



ASX RELEASE 19 AUGUST 2015

# IP SURVEYS IDENTIFY HIGH PRIORITY DRILL TARGETS: MANTOS GRANDES COPPER-GOLD PROJECT, CHILE

Drilling to commence in three weeks

# <u>Highlights</u>

✤ Induced Polarisation (IP) survey completed at the Mantos Grandes Copper-Gold Project.

- o Intense chargeability anomalies identified;
- o Main anomaly coincident with geological interpretations and surface sampling;
- o Early indications suggest an Oligocene age porphyry copper body
- Pre-drilling work completed, drilling to commence early September 2015

**Southern Hemisphere Mining Limited** (ASX: SUH) ("Southern Hemisphere" or the "Company") is pleased to announce that its exploration partner **EPG Exploration** has completed a comprehensive IP survey program at the Mantos Grandes Copper-Gold Project (the "Project") in Chile.

This work has been sole-funded by EPG Exploration in accordance with the Project farm-out agreement announced by the Company on 24 June 2015.

The IP survey lines targeted the **Verde porphyry area**. This area of the Project concessions was identified from previous work to demonstrate key geological and geochemical criteria for an Oligocene age porphyry copper body.

The IP survey program comprised eight (8) 200m spaced lines with an east-west orientation. Each of the lines were approximately 2km long and provide detailed, deep-looking coverage of the area. Any chargeable material to a depth of ~350m should be detected with good definition. The survey was conducted by Geofisica TRV Limitada.

The results of the IP survey show a strong correlation between chargeability and conductivity anomalies versus the geology and known areas of copper mineralisation at surface. The confluence of these indicators gives some confidence that there is a copper-gold-molybdenum porphyry present at the Project. This porphyry appears to be of a reasonable size at ~1.2 km long and ~500m wide.

Below is the chargeability map of the Verde porphyry area showing the primary anomaly:



Figure 1: Mantos Grandes Copper-Gold Project – Verde porphyry area (RL1950). The primary high chargeability anomaly (warm colours) is apparent and incidental to surface sample highlights and geological interpretations.

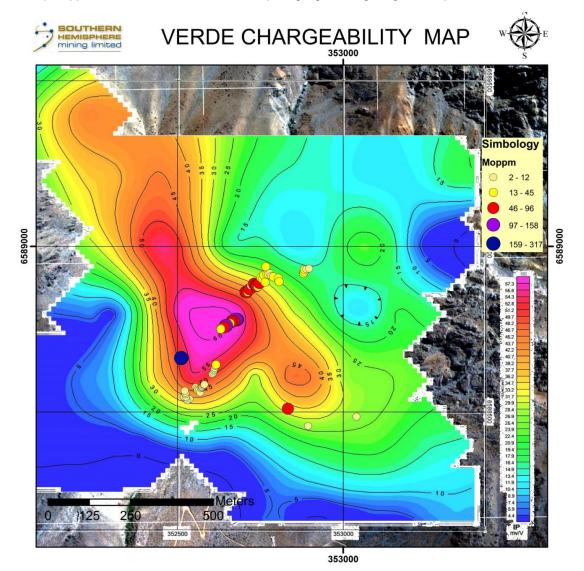
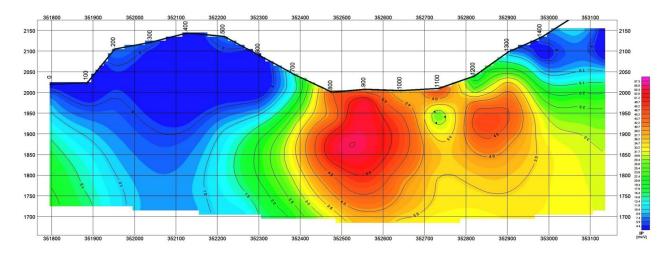


Figure 2: Mantos Grandes Copper-Gold Project – Verde porphyry area (survey line N6588600). Interpretative geophysical section shows the anomaly begins relatively close to the surface.



SOUTHERN HEMISPHERE MINING LIMITED / ABN: 17 140 494 784 / www.shmining.com.au AUSTRALIAN OFFICE: Suite 7, 1200 Hay Street, West Perth WA 6005 TEL: +61 8 9481 2122 Pa CHILEAN OFFICE: Minera Hemisferio Sur SCM, Office 41, Zurich 255, Las Condes, Santiago TEL: +56 2 474 5071

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#### Next steps

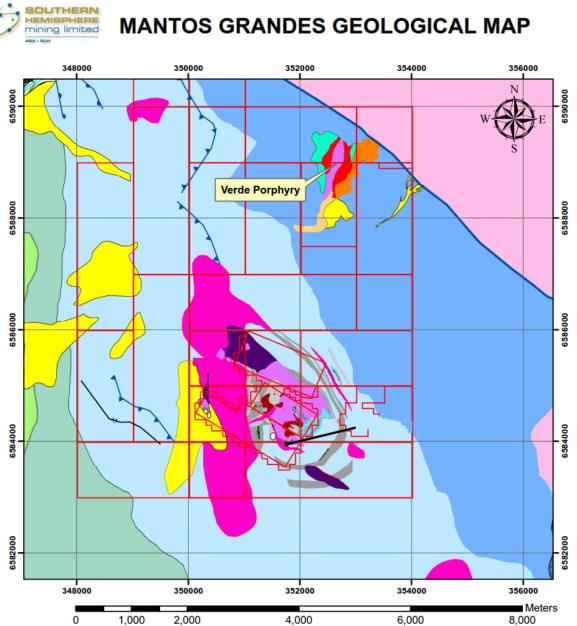
Together, EPG Exploration and Southern Hemisphere Mining conclude that the IP survey and preliminary work results warrant a drill program to test the potential of the Verde porphyry. *Drilling will commence in early September 2015.* 

#### Mantos Grandes Copper-Gold Project

The Mantos Grandes Project is located in the Province of Limari, ~400km north-north-east of Santiago, Chile.

The concession area covers ~50km<sup>2</sup> and contains a hypogene, skarn related copper/gold/silver deposit which previously hosted a small scale mine. Geological data suggests that in addition to the main skarn deposit, there is potential to discover secondary skarn mineralisation as well as porphyry style mineralisation.

Figure 3: Mantos Grandes Copper-Gold Project concessions. EPG Exploration advised that they will be concentrating on the Verde porphyry area labeled below:





#### **Farm-out Option Agreement Terms**

Under the terms of the agreement, EPG Exploration has the option, within two years of signing the agreement, to sole fund USD\$1.2 million of exploration and associated works at the Project. Part of this exploration spend must result in committed minimum works of 1,000m of drilling.

Upon completion of the **USD\$1.2 million** spend, the EPG Exploration Fund will earn a 50.1% interest in the Project. At this point, the sole funding phase ends and 'Phase 2' begins where both parties must fund exploration activity based on their percentage interest. In recognition of prior ownership costs, Southern Hemisphere will be credited with US\$1.75 million worth of deemed expenditure in Phase 2.

The exploration program is being managed by EPG Exploration which has an experienced mining and investment team in Chile.

## Juan Soldado Project

In January 2015, the Company signed an agreement with EPG Exploration to sole fund USD\$1.2 million worth of exploration expenditure to earn a 50.1% interest in the Juan Soldado Project. As reported in the Company's June Quarterly Report, EPG Exploration expended approximately \$600,000 on exploration including more than 1,000m of drilling and the annual concession payment at the Juan Soldado Project.

Drilling results are awaited, however early indications are that these results will be technically interesting, but most likely not economic. With the annual concession payment made, Company has until mid next year to review the Project. In terms of the work with EPG Exploration, the focus is now on the Mantos Grandes Project.

# About EPG Exploration Fund and EPG Partners S.A

The EPG Exploration Fund is a private equity fund managed by EPG Partners S.A., in Santiago, Chile. EPG Partners S.A. is a boutique Chilean financial services company with a focus on financial advisory and private equity fund management. EPG Exploration Fund was created to pursue exploration opportunities in Chile. This fund is managed by a senior team with experience in geology, business administration and M&A transactions, and is in a solid financial position to conduct exploration activities at early stage mining projects.

#### --ENDS--

For further information, please contact: Trevor Tennant – Managing Director on +65 (2) 474 5071



## Appendix 1 - JORC Compliance Table 1

#### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	Explanation
Sampling techniques	<ul> <li>Channel samples over 5m widths, weight of samples 5 – 10 kgs</li> <li>Samples are extracted using a hammer and chisel by a skilled attendant in sampling</li> <li>The Induced Polarisation (IP) survey was undertaken by Geofisica TRV Limitada, an independent geophysical contractor.</li> </ul>
Drilling techniques	No drilling has been undertaken
Drill sample recovery	No drilling has been undertaken
Logging	<ul> <li>Geologic logging is applied to channel samples</li> <li>Geological log include lithology, structure, mineral zone, %vol of metallic and non-metallic species and mineral habit, scale 1:100. Logged by geologist</li> <li>Insufficient logging has been undertaken to support a mineral resource estimation.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>Chips from channel samples submitted to analysis lab</li> <li>Mechanical sample preparation include: drying (if necessary); 2 crushing stages; splitting: pulverisation of split to 95% - 150 micron</li> <li>The IP survey was a dipole-dipole array with 100m spaced electrodes on 200m spaced lines. A total of 8 lines were surveyed over 12.4 kilometres.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>Samples were submitted to ISO 9001 certified Andes Analytical Assay, Santiago, Chile.</li> <li>Assays analysis: CuT, 1 gr, aqua regia digestion, atomic adsorption, 0.01% detection limit; Au, 30 gr, fire smelt, atomic adsorption, 0.01 g/t detection limit; ICP, 0.5 gr, aqua regia digestion, ICP optical, 39 element.</li> </ul>
Verification of sampling and assaying	<ul> <li>Andes Analytical Assay Lab QA/QC protocol</li> <li>Assay verified by geologist in relation to geologic mapping</li> </ul>
Location of data points	<ul> <li>Samples are located by hand Garmin GPS with datum PSAD56 UTM, Huso 19S, accuracy +/- 5 m</li> </ul>
Data spacing and distribution	<ul> <li>Channel samples over 5 m widths in lines across the geological structure where exposed by existing road cuttings.</li> <li>Sample spacing is sporadic and of a preliminary nature.</li> <li>The IP survey was a dipole-dipole array with 100m spaced electrodes on 200m spaced lines. A total of 8 lines were surveyed over 12.4 kilometres.</li> </ul>
Orientation of data in relation to geological structure	Normal to main veinlets, east-west orientation
Sample security	<ul> <li>Samples was transported from site to laboratory by own personnel, rejects and pulps are stored on site in a warehouse</li> </ul>
Audits or reviews	No external audit of the sampling techniques has been undertaken



## Appendix 1 - JORC Compliance Table 1 (continued)

# Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section)

Criteria	Explanation
Mineral tenement and land tenure status	<ul> <li>11 granted exploration licenses with a total area of 2,100 hectares</li> <li>9 granted exploitation licenses with a total area of 1,400 hectares</li> </ul>
Exploration done by other parties	None known in the Verde porphyry area.
Geology	• Intrusive complex, likely Oligocene age, consisting of coarse granodiorite, tonalite and diorite porphyry, largely affected by intense phyllic alteration, and partly supergene argillic alteration with strong stockwork, with boxworks of sulphides. The complex intrudes Jurassic volcaniclastic rocks.
Drill hole Information	No drilling has been undertaken
Data aggregation methods	Aggregation methods have not been used.
Relationship between mineralisation widths and intercept lengths	<ul> <li>Channel samples within intrusive</li> <li>Where reported intercepts are channel lengths. True widths have not been assessed.</li> </ul>
Diagrams	Chargeability data superimposed on geological map showing molybdenum grades
Balanced reporting	The Company believes that the ASX announcement is a balanced report with all material results reported.
Other substantive exploration data	IP survey carried out by geophysical contractors; Geofisica TRV Limitada.
Further work	Drill program planned to commence in early September 2015