

Carbon-Neutral Manganese for the EV Battery Market

- **Work progresses on the Los Pumas Project to sustainably develop the deposit to meet the needs of the EV battery market**

Southern Hemisphere Mining (“SUH or the Company”) reports on its plan to sustainably develop the 100% owned Los Pumas Manganese project into a globally significant reliable source of Manganese to meet the demand and rapid growth in the EV and EV battery metals industries.

A key part of sustainably developing the Los Pumas Manganese Deposit is the Company’s **carbon neutrality** plan designing the project to operate with minimum greenhouse emissions by implementing energy saving initiatives coupled with offsetting any unavoidable emissions.

SUH is working on initiatives seeking alternative energy and raw material sources where possible and viable to adopt green energy practices. These include:

- Supplementing power generation systems with one or more of:
 - ❖ Power generation from conveyors transporting concentrate to the rail head.
 - ❖ Hydro power from recent developments nearby.
 - ❖ Solar power.
 - ❖ Wind power – this option has now been considered and excluded as average wind strengths in the Los Pumas area are suboptimal.
- Production of water from the atmosphere using atmospheric water generators, which have negligible effect on the environment when powered with renewable energy sources.
 - ❖ A trial onsite is required to confirm atmospheric water generators will work effectively which will be included in feasibility studies.
- Use of alternative fuels.
- Rail Transport instead of trucking which has a much lower energy use and substantial potential opex saving than contemplated in the PEA/Scoping Study (ASX release 2 February 2011 – PEA).
- Opting for autonomous vehicles, where possible, which consistently report lower fuel consumptions when compared to traditional vehicles.



High Purity Manganese Sulphate (HPMSM)

SUH has engaged industry experts to carry out a mineralogy review to assess the process flowsheet options to produce HPMSM. Early work shows the DMS product is low in impurities with no identified technical impediments to producing HPMSM. There may be potential to benefit from precipitating potassium from the Cryptomelane dominant ore as Sulphate of Potash (SOP).

Commodity Traders and EV Battery Manufacturers

SUH are actively seeking and engaging with commodity traders, financiers, EV manufacturers and EV battery manufacturers to advance the Los Pumas Manganese Project with the aim to supply a carbon-neutral battery cathode manganese component.

This announcement was approved by the Board

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Appendix 1

Los Pumas Manganese Project: Total Measured and Indicated Resources - JORC (2004) Compliant. As announced to the market on 25 March 2011.

Resource (at 4% Mn cut-off)	Tonnes Millions	Mn %	SiO ₂ %	Fe ₂ O ₃ %	Al %	K %	P %
<i>Measured</i>	5.27	7.39	57.85	2.78	5.62	2.88	0.05
<i>Indicated</i>	13.06	7.65	55	2.96	5.64	2.92	0.05
<i>Measured plus Indicated</i>	18.34	7.58	55.82	2.91	5.62	2.91	0.05
<i>Inferred</i>	5.39	8.59	51.44	2.72	5.49	2.69	0.06
<i>Total</i>	23.73	7.81					

Metallurgical studies have demonstrated greater than 38% Mn concentrates are achievable by DMS with low impurities and high silica product.

In relation to the above resources, the Company confirms that it is not aware of any new information or data that materially affects the information in the announcements, and all material assumptions and technical parameters in the announcements underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.