



News Release – January 29, 2010  
10-04-NAP

TSX: PDL  
NYSE Amex: PAL

## **NAP extends gold zones and commences shaft deepening at Sleeping Giant mine; plans \$6.2 million gold exploration program for 2010**

Toronto, Ontario – North American Palladium Ltd. (“NAP”) plans to drill 53,000 metres in 2010 as part of a \$6.2 million exploration program for its gold division. The Company’s main focus will be continued underground exploration aimed at expanding resources at its wholly-owned Sleeping Giant Mine in the prolific Abitibi region of Quebec. NAP will also conduct exploration work on its Dormex property adjacent to the mine.

“Our exploration program in Quebec is aimed at increasing mine life at Sleeping Giant,” said William J. Biggar, NAP’s president and chief executive officer. “We are also exploring for new gold deposits in the area, so that we can capitalize on our Sleeping Giant mill, which has excess capacity and is one of the few mills in the region. Growth within the vicinity of the Sleeping Giant mine is a key component of our gold strategy.”

### **2009 Exploration Results**

#### ***Sleeping Giant Mine***

The main focus of the 2009 exploration program at Sleeping Giant was to extend the 30 West zone and the 3 zone. Significant intersections include:

- At the 30 West zone, drilling 47 underground holes for 7,800 metres indicated that this zone extends above and below level 975, the lowest level of the mine. The most significant intersections include hole 91-148-09, which graded **124 g/t gold (uncut) over 1.0 metre** and hole 85-141-09, which graded **14.38 g/t gold over 1.6 metres**.
- At the 3 zone, 14 underground drill holes totalling 2,710 metres followed the extension of the zone. The most significant intersections include hole 65-967b-09, which graded **21.9 g/t gold over 1.2 metres** and hole 66-972-09, which graded **9.34 g/t gold over 1.8 metres**.
- A new zone, called the 785N zone, was intersected 180 metres below level 975, the lowest level of the mine. A **2.2 metre section graded 16 g/t gold**.

For additional drill data and a longitudinal section of the Sleeping Giant mine, see [www.nap.com/explore\\_gold.htm](http://www.nap.com/explore_gold.htm).

NAP also drilled five holes totalling 2,600 metres from surface at Sleeping Giant. Three holes tested the surface western extension of zones 20, 30 and 40, and two holes tested the surface southern extension of the J-D zone. Lateral continuations of zones 20, 30 and 40 have been recognised. The best intersection to date in this ongoing program is a **2 metre section grading 4.1 g/t gold**.

#### ***Dormex***

A 21 hole reverse circulation (“RC”) drill campaign was completed and succeeded in delimiting a distinct gold dispersal train in overburden.

### **Updated NI 43-101**

An updated mineral resource and mineral reserve estimate is anticipated by March 31, 2010, incorporating the results of the 2009 program.

## **Sleeping Giant Shaft to be Deepened**

Due to the positive drill results on the 30 West zone and the 3 zone as well as confirmation of the 785N zone at depth, NAP has commenced deepening the mine shaft at Sleeping Giant by 200 metres. The shaft deepening will be completed by year end and will allow for the development of three new mining levels at depth. The capital cost of the project will be approximately \$4.5 million for the shaft deepening and an additional \$1.5 million for auxiliary equipment.

## **2010 Exploration Program**

The Company today also announced details of its \$6.2 million, 53,000 metre gold exploration program for 2010.

### ***Sleeping Giant Mine***

At the Sleeping Giant mine, NAP intends to spend more than \$2.1 million on 30,000 metres of underground drilling to define and extend the zones within the current mine and at depth. At surface, the Company intends to complete 3,500 metres of diamond drilling as well as RC drilling of overburden and geophysical surveys.

### ***Dormex***

At the Dormex property adjacent to the Sleeping Giant mine, the Company will spend \$1.2 million on RC drilling, geophysical surveys, and a 7,000-metre diamond drill campaign. The objective will be to identify the source of the gold anomaly detected in 2009 in the overburden.

### ***Flordin***

NAP will spend \$300,000 advancing its Flordin property, located north of Lebel-sur-Quévillon, including completing a NI 43-101 report which will upgrade historical resource estimates and include more recent drilling data. InnovExplo, a geological consulting firm based in Val d'Or, Quebec, is developing an updated interpretation of known gold-bearing zones with an estimate of grades and tonnages. Further diamond drilling and initial permitting studies are planned for 2010.

### ***Discovery***

NAP's Discovery Project is located 70 kilometres east of the Sleeping Giant mine and mill. An environmental study was completed in late 2009 and will be submitted for approval to COMEV, a review committee for mining projects within the territory covered by the James Bay and Northern Quebec Treaty. The Company will spend \$500,000 on 4,000 meters of surface drilling to extend the 1200 E gold zones. Permitting work will continue to advance the project towards an underground exploration stage, as recommended in a 2008 preliminary economic assessment.

### ***Laflamme Option***

On the Laflamme property, NAP completed an electro-magnetic and magnetic airborne survey in 2009. NAP believes that this property could encompass the eastern extension of geological units found at Sleeping Giant. In 2010, ground geophysical surveys and 2,500 metres of drilling are planned to follow target delineations. NAP has budgeted \$400,000 for this endeavour.

## **Quality Assurance and Quality Control**

The assay analyses performed during NAP's drill programs are subject to a rigorous quality assurance and quality control (QA/QC) program that conforms to industry best practices as outlined by the CIM and NI 43-101. This includes the use of independent third party laboratories and the use of professionally prepared standards and blanks and analysis of sample duplicates with a second independent laboratory. The Company's exploration team designed and executed the drilling program under the supervision of Tyson C. Birkett, PhD, Eng., Director of Exploration for Quebec, a Qualified Person as defined by NI 43-101, who has reviewed and approved the content of this news release.

## About North American Palladium

NAP is a Canadian precious metals company focused on the production of palladium and gold in mining friendly jurisdictions. Lac des Iles, the Company's flagship mine, is one of North America's two primary palladium producers. Located approximately 85 kilometres northwest of Thunder Bay, Ontario, Lac des Iles has produced palladium since 1993. NAP also owns and operates the Sleeping Giant mine located in the prolific Abitibi region of Quebec. The Company has extensive landholdings adjacent to both the Lac des Iles and Sleeping Giant mines, and is pursuing an aggressive exploration program aimed at increasing its reserves and resources in those areas. NAP trades on the NYSE Amex under the symbol PAL and on the TSX under the symbol PDL.

### Cautionary Statement on Forward Looking Information

Certain information included in this press release constitute 'forward-looking statements' within the meaning of the 'safe harbor' provisions of the *United States Private Securities Litigation Reform Act of 1995* and Canadian securities laws. The words 'expect', 'believe', 'will', 'intend', 'estimate' and similar expressions identify forward-looking statements. Forward-looking statements are based upon a number of estimates and assumptions that, while considered reasonable by management, are subject to uncertainties, risks and contingencies including the possibility that the Lac des Iles mine will be successfully restarted, that Sleeping Giant mining operations will be successfully maintained, that other properties can be successfully developed, and that metals prices, foreign exchange and other assumptions may differ from management's expectations. Actual financial results and performance of NAP may be materially different from the Company's estimated future results and performance expressed or implied by forward-looking statements and these forward-looking statements are not guarantees of future performance. These statements are also based on other factors and assumptions. For more details on these estimates, risks, assumptions and factors, see the Company's most recent Form 40-F/Annual Information Form on file with the U.S. Securities and Exchange Commission and Canadian provincial securities regulatory authorities. The Company disclaims any obligation to update or revise any forward-looking statements, except as expressly required by law. Readers are cautioned not to put undue reliance on forward-looking statements.

### For further information please contact:

Michel Bouchard

Vice President, Exploration and Development

Tel.: 416-360-7971 or 1-888-360-7590, Ext. 224

Email: [mbouchard@nap.com](mailto:mbouchard@nap.com)