

**Stock Exchange Release****Talvivaara Mining Company Plc****16 January 2013****Talvivaara Operational Update****Metals production stabilized after the gypsum pond leakage  
Water balance situation being resolved but continues to be challenging****Highlights**

- Nickel production of 2,317t in Q4 2012 and 12,916t for FY 2012
- Production impacted by gypsum pond leakage in November and continuing challenging water balance situation throughout the fourth quarter
- Metals plant operations stabilized; current flow rates at 1,500 m<sup>3</sup>/h
- Sustainable solutions to water balance issues being evaluated by a special task force; initial measures being implemented
- Following Pekka Perä's return as CEO in November 2012, further management changes taking effect on 16 January
- Co-operation consultations that may lead to temporary lay-off of a maximum of 230 employees for up to 90 days to start on 17 January

**Production guidance**

The achieved full year 2012 nickel production of 12,916t was in line with the Company's most recent guidance of approximately 13,000t, as updated on 28 November 2012 following the gypsum pond leakage.

Talvivaara intends to announce its production guidance for 2013 on 14 February 2013 in conjunction with its FY 2012 results. In the meantime, the Company continues to evaluate the impact of the key drivers for the production level, including the near term development in the water balance, the timing of re-start of ore production and the effectiveness of the bioheap leaching process following the measures being taken to reverse the recent effects of excess water and insufficient aeration. Talvivaara continues to believe that the greater than 50,000t of nickel currently in the heaps will provide a sufficient inventory for a reasonable increase in metals production in 2013 despite the temporary suspension of ore production, in effect since September 2012 and anticipated to continue through June 2013.

**Production update****Metals recovery**

Talvivaara's metals recovery plant was temporarily suspended between 4 and 21 November 2012 as a precautionary measure due to the gypsum pond leakage. Since the successful re-start on 21 November, plant performance has in general been satisfactory. However, some short term disturbances in the automation systems impacted production in December and are being investigated to avoid future re-occurrence.

Solution flow rates at the plant varied from around 900 m<sup>3</sup>/h to 1,400 m<sup>3</sup>/h in December and have reached 1,500 m<sup>3</sup>/h in early January. Ramp-up to around 1,600 m<sup>3</sup>/h is anticipated in the near future.

### Bioheapleaching

Bioheapleaching has continued to suffer from the excess water in circulation that has affected the process since the spring of 2012. The water balance issues were further aggravated in November by the gypsum pond leak, which forced the Company to pump additional excess water into the heap circulation in order to minimize the environmental effects of the leak. As a result, nickel grades in solution pumped to metals recovery continued to decline in December and reached a level of around 1.3 g/l at year-end, down from around 2.0 g/l in early 2012. In January 2013, a positive trend in solution grades has again emerged, but the Company estimates it will take some months before substantial improvement in the grades can be expected. Nickel grades in solution well in excess of 3.0 g/l have already been previously reached, and the Company believes that such grades will again be achievable in the longer term.

Measures to improve the leaching performance are being taken based on the findings from extensive operational bioheapleaching studies carried out during the autumn of 2012. Multiple changes are being implemented to ensure constant and balanced distribution of air within the primary heaps, and additional aeration into the secondary heaps is being introduced. Reclaiming and re-stacking of the existing primary heaps also continues in order to enable efficient recovery of the existing nickel inventory under leaching.

### Ore production

As previously announced, Talvivaara's ore production has been suspended since September 2012 due to the prevailing water balance situation. The Company anticipates re-commencing mining of new ore by the end of June 2013 once the main part of the Kuusilampi open pit has been de-watered. In the meantime, some waste mining will continue, which the Company believes will reduce any risk of production problems upon re-start. Part of the mining fleet is also being used in reclaiming ore from the primary heaps.

### Cost effects

By year-end 2012, Talvivaara estimates having achieved approximately EUR 20 million in operating cost savings due to the temporary suspension of ore production since September. Further savings of at least EUR 30 million are expected to be realized assuming the suspension of ore production continues through June 2013.

In the fourth quarter, the Company incurred approximately EUR 13 million in non-recurring costs from stemming the gypsum pond leak and minimizing its environmental effects.

Talvivaara considers systematic cost savings to be one of its key targets in the near term.

### **Water balance management**

Talvivaara's special task force on water management, Operation Otter led by Jari Voutilainen reporting directly to CEO Pekka Perä, focuses on the planning and execution of necessary water storage and pumping arrangements and waste water neutralization measures to secure a sustainable water balance at the mine site.

At the metals recovery plant, iron precipitation and final neutralization capacities of process waters are being improved in order to further increase recycling of process waters and to ensure that any discharged waters are of sufficiently good quality. Similarly, the utilization of the reverse osmosis based water treatment plant is being optimized and additional capacity will be installed during the spring. Furthermore, Talvivaara is investing in additional lime slaking and milk of lime capacity to increase its neutralization capacity for the treatment of mine and process waters.

Following the gypsum pond leakage, Talvivaara continues to neutralize the waters currently stored in the safety dams and in the Kuusilampi pit, and is constructing additional neutralization facilities at the Southern end of the mine area close to the Kortelampi dam as well as close to the open pit. The Kortelampi safety dam, which was initially built to contain the leak, was elevated to its final height during December and early January. In addition, several additional dam structures both in the Southern and Northern directions from the mine are planned and will be constructed as part of Operation Otter, thereby further preparing the mine area for the forthcoming spring melt and mitigating the risk of environmental impacts from any potential future leak situation.

The soil contaminated during the leak by neutralization precipitates is being removed and treated. The approximately four hectares of marsh area around the Southern edge of the mine concession area that contains the precipitates is uninhabited and was recently acquired by Talvivaara.

In order to reach a sustainable water balance situation, Talvivaara will have to treat and release into the environment approximately 3.8 million m<sup>3</sup> of water, out of which a substantial proportion is rain and natural catchment water accumulated at the mine site over time. The discharge water quality is targeted to be in line with the specifications applied for in Talvivaara's upcoming environmental permit update, which is expected to be received in the spring. The environmental impact of the release is anticipated to be mainly caused by its sulphate content, whereas the Company expects any metal burden to the environment to remain limited. The effects of the sulphate discharge on the downstream waters will be simulated over the coming weeks.

At present Talvivaara anticipates the capital expenditure required for the water management improvements to amount to approximately EUR 17 million, largely incurred in 2013. However, evaluation and planning of the necessary measures continues and may still have some impact on the expenditure. In the medium term, Talvivaara continues to target a nearly closed circuit water circulation system, reducing the risk of weather conditions impacting the Company's operations or environmental safety. As a result of existing water management capacity, the investments described above and release of excess waters currently at the minesite, Talvivaara expects to be in a position to achieve this target.

### **Environmental update following the gypsum pond leakage**

As in November, shortly after the gypsum pond leakage, only local environmental impact within the immediate vicinity of the mine area has been detected to date. The Company and authorities continue to monitor the situation and expect to be able to determine the eventual impact of the leak during the coming summer.

### **Management changes**

Talvivaara will re-organize its management, effective as of 16 January 2013, as follows:

- Pertti Pekkala, formerly General Manager, Research and Development, is appointed Chief Production Officer (Metals Recovery)

- Kari Vyhtinen, formerly Chief Investment Officer, is appointed Chief Mining Officer
- Mikko Korteniemi, formerly Chief Production Officer (Metals Recovery), is appointed Chief Maintenance Officer with responsibility for maintenance, procurement and warehousing
- Jari Voutilainen, formerly Chief Mining Officer, is appointed General Manager, Water Management with full-time responsibility for water management

All four appointees are members of the Executive Committee, with Pertti Pekkala a new addition to it. Pertti Pekkala, Kari Vyhtinen and Mikko Korteniemi will report to COO Harri Natunen, and Jari Voutilainen will report to CEO Pekka Perä.

With the re-organisation and formation of a central maintenance unit comprising procurement, warehousing and all maintenance activities, Talvivaara aims to optimize its maintenance operations and increasingly focus on preventive maintenance for increased operational and cost efficiency.

### **Co-operation consultations for temporary lay-offs**

To support the Company's cost savings initiatives and overall efficiency, and to adjust the level of personnel to the temporarily suspended ore production, Talvivaara is considering temporary lay-offs. The Company estimates that the maximum number of employees impacted is 230 and that the estimated maximum duration of the lay-offs would be 90 days between 18 February and 30 June 2013. All three corporate entities: Talvivaara Mining Company Plc, Talvivaara Sotkamo Ltd and Talvivaara Exploration Ltd are within the scope of the consultations. Talvivaara has invited employee representatives to co-operation consultations in accordance with the applicable law.

### **Financing**

As previously announced in connection with the Company's Q3 2012 interim report, Talvivaara is undertaking an assessment of a range of funding options, including debt, convertible bonds, royalty streams and equity, in order to secure its financial flexibility and a sufficient level of liquidity.

*Pekka Perä, CEO of Talvivaara, commented: "Our team has mobilized very effectively and has worked extremely hard to mitigate the impact of the gypsum pond leak on our operations and the environment as much as possible. Some of the results of this hard work are beginning to show in the stability and availability of the metals plant, which has been operating to encouraging levels over the past few weeks. We are putting a lot effort on the comprehensive water balance management measures and enhancing bioheap leaching performance. This work has progressed well, but it will take some time for the full benefits to be realized.*

*Challenges remain over the next few months. Due to the water balance we may temporarily have to lay off a number of our employees whilst mining activities remain suspended during the first half of the year. Every effort is being made to provide full support to all our employees and minimize the negative impact of these potential measures. To achieve this, we are working very closely with employee representatives as part of a comprehensive consultation process. We have every confidence that the measures we are taking to preserve the long term financial stability of the Company will be of short duration and that we will be able to return to a sustainable ramp-up path towards full capacity during the second half of this year."*

**Enquiries**

**Talvivaara Mining Company Plc** Tel +358 20 7129 800

Pekka Perä, CEO

Saila Miettinen-Lähde, Deputy CEO and CFO

**Talvivaara Mining Company Plc**

Talvivaara Mining Company is an internationally significant base metals producer with its primary focus on nickel and zinc using a technology known as bioheapleaching to extract metals out of ore. Bioheapleaching makes extraction of metals from low grade ore economically viable. The Talvivaara deposits comprise one of the largest known sulphide nickel resources in Europe. The ore body is estimated to support anticipated production for several decades. Talvivaara has secured a 10-year off-take agreement for 100 per cent of its main output of nickel and cobalt to Norilsk Nickel and entered into a long-term zinc streaming agreement with Nyrstar NV. Talvivaara is listed on the London Stock Exchange Main Market and NASDAQ OMX Helsinki and is included in the FTSE 250 Index. Further information can be found at [www.talvivaara.com](http://www.talvivaara.com).