

ASX: AZS

27 January 2016

## **QUARTERLY ACTIVITIES REPORT**

### **FOR PERIOD ENDED 31 DECEMBER 2015**

The Board of **Azure Minerals Limited** ("Azure" or "the Company") is pleased to provide its Quarterly Activities Report for the period ended 30 December 2015.

### **HIGHLIGHTS**

#### **ALACRÁN PROJECT**

- High-grade silver mineralised zone confirmed at Mesa de Plata
- Close-spaced Reverse Circulation (RC) drill program for resource estimation purposes completed:
  - Silver mineralisation evident over 1,000m, with strong central zone hosting high grades over significant thicknesses
  - Maiden Mineral Resource estimate due in March 2016
- Preliminary metallurgical testwork demonstrates strong silver recoveries
- Outcrop sampling identifies new area of silver and gold mineralisation at Loma Bonita - 300m east of Mesa De Plata
- Permitting process commenced for Loma Bonita and other exploration targets, with drilling expected in Q1 2016

#### **PROMONTORIO PROJECT**

- Exploration continuing under Earn-in and Joint Venture Agreement with Kennecott Exploration
  - Induced Polarisation (IP) and Magneto-Telluric (MT) surveys completed
  - Diamond drilling program in planning

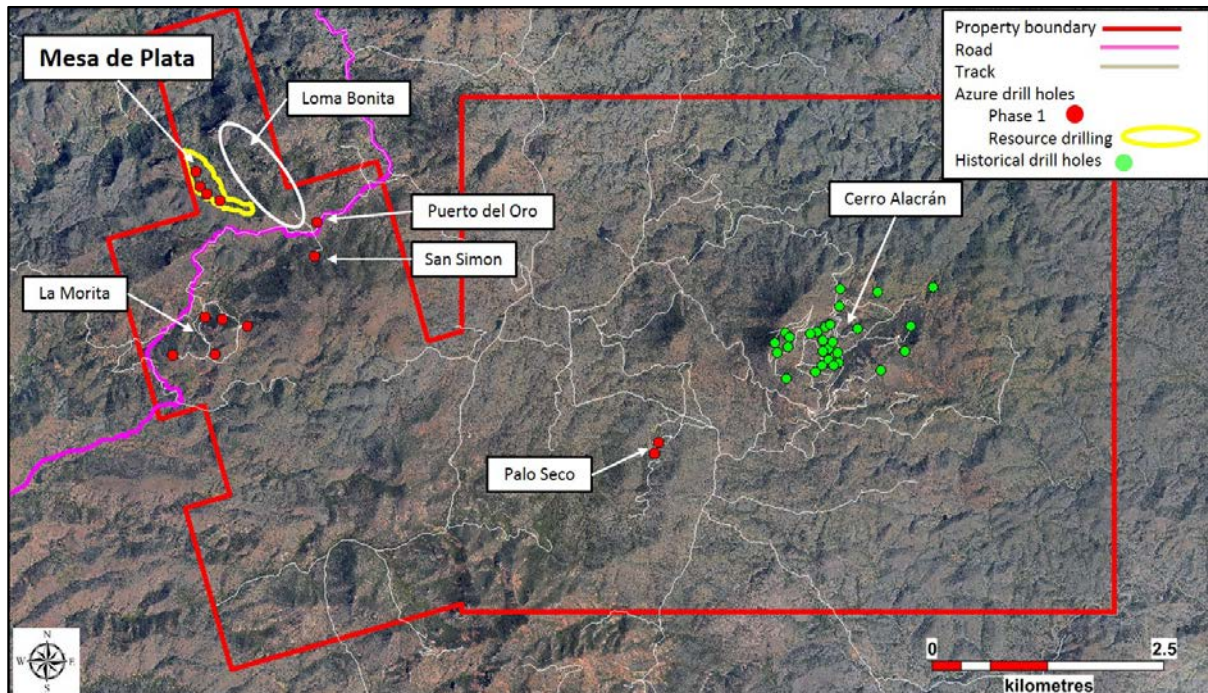
#### **CORPORATE**

- A\$5.22 million in new funding secured to fund resource drilling, development studies and exploration at Alacrán

# ALACRÁN PROJECT

**(Azure can earn 100% ownership from subsidiary of Teck Resources Limited, subject to an underlying back-in right retained by Teck and a 2% NSR retained by Grupo Mexico)**

During the Quarter strong progress was made on the Alacrán Project, with a particular focus on advancing the high grade silver discovery at Mesa de Plata (see Figure 1), while continuing exploration activities on surrounding prospective areas.



**Figure 1: Aerial photograph of Alacrán property, showing drill targets**

## **Drilling**

Azure has completed the resource drill-out program of the Mesa de Plata silver mineralised zone. The program consisted of three stages of drilling (two RC and one diamond core) undertaken between August 2015 and January 2016, comprising 61 RC and five diamond holes (Figure 2) for a total of 6,350.7m (ASX: 25 January 2016).

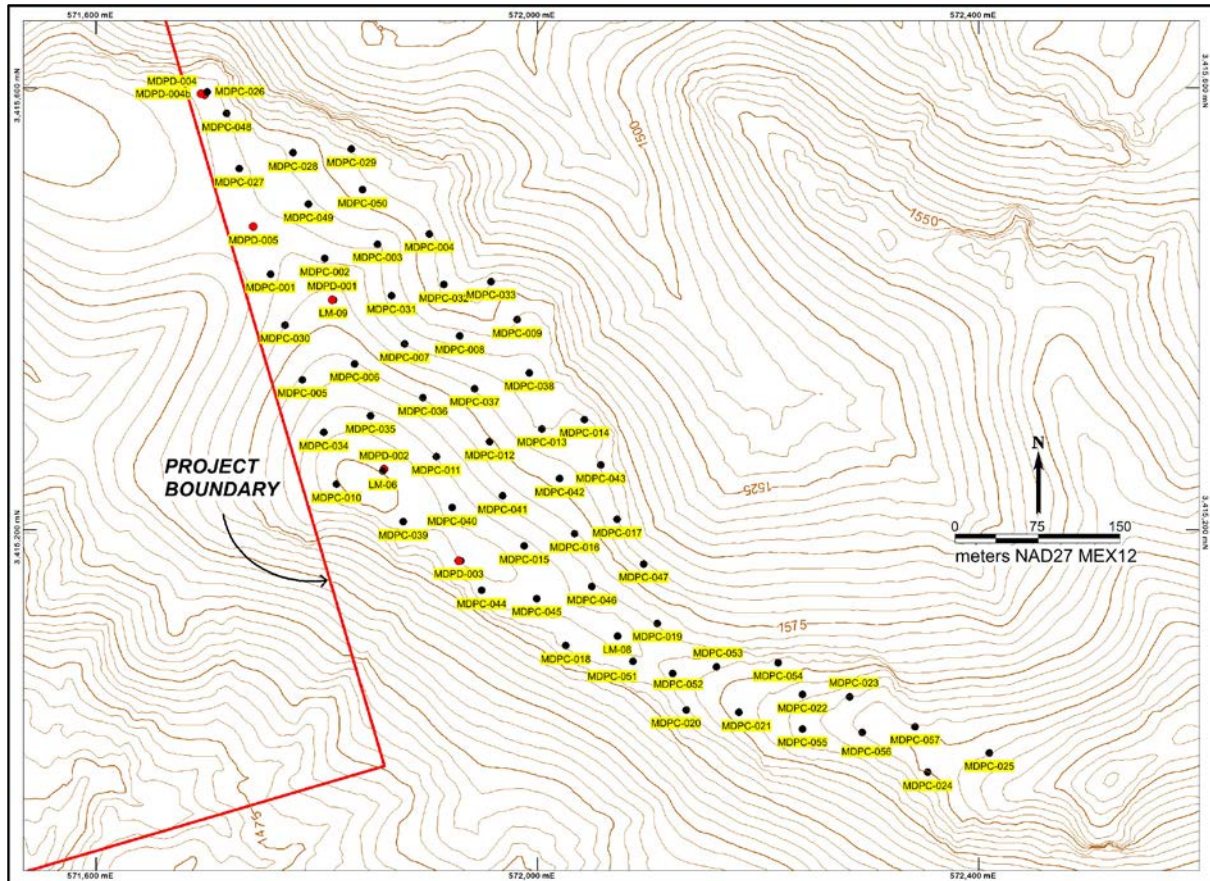
Drill hole spacing was on a 50m x 50m pattern covering a northwest-southeast extent of 1,000m and a width of up to 200m. All RC holes were drilled vertically to depths of about 90m and samples were collected over 1.5m intervals. Diamond holes were also vertical and were drilled to depths of between 75m and 205m.

Silver mineralisation at Mesa de Plata is hosted in silicified volcanic rocks and residual quartz (vuggy silica) which outcrop extensively along the ridge. Drilling confirmed that mineralisation starts at surface with true thicknesses up to 60m and extends throughout the Mesa de Plata ridge, and that internal continuity of mineralisation is excellent.

The central zone of high grade silver mineralisation, which averages greater than 200g/t Ag over a vertical thickness of approximately 20m, extends over an area of 400m x 150m. This is surrounded by, and underlain by, a larger zone of moderate grade silver mineralisation (averaging 40-80g/t Ag) up to 60m thick, extending over an area of about 1,000m x 150-200m.

The overall mineralised body dips shallowly to the northeast, and is confined to the southwest (up-dip) and northeast (down-dip) by erosional contacts forming valleys.

Assay results from holes MDPC-001 to 036 were previously reported (ASX: 23 December 2015), while results from holes MDPC-037 to 057 are awaited.



**Figure 2: Mesa de Plata drill hole location plan**

Completion of the drill program at Mesa de Plata has enabled the calculation of a JORC-compliant Mineral Resource estimate to commence, which the Company anticipates will be completed by March.

### **Metallurgical Test Work**

Azure concluded a preliminary testwork program during the quarter designed to test the mineralogical and metallurgical qualities of the Mesa de Plata mineralisation. The testwork program demonstrated that the mineralisation is amenable to both cyanide leaching and flotation processes, with strong recoveries in excess of 70%.

A series of mineralogical and metallurgical tests were undertaken to:

- characterise mineralogy of the mineralisation and identify silver-bearing species;
- extract silver by cyanide leaching, flotation and gravity methods;
- identify most favourable processing routes; and
- identify options to improve processing grades and recoveries.

Testwork was undertaken by Blue Coast Research (Nanaimo, BC, Canada) and mineralogy was carried out by Xstrata Process Support (Falconbridge, Ontario, Canada) over the period

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September to November 2015. The program was conducted under the supervision of metallurgist Mr. Andrew Holloway, P.Eng., CEng, of AGP Mining Consultants (“AGP”), based in Toronto, Canada.

A master composite (head grade of approximately 130g/t Ag) and a high grade composite (head grade of approximately 600g/t Ag) were prepared. The high grade composite returned 70% recovery from the cyanide leaching process and 67-72% from flotation, while the master composite returned 52% recovery from cyanidation and 51-55% from flotation. For the high grade composite, a combination of flotation followed by cyanidation of the tails increased total silver recovery to 76% (ASX: 17 December 2015).

To follow up these encouraging results, a diamond rig has been mobilised to Mesa de Plata to conduct large diameter core drilling to collect bulk samples for an advanced metallurgical testwork program. It is expected that this drilling campaign will take about one to two months to complete and the subsequent metallurgical program may take three to four months.

### **Exploration**

While Mesa de Plata remains a development focus for Azure, there is significant potential for further exploration success in areas proximal to Mesa de Plata, such as Loma Bonita and Puerto del Oro.

Significantly, Azure has identified excellent potential for additional gold and silver mineralisation in several locations outside of the drilled area at Mesa de Plata:

- to the east on the neighbouring ridge of Loma Bonita;
- further to the north along the trend of the Mesa de Plata ridgeline; and
- to the southeast of Mesa de Plata towards and around the Puerto del Oro prospect.

Extensive surface sampling in these areas has returned significant gold and silver grades in zones of residual quartz (both vuggy and strongly silicified) similar to that which hosts the silver mineralisation at Mesa de Plata. Results from recent exploration in these nearby areas, and details on exploration to follow-up these results, will be released when available.

Loma Bonita has extensive gold and silver mineralisation at surface (refer ASX releases dated 16 & 21 October 2015). Specifically, of 58 rock chip samples collected along the 400m ridgeline, 35 (60%) contain an average grade of 0.53g/t Au & 42g/t Ag. These results are considered highly significant, with the strongly elevated gold grades indicating that Loma Bonita is a high priority gold target.

Access for drilling at Loma Bonita and other areas is currently being prepared and drilling will commence as soon as permitting is received (expected in early February).

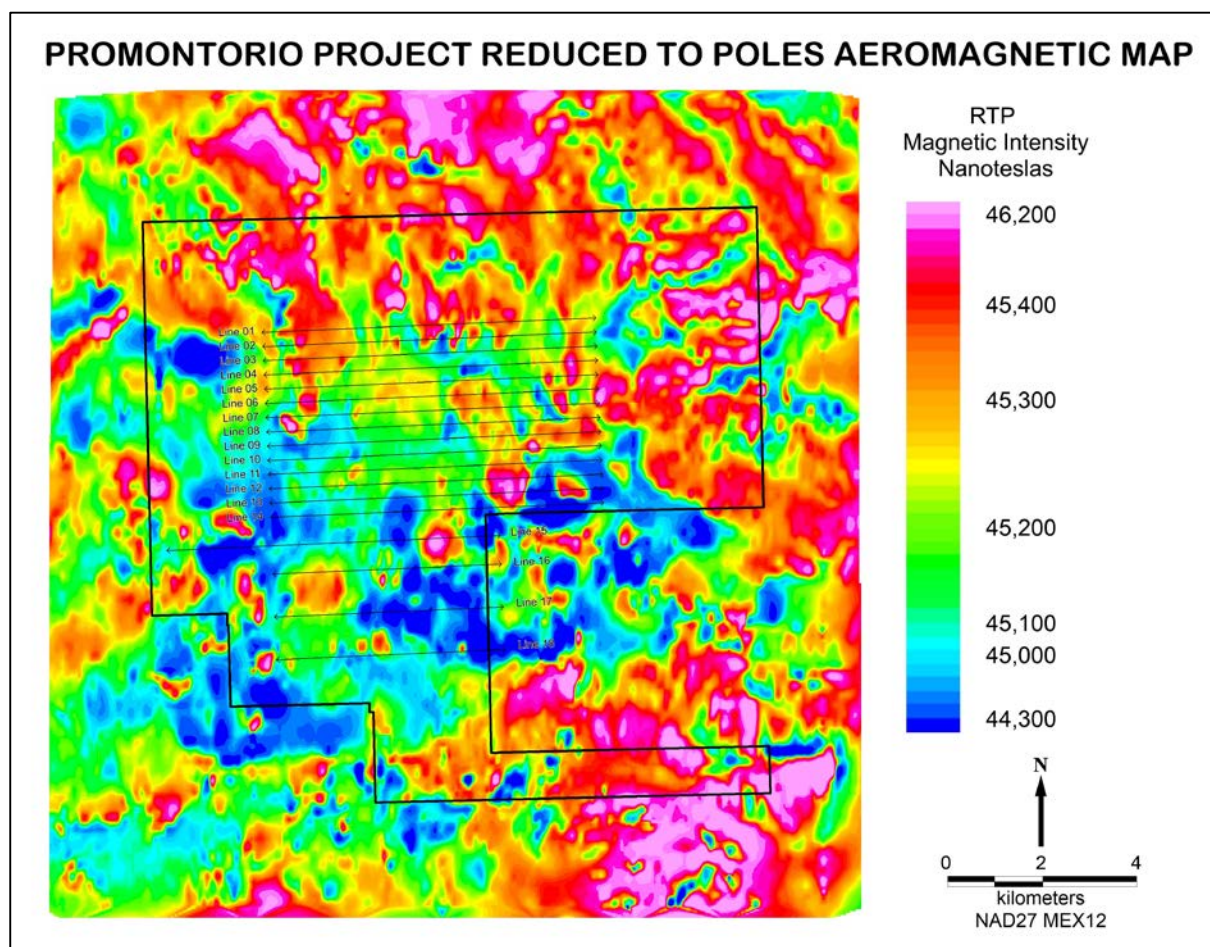
Overall, the Company’s studies indicate that the alteration and mineralisation styles at Mesa de Plata and in nearby areas are typical of other lithocap-hosted, epithermal gold and silver deposits in Mexico and elsewhere in Latin America. This supports Azure’s belief that a large mineralising system is present here with potential to host significant precious metal deposits.

# **PROMONTORIO PROJECT**

**(Azure 100%; Kennecott may earn up to an 80% interest)**

Field exploration under the Earn-In and Joint Venture Agreement between Kennecott Exploration Mexico S.A. de C.V. ("Kennecott") and Azure continued throughout the December Quarter, with the completion of the ground geophysical survey using the Titan 24 system.

The Titan 24 system utilises IP and MT surveys designed to map the electrical properties of mineralised bodies in three dimensions to depths in excess of one kilometre. The Promontorio survey comprised 18 east-west lines totalling 120 line kilometres and covered most of the central part of the project area (see Figure 3).



**Figure 3: IP and MT survey lines on an aeromagnetic image of Promontorio Project**

Data processing is complete and interpretation is currently being undertaken by both Kennecott and Azure. Preliminary reviews by Azure indicate the presence of encouraging chargeability and resistivity features.

Kennecott and Azure are using this data to plan follow-up drilling programs to ensure optimal testing of the porphyry copper target. Details on the planned drilling programs will be released as they become available.

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## **CORPORATE**

In order to fund the substantial resource drilling program, development studies and ongoing exploration at Mesa de Plata, Azure successfully raised A\$5.22million (refer to ASX release dated 20 November 2015) via a placement to sophisticated investors Exploration Capital Partners (an entity affiliated with Sprott Inc) and Dynamic Precious Metals fund (a large Canadian institution). In addition, existing significant shareholder Mr Mark Creasy participated in the placement, increasing his shareholding to 9.8%.

This capital injection significantly strengthened Azure's financial position prior to the commencement of the intensive work program at Mesa de Plata over the next 12 months.

**-ENDS-**

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### **Competent Person Statements**

*Information in this report that relates to previously reported Exploration Results has been cross-referenced in this report to the date that it was reported to ASX. Azure Minerals Limited confirms that it is not aware of any new information or data that materially affects information included in the relevant market announcement.*