

24 October 2018

## Quarterly Activities Report For the Period Ended 30 September 2018

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Pensana Metals Ltd (ASX: PM8) (the Company or Pensana) is pleased to present its quarterly activities report for the period ended 30 September 2018.

### Highlights

- **Successful over-subscribed placement raises \$5.5 million to fund the planned NdPr exploration programmes.**
- **Drilling is progressing well at the Longonjo NdPr Project and first assay results are expected shortly.**
- **Several zones of deep weathering up to 50 metres thick have been intersected and compare well to the average 20 metres thick weathered zone that is host to the high grade NdPr mineralisation in the Mineral Resource area.**
- **New geological mapping has extended the area of the prospective carbonatite by several hundred metres west and south east, defining additional target areas that will be drill tested by the current programme.**

### Longonjo NdPr Project

During the quarter, the Company raised \$5.5 million to fund the major exploration drilling programme and associated works at the Longonjo NdPr Project in infrastructure rich Angola. The exploration programmes are designed to evaluate the potential for a globally significant high grade NdPr deposit within the Longonjo Carbonatite.

The Company has a clear and focussed strategy to realise a valuable asset at Longonjo.

The move to clean energy and the electrification of mobility is driving increased demand for the speciality metals neodymium and praseodymium (NdPr), which are used in the electric motors of EVs, wind turbines and more generally in the electrification of modern society.

Following a series of acquisitions over recent years, China now controls over 90% of the production of NdPr, which is essential for the manufacture of powerful electric motors. Currently there is only one listed NdPr producer outside of China (ASX:LYC), which sells most of its production to China.

Exploration programmes commenced during the Quarter to test the entire prospective carbonatite area and evaluate the potential for Longonjo to become a world class NdPr

project, with the strong advantage of being located close to modern road and rail links to a new port development on the Atlantic coast.



*Longonjo is favourably located close to existing infrastructure that includes a sealed national highway and rail linking the Project to the deep water sea port at Benguela to the west, and the provincial capital of Huambo 60km to the east.*

### Longonjo NdPr Exploration Programmes

The Quarter saw a high level of activity at Longonjo with preliminary field programmes all completed and a 9,000m drilling programme now well under way.

Drilling is testing an area of the Longonjo carbonatite ten times the area of the current Longonjo maiden Mineral Resource estimate. The Mineral Resource estimate was completed after a short drilling programme in 2017 (ASX announcement of 26 September 2017) and mineralisation remains open in all directions.

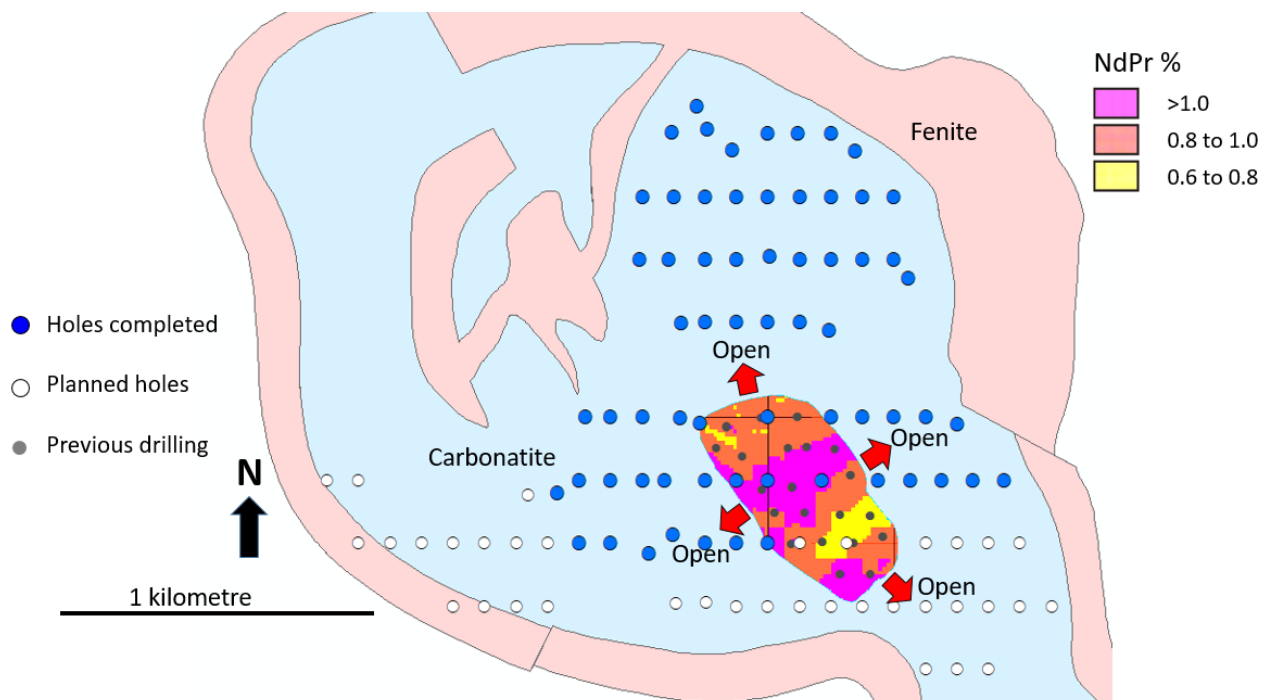


*Drilling operations, Longonjo, September 2018*

To the end of the reporting period, (30 September), 24 holes had been completed. Drilling productivity has since increased and post Quarter end by 18 October 65 holes were complete (see drilling status map).

The drilling has intersected several extensive zones of deep weathering up to 50 metres thick. The weathering thickness intersected compares well to the Mineral Resource area where high grade NdPr mineralisation is hosted in the weathered zone with an average thickness of 20 metres.

Several batches of samples have been despatched to the laboratory and the first assay results are expected shortly.



*Status of drilling post Quarter end on 18 October 2018 over geological map of the Longonjo Carbonatite (revised, see below) and current Mineral Resource estimate block model coloured by NdPr grade. The drilling is progressing well with 65 holes completed.*

#### Preliminary and support programmes

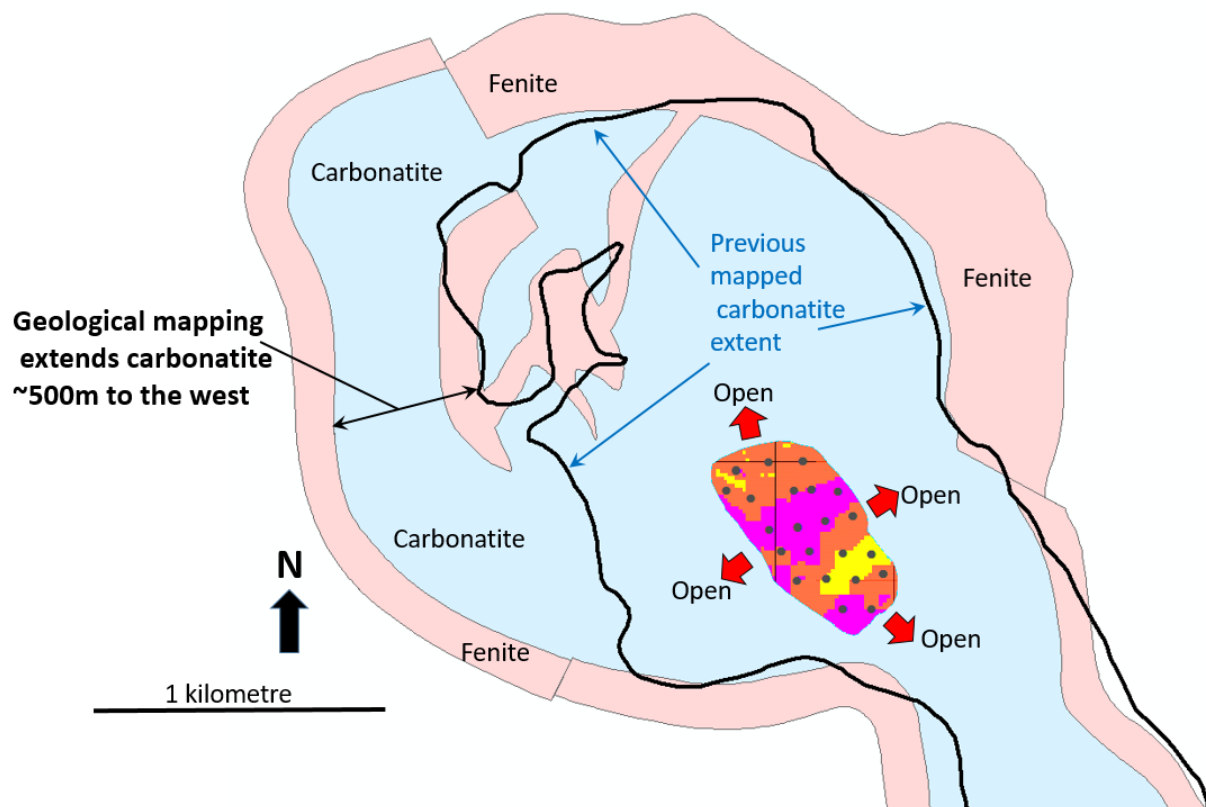
To efficiently support the field operations, a new exploration base was established at Longonjo in August. Gridding and surveying of the more than 100 planned drill holes and 20 survey lines were also completed. Accurate topographic control was established for the drilling and for control points for a satellite survey commissioned to provide an accurate land surface model for future Mineral Resource estimation.





*Laying out markers on accurately surveyed Ground Control Points for the satellite topographic land surface survey, August 2018.*

New geological mapping over the entire carbonatite completed in August indicates that the prospective carbonatite extends over a larger area than previously recognised. Additional drilling has been planned to test the new target areas in these western and south eastern extensions during the current programme.



*Geological mapping of the Longonjo Carbonatite shows the prospective carbonatite rocks extend 500m further to the west than previously supposed. Additional drilling has been planned to test these western extensions as well as the area of carbonatite to the south east.*





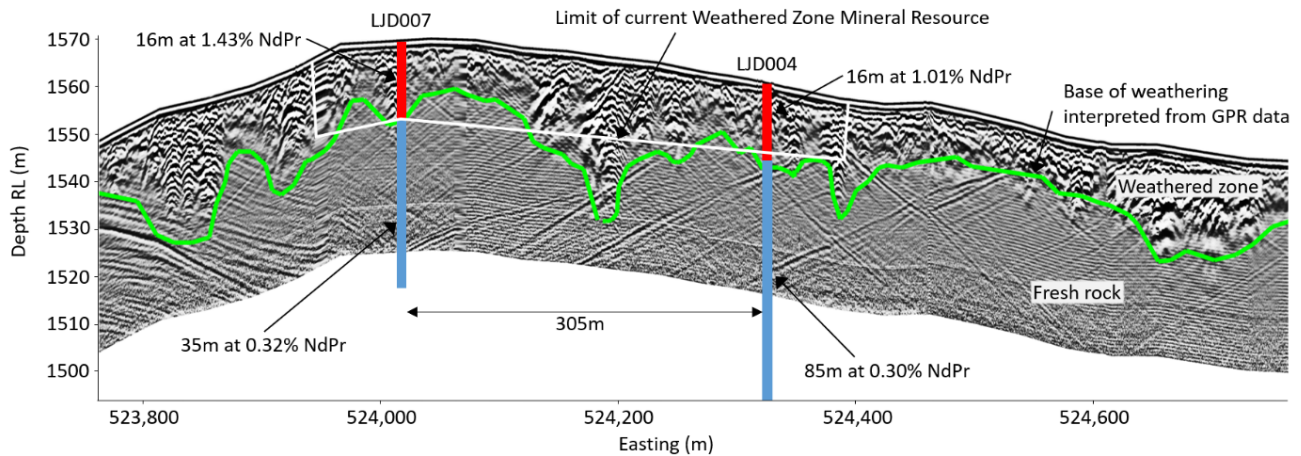
*Specialist geological consultant Dr Wally Witt mapping the outcrop geology of the Longonjo Carbonatite, July 2018*

A ground penetrating radar survey (GPR) completed in August confirmed that the deep weathering profile that is host to the high grade NdPr mineralisation in the current Mineral Resource area continues over large areas to the east, west and north.



*GPR survey in progress over the largely soil covered Longonjo Carbonatite. The GPR tool is the yellow 'snake' trailing behind the surveyor. A DGPS is carried in the backpack*





*Above: One kilometre wide east – west section line showing the deep weathering profile continues to the east and west of the limits of the current Mineral Resource estimate. Note the close match of the GPR interpreted weathering profile (green) with existing diamond drilling (red = weathered, blue = fresh rock).*

Drilling is progressing efficiently on site at Longonjo and is scheduled for completion in November 2018 prior to the onset of heavy rains.

The Company looks forward to receiving the first assay results, which are expected shortly and to providing further regular updates on the flow of results from the drilling programme as they are received.



*Geologist Benedito Madaleno and Pensana COO Dave Hammond review drill samples together on site at Longonjo.*

## Corporate

On 2 July 2018, the company received firm commitments from sophisticated and institutional investors for the private placement of 366,666,667 fully paid ordinary shares at \$0.015 to raise \$5,500,000. The placement is to be completed in 2 tranches:

- 126,549,809 New Shares under Tranche 1 to raise approximately A\$1.898 million; and
- 240,116,858 New Shares under Tranche 2 to raise approximately A\$3.602 million.

126,549,809 shares were issued on 6 July 2018 to raise approximately A\$1.898 million.

On 28 August 2018, the Company announced that it had commenced its 9,000 metre drilling programme at the Longonjo NdPr Project, which will test the full extent of the shallow weathered NdPr mineralisation across the six square kilometre Longonjo carbonatite.

### Shareholder General Meeting

On 17 September 2018, the Company held a General Meeting for shareholders. At that meeting shareholders approved the following resolution:

- tranche 1 of the capital raising under both LR7.1 and 7.1A to issue 126,549,809 to raise A\$1.898 million;
- tranche 2 of the capital raising under LR7.1 to issue 240,116,858 to raise \$ A\$3.602 million;
- to give authority for Mr Paul Atherley and Mr Neil Maclachlan to participate in the placement;
- an Employee Incentive Plan;
- the issue of up to 115,741,113 Performance Rights to Mr Paul Atherley;
- the issue of up to 30,000,000 Performance Rights to Mr David Hammond;
- the issue of 5,000,000 unquoted options exercisable at \$0.04 per share and 5,000,000 unquoted options exercisable at \$0.06 per share to Ashanti Capital Pty Ltd (or its nominee), and expiring on the date that is 12 months following the date of issue;
- adopt Pensana Metals Limited as the new name of the Company;
- the Company adopt the Proposed Constitution tabled at the Meeting with effect from the close of the Meeting.

All resolutions were unanimously passed by show of hands.

On 18 September 2018 the company changed its name to Pensana Metals Ltd with ASIC.

On 25 September 2018, the company completed the tranche 2 placement issuing 240,116,858 to raise \$3.602m.

## Corporate Structure and Cash at Hand

**ASX:** PM8

**Ordinary Shares on Issue:** 1,158,569,709

**Performance Rights:** 150,741,113

**Cash at Hand:** \$4.638m

**Unlisted Options outstanding:** 37,000,000\*  
(exercise price 3.5c to 6c)

**Market Cap:** \$17.4million (at 1.5c)

\*Some subject to performance and vesting criteria. <sup>1</sup> from 1 April 2017 to 31 March 2018.  
Average from 1 January 2018 to 31 March 2018.

<sup>2</sup>

For further information please contact:

**Paul Atherley**

Chairman

**Pensana Metals Ltd**

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## Competent Persons Statements

The information in this report that relates to Geology and Exploration Results is based on information compiled and/or reviewed by David Hammond, who is a Member of The Australian Institute of Mining and Metallurgy. David Hammond is the Chief Operating Officer and a Director of the Company. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity which he is undertaking to qualify as a Competent Person in terms of the 2012 Edition of the Australian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves. David Hammond consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the Mineral Resource estimate (MRE) for the Longonjo Magnet Metal Project was first reported by the Company on 26 September 2017 and the Company confirms that it is not aware of any new information that materially affects the information included in the original announcement. The MRE is based on work conducted by Mrs Heather King who is a member of the South African Council for Natural Scientific Professions, a Recognised Professional Organisation included in the list posted by the ASX from time to time, and Mrs King is a Professional Natural Scientist (Pr. Sci. Nat.). Mrs King was a full time employee of Amec Foster Wheeler at the time of the report. Mrs Heather King has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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'. Mrs King consents to the inclusion in the report of the matters based on her information in the form and context in which it appears.



### Summary of Tenement Information as at 30 September 2018

Country	Project Name	License Name	License no.	% Held at 30 June 2018	Change	% Held at 30 September 2018
Angola	Ozango	Ozango Minerais SA	Nº013/03/09/T.P/A	70%	-	70%
Tanzania	Kitongo	Ugambilo East	PL11175/2017	100%		100%
	Kitongo	Kitongo West	PL10655/2015	100%		100%
	Kitongo	Mwagimagi	PL6499/2010	100%	(100%)	0%
	Kitongo	Mwamazengo SE (2)	PL6543/2010	100%	-	100%
	Kitongo	Mwamazengo South	PL6631/2010	100%	-	100%
	Kitongo	Ugambilo	PL10067/2014	100%	-	100%
	Kitongo	Kitongo	PL10068/2014	100%	-	100%
	Kitongo	Mwamazengo	PL10069/2014	100%	-	100%
	Kitongo	Isengwa Hills North	PL10060/2014	100%	-	100%
	kitongo	Busongo Northeast	PL10065/2014	100%	-	100%
	Kitongo	Gulumungu	PL10656/2015	100%	-	100%
	Kitongo	Ntalebujika	PL10660.2015	100%	-	100%
	Miyabi	Miyabi Dyke	PL8933/2013	100%	-	100%
	Miyabi	Miyabi South New	PL10149/2014	100%	-	100%
	Miyabi	Miyabi North	PL10908/2016	100%	-	100%
	Miyabi	Miyabi Airport New	PL10556/2015	100%	-	100%
	Miyabi	Mwabombo	PL10836/2016	100%	-	100%
	Miyabi	Miyabi Airport	PL6593/2010	100%	(100%)	0%
	Mtemi G	Kitongo	PL8148/2013	100%		100%
	Canuck	Canuck North	PL11016/2017	100%		100%
	Canuck	Canuck South	PL11017/2017	100%		100%