



## **VTEM SURVEY UNDERWAY AT MERLÉAC TO IDENTIFY NEW DEPOSITS**

- ❶ **Commencement of Versatile Time Domain Electromagnetic survey (VTEM) to identify new volcanogenic massive sulphide (VMS) deposits within the Merléac exploration licence.**
- ❷ **VTEM survey will test the southern section of the licence over the high grade Porte-aux-Moines VMS deposit and the highly prospective host rock sequences along strike.**
- ❸ **Previous work by Variscan has identified good exploration potential at Porte-aux-Moines and defined a number of outcropping gossans that may represent other VMS centres elsewhere within the survey area.**
- ❹ **Gossans contain highly anomalous levels of zinc, lead, copper and gold.**
- ❺ **Survey will help provide target outlines of VMS sulphide zones to be followed up by further exploration including drilling.**

Variscan Mines Limited (ASX: VAR) is pleased to announce that its wholly owned European subsidiary Variscan Mines SAS has commenced a large heli-borne VTEM survey over the southern section of its Merléac exploration licence in Brittany, France.

The VTEM survey has been designed to test the key target areas in and around the high grade zinc-lead-copper-silver-gold Porte-aux-Moines VMS deposit that has been the focus of recent Variscan work.

The survey will cover approximately 50 strike kilometres of prospective volcanics and sediments known to host VMS mineralisation and will provide an initial geophysical test for the presence and geometry of sulphide zones below both known outcropping gossans and those concealed under shallow cover.

The survey is expected to be completed within two weeks with final models available in early August.

The survey will be the first of its type flown in France for mineral deposits and will introduce state-of-art technology into the Variscan exploration programme.

## Previous work

Recent work by Variscan within the Merléac exploration licence has focussed on the high grade Porte-aux-Moines zinc-lead-copper-silver-gold VMS deposit where resampling of available old BRGM (Bureau de Recherches Géologiques et Minières - the French geological survey) core in hole PAM5 recorded a number of high grade, zinc-dominant, polymetallic intersections such as **31 metres @ 10.4% zinc, 2.1% lead, 1.2% copper, 105.5 g/t silver, 1.0 g/t gold from 236 metres (including 8 meters @ 25.0% zinc, 5.4% lead 1.6% copper, 208.5 g/t silver, 1.39 g/t gold from 236 metres)** (see ASX announcement 19 May 2015).

Porte-aux-Moines exhibits many of the classic geological features found in other VMS deposits, in particular the possibility for a cluster of sulphide lenses within the project area. Logging of the BRGM holes has recorded multiple intersections of polymetallic mineralisation indicating perhaps three mineralising events over a 50 meter interval within the mine sequence. This suggests the scope for the discovery of a stacked massive sulphide system and provides encouragement that Porte-aux-Moines could be significantly larger than currently defined.

In addition, the regional potential within the Merléac licence for additional VMS deposits is considered excellent. Porte-aux-Moines is hosted within a sequence of vitric tuffs and pyritic black shales (the mine sequence) located in a bimodal sequence of felsic and intermediate/mafic volcanics. This sequence of rocks can be traced for approximately 70 kilometres along strike and within structurally(?) repeated blocks in the Merléac licence.

Within these rock units Variscan has defined outcropping gossans containing highly anomalous base and precious metal values interpreted to represent the oxidised expressions of underlying massive sulphides/stockwork zones (see ASX announcements from 8 December 2014 and 5 February 2015). Some of these gossans were previously mined by shallow open pits for iron up until the 19th century and generally have not been explored below the iron oxide cap aside from shallow BRGM drilling in some locations. They represent immediate exploration targets.

## VTEM Programme

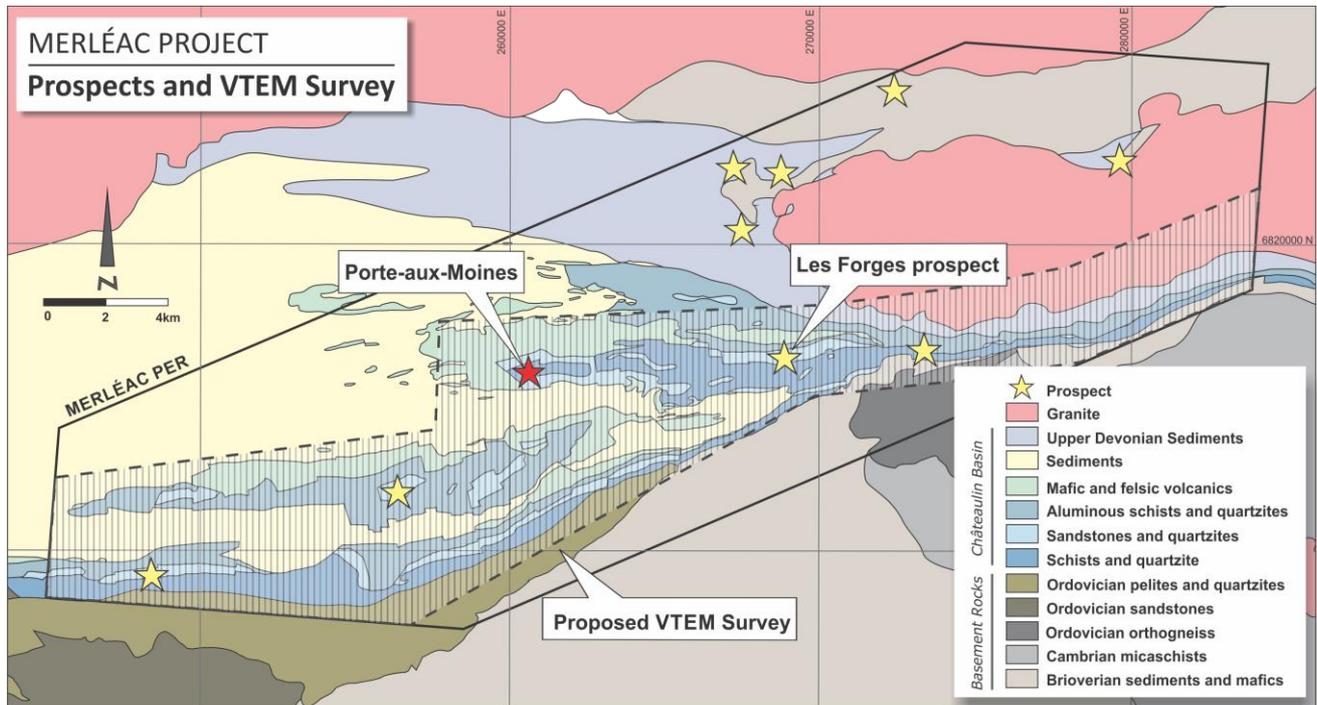
To help target potential VMS mineralisation in and around Porte-aux-Moines and the region a large heli-borne electromagnetic (VTEM) survey has commenced. The survey will cover up to approximately 180 square kilometres of the southern prospective section of the Merléac licence (Figure 1). The VTEM will test approximately 50 strike kilometres of the VMS host stratigraphy for the presence and geometry of sulphide zones below both known outcropping gossans (including Porte-aux-Moines) and those concealed under shallow cover.

VTEM is widely considered one of the best helicopter-borne TEM geophysical systems for detecting and imaging massive sulphide deposits in the industry. Notable recent successes in Australia include the discovery of the Mallee Bull deposit in the Cobar Basin (see reports by Peel Mining, ASX: PEX), and the recent Artemis discovery in Queensland by Minotaur Exploration (ASX: MEP). The VTEM system is flown using a helicopter that tows a powerful electromagnetic transmitter and receiver which can detect massive sulphide mineralisation to considerable depths below the surface.

The base and precious metal VMS deposits of the Merléac region such as Porte-aux-Moines are pyrite rich and considered likely generate conductive responses to electromagnetic input as delivered by the VTEM system. Data produced from the survey will be modelled by Resource

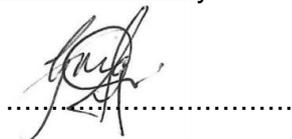
Potentials Pty Ltd from Perth to generate plate simulations of the interpreted geometry of any sulphide zones detected which may then be followed up with detailed surface EM and/or drilling.

It is expected that the VTEM survey will be completed within the next two weeks, with final modelling and exploration target generation within the following month.



**Figure 1: Key VMS prospects and outline of the VTEM survey at Merléac**

Yours faithfully



Greg Jones

**Managing Director**

*The information in this report that relates to Exploration Results is based on information compiled by Greg Jones, BSc (Hons), who is a member of the Australasian Institute of Mining and Metallurgy. Mr Jones is a Director of Variscan Mines Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Jones consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

## JORC Code – Table 1

### Section 1 Sampling Techniques and Data

Criteria	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Geotech helicopter-borne VTEM system with flying height of 75-85 m and sensor height of 35-45 metre. Configuration included: 26 metre diameter transmitter loop, high peak dipole moment, 25 or 30 Hz Component BField &amp; dB/dt</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>NA</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>NA</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>NA</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>NA</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>NA</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>NA</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>On board differential GPS with accuracy of 3m.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Readings taken at 2-3m intervals along flight lines nominally 200m apart.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Flight lines oriented perpendicular across dominant strike direction of rock units and structures.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>NA</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>There has been no external audit or review of the Company's techniques or data.</li> </ul>

### Section 2 Reporting of Exploration Results

Criteria	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Merléac PERM (Permis Exclusif de Recherche de Mine, a French exploration licence)</li> <li>No known impediments for future exploration and development</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Last significant exploration in area is believed to have been conducted by BRGM in the 1980s.</li> <li>VMS potential of the region was recognised by the BRGM who conducted regional stream sediment programmes during the mid-1970s. The Porte-aux-Moines deposit was discovered in 1975 when follow-up soil sampling and shallow drilling intersected massive sulphides.</li> <li>Subsequently the BRGM conducted substantial core drilling (+9km) and underground development on Porte-aux-Moines.</li> <li>In addition, the BRGM conducted significant mapping, geochemical and geophysical programmes around Porte-aux-Moines and regionally.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Volcanogenic Massive Sulphide (VMS) deposits</li> </ul>
<b>Drill hole information</b>	<ul style="list-style-type: none"> <li>NA</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>NA</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>NA</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Diagrams for the region have been taken from published BRGM reports.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>All significant information for the survey has been published within the report.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>NA</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>Modelling of the VTEM survey data and generation of 3D shapes to describe potential conductive sulphide sources.</li> <li>Possible follow-up surface EM surveys to more accurately pinpoint sulphide zones.</li> <li>Drill testing.</li> </ul>