

# QUARTERLY REPORT FOR THE PERIOD ENDED 31 DECEMBER 2017

Vital Metals Limited (ASX: VML) is pleased to report on its activities during the December 2017 gquarter at its projects in West Africa and Far North Queensland.

## **HIGHLIGHTS**

### **EXPLORATION**

- > 3,000m of RC drilling commenced to test the Bella Tondi prospect, at the Bouli Gold Project in Niger, West Africa
- > Bella Tondi has seen intensive hard rock artisanal activity over +1.5km of strike
- > 2016 drilling at nearby prospects returned high-grade gold intercepts of:
  - o BDD002: 17.9m @ 7.92 g/t Au from 57.2m
  - o BDD001: 1.6m @ 16.58 g/t Au from 63.7m
  - o BDD029: 7.1m @ 2.73 g/t Au from 16.0m

## WATERSHED DEVELOPMENT

- Provisio Corporate appointed to co-ordinate and lead process to arrange non-equity funding for the Watershed Tungsten Project, Queensland
- > Discussions ongoing with potential offtake parties for Watershed scheelite concentrate
- Tungsten ammonium para tungstate (APT) prices have consolidated at near decade highs in Australian dollar terms

## **Bouli Gold Project, Niger**

In December, Vital announced the commencement of a 3,000m reverse circulation (RC) drill program at the Bella Tondi prospect, part of the Bouli Gold Project in Niger, West Africa.

Bella Tondi is located about 25km north of the 2.5Moz Samira Hill gold project on a prominent north-south structure with gold mineralisation located on the contact between a mafic instructive and volcanoclastics.

There has been significant hard rock artisanal mining over at strike length of more than 1.5km at the prospect, with more than 20,000 miners working on it. Workings stopped at about 50m depth due to encountering the water table.

Vital's program at Bella Tondi is the first time the mineralisation has been drill tested. The program is designed to test gold mineralisation under the artisanal workings, with drill fences spaced on 100m sections along the strike of the existing workings.

Bella Tondi is part of an exploration agreement held with private Turkish company SUMMA over the Bouli Gold Project. As announced last quarter, Vital will spend \$1 million on exploration over six months, after which it can elect to proceed or withdraw from the agreement. If Vital decides to proceed, it will earn a 50% interest in the project by spending an additional \$5M on exploration over two years. On establishment of a joint venture, Vital can acquire SUMMA's stake for a 2.5% gross revenue royalty.

## Watershed Tungsten Project, Far North Queensland (Vital 100%)

Vitals' 100%-owned Watershed Tungsten Project is located 130km north of Cairns in Far North Queensland and is well placed to provide tungsten concentrates that are necessary to make the metals and composites that underpin modern industry.

Tungsten metals and composites have outstanding properties; being very hard, very tough, heat-resistant and are indispensable in the following applications:

- Automotive Industry
- Industrial Engineering
- ➤ Mining & Road Construction
- Aviation & Space

- Energy Oil & Gas
- > Health
- Agriculture
- Defence Industries

Watershed is a development-ready opportunity that is permitted with granted Mining Leases and an Environmental Authority for an open pit development. All landowner and Indigenous agreements in place and it is located in a mining friendly Tier 1 jurisdiction.

The Watershed DFS was completed in September 2014<sup>1</sup> and since that time Vital has identified significant opportunities to achieve savings in both Capex and Opex compared to that study:

## Capex

- Civil earthworks optimization
- Optimisation of plant layout
- Signification reduction in direct construction costs
- > Flowsheet optimisation

## Opex

- Fuel and energy cost reductions
- Positive changes to salary and wages
- > Flowsheet optimisation



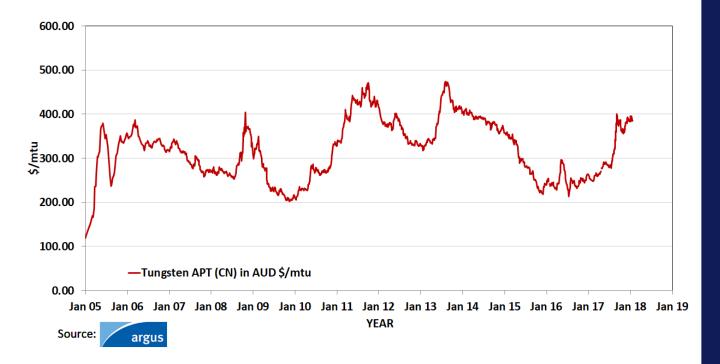
<sup>&</sup>lt;sup>1</sup> DFS reported in ASX Announcement 17 September 2014. Updated DFS figures reported in ASX release 22 January 2015, 29 June 2015 and 22 January 2016. The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous announcements.

Work in optimising the flowsheet continued during the quarter with a metallurgical sample sent to the United States. If the flotation testwork is successful it has the potential to further reduce Capex and Opex. Results from the program are expected towards the end of the next quarter.

Discussions were held with potential offtake partners who are attracted to the Watershed Tungsten Project due to the clean high-grade scheelite concentrate that will produced at globally competitive prices. Arranging a suitable concentrate offtake agreement will be a pre-requisite of non-equity financiers as they will require most of the tungsten produced be sold to a reputable buyer with suitable credit risk.

Tungsten prices remain strong due to increased end user demand and reduced supply. Tungsten ammonium para tungstate (APT) prices have consolidated at near decade highs in Australian dollar terms being A\$385/mtu at time of writing.

Supply of concentrate remains tight and market forecasters expect this to remain following the directive by Chinese authorities to their domestic mineral sector that they are on notice and regulators will enforce environmental and safety regulations. This has resulted in the closure of polluting mines and refiners. Many of these old non-compliant operations will be permanently shut due to these violations.



## Nahouri Gold Project, Burkina Faso

The Nahouri Gold Project sits within the Markoye Structural Corridor in Burkina Faso, which is known to host several multi-million-ounce gold deposits, including two recent major gold discoveries; West African Resources' Sanbrado Gold Project, Burkina Faso and Cardinal Resources' Namdini Project in Ghana.

No field activities were conducted during the quarter. Compilation and interpretation of exploration data continued to determine the optimum exploration strategy. These results will be presented to the Board which will determine the optimum exploration strategy that will add value to the company and its shareholders.

During the quarter the Nahouri license (previously Doulnia) was granted for 3 years, beginning on the 27<sup>th</sup> of December 2017. An application for the second renewal of the Zeko permit for further 3 years was submitted to the Ministre des Mines et des Carrieres during November 2017 and is currently being processed.

#### **CORPORATE**

## **Appointment of Financing Advisor**

During the quarter, Vital announced the appointment of Provisio Corporate to co-ordinate and lead the process to arrange non-equity funding for Vital's Watershed Tungsten Project in North Queensland.

Provisio Corporate will provide Vital with a tailored solution for Watershed regarding non-equity funding and facilitate the negotiation, documentation and, ultimately, execution of a finance package.

## **Appointment of Company Secretary**

In November, Vital announced the appointment of Matthew Foy as Company Secretary, following the resignation of Ian Hobson. Mr Foy is experienced in the role, acting as a company secretary and corporate advisor for other ASX-listed companies.

## **Results of Annual General Meeting**

At the Annual General Meeting of Vital's shareholders on 17 November 2017, all resolutions set out in the Notice of Meeting were passed on a show of hands.

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## **Competent Person's Statement**

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Mark Strizek, a Competent Person who is a Member or The Australasian Institute of Mining and Metallurgy. Mr Strizek is a full time employee of the Company. Mr Strizek has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Strizek consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

## Forward looking statements

Certain written statements contained or incorporated by reference in this new release, including information as to the future financial or operating performance of the Company and its projects, constitute forward-looking statements. All statements, other than statements of historical fact, are forward-looking statements. The words "believe", "expect", "anticipate", "contemplate", "target", "plan", "intend", "continue", "budget", "estimate", "may", "will", "schedule" and similar expressions identify forward-looking statements.

Forward-looking statements include, among other things, statements regarding targets, estimates and assumptions in respect of tungsten, gold or other metal production and prices, operating costs and results, capital expenditures, mineral reserves and mineral resources and anticipated grades and recovery rates. Forward-looking statements are necessarily based upon a number of estimates and assumptions related to future business, economic, market, political, social and other conditions that, while considered reasonable by the Company, are inherently subject to significant uncertainties and contingencies. Many known and unknown factors could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements.

Such factors include, but are not limited to: competition; mineral prices; ability to meet additional funding requirements; exploration, development and operating risks; uninsurable risks; uncertainties inherent in ore reserve and resource estimates; dependence on third party smelting facilities; factors associated with foreign operations and related regulatory risks; environmental regulation and liability; currency risks; effects of inflation on results of operations; factors relating to title to properties; native title and aboriginal heritage issues; dependence on key personnel; and share price volatility and also include unanticipated and unusual events, many of which are beyond the Company's ability to control or predict.

For further information, please see the Company's most recent annual financial statement, a copy of which can be obtained from the Company on request or at the Company's website: www.vitalmetals.com.au. The Company disclaims any intent or obligation to update any forward-looking statements, whether as a result of new information, future events or results or otherwise. All forward-looking statements made in this new release are qualified by the foregoing cautionary statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and, accordingly, not to put undue reliance on such statements.

### **ABOUT VITAL METALS**

Vital Metals Limited (ASX:VML) is an explorer and developer, focused on progressing four highly prospective mineral Projects: the development ready Watershed Tungsten Project in far north Queensland, Australia, The Bouli Gold Project in Niger, West Africa and the Nahouri Gold Project in southern Burkina Faso, West Africa and the Aue Tungsten Project in Saxony, Germany.

## Watershed Tungsten Project - Queensland

The Watershed scheelite (calcium tungstate) Project, in far north Queensland, 150 kilometres north-west of Cairns, is the Company's flagship venture. The Watershed Tungsten Project is development-ready having a completed Definitive Feasibility Study (DFS), is fully permitted and has all landowner and Indigenous agreements in place.

## Nahouri Gold Project – Burkina Faso

The Nahouri Gold Project (100% Vital) is located in southern Burkina Faso. The Project is made up of three contiguous permits; the Nahouri, Kampala and Zeko exploration permits. The Project is located in highly prospective Birimian Greenstone terrain with 400 sq km of contiguous tenements lying on the trend of the Markoye Fault Corridor.

## **Bouli Gold Project - Niger**

The Bouli Gold Project is a portfolio of three highly prospective gold permits in Niger, West Africa covering 4,289km² held by a subsidiary of SUMMA (a private Turkish company). Vital is working to earn interest in the project via the funding of an exploration work program.

## Aue Tungsten Project – Germany

The Aue Tungsten Project (100% Vital) is located in the western Erzgebirge area of the German state of Saxony. The permit, comprising an area of 78 sq km is located in the heart of one of Europe's most famous mining regions surrounded by several world class mineral fields. Historical mining and intensive exploration work carried out between from the 1940's and 1980's showed high prospectivity of the Aue permit area for tungsten, tin, cobalt, uranium and silver mineralisation.

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## **Board & Management**

David Macoboy Chairman

Mark Strizek
CEO and Managing Director

**Peter Cordin** 

**Non-Executive Director** 

Andrew Simpson
Non-Executive Director

Francis Harper
Non-Executive Director

Matt Foy Company Secretary

## **Capital Structure**

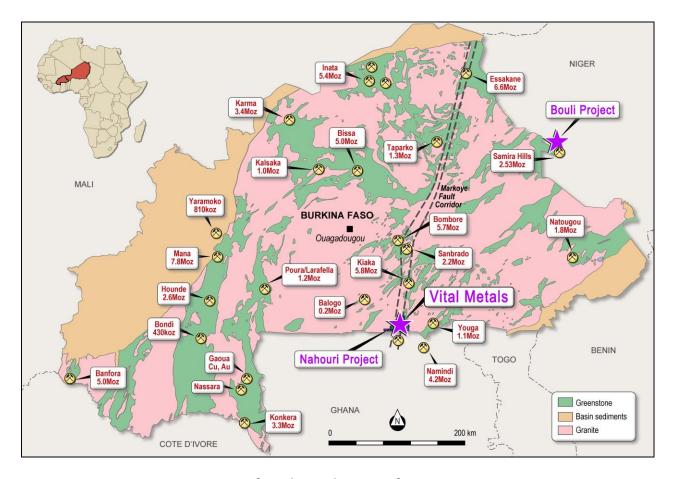
1,320 million shares

231 million unlisted options

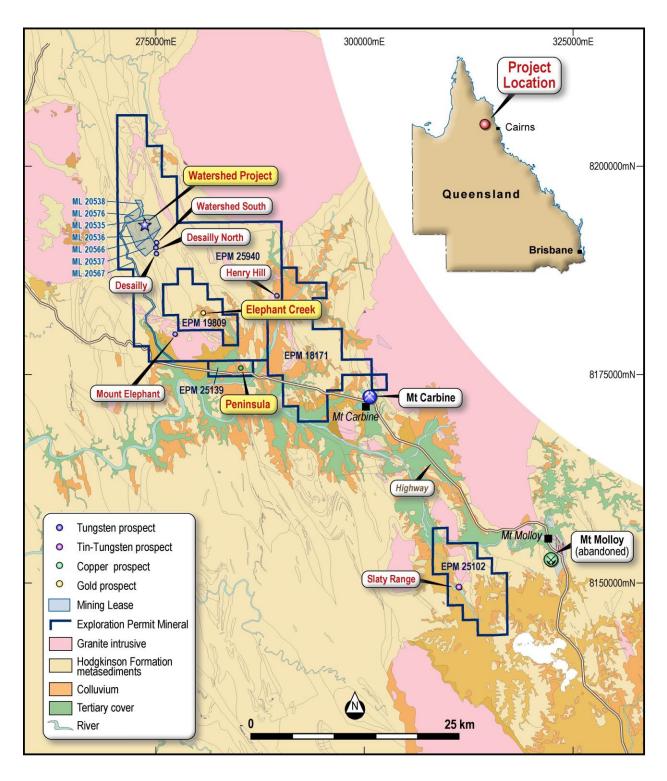
Appendix A - Schedule of Tenements as at 31 December 2017

Location	Tenement	Status	Interest at beginning of quarter	Interest acquired or disposed	Interest at end of quarter
Burkina Faso	Nahouri (Doulnia)	100%	0%	100%	100%
	Kampala	100%	100%	0%	100%
	Zeko	100%	100%	0%	100%
Germany	Aue	100%	100%	0%	100%
	EPM 18171	100%	100%	0%	100%
	EPM 19809	100%	100%	0%	100%
	EPM 25102	100%	100%	0%	100%
	EPM 25139	100%	100%	0%	100%
Watershed	EPM 25940	100%	100%	0%	100%
Queensland Australia	ML 20535	100%	100%	0%	100%
	ML 20536	100%	100%	0%	100%
	ML 20537	100%	100%	0%	100%
	ML 20538	100%	100%	0%	100%
	ML 20566	100%	100%	0%	100%
	ML 20567	100%	100%	0%	100%
	ML 20576	100%	100%	0%	100%

## Appendix B - Location of Tenements



**Location of Vital Metals West African Projects** 



**Location of Vital Metals Queensland Projects** 

## Appendix C - Watershed Tungsten Project

## **Milestones towards Development**

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ILUA	Agreement with the Western Yalanji people for development of the open pit operation secured and registered with the National Native Title Tribunal
Environmental Approval	Open pit operation permitted by the Department of Environment and Heritage Protection on 3rd September 2013
Mining Lease	Seven Mining Leases for a total of 1,904 hectares were granted on the 1 <sup>st</sup> December 2013 for a period of 20 years by the Department of Natural Resources and Mines
Mineral Resource	Measured, Indicated and Inferred Mineral Resources. At a cut-off grade of $0.05\%$ WO $_3$ the Watershed deposit contains Mineral Resources of 49.32Mt at $0.14\%$ WO $_3$ for 70,400 tonnes of WO $_3$ <sup>2</sup>
Mineral Reserves	Proved and Probable Ore Reserve derived from Measured and Indicated Mineral Resources. Total in-ground ore inventory within final design pits is 21.3 Mt at an average WO <sub>3</sub> grade of 0.15% using a cut-off grade of 0.05% WO <sub>3</sub> and is inclusive of a 95% mining recovery <sup>3</sup>
Clean Scheelite Concentrate	Flowsheet has demonstrated that a high-grade >65% WO <sub>3</sub> scheelite concentrate can be produced. Concentrate is extremely low in penalty elements:  No Arsenic No Molybdenum No Uranium No Thorium
Definitive Feasibility Study	DFS considered 10-year open pit operation processing 2.5Mtpa with only ~40% of resources extracted. Significant near-mine exploration potential <sup>4</sup> A program of continuous improvement since the completion of the DFS has positioned the project as arguably the best development ready tungsten project located in a Tier 1 mining jurisdiction
Exploration Pipeline	World-class pipeline of tungsten exploration prospects to drive growth <sup>5</sup>

The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous announcements.

<sup>&</sup>lt;sup>2</sup> Mineral Resources initially reported ASX release 30 June 2012. Mineral Resources classified using JORC 2004 guidelines.

<sup>&</sup>lt;sup>3</sup> Watershed Ore Reserves first reported in ASX release 17 September 2014. Mineral Reserves classified using JORC 2012 guidelines.

<sup>&</sup>lt;sup>4</sup> Key finding Watershed DFS first reported in ASX release 17 September 2014.

<sup>&</sup>lt;sup>5</sup> Exploration Targets reported in ASX release 13 October 2014. Watershed Mineral Resources and Ore Reserves reported at a cut-off grade of 0.05% WO<sub>3</sub>.

Watershed Mineral Resources	Tonnage Mt	WO₃%
Measured	9.5	0.16
Indicated	28.4	0.14
Sub Total: Measured and Indicated	37.8	0.15
Inferred	11.5	0.15
Total: Measured, Indicated and Inferred	49.3	0.14

Table 1: Watershed Mineral Resources<sup>6</sup>

Watershed Ore Reserves	Tonnage Mt	WO₃%
Proved	6.4	0.16
Probable	15	0.14
Total: Proved and Probable	21.3	0.15

Table 2: Watershed Ore Reserves<sup>7</sup>

Name	Tenement	Elements of Interest	Tonnage Range (kt)	Grade Range	Comments
Watershed including Deeps	ML20536	W	10,500 – 14,000	0.14 - 0.25%	These Exploration Targets are
Watershed South	MDL127	W	830 - 1,000	0.06 - 0.15%	conceptual in nature, and there
Desailly North	MDL127	W	830 - 1,000	0.06 - 0.15%	has been insufficient
Desailly	MDL127	W	1,150 – 1,500	0.06 - 0.15%	exploration to define a Mineral
Mt Elephant	EPM 25940	W, Sn	1,000 - 3,000	0.06 - 0.15%	Resource. It is uncertain if further exploration will
Slaty Range	EPM 25102	W, Sn	35,000 – 60,000	0.10-0.18%	result in the
Exploration Potential exclusive of current Mineral Resource		w	49,000 – 80,000	0.10-0.19%	Mineral Resource.

**Table 3: Watershed Tungsten Project Exploration Targets** 

 $<sup>^{\</sup>rm 6}$  Watershed Mineral Resources first reported in ASX release 30 July 2012.

Watershed Ore Reserves first reported in ASX release 17 September 2014.
Watershed Mineral Resources are inclusive of Ore Reserves.
Watershed Mineral Resources and Ore Reserves reported at a cut-off grade of 0.05% WO<sub>3</sub>.