireframes.

## Mineral Resource Estimates

The resource estimates as at 11 July, 2017 for the Bald Hill deposits totalling some 20 million tonnes of tantalite and spodumene resources are summarised below in Table 18. It is pointed out that Table 18 reports the Central Lithium resource at a 0.39% $Li_2O$ cut-off which is equivalent to the Ore Reserves cut off, while Table 1 reports the same Central area at a 0.5% $Li_2O$ cut off to conform with the Tawana 11 July 2017 report. Where the Lithco resource modelling at least in part overlays the previous modelling, the previous modelling has been superseded and replaced by the Lithco model. This has meant that the previous resource estimates for Central and Hillside have been totally superseded while the previous estimates for Boreline and Creekside have 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 Lithco resources. The areas covered by the Lithco modelling and the remaining previous AMC and Varley models are shown in Figure 20.

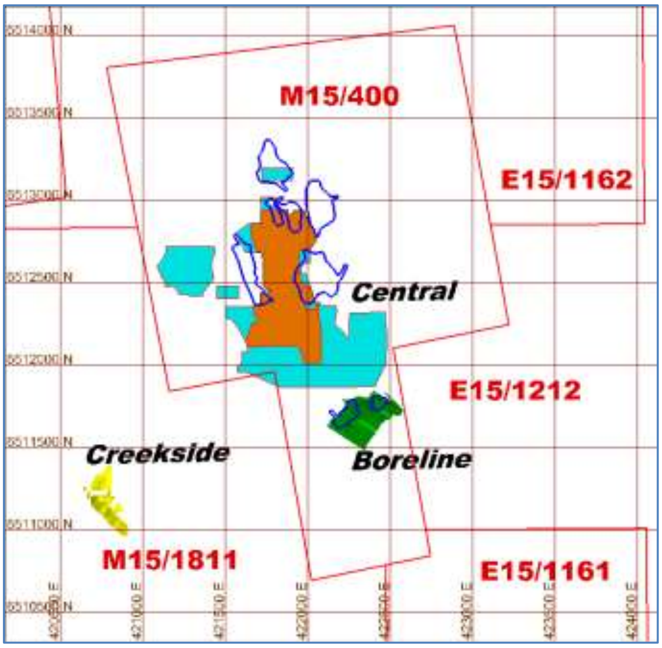


**Figure 20: Areas covered by previous resource models at Boreline (Green) and Creekside (Yellow) and Lithco resource model (Orange=Indicated, Blue=Inferred).**

| | | Gross Attributable to Licence | | | Net Attributable to Issuer | | | |
|---|---|---|---|---|---|---|---|---|
| Category | Mineral Type | Tonnes (millions) | Grade $Ta_2O_5$ | Grade $Li_2O$ | Tonnes (millions) | Grade $Ta_2O_5$ | # Grade $Li_2O$ | Change from previous |
| **Resources - Boreline (carried over from previous IQPR Varley, 2015 = Total Pegmatite)** | | | | | | | | |
| Measured | Tantalum | 0.0 | 0 | | 0.0 | 0 | | 0% |
| Indicated | Tantalum | 0.4 | 220 | | 0.4 | 220 | | 0% |
| Inferred | Tantalum | 0.0 | 230 | | 0.0 | 230 | | 0% |
| **Total** | **Tantalum** | **0.4** | **221** | | **0.4** | **221** | | **0%** |
| | | | | | | | | |
| **Resources - Creekside (carried over from previous IQPR AMC, 2014 = >100ppm Ta2O5)** | | | | | | | | |
| Measured | Tantalum | 0.0 | 0 | | 0.0 | 0 | | 0% |
| Indicated | Tantalum | 0.3 | 405 | | 0.3 | 405 | | 0% |
| Inferred | Tantalum | 0.0 | 440 | | 0.0 | 440 | | 0% |
| **Total** | **Tantalum** | **0.3** | **406** | | **0.3** | **406** | | **0%** |
| | | | | | | | | |
| **Resources - Central (Lithco, 2017 = <0.39% Li2O and >200ppm Ta2O5 )** | | | | | | | | |
| Measured | Tantalum | 0.0 | 0 | | 0.0 | 0 | | 0% |
| Indicated | Tantalum | 2.4 | 324 | | 2.4 | 324 | | 100% |
| Inferred | Tantalum | 2.6 | 299 | | 2.6 | 299 | | 100% |
| **Total** | **Tantalum** | **4.9** | **311** | | **5.0** | **311** | | **100%** |
| | | | | | | | | |
| **Total Tantalum Resources** | | | | | | | | |
| Measured | Tantalum | 0.0 | 0 | | 0.0 | 0 | | 0% |
| Indicated | Tantalum | 3.1 | 318 | | 3.1 | 318 | | 28% |
| Inferred | Tantalum | 2.6 | 299 | | 2.6 | 299 | | 32% |
| **GRAND TOTAL** | | **5.8** | **309** | | **5.8** | **309** | | **28%** |
| | | | | | | | | |
| **Resources - Central (Lithco, 2017 = >0.39% Li2O)** | | | | | | | | |
| Measured | Tantalum+Lithium | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.00 | 0 |
| Indicated | Tantalum+Lithium | 5.4 | 210 | 1.1 | 5.4 | 210 | 0.57 | 100% |
| Inferred | Tantalum+Lithium | 9.5 | 133 | 1.0 | 9.5 | 133 | 0.52 | 100% |
| **Total** | **Tantalum+Lithium** | **14.9** | **161** | **1.1** | **14.9** | **161** | **0.54** | **100%** |

**Table 18:** Resource Summary for Bald Hill outside mined pits at 11th July 2017. **The Resources are inclusive of Reserves.**

*Note: # At June 28, 2017 Lithco had earnt 50% of the Lithium so Resource $Li_2O$ grades have been halved to represent the share attributable to AMAL.*

## Eventual Economic Extraction

The Bald Hill pegmatite deposit has previously been mined for tantalum ($Ta_2O_5$); however no account for $Li_2O$ was undertaken. The PFS undertaken by Tawana reported that the deposit could be mined economically via open pit methods.

Tawana subsequently announced the completion of a Pre-Feasibility Study for the Bald Hill Lithium and Tantalum Project and has commenced early stage earth works on site, with first production expected in the first quarter of 2018.

## 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 prior to mining.

# ORE RESERVES

Lithco in their Pre-Feasibility Study carried out a Whittle iterative pit optimisation process using various assumed parameters based on current industry standard costs, test results and industry investigations such as operating costs, pit slopes, mining recoveries and dilution, metallurgical recoveries to produce a proposed mining/processing schedule.

A mining dilution of 5% and mining recovery of 95% was assumed in the PFS.

The Lithco Ore Reserve estimates based on the CSA resource model for spodumene and tantalite ores in the Central area of Bald Hill are summarised below in Table 19.

| | | Gross Attributable to Licence | | | Net Attributable to Issuer | | | |
|---|---|---|---|---|---|---|---|---|
| Category | Mineral Type | Tonnes (millions) | Grade $Ta_2O_5$ (ppm) | Grade $Li_2O$ (%) | Tonnes (millions) | Grade $Ta_2O_5$ (ppm) | # Grade $Li_2O$ (%) | Change from previous update (tonnes %) |
| **Reserves - Central (Lithco, 2017)** | | | | | | | | |
| Proved | Tantalum** | 0.0 | 0 | 0.00 | 0.0 | 0 | 0.00 | 0 |
| Probable | Tantalum** | 1.4 | 317 | 0.21 | 1.4 | 317 | 0.11 | 7000% |
| **Total** | **Tantalum** | **1.4** | **317** | **0.21** | **1.4** | **317** | **0.11** | **7000%** |
| Proved | Tantalum+Lithium* | 0.0 | 0 | 0 | 0.0 | 0 | 0.00 | 0 |
| Probable | Tantalum+Lithium* | 4.3 | 208 | 1.18 | 4.3 | 208 | 0.59 | 100% |
| **Total** | **Tantalum+Lithium** | **4.3** | **208** | **1.18** | **4.3** | **208** | **0.59** | **100%** |
| **TOTAL RESERVES** | | **5.7** | **235** | **0.94** | **5.7** | **235** | **0.47** | **100%** |

**Table 19: Bald Hill Project Reserves (Lithco Pre-Feasibility Study, 2017)**

*Notes*

1) Excludes Inferred Resources
2) Excludes mineralised backfill in prior pits
3) Allows for mining ore loss and dilution
4) Tantalum only reserves are <0.39% $Li_2O$ and >200ppm $Ta_2O_5$ cut-offs
5) Tantalum + lithium reserves are >0.39% $Li_2O$ cut-off
6) # At June 28, 2017 Lithco had earnt 50% of the Lithium so Reserve $Li_2O$ grades have been halved to represent the share attributable to AMAL.

## MINING METHODS

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

It is envisaged that all future reserves will be similarly mined by open cut. All the mining overburden from any new excavations and tailings from the processing plant will be stored as either approved surface dumps or as backfill in abandoned pits.

## RECOVERY METHODS

The existing tantalite processing plant previously operated by Haddington has been re-furbished and upgraded by the Company and successfully commissioned during late 2015 and early 2016. This plant screens, pulverises and then, using a bank of spirals, separates out the heavy minerals; including tantalite and cassiterite, to produce a primary concentrate. This primary concentrate is then sent to the Secondary Beneficiation Plant to be further processed to produce a saleable 25-30% $Ta_2O_5$final concentrate. Bald Hill tantalum concentrates are sought after because of their high $Ta_2O_5$ grade and low radioactivity.

**Figure 21: Photos of processing plant at Bald Hill.**

This plant can continue to be used to recover tantalite from the pegmatite ore but an additional circuit will be necessary to recover a clean spodumene product.

Tawana have engaged Primero, a Western Australian based company focused on delivering turnkey design, construction and commissioning solutions for the minerals industry, to complete the design of a two stage DMS circuit to produce a saleable spodumene concentrate from the Bald Hill pegmatite ore and enhancing the tantalite recovery circuit.

Stage One upgrade will construct a 1.2 Mtpa DMS circuit for spodumene recovery. During this stage, the crusher fines and middling concentrates containing 28% of the feed with 27% of contained lithium will be stockpiled. Stage 2 will process the previously stockpiled crusher fines and middling concentrates in the extended processing plant, with the inclusion of a milling and processing circuit, and is anticipated to be completed 9-12 months after Stage 1 increasing spodumene recovery from 62% to 81% without additional mining or crushing.

There is potential that tantalum production could be lifted significantly with the planned processing plant upgrades.


Figure 22: Schematic location plan of proposed spodumene recovery plant at Bald Hill.

## ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

The W.A. Department of Mines and Petroleum (DMP) promotes best environmental management practices by delivering environmental regulatory and policy services to maximise the responsible development of the State's mineral resources.

The DMP Environment Division assesses mineral exploration and development applications made within Western Australia and audits and inspect 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 Department of Environment Regulation in accordance with the provisions of the Environmental Protection Act 1986 and the Environmental Protection (Clearing of Native Vegetation) Regulations 2004.

Environmental approvals are required before mining and mineral processing commences, including a mine closure plan, with detailed progress reports required to be submitted annually by the Company to the DMP.

The Company has gained the following environmental approvals for mining and processing:

- Mining approvals for all of Tantalum pits, Central and Boreline pits
- Safety management systems
- Environmental management systems
- Storage of explosives

- Radiation registration for concentrate production, transport and storage
- Statutory appointments
- Native Title agreements on M15/400

And the company has applied for the following permits and approvals which are pending:

- In-pit tailings disposal

## Mining approvals

Open pit designs have been completed for the Main Lithium Pit. Mining approval has been gained for the Tantalum Central and Boreline pits.

## Safety management systems

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

## Environmental management systems

Environmental Management systems are in place and have successfully passed the first audit.

## 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 pits are full.

## Radiation registration for concentrate transport and storage

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

## Statutory appointments

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

- Registered manager
- Radiation safety officer
- Electrical supervisor.

## 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.

# ECONOMIC ANALYSIS

## Tantalite

The price for Tantalite ore has fluctuated considerably during the last few years averaging just over US$100/lb since early 2012, Figure 23. Prior to 2012the price was much steadier at about US$40/lb. 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 the Company will receive for its tantalite concentrate will depend on several factors including both the Ta 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 Ta content of the mineral tantalite varies depending on its chemical composition. The mineral tantalite $(Fe,Mn)(Ta,Nb)_2O_6$has a Ta content of between 52-86% $Ta_2O_5$ depending mainly on its Nb (niobium) content which is in solid solution with Ta.

Other factors that could affect the price received for the Company'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 by Haddington, and more recently by AMAL in their tantalite plant commissioning trials, at the Bald Hill Mine site was a high quality concentrate with very low levels of uranium, thorium, arsenic and antinomy as well as clay. So, the Bald Hill tantalite concentrate was 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.

In the Tawana PFS the commodity pricing for Tantalum is based on a price of US$60/lb (FOB Esperance) for +25% $Ta_2O_5$ with an assumed spot price of $55/lb and a premium (based on historical sales from Bald Hill) of US$5/lb due to the low radiation and past sales history from the Bald Hill Mine.


**Figure 23: Tantalite market price since January 7 2011 to 31 March2016 (after InfoMine).**

## Spodumene

The price for lithium carbonate, produced from spodumene, has recently risen considerably, more than trebling in price since late 2015, Figure 24. This rapid price increase was possibly due to sudden increased demand in the electronics industry for battery manufacture along with probable market speculation.

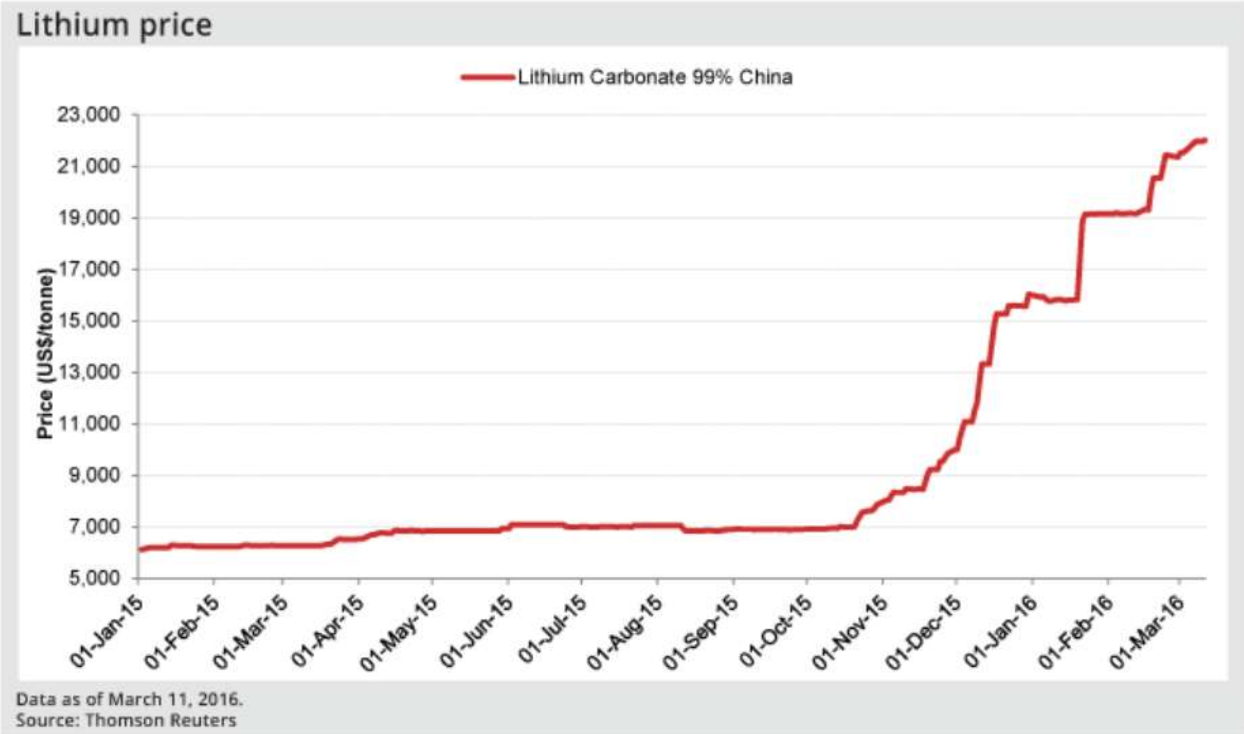


**Figure 24: Lithium Carbonate market price since January 1, 2015 to March 1, 2016 (after Thomson Reuters).**

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, 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.

The Company with Lithco have negotiated a binding offtake for the supply of lithium 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 and will be by agreed based upon prevailing market conditions at the time.

## Pre-Feasibility Study

Tawana commissioned a Pre-Feasibility Study (PFS) on the Bald Hill project based on the Lithco resource model and resources in June 2017.

A preliminary analysis in this PFS yielded a net positive cash flow before tax and positive before tax net present value.

# OTHER RELEVANT DATA AND INFORMATION

There is no other data not included or referred to in this report and known to AM&A that would assist with the understanding of the Bald Hill project.

# INTERPRETATION AND CONCLUSIONS

During the past year the Bald Hill project has evolved from being a tantalite project with development to an operating mine effectively suspended awaiting favourable tantalite concentrate price increases to a very active spodumene-tantalite project that is on track for mining to commence by the end of 2017.

The development of the Bald Hill project has progressed markedly during the last year with the Joint Venture partner Lithco focussing on the lithium potential of the project's pegmatites. Lithco, during the past year, have completed a substantial drilling program along with metallurgical testwork that has been followed up with a Pre-Feasibility Study.

Since the previous IQPR report, Lithco have 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. As a result of this work the previously reported resources for the Central and Hillside deposits have been superseded by the Lithco resource estimates with an overall substantial net increase of the Bald Hill Project resources to some 19 million tonnes of tantalite and spodumene ore, Table 20.Tawana Resources NL, and the consulting firms it engaged with their appropriate Competent Persons, contributed to a Pre-Feasibility Study (PFS) in the areas of geology, resource, geo-technical, mining, metallurgy, engineering, tailings, cost estimating, project implementation, operations, and health, safety, environmental & social aspects. As a result of the Lithco Pre-Feasibility Study new Ore Reserves are reported for the area modelled for the Lithco Resources, Table 20.

| Category | Mineral Type | Gross Attributable to Licence | | | Net Attributable to Issuer | | | |
|---|---|---|---|---|---|---|---|---|
| | | Tonnes (millions) | Grade $Ta_2O_5$ (ppm) | Grade $Li_2O$ (%) | Tonnes (millions) | Grade $Ta_2O_5$ (ppm) | # Grade $Li_2O$ (%) | Change from previous update (tonnes %) |
| **Reserves - Central (Lithco, 2017)** | | | | | | | | |
| Proved | Tantalum** | 0.0 | 0 | 0.00 | 0.0 | 0 | 0.00 | 0 |
| Probable | Tantalum** | 1.4 | 317 | 0.21 | 1.4 | 317 | 0.11 | 7000% |
| **Total** | **Tantalum** | **1.4** | **317** | **0.21** | **1.4** | **317** | **0.11** | **7000%** |
| Proved | Tantalum+Lithium* | 0.0 | 0 | 0 | 0.0 | 0 | 0.00 | 0 |
| Probable | Tantalum+Lithium* | 4.3 | 208 | 1.18 | 4.3 | 208 | 0.59 | 100% |
| **Total** | **Tantalum+Lithium** | **4.3** | **208** | **1.18** | **4.3** | **208** | **0.59** | **100%** |
| **TOTAL RESERVES** | | **5.7** | **235** | **0.94** | **5.7** | **235** | **0.47** | **100%** |
| **Resources - Boreline and Creekside (carried over from previous IQPR) + Lithco, 2017** | | | | | | | | |
| Measured | Tantalum** | 0.0 | 0 | | 0.0 | 0 | | 0 |
| Indicated | Tantalum** | 3.1 | 318 | | 3.1 | 318 | | 21% |
| Inferred | Tantalum** | 2.6 | 299 | | 2.6 | 299 | | 2468% |
| **Total** | **Tantalum** | **5.8** | **309** | | **5.8** | **309** | | **114%** |
| **Resources - Central (Lithco, 2017)** | | | | | | | | |
| Measured | Tantalum+Lithium* | 0.0 | 0 | 0.00 | 0.0 | 0 | 0.00 | 0 |
| Indicated | Tantalum+Lithium* | 4.6 | 207 | 1.25 | 4.6 | 207 | 0.63 | 100% |
| Inferred | Tantalum+Lithium* | 8.2 | 130 | 1.14 | 8.2 | 130 | 0.57 | 100% |
| **Total** | **Tantalum+Lithium** | **12.8** | **158** | **1.18** | **12.8** | **158** | **0.59** | **100%** |

**Table 20: Resource and Reserve Summary for Bald Hill outside mined pits as at 11th July 2017. The Resources are inclusive of Reserves.**

*(AMC Consultants 2014 used 100ppm Ta2O5 lower cut-off, Varley, 2015 used total pegmatite, Lithco used 0.5% Li2O** and 200ppm Ta2O5* lower cut-offs),# At June 28, 2017 Lithco had earnt 50% of the Lithium so Resource and Reserve $Li_2O$ grades have been halved to represent the share attributable to AMAL..*

Key findings of this Tawana Pre-Feasibility Study are that the lithium concentrate liberates easily, is clean and of high grade (6.0+ %) and that the Project is commercially and economical viable with the Project economics highly positive with a modest capital expenditure. Tawana concluded that this Pre-Feasibility Study demonstrates there are workable mining, processing, transport and shipping options for the production of lithium and tantalite concentrates. Based on the results of the Pre-Feasibility Study it is recommended that the Bald Hill mine is developed.

At the effective date of this report site works have commenced in preparation for a two phase construction of a spodumene recovery plant and the upgrade of the tantalite recovery circuit. Mining is planned to commence during the last quarter of 2017 with spodumene and tantalite concentrates produced for sale in the first quarter of 2018.

Offtake agreements are in place at favourable prices for all the projected tantalite and spodumene concentrates output.

## 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.

### Overall Risks

The likelihood of a risk event occurring within a nominal 7 year time frame 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:

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

Table 21: Risk Assessment Guidelines.

## Project Risks

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

The main risks pertaining to this project are as follows:

- 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;
- 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 Western Australia that may affect the level and practicality of mining activities;
- Environmental management issues with which the Company may be required to comply from time to time. There are very substantive legislative and regulatory regimes with which the Company 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 the Company's tenement package has not been determined by the CP 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 major risks follow:-

## Resource 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 over estimated 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. The Bald Hill Project is in the pre-full scale mining and mineral processing production stage. Mineral value fluctuations, dilution, grade and mining losses all could potentially change the value of the Resource estimate.

## 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 the Company, including many that are partly or wholly unforeseeable.

The cost of maintaining mining properties which depends on the Company having access to sufficient development capital, poses another form of risk.

Changes in the Western Australia mining law and regulations may affect the feasibility and profitability of any mining operations.

## Commodity Price and Demand, and Exchange Rates Risks

The Company'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 the Company'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 the Company's control.

## General Economic Factors and Investment Risks

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

### Currency Exchange Rate Fluctuations

Fluctuations in currency exchange rates can affect the value of operating and capital costs as well as the price received for any concentrates sold.

### Taxation

Changes to tax legislation and regulation or their interpretation may affect the value of mine output.

### Unforeseeable Risks

There are likely to be risks that AM&A are 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.

A summary of the main Project risks are included, summarized and ranked by their importance as follows in Table 22.

| 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 | Major | Medium |
| | | | |
| **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 |
| | | | |
| **Capital and Operating Costs** | | | |
| Capital Costs | Possible | Moderate | Medium |
| | | | |
| **Operational Risk** | | | |
| Operating Costs | Possible | Major | Medium |

Table 22: Summary of Main Project Risks.

## RECOMMENDATIONS

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

- Further drilling is recommended to in-fill 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 Lithco modelled resource, with extensions to the south and south-east most likely to be relatively shallow with high lithium and tantalum grades.
- Further specific gravity tests on representative samples from a full suite of ore and waste lithologies is recommended to better define bulk densities for future resource modelling.
- Once mining commences special care will be required to monitor production to quantify mining losses and dilution for use as "modifying factors" when converting future Mineral Resources to Ore Reserves.

# DIRECTOR AND COMPETENT PERSON STATEMENTS

## AM&A Director: Mr Allen J. Maynard

I, Allen J. Maynard, confirm that I am the Principal and Director of Al Maynard & Associates Pty Ltd (AM&A) 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” with an effective date of 11th July, 2017, in accordance with SGX Catalist Rule 442.

Signature of AM&A Director

7st August, 2017

## AM&A Competent Person for Mineral Resources and Ore Reserves: Mr Philip A. Jones

I, Philip A. Jones, confirm that I am a Consultant Geologist of Al Maynard & Associates Pty Ltd (AM&A) 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 11th July 2017, in accordance with SGX Catalist Rule 442.

I confirm that my firm's partners, directors, substantial shareholders and their associates and I are independent of Alliance Mineral Assets Limited (the Company), 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 the Company and will not receive benefits other than remuneration paid to AM&A in connection with the independent qualified persons report (IQPR). Remuneration paid to AM&A 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 Exploration Results, Mineral Resources and Ore Reserves for which I am accepting responsibility.

I am a Member of The Australian Institute of Geoscientists and 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.

__________________________________________

7th August, 2017

Philip A. Jones - Competent Person

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Bald Hill to Deliver Outstanding Cash Flows and Returns, 11th July, 2017
http://spcagent.io/taw/wp-content/uploads/sites/26/2017/07/TAW-1.pdf

Tawana Earns in to Lithium Rights at Bald Hill, 28th June, 2017
http://spcagent.io/taw/wp-content/uploads/sites/26/2017/06/TAW-3.pdf

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http://spcagent.io/taw/wp-content/uploads/sites/26/2017/06/TAW-2.pdf

Annual General Meeting Presentation, 23rd May, 2017
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Lithium Offtake Agreement and Prepayment, 26th April, 2017
http://spcagent.io/taw/wp-content/uploads/sites/26/2017/04/01850357.pdf

Bald Hill Joint Venture Agreement Completed, 19th April, 2017
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InfoMine

http://www.infomine.com/investment/metal-prices/tantalite-ore/

Wikipedia

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Lithium Price data

https://www.snl.com/InteractiveX/Article.aspx?cdid=A-35639305-11568&sf22963269=1

# JORC CODE, 2012 EDITION – TABLE 1, BALD HILL BORELINE RESOURCE. – FOR POST 2014 DRILLING PRIOR TO LITHCO DRILLING (AFTER VARLEY)

## Section 1 Sampling Techniques and Data

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

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Sampling techniques*** | • *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*<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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.* | 1983 – 1988<br>Surveying, mapping & analysis of costeans, RC, RAB drillholes.<br>Costeans sampled along walls.<br>2-3kg drill samples collected at 1m intervals.<br>Samples jaw crushed and riffle split to 100-150g for pulverizing by roll milling and ring grinding.<br>XRF determination of Ta2O5, Nb2O5 & Sn by SGS Australia Pty.<br>No evidence of certified standards or blanks. Field duplicates submitted at 1 in 25 in drilling & 1 in 10 costeaning.<br>Assays greater than 800ppm Ta2O5 repeated by laboratory.<br>Check assays completed at Greenbushes Analytical Laboratories 1996-1999.<br>2000 - 2009<br>RC & RAB samples collected at 1m intervals in intersected pegmatites.<br>Samples riffle split to two 2.5kg samples pulverized 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 Ta2O5 grade reported in laboratory results.<br>Repeat analyses on approximately 10% of samples 2001-2013.<br>2014<br>RC samples at 1m intervals. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | Samples split to 3-4kg pulverized and analysis at laboratory.<br>Standards of appropriate grade & lab repeats reported in laboratory results.<br>Field duplicates taken & submitted for analysis at 1 in 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. |
| ***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. |
| ***Sub-sampling 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 1m intervals and riffle split on-site to produce a subsample less than 5kg.<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 mineralization. |
| ***Quality of assay data and laboratory*** | • *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* | The XRF assay technique is considered to be robust. Standards, blanks and duplicates were submitted in varying frequency throughout the exploration campaigns. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***tests*** | *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.* | 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 Ta2O5 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 Ta2O5 assays correlated with the assigned downhole lithology. |
| ***Location of data points*** | • *Accuracy and quality of surveys used to locate drillholes (collar and down-hole 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 50m by 50m 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 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 20m by 20m on a rectangular grid rotated approximately 35deg 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. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***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 Lithco Drilling (After Varley)

(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 lease 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 undertook exploration for tantalite-bearing pegmatites from 1983-1998. 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.<br>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 parallel the regional foliation, occurring as gently dipping sheets and as steeply dipping |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | 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. The collar elevations for these 201 drillholes were derived from the topography digital terrain model.<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 data sets.<br>AMC conducted checks of the collar locations, drillhole depths, geological logging, assay results for a portion of the database from reports, and electronic data sets. |
| ***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. |

## Section 3 Estimation and Reporting of Mineral Resources (After Varley)

(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.*<br>• *Data validation procedures used.* | Available data have been compiled into a series of Excel spreadsheets for validation purposes.<br>Assay data were checked against original assay sheets where available and, in particular, where the results were considered potentially erroneous.<br>Errors generated due to from-to and assaying or lithology overlap errors were rectified when the data from the Excel spreadsheets was |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | exported into the software used in the estimation. |
| ***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.* | Al Maynard and Associates ("AM&A") undertook an initial site visit to the Bald Hill Tantalite Project for AMAL on the 18 February, 2014 and conducted follow up visits on 31 March 2015, 14-18 December 2015 and 18-22 April 2016.<br><br>A previous field trip to the site area for a separate client was conducted in 2002. |
| ***Geological interpretation*** | • *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*<br>• *Nature of the data used and of any assumptions made.*<br>• *The effect, if any, of alternative interpretations on Mineral Resource estimation.*<br>• *The use of geology in guiding and controlling Mineral Resource estimation.*<br>• *The factors affecting continuity both of grade and geology.* | Exploration and mining history in the Bald Hill area has shown that tantalite mineralisation is confined to pegmatite intrusions.<br><br>Geological logging and Ta2O5 grades have been used to create a series of pegmatite wireframes that constrain the tantalite mineralisation for the purpose of Mineral Resource estimation. The pegmatites are relatively thin with pegmatites greater than 1 m in thickness being 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. |
| ***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 Boreline Area resource has grid dimensions of approximately 240m north by 350 east and 40m depth from surface. |
| ***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.*<br>• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*<br>• *The assumptions made regarding recovery of by-products.*<br>• *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*<br>• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*<br>• *Any assumptions behind modelling of selective mining units.*<br>• *Any assumptions about correlation between variables.*<br>• *Description of how the geological interpretation was used to control the resource estimates.*<br>• *Discussion of basis for using or not using grade cutting or capping.*<br>• *The process of validation, the checking process used, the comparison of* | Closed wireframes of minimum thickness >1m were constructed according to the geological understanding of the areas and modified so that they contained Ta2O5 grades of >= 160 ppm. Lower grades were allowed but only where the grade intercepts averaged >160ppm. Wireframes extended halfway between holes and adjacent sections. 1m sample composites from within the wireframes were used to estimate grades into a block model of 10mY by 10X by 1mZ approximating half the drill spacing and equalling the drillhole sampling. Wireframe percentages were calculated for each block. Block estimates were made (using Gemcom software) for the principal components Ta2O5 and Sn using ordinary kriging controlled by anisotropic variogram models (using GeoAccess software) which reflected the overall geology. Other grades for Nb2O5, Cs, Li, Rb, U and Th were estimated using inverse distance squared. All estimates used ellipsoid sample searches orientated to the variogram directions. Maximum and minimum samples used for block estimation were chosen to make the average of the estimated blocks and the averaged estimating sample grades as close as possible. Ta2O5 and Sn were |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *model data to drillhole data, and use of reconciliation data if available.* | estimated uncut and top-cut grades. Top-cut grades were decided by inspection of the sample distributions. Other grades were estimated uncut. |
| ***Moisture*** | • *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.* | The density used is considered to be equivalent of a dry in situ bulk density. |
| ***Cut-off parameters*** | • *The basis of the adopted cut-off grade(s) or quality parameters applied.* | A cut-off of 160ppm Ta2O5 was selected after reviewing previous work suggesting weathering cut-off grades. |
| ***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.* | It is 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 and 1m. |
| ***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 extraction method employed previously was successful in extracting the tantalum minerals. It has been proposed that a similar process would be used in the future, and it is assumed it would be also successful in extracting the mineral. |
| ***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.* | Previously, the generated waste materials were used to backfill mined-out pits or delivered to a tailings storage facility. For any new operation, it is expected that this approach would again be used. |
| ***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.*<br>• *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.*<br>• *Discuss assumptions for bulk density estimates used in the evaluation* | Density determinations obtained via weathering profile grab samples indicate average bulk densities of 1.92t/m3 for oxide pegmatite, 2.36t/m3 for transitional pegmatite and 2.63t/m3 for fresh pegmatite. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *process of the different materials.* | |
| ***Classification*** | • *The basis for the classification of the Mineral Resources into varying confidence categories.*<br>• *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).*<br>• *Whether the result appropriately reflects the Competent Person's view of the deposit.* | The Mineral Resources have been classified by considering the Slope of the Regression (SoR) for each block which has been calculated during kriging.<br><br>Measured – none due to the large drillhole spacing.<br>Indicated – SoR >0.85.<br>Inferred – SoR =<0.85 and >0.65.<br>Unclassified – SoR =<0.65. |
| ***Audits or reviews*** | • *The results of any audits or reviews of Mineral Resource estimates.* | No audits or reviews have been completed. |
| ***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.*<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>• *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.* | No statistical or geostatistical method was applied.<br>Factors impacting the accuracy and confidence of the Mineral Resources:<br>Accuracy of historical drilling data used within the current drilling areas is unknown.<br>Geological control of the tantalite mineralisation within the pegmatites is not fully understood. Hence at a local scale the spatial continuity and geometry of mineralisation between drillholes cannot be predicted with certainty. |

# JORC CODE, 2012 EDITION – TABLE 1, CENTRAL RESOURCES. – LITHCO DRILLING ONLY (AFTER CSA GLOBAL)

## 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.* | Drilling consists of ~98% reverse circulation (RC), RC with diamond core tails (RCD) and diamond drilling (DD) for a total 728 holes for 63,539.2m of drilling in the Bald Hill project database. The Bald Hill Mineral Resource is based on assay data from 460 RC holes, 9 RCD holes and 3 DD holes.<br><br>RC cuttings were continuously sampled at 1m intervals through all pegmatite intercepts including 2m of waste above and below each intercept.<br><br>DD core is typically continuously sampled at 2m intervals through pegmatite intercepts. Where required by changes in lithology, mineralization, or alteration, core samples may be shorter or longer than the typical 2m.<br><br>The majority of drill hole collars are accurately surveyed using RTK DGPS equipment.<br><br>Drill samples are logged for lithology, weathering, structure (diamond core), mineralogy, mineralisation, colour and other features.<br><br>Half diamond core was collected and placed in marked plastic sacks, and shipped to the assay laboratory.<br><br>RC samples were collected and placed in marked plastic bags which were placed in sacks and then shipped to the assay laboratory.<br><br>Drill samples were jaw crushed and riffle split to 2-2.5kg for pulverizing 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><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* | RC was drilled using 4.5-inch (140 mm) rods with a nominal 5.9-inch (150 mm) diameter hole. Diamond core used either PQ, NQ2 or HQ3 |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *oriented and if so, by what method, etc).* | diameter core. Core was oriented where possible.<br>All DD holes and ~98% of RC drill holes are angled; the remainder were drilled vertically. |
| ***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 drilling were not recorded. Core recovery is very good through the mineralised zones and estimated to be greater than 90%.<br>RC drilling generally utilised an external booster to keep samples dry and maximising recoveries. The majority of RC holes are shallow (<150m) with very few wet samples encountered.<br>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.*<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 drill holes 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 norms” to a level sufficient to support the Mineral Resource estimate.<br>Drill holes have been geologically logged in their entirety. Where logging was detailed, the subjective indications of spodumene content were estimated and recorded.<br>All drill holes are logged in full, from start to finish of the hole. |
| ***Sub-sampling 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.* | Where sampled, core is cut in half onsite using an industry standard core saw, to produce two identical halves.<br>Dry RC samples were collected at 1m intervals and riffle or cone split on-site to produce a subsample less than5kg.<br>Sample preparation is according to industry standard, including oven drying, coarse crush, and pulverisation to 80% passing 75 microns.<br>Subsampling is performed during the preparation stage according to the assay laboratories’ internal protocol.<br>Field duplicates, laboratory standards and laboratory repeats are used to monitor analyses.<br>Sample sizes are considered to be appropriate and correctly represent the style and type of mineralisation. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Quality of assay data and laboratory tests*** | • *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*<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 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.<br><br>No geophysical tools, spectrometers, handheld XRF instruments, etc were used.<br><br>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.*<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.* | Significant intersections have been verified by alternative TAW personnel and by a CSA Global Competent Person (Ralph Porter).<br><br>The Ta and Li assays show a marked correlation with the pegmatite intersections via elevated downhole grades.<br><br>Twinning of holes undertaken to date show reasonable continuity and representivity of the mineralised intervals.<br><br>Drill logs exist for all holes as electronic files and/or hardcopy (all 2017 logging has been input directly to field logging computers).<br><br>Digital log sheets have been created with inbuilt validations to reduce potential for data entry errors.<br><br>All drilling data has been loaded to a database and validated prior to use.<br><br>For the Mineral Resource estimate, adjustments were made to a number of down hole surveys. These adjustments were made where angled holes were blocked well before the end of hole, or where down hole surveys had not yet been undertaken but surveys had been completed for nearby holes.<br><br>Where the drill hole 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 down hole 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><br>In all cases, corrections to down hole surveys were reviewed against surrounding drill holes and pegmatite intervals to ensure error was |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | minimised. |
| ***Location of data points*** | • *Accuracy and quality of surveys used to locate drillholes (collar and down-hole 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.* | Prior to drilling, collar coordinates are situated using hand held GPS (considered accurate to within 4m).<br><br>Following drilling, accurate surveying using RTK DGPS is undertaken by trained site personnel. Hole collars are preserved until completion of down hole surveying. A significant portion of holes are surveyed down hole digital instruments dominated by gyro tools.<br><br>Grid used is MGA 94 Zone 51.<br><br>Topographical survey is generated from detailed airborne survey with points generated on a 1m by 1m grid. Areas mined have been defined by final mine surveys. |
| ***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.* | Drilling has been conducted on a 40m by 40m grid extending to 80m by 80m on the peripheries of the deposit, with a 140m by 80m area in the northern portion of the deposit drilled out at 20m by 20m.<br><br>The spacing of holes is considered of sufficient density to provide an ‘Indicated’ or ‘Inferred’ Mineral Resource estimation and classification under JORC (2012).<br><br>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.*<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.* | Drilling has been angled to achieve the most representative intersections through mineralisation.<br><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.<br><br>The lithium 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.*<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 Bald Hill Resource is situated on Mining lease M15/400 comprising 501Ha. M 15/400 is 100% owned by Australian incorporated, Singapore Exchange listed Alliance Mineral Assets Limited (AMAL).<br>The Mining lease are subject to an earn-in agreement between AMAL and Tawana Resources Limited.<br>There are no other third-party interests or royalties.<br>Government royalties are 5% for Lithium or Tantalum mineral concentrates.<br>The portfolio of mineral tenements, comprising mining leases, exploration licences, prospecting licences, miscellaneous licences, a general-purpose lease, and a retention lease 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 undertook exploration for tantalite-bearing pegmatites from 1983-1998. 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 Resources Limited (Haddington) entered agreement to develop the resource and mining<br>• commenced in 2001 and continued until 2005.<br>• 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 cross cut the regional foliation, occurring as gently dipping sheets and as steeply dipping |

| Criteria | JORC Code explanation | Commentary |
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| | | 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 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 pegmatite intrusives. Tantalite generally occurs as fine disseminated crystals commonly associated with fine-grained, 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>  ○ *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.* | 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.*<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.* | Not Applicable – Not reporting exploration results. |
| ***Relationship between mineralisation widths and*** | • *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* | 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 lithium tantalite-bearing pegmatites are generally flat to |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***intercept lengths*** | *be a clear statement to this effect (e.g. 'down hole length, true width not known').* | shallowly dipping in nature. The true width of pegmatites is generally considered 85-95% of the intercept width, with minimal opportunity for sample bias. |
| ***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 |
| ***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 metallurgical test work for spodumene referred to in the release was undertaken by Nagrom. Nagrom has extensive experience with tantalum and lithium extraction testwork and has ISO9001:2008 accreditation.<br><br>Results have been reported without interpretation. |
| ***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 deposit to explore for additional resources and improve the understanding of the current resources prior to mining.<br><br>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.*<br>• *Data validation procedures used.* | 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><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.<br><br>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 |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | 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.*<br>• *If no site visits have been undertaken indicate why this is the case.* | CSA Global Principal Consultant; Ralph Porter has visited site and reviewed the drilling, sample collection, and logging data collection procedures, along with conducting a review of the site geology.<br><br>The outcome of the site visits (broadly) were 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. |
| ***Geological interpretation*** | • *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*<br>• *Nature of the data used and of any assumptions made.*<br>• *The effect, if any, of alternative interpretations on Mineral Resource estimation.*<br>• *The use of geology in guiding and controlling Mineral Resource estimation.*<br>• *The factors affecting continuity both of grade and geology.* | 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.<br><br>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.<br><br>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.<br><br>The model developed for mineralisation is geologically driven; controlled by the presence or absence of pegmatite.<br><br>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.<br><br>Grade within this pegmatite is controlled by numerous factors such as fluid residence time, degree of fluid fractionation and pegmatite |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | 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 1,070m, and a width at its widest point of 775m. 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 1,245m, and a total width of 990m.<br><br>The Mineral Resource has a total vertical depth of 195m, beginning 20m 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.*<br>• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*<br>• *The assumptions made regarding recovery of by-products.*<br>• *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).*<br>• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*<br>• *Any assumptions behind modelling of selective mining units.*<br>• *Any assumptions about correlation between variables.*<br>• *Description of how the geological interpretation was used to control the resource estimates.*<br>• *Discussion of basis for using or not using grade cutting or capping.*<br>• *The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.* | 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 7,500ppm $Li_2O$ 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 $Li_2O$ mineralization surrounded by lower grade pegmatite, and is an interpretation supported by the petrogenetic model for the formation of $Li_2O$ bearing pegmatites.<br><br>Samples were composited to 1m intervals based on assessment of the raw drill hole sample intervals. Various high grade cuts were used for both $Li_2O$ (ranging from 10,000ppm to 40,000ppm) and $Ta_2O_5$ (ranging from 300mm to 4,000ppm) based on statistical review of each object. Composites for some objects remained uncut depending on the statistical review.<br><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 TM 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><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 |

| Criteria | JORC Code explanation | Commentary |
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| | | that particular domain.<br><br>All geological modelling and grade estimation was completed using Surpac software.<br><br>No check estimates are available for the current Mineral Resource. Historic 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.<br><br>The only significant by-product to be considered is $Ta_2O_5$ which has been estimated within the domains defined by $Li_2O$.<br><br>No deleterious elements have been identified or estimated.<br><br>Block model dimensions used for the Bald Hill Mineral Resource estimate were 10 by 10 by 5m (XYZ) sub-celled to 2.5 by 2.5 by 1.25m for resolution of volumes at lithological boundaries. This compares to an average drillhole spacing of 20m within the more densely informed areas of the deposit. This 20m spacing increases to up to 80m between drillholes in less well informed portions of the deposit.<br><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.<br><br>No assumptions were made regarding selective mining units.<br><br>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.<br><br>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.<br><br>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 |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | conducted on a per-domain basis.<br>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.<br>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.<br>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 believes with sufficient confidence that metallurgical concerns will not pose any significant impediment to eventual economic extraction. |
| ***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,* | 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 |

| Criteria | JORC Code explanation | Commentary |
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| | *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.* | 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.*<br>• *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.*<br>• *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.* | 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.<br>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.<br>Bulk densities have been applied on a lithological unit basis. Values assigned were as follows:<br>• Fresh pegmatite mineralisation 2.65 t/m3<br>• Transitional pegmatite 2.5t/m3<br>• Fresh diorite 2.8t/m3<br>• Transitional diorite 2.6t/m3<br>• Fresh metasediments 2.74t/m3<br>• Transitional metasediments 2.6t/m3<br>• Oxide metasediments 2.2t/m3<br>• Waste fill 1.8t/m3<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.*<br>• *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).*<br>• *Whether the result appropriately reflects the Competent Person's view of the* | 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 |

| Criteria | JORC Code explanation | Commentary |
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| | *deposit.* | the modelled mineralisation wireframes.<br>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.<br>The Mineral Resource estimate appropriately reflects the Competent Person's views of the deposit. |
| ***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.*<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>• *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.* | 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.<br>The Mineral Resource statement relates to a global estimate of in-situ tonnes and grade.<br>The deposit has been historically mined for tantalum ($Ta_2O_5$), 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 |
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| *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.* | The Mineral Resource estimate was completed by Dr Matthew Cobb and Mr Ralph Porter of CSA Global Pty Ltd (CSA).<br>The Lithium Resources included:<br>Indicated Resources of 4.6Mt at 1.25% Li2O and 207ppm Ta2O5; and<br>Inferred Resources of 8.2Mt at 1.14% Li2O and 130ppm Ta2O5 |

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| | | Additional Tantalum Resources included:<br>Indicated Resources of 2.8Mt at 325ppm Ta2O5; and<br>Inferred Resources of 2.9Mt at 297ppmm Ta2O5. |
| | • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves* | The Mineral Resources are reported Inclusive of Ore Reserves. |
| *Site visits* | • *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* | Al Maynard, principal of Al Maynard and Associates ("AM&A") undertook an initial site visit to the Bald Hill Tantalite Project for AMAL on the 18th February, 2014 and carried out another previous field trip to the site for another unrelated client in 2002. Phil Jones, the Competent Person undertook an initial site visit to the Bald Hill Tantalite Project for AMAL during March 2015 with other site visits during December 2015, April 2016, August 2016 and November 2016. |
| | • *If no site visits have been undertaken indicate why this is the case.* | Not applicable |
| *Study status* | • *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* | The study undertaken was a Pre-Feasibility Study (PFS). The PFS was undertaken as the basis for conversion of Indicated Resources to Probable Reserves. The study was compiled by the Company with input from a number of independent consultants as follows:<br>• Geology – CSA<br>• Mining – CSA for Whittles, Design Marcus Jacobs, Mark Gell<br>• Metallurgical testing – Nagrom<br>• Metallurgy & Processing –Trinol Pty Ltd and Primero Group (Primero)<br>• Infrastructure – Klohn Crippen Berger Ltd (KCB) and GDC Services Pty Ltd (GDC)<br>• Environmental – Ecotech (WA) Pty Ltd (Ecotech)<br>• Geotechnical – Dempers & Seymour Pty Ltd (Dempers & Seymour) |
| | • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.* | Mine planning included pit optimisations, pit designs, mining and processing scheduling, cost estimations and economic analysis to ensure the project is technically achievable and economically viable.<br>Capital expenditure estimates are considered to be within -5%/+10%, and<br>Operational expenditure estimates are considered to be within -10%/+15%. |

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| *Cut-off parameters* | • *The basis of the cut-off grade(s) or quality parameters applied.* | The economic parameters used in pit optimisation were used to define a breakeven cut-off grade of 0.39% $Li_2O$ or 200ppm $Ta_2O_5$. |
| *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).* | Pit optimisations, and sensitivity analysis, were completed. Slope design criteria, mining dilution, ore loss and processing recoveries were applied in the pit optimisation process together with mining, processing, transport and sales cost estimates, and revenue projections to form the basis for pit designs and subsequent mining and processing schedules. |
| | • *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.* | A conventional open pit mine method was chosen as the basis of the PFS. Ore occurs close to surface requiring minimal pre-stripping and pre- production mining activities. |
| | • *The assumptions made regarding geotechnical parameters (e.g.*<br>• *Pit slopes, stope sizes, etc), grade control and pre-production drilling.* | Dempers & Seymour carried out geotechnical logging of 5 specifically located core drill holes in the deeper portions of the proposed pit and initial evaluation of the data resulted in recommended inter-ramp slope angles ranging from 48-55°.<br>Running ramp widths for designs vary from 10m for single to 19.5m for double lane ramps for gross widths of 15m-25m. |
| | • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* | The Ore Reserve estimate for the PFS was based on the Mineral Resource, dated 14 June 2017, prepared by CSA.<br>Major assumptions for pit optimisation include: for lithium 0.20% $Li_2O$ fixed tail and 100% recovery (also 70% recovery with no fixed tail used). For tantalum recovery of 62%; ore production rate of 1.2Mtpa; DMS and 0.35Mt through the tantalum plant; Gross price of US$750/t 6% $Li_2O$ concentrate (inclusive of transport). FOB and US$60/lb of contained tantalum within tantalum concentrates; Selling cost of 5% (State Government royalty); overall processing cost of A$29.06/t of lithium and tantalum ore inclusive of administration costs, ore rehandle, mine management, contract crushing, sustaining capital and grade control; and contract waste mining cost at surface of A$3.04/t mined. Site rehabilitation allowance of A$0.12/t of waste mined. A discount rate of 8% was applied. |

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| | • *The mining dilution factors used.* | Mining dilution of 5% was nominally applied to Indicated Resources based on the highly visual nature of the ore and a subjective assessment of prior mining performance. A grade of 0.0% $Li_2O$ and 0ppm $Ta_20_5$ was assumed for dilution material. |
| | • *The mining recovery factors used.* | A mining recovery of 95% was applied based on highly visual nature of ore and a subjective assessment of prior mining performance |
| | • *Any minimum mining widths used.* | Minimum mining width for optimisation and design was 30m |
| | • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion* | Inferred Resources were included in several pit optimisation runs to ensure infrastructure or waste was not located on potential economic resource. The optimisation shells for the combined Indicated and Inferred resources contained about 3 times the volume and mineralisation of those for Indicated alone. |
| | • *The infrastructure requirements of the selected mining methods.* | Mining Infrastructure was limited to ROM pad, haul roads, workshops and other buildings for a contract mining operation. |
| *Metallurgical factors or assumptions* | • *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* | For lithium ore the PFS economics has only considered Phase one processing comprising dense media gravity separation (DMS) of the 1mm to 10mm fraction after P100 crushing to 10mm. This process is considered lowest risk methodology for the ore type comprising zoned, very coarse grained, spodumene-α pegmatite. To further reduce processing risk the DMS circuit will treat 1-5.6mm and 5.6-10mm separately, with partial mica removed from the 1-5.6mm fraction using a reflux classifier (RFC).<br><br>-1mm material (lithium fines) along with low grade DMS concentrates (middlings) will be treated at a later date through a lithium fines circuit (LFC)<br><br>For tantalum ore the PFS has only considered tantalum recovery from direct ore feed to the existing tantalum spiral plant and from additional spirals to remove portion of the tantalum from the lithium fines prior to stockpiling for future treatment through the LFC. Test work has shown additional tantalum concentrate recovery can be |

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| | | obtained from treatment of DMS concentrate through jigs however this has not been considered by the PFS. |
| | • *Whether the metallurgical process is well-tested technology or novel in nature.* | All technologies proposed are proven and well tested with easily sourced components |
| | • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* | Samples used for metallurgical test work 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 down-stream test work by lithium convertors.<br><br>The variability, composite and bulk samples all show the same metallurgical characteristics with no apparent variation or domaining across the deposit.<br><br>About 99% of Resources are fresh rock and the remaining 1% is transitional to fresh rock. |
| | • *Any assumptions or allowances made for deleterious elements.* | For Lithium concentrates potential deleterious elements have been observed at low concentrations in concentrates or are non-existent, key deleterious minerals and elements are<br>• lepidolite – not present in test work<br>• petalite – not present in test work<br>• Iron – Concentrates to date contain less than the 0.8% total Fe and 8% moisture content, the key contractual requirements.<br>• mica – concentrates to date contain less than 3% mica. The Port of Esperance allows a maximum limit of 5% mica.<br><br>Detailed mineral product quality and safety chemical and micro mineral analysis undertaken on concentrates for the Port of Esperance returned favourable results. |
| | • *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.* | A bulk sample was processed through a DMS250 at Nagrom. A total of 3,887kg of material was treated through the DMS after removal of fines and partial mica for recovery of 1,490kg of combined concentrates averaging 6.23% $Li_2O$ at a recovery of 95.9% of contained lithium in the DMS feed or net recovery of 84.9% after taking into account lithium contained in fines and RFC rejects. The iron content of the combined concentrate was 0.21%.<br><br>This is a significantly better result than the Composite test work used for engineering mass balance and PFS recoveries. The exceptionally high recoveries were due in part to the higher than expected head |

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| | | 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. |
| | • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?* | The Ore Reserve has been based on being able to produce concentrates of at between 5.5% and 7.0% $Li_2O$ |
| *Environmen-tal* | • *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 'Brown Fields' site with existing mine workings and infrastructure. The mine has existing Environmental approvals, conditions and monitoring requirements for pre-existing proposed pits, dumps and tails storage which satisfy a limited portion of the proposed enlarged Mine site. The project has formal Department of Mines and Petroleum (DMP) approval for the addition of spodumene production and the Department of Environment Regulation (DER) review of the revised construction activities is complete. Additional approvals are still required for larger pits, dumps and the long-term tailings facility Studies have shown that there are no significant additional environmental impacts for construction of the lithium circuit or extensions to the existing permitted open 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 Mine is located in the Goldfields region of Western Australia where good infrastructure is available for mining projects.<br><br>A sealed highway and unsealed public road with RAV-7 approval provides access from the port of Esperance to within 1.8km of the plant site where existing private access road will require minimal upgrading for the increased traffic load.<br><br>Process water requirements for processing can be serviced from water resources within the mine area, as per the existing water Permits. Potable water will transported to site until the new Mine camp is constructed.<br><br>Power will be produced on site using diesel generators.<br><br>Product will be shipped via the port of Esperance located approximately 360km by road to the south.<br><br>The site will operate on a fly-in fly-out basis to Kalgoorlie or Kambalda with a village constructed to house operations personnel whilst on site. |

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| | | 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.* | Project Capital was derived on the following basis:<br><br>The DMS circuit capital estimate was estimated by Primero based on budget pricing and Primero's database of recent project costs. Subsequent to the initial DMS capital estimate a fixed sum EPC price has been agreed based on a detailed scope of works and an early works contract has been signed allowing long lead items to be ordered, detailed design to advanced and mobilization to site. The updated agreed EPC price has been used for the PFS.<br><br>A number of items outside the Primero scope were costed under by the Company (Owner's) Costs. These included Road improvements, Additional mining infrastructure, Tailings Storage Facility (TSF) based on initial input from KCB, water reticulation and environmental costs.<br><br>The Company provided costs for Owner's team and other related indirect expenses. The Owner's Costs have been reviewed and compiled by GDC and Mark Gell.<br><br>Contingency has been applied to account for the accuracy of the estimate.<br><br>Mining working capital costs include site establishment costs and mobilisation of the contract mining fleet and pre-production costs. The contract mining operation has no mining fleet capital expenditure as these costs are incorporated in the contract mining costs. Pre-production includes clearing and stockpiling of topsoil. |
| | • *The methodology used to estimate operating costs.* | DMS reagent consumption was factored from similar operations.<br><br>Contract crushing unit rates were derived from initial pricing and exclusions received from contractors.<br><br>Contract mining unit rates were derived from initial pricing received from contractors.<br><br>The Owner's team for Mine Management and Technical services were based on personnel levels required to manage the operation and the Mercer salary Data. |
| | • *Allowances made for the content of deleterious elements.* | Due to the low concentration of Fe and mica in the Concentrates, no allowance was made for deleterious elements. |

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| | • *The source of exchange rates used in the study.* | Exchange rates were applied based on external sources and at current levels. |
| | • *Derivation of transportation charges.* | Transport and port charges were derived from quotations by reputable contractors and include storage and re-handling costs. |
| | • *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* | Based on the off-take agreement concentrates must contain 5.5% Li2O. Positive or negative variations in grade from 6% attract a straight line price adjustment increment/decrement of US$15/t based on grade variation of 0.1%. |
| | • *The allowances made for royalties payable, both Government and private.* | 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.* | Spodumene revenue factors were:<br>Variable head grade averaging 1.12% $Li_2O$ over 3.5 years of the mine life after dilution and ore loss<br>Processing recoveries applied at 65.8%. Spodumene price of US$880/t for 2018, 2019 US$733/t for 2020 and US$800/t for 2021 based on 6% Li2O content<br>Exchange rate of 0.75 AUD:USD<br>Transportation and Port loading charges have been allowed for however remain confidential<br>Tantalum revenue factors were:<br>Direct tantalum feed averaging 342ppm $Li_2O$ over 3.5 years of the mine life with a recovery rate of 65% to saleable concentrates. Secondary production of 191,000kg of tantalum pentoxide from the lithium circuit fines.<br>Tantalum pentoxide price of US$60/Lb for a 25% $Ta_2O_5$ content<br>Exchange rate of 0.75 AUD:USD<br>Transportation and Port loading charges have been allowed for |

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| | | however remain confidential. |
| | • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.* | The commodity pricing for spodumene concentrates is based on a price of US$880/t (FOB Esperance) for 6% $Li_2O$. The Company has a binding offtake agreement for the supply of lithium concentrate from the Bald Hill Project in Western Australia over an approximate initial five-year term.<br><br>The key terms of the offtake agreement are as follows:<br><br>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%.<br><br>From 2020 to 2023, the sales price and volumes are to be negotiated and will be by agreed based upon prevailing market conditions at the time.<br><br>For the purpose of the PFS reference prices of US$733/t for 2020, US$800/t for 2021 and US$753/t for 2022, for 6% $Li_2O$ concentrates based on Canaccord Genuity forward estimates.<br><br>The commodity pricing for tantalum is based on a price of US$60/lb (FOB Esperance) for +25% $Ta_2O_5$. The assumed spot price is $55/lb 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. In 'real terms' the current pricing is close to an 'all-time' low however there are no indications a strong correction to pricing. |
| *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.* | 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.<br><br>The Company has signed a Binding Offtake Agreement (BOA) for 100% of production for the first two years which includes substantial prepayments. |
| | • *A customer and competitor analysis along with the identification of likely market windows for the product.* | 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 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 analysts' predictions. |

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| | • *Price and volume forecasts and the basis for these forecasts.* | The commodity pricing for spodumene concentrates is based on a price of US$880/t (FOB Esperance) for 6% $Li_2O$. The Company has a binding offtake agreement for the supply of lithium concentrate from the Bald Hill Project in Western Australia over an approximate initial five-year term.<br><br>For the purpose of the PFS reference prices of US$733/t for 2020, US$800/t for 2021 and US$753/t for 2022, for 6% Li2O concentrates based on Canaccord Genuity forward estimates. |
| | • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.* | Concentrates produced during bulk metallurgical test work are well within 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.* | The economic analysis is based on cash flows driven by the production schedule. The cash flow projections include:<br><br>Initial and sustaining capital estimates.<br><br>Mining, processing and concentrate logistics costs to the customer based on FOB pricing.<br><br>Revenue estimates based on concentrate pricing adjusted for fees, charges and royalties.<br><br>A 10% discount factor. |
| | • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.* | Sensitivity analyses were generated by varying the salient economic variables. The project is most sensitive to grade, recovery of lithium and AUD/USD. The 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 Brown Fields operation however over time the larger project footprint will have marginal impact on pastoral lease feed and improvements. The Company is working with the lessee to mitigate impacts. The License pre-dates Native Title however the Company has been in dialog with the Ngadju Native Title Group on neighboring 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: | |
| | • *Any identified material naturally occurring risks.* | No material naturally occurring risks have been identified. |

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| | • *The status of material legal agreements and marketing arrangements.* | The Company has a binding offtake agreement for the supply of lithium concentrate from the Bald Hill Project over an approximate initial five-year term. Apart from Bald Hill JV agreements that govern the Project there are no other relevant material legal agreements. |
| | • *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.* | The Company has granted mining lease M15/400 covering sufficient area for the open pit, plant and other infrastructure. Being an operating tantalum mine the site has existing DER operating license and DMP mining proposal. An amendment DMP mining proposal has also been approved and a DER license amendment has been submitted. There are no apparent impediments to obtaining all government approvals required for the project.<br>The License pre-dates Native Title. |
| *Classification* | • *The basis for the classification of the Ore Reserves into varying confidence categories.* | Probable Ore Reserves were determined from Indicated resource material as per the guidelines. As there is no Measured resource material, there are no Proved Ore Reserves. |
| | • *Whether the result appropriately reflects the Competent Person's view of the deposit.* | The results reflect the views of the Competent Person. |
| | • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).* | There are currently no Measured Mineral Resources for the project |
| *Audits or reviews* | • *The results of any audits or reviews of Ore Reserve estimates.* | Ore Reserve estimates have been reviewed internally and mine design and scheduling has been reviewed. No material flaws have been identified and the Ore reserve is considered appropriate for a PFS level of study.<br>The Primero capital cost and operating estimate and scope of work was externally reviewed.<br>The financial model was reviewed externally. |
| *Discussion of relative accuracy/ confidence* | • *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* | The Ore Reserve is the outcome of the PFS that has taken into account geological, metallurgical, geotechnical, process engineering and mining engineering considerations. It has a nominal accuracy of + 15% / -10%.<br>The Project has a IRR and NPV which makes it robust in terms of cost |

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| | | variations. The project is sensitive to price variations for spodumene concentrates and mining costs and less sensitive to capital costs. |
| | • *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.* | All estimates are based on local costs in Australian dollars.<br><br>Standard Industry practices have been used in the estimation process. |
| | • *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* | The degree of accuracy of study knowledge surrounding:<br>• Geology<br>• Engineering<br>• Permitting requirements<br>• Project delivery<br>• Capital and Operational expenditure estimates, and<br>• Financial modelling<br><br>are considered by Tawana to be at a minimum of Class 3 in regard to the Association for the Advancement of Cost Engineering (AACE). There are no known undisclosed areas of uncertainty. |
| | • *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.* | There has been no lithium production via DMS to date, so no comparison or reconciliation of data can be made.<br><br>There are significant tantalum recovery records and these have been used as a basis for estimating future recovery. |