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# **ANNOUNCEMENT**

9 April 2015

# Co-O MINE GEOLOGY & SERVICE SHAFT UPDATES

(ASX: MML)

Medusa Mining Limited ("Medusa" or the "Company"), through its Philippines operating company, Philsaga Mining Corporation ("PMC"), wishes to advise that significant progress has been made with respect to the potential and predictability of the Co-O Mine geology for long term planning.

The Service Shaft to Level 8 (approximately 390 metres below surface) has been approved at a cost of US\$10 million (± 20%) with a construction time of approximately 17 months and an estimated payback period of 1.4 years. Surface earthworks and underground Alimak rising have commenced.

## Geoff Davis, CEO of Medusa, commented:

"The advances in the geological understanding of the large Co-O vein system greatly enhance our ability to plan for the future, as well as demonstrate the considerable upside beyond the current resources and reserves that will support a long life future. The mine to 30 June 2014 has produced approximately 630,000 ounces, and at the same date had 1.4 million ounces of total resources.

The Service Shaft will greatly improve the efficiency of the Co-O Mine with respect to the transport of men and materials, supervision, safety, and ore haulage. This is an important step in improving our haulage systems for the future."

#### Co-O MINE GEOLOGY

The key points from the extensive review, re-interpretations and re-modelling of the geology of the Co-O Mine over the last 2 years are:

- (i) The 3 main veins, Central, Jeremy and GHV are continuous over a strike length of at least 1.5 kilometres, and are open to the east. Figure 1 shows only the GHV resource model.
- (ii) The horizontal length of the best mineralised core of the vein system is approximately 800 metres, and this core plunges to the east at approximately 30°, as depicted on Figure 1. Economic mineralisation does occur outside the core zone, but is less consistent.
- (iii) The Co-O diatreme breccia (see 2012 Annual Report) disrupts the up-dip sections of some of the north dipping vein mineralisation in some down-plunge positions (Fig 2). In addition a consistent shatter zone which is approximately 50-100 metres wide has now been identified peripheral to the diatreme, within which the veins' continuity and characteristics dissipate and are generally not economic to mine.
- (iv) Proximal to the eastern part of the Co-O vein system, the near surface underside of the diatreme and shatter zone's flare dips shallowly at approximately 10° to the south, and becomes steeper to approximately 50° dip with increasing depth, diverging away from the north-dipping veins, and hence the veins are interpreted to be open down-plunge (Fig 2).
- (v) Some resource blocks currently extend (and are open) to beyond Level 12 (550 metres below Level 1). Additional drilling rigs will be added to the underground drilling programme from drill chambers on Level 8 to drill out the zone between Levels 12 and 16 to justify the case for an L16 Shaft to Level 16 (750 metres below Level 1).
- (vi) Comparison with other similar epithermal vein systems, such as the Vera Nancy system in North Queensland, currently being mined by Evolution Mining Limited, shows significant similarities as shown in Figure 3. The Vera Nancy system has a 4 kilometre strike length (Co-O has so far been mined over 1.5 kilometres), a similar shallow plunge to its mineralisation, and a similar vertical extent of economic mineralisation.

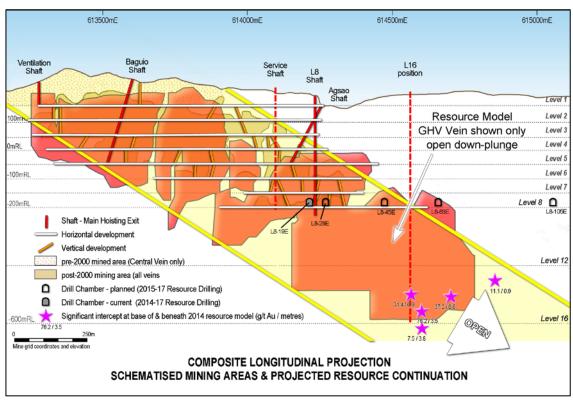


Figure 1. Co-O Mine long section showing the Resource Model (2014) for the GHV vein, and the projected downplunge continuation of the mineralisation corridor.

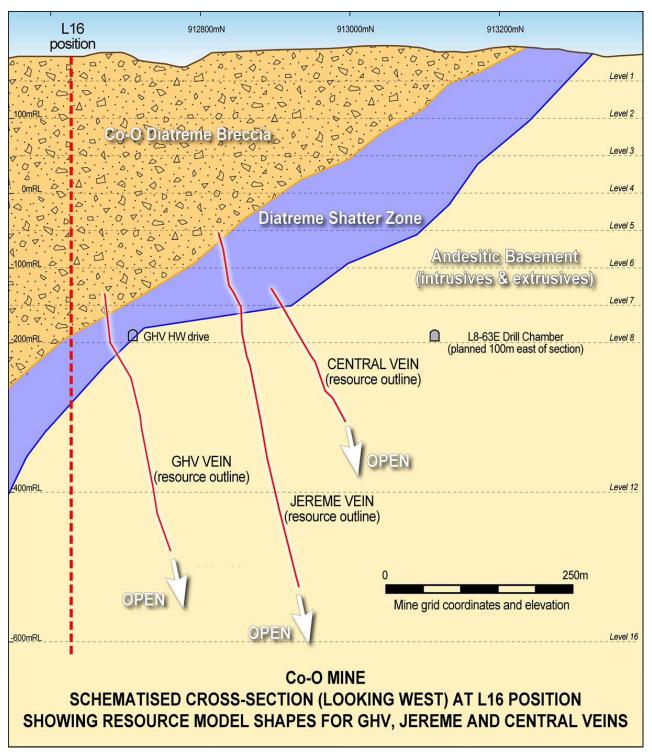


Figure 2. Cross-section through the L16 position.

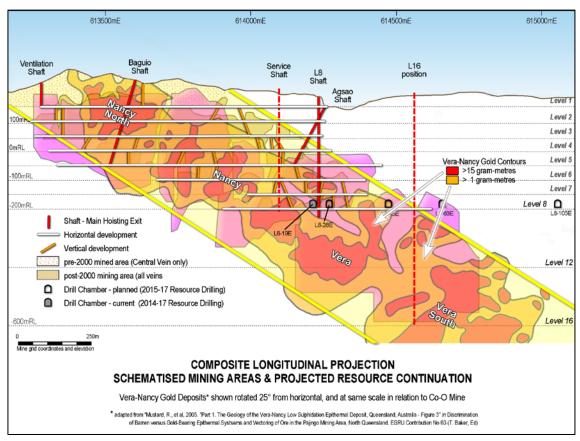


Figure 3. Longitudinal projection showing the Co-O vein system with the superimposed Vera Nancy vein system.

## SERVICE SHAFT

#### **Background**

The Service Shaft has been approved by the Board at an estimated cost of US\$10 million to an accuracy of ± 20%, excluding new mine buildings and other surface support facilities, with a construction time of approximately 17 months. Its position is shown on Figure 1. Initial surface earthworks are in progress and underground Alimak rising work has commenced.

The Service Shaft with a rope-guided cage is being sunk to significantly improve the working efficiency of the mine in lieu of the existing series of external and internal shafts that service the mine workings from Level 3 to Level 8. This improvement will include increased broken rock hoisting capacity of the L8 Shaft through the removal of the current men and materials transport within the L8 Shaft.

The design and ordering of long lead time engineering items is well advanced.

Completion of the Service Shaft will increase the L8 Shaft rock hauling capacity to approximately 1,700 dry tonnes per day (dptd) from 1,400dptd following the recent L8 Shaft upgrade, and the total mine capacity to approximately 2,700dtpd from all shafts, thereby matching the mill capacity subject to the availability of ore from underground operations.

#### **Service Shaft Details**

The Service Shaft will provide access for the bulk of the workforce until the commissioning of the conceptual L16 Shaft. The main transport role of the Service Shaft will only decline after nominally ten years as the production below 8L increases to a point when the levels above 8L are only undertaking remnant mining and general maintenance.

Hence, the "centre of gravity" of the Co O Mine's supervision and support personnel that is located at the present Mine Office near the portals and L8 will move to the Service Shaft for a four or more year period, thence to the proposed L16 Shaft over a ten or more year period.

The Service Shaft will:

- service the existing working levels between 3L and 8L for a nominal ten year life and is considered within an overall life of mine shaft plan involving the existing Agsao and Baguio Shafts to 5L, the L8 Shaft to 8L, a proposed L16 shaft to 16L and conceptual ventilation shafts;
- be collared at the E15 position so that an existing underground 50m vertical shaft and 100 metres of coincident Alimak raises can be incorporated into the new shaft design, thereby reducing cost and completion time;
- have outside cage dimensions of 2.65 metres by 2.20 metres with a load capacity of 3 tonnes to allow all current mine equipment to be transported without the need to break down and re-assemble the equipment; and
- transport 30 men to and from work each lift thereby reducing dramatically the travel time to and from work places.

## **Business Case**

The business case is based on the increased production rate that can be achieved from the Co-O Mine through improved L8 Shaft broken rock hoisting following the removal of the present men and materials hoisting from the L8 Shaft. This will result in the L8 Shaft being employed solely for broken rock hoisting for which it was originally designed.

The estimated payback period is 1.4 years based on the current production schedule.

#### **DISCLAIMER**

This announcement contains certain forward-looking statements. The words 'anticipate', 'believe', 'expect', 'project', 'forecast', 'estimate', 'likely', 'intend', 'should', 'could', 'may', 'target', 'plan' and other similar expressions are intended to identify forward-looking statements. Indications of, and guidance on, future earnings and financial position and performance are also forward-looking statements. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors, many of which are beyond the control of Medusa, and its officers, employees, agents and associates, that may cause actual results to differ materially from those expressed or implied in such statements. Actual results, performance or outcomes may differ materially from any projections and forward-looking statements and the assumptions on which those assumptions are based. You should not place undue reliance on forward-looking statements and neither Medusa nor any of its directors, employees, servants or agents assume any obligation to update such information.