

Plymouth Minerals: Exploration commences on the Morille tungsten-tin Project

December 10, 2013 (Source: Plymouth Minerals) – **SUMMARY**

- Plymouth Minerals has commenced field work at the Morille tungsten-tin Project in Spain.
- Soil sampling program and ground magnetic surveys underway to assist in drill targeting.
- Drill rig mobilisation followed by first phase drilling program scheduled for Q1, 2014.
- Plymouth holds an 80% interest in the project with the option of acquiring up to a 100% beneficial interest.
- Morille is a high-grade, brownfields project, in a prolific tin and tungsten producing region.

Plymouth Minerals Limited (ASX: PLH) (“Plymouth”, “the Company”) is pleased to announce it has commenced exploration programs at the Morille tungsten-tin Project (Morille) in Spain.

Plymouth acquired an initial 80% interest in the project (ASX announcement, 22 October 2013) and retains the right to earn up to 100% of the project from its partner, Aurum Mining PLC (AIM: AUR).

The Morille project is located in the Salamanca Province in northwest Spain. It is an advanced exploration/brownfields development opportunity comprising five Investigation Permits (exploration licences) covering multiple historic underground and open pit tungsten and tin mines.

Plymouth has commenced its first phase of field work at the project with ground geophysical surveys, soil sampling and additional in-pit mapping underway. This work is designed to

assist in drill target planning for a first phase drill program which is scheduled to commence in Q1, 2014.

Plymouth has also lodged an enlarged and modified work program for 2014 (Plan de Labores) with the Mines department in Salamanca. This work programme includes drilling areas and other targets proposed by Plymouth and is required under the process of obtaining drilling permits. Specific areas already identified as priority drill targets include areas containing mineralisation that was proposed to be mined at the Alegria Mine, within the project area, prior to the project's closure in 1986 (as per submissions to Mines department in 1985) as well as other infill and extensional drilling around other former tungsten mines at the ACMA prospect area.

Possible extensions of tin mineralisation mined immediately up to the project boundary at the Asuncion Mine (on a west north west trend from Anarbellas Mine) have also been identified at the Westside prospect area.

Additional drill targets are expected to be defined by the current geophysics, soil sampling and trenching work, and the Company plans to use the results of these programs to define a suite of drill targets to complement to the already identified 'walk-up' targets at the Alegria Mine (See Figure 2 for details of initial exploration focus).

About the Morille Project

The Morille Project covers a contiguous area of over 57km² (Figure 1). More than 50 mineral occurrences/workings have been documented within the tenements, which historically were worked by up to 20 separate operators contemporaneously in the 1970's and 1980's. The majority were small artisanal workings operated during this period of fragmented tenure ownership. Ore mined was treated at multiple processing facilities, two of which were located on the current tenure area. Simple low

cost-low impact gravity separation was used to produce a concentrate product which was transported to refineries within Europe and overseas.

Historical mining at the project has focussed on tin and tungsten mineralisation in the west portion of the project area (Westside) and tungsten mining at the ACMA prospect in the eastern region of the project (See Figure 1).

Due to the small-scale, private ownership history of the project area during historical production there are minimal records and evidently no modern or coherent exploration. The only drilling conducted in the project area to date is a small 12 hole program conducted by the Spanish Geological Survey in 1979 (prior to the open pit tungsten mining) and no geophysical surveys have been conducted. Limited mapping has been undertaken (most recently by Hugman, 2013) but a significant portion of the project area is covered by Palaeogene sediments to the east (Figure 2).



Figure 1: Initial exploration focus – Westside prospect (tin tungsten) and ACMA prospect (tungsten)

Two different styles of mineralisation have historically been exploited at the Morille Project, with the majority of tungsten being extracted from 'Stratabound' sedimentary-hosted styles and tin from later, quartz veins, or 'lode' style;

1) **Stratabound** or '**calcsilicate**' mineralisation: This is the dominant style of tungsten bearing mineralisation (scheelite) and is characterised by calcsilicate horizons hosted within the schist- greywacke country rock. These are up to 30 metres thick, but generally occur in lenses which form the dominant rock type in 1-10 metre horizons. The tungsten ore mineral scheelite is found in varying concentrations within this horizon. Higher grade zones of 'skarn type' mineralisation have been locally exploited within this horizon (eg; at the

Alegria mines). This style of mineralisation historically had grades of 0.1-1.0% tungsten trioxide (W03) in open pit mines.

2) **Lode mineralisation:** This is associated with tin mineralisation in the western portion of the project. It is a late-stage, epigenetic style of mineralisation and cross-cuts sediments and is associated with late-stage granite intrusions. Mineralisation is quartz plus cassiterite (tin) with varying amounts of scheelite (tungsten). This style of mineralisation was mined at the Anarbellas mine over widths of typically 1.5-3.0 metres (and occasionally up to 7 metres) which was exploited continuously over a 400 metre strike, to a consistent depth of 75 metres before closure. Tin grades, although tin was the dominant ore mineral, are not accurately known for Anarbellas, although tungsten mineralisation was reported to be between 0.25-0.35% W03.



Figure 2: Morille project with areas of transported cover shown to east and areas of focus for geophysics and soil sampling

Stratabound mineralisation does not necessarily express at surface as it is hosted within sedimentary horizons. This skarn-type mineralisation is currently mined at the nearby, major Los Santos tungsten mine (30km to the south) and has an association with magnetite and a relative magnetic 'high' compared to host rock.

Plymouth is conducting ground magnetic surveys over areas of known mineralisation to determine the magnetic signature (if any) of mineralisation at ACMA prior to examining areas under recent cover to the east, and other areas within the tenement which may have deeper tungsten-bearing calcsilicate horizons. This will assist the drill targeting which is currently underway. The soil sampling program will further assist in defining drill targets for

stratiform and lode-style mineralisation.

Plymouth will also be investigating bulk sampling and metallurgical test work opportunities. Further updates will be provided on the progress of this work.

Competent Person Statement: The information in this report related to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr A Byass, B.Sc Hons (Geol), B.Econ, FSEG, MAIG an employee of Plymouth Minerals Limited. Mr Byass has sufficient experience 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 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Byass consents to the inclusion in the report of the matters based on this information in the form and context in which it appear.