

North American Palladium Files Prefeasibility Study on LDI's Initial Offset Zone Reserves

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1.1 Million Contained Palladium Ounces Converted into Reserves

TORONTO, ONTARIO--(Marketwire - Feb. 19, 2013) -

All figures are in Canadian dollars except where noted.

North American Palladium Ltd. ("NAP" or the "Company") (TSX:PDL)(NYSE MKT:PAL) is pleased to announce that it has filed on SEDAR a National Instrument 43-101 ("NI 43-101") technical report for the LDI property, which includes an initial mineral reserve estimate and Prefeasibility Study for Phase I of the Offset Zone (the "Prefeasibility Study").

Summary:

- Initial Offset Zone reserves total 7.7 million tonnes, representing approximately 1.1 million contained palladium ounces.
- Management estimates that at current metal prices (US\$750 palladium price), the economic analysis shows \$226 million in undiscounted post-tax cash flow (determined as net revenue less operating and capital costs) for the initial Offset Zone reserves, a 95% internal rate of return ("IRR") (over a 27-month payback period), and a net present value ("NPV") of \$187 million at a 5% discount rate.
- The Prefeasibility Study economic analysis was only applied to the converted reserves (representing approximately one third of the entire Offset Zone deposit in the measured and indicated category), however much of the infrastructure spend associated with those reserves is expected to also be utilized for the

additional mining phases in the future.

- \$79 million capital investment in 2013 to complete Phase I of the LDI mine expansion, which is expected to allow the Company to transition operations to shaft production in the third quarter of 2013, which is expected to allow the Company to increase underground mining at a reduced cash cost per ounce.
- There is significant upside potential from continued exploration at the LDI property, where a number of surface and underground targets have been identified near existing infrastructure, highlighting the potential for future resource expansion at LDI.

Offset Zone Reserves & Resources

The Offset Zone mineral reserve and resource estimate was prepared by independent Qualified Persons of Tetra Tech, Inc. ("Tetra Tech"). Based on the current and future operating plans at the mine, and updated metal price assumptions that are consistent with current consensus price forecasts, the Company has reduced its palladium cutoff grade from 3.5 grams per tonne ("g/t") to 2.5 g/t to calculate the reserves and resources.

Proven and probable reserves are estimated to be 7.7 million tonnes at a grade of 4.30 g/t of palladium, representing 1.1 million ounces of contained palladium. For the purpose of the Prefeasibility Study, the new reserves are based on the Phase I portion of the measured and indicated resources of the Offset Zone above the 990-metre mine level, which qualified due to density of drilling (see Figure #1 below).

The following table provides the Offset Zone mineral reserve estimate using a 2.5 g/t Pd cutoff:

OFFSET ZONE MINERAL RESERVES							
CATEGORY	Tonnes (000'S)	Pd (g/t)	Pt (g/t)	Au (g/t)	Ni (%)	Cu (%)	Pd (000's oz)
Proven	5,632	4.34	0.30	0.30	0.11	0.08	786
Probable	2,109	4.17	0.30	0.29	0.10	0.08	283
Total Reserves	7,741	4.30	0.30	0.30	0.11	0.08	1,069

See notes below.

This lower 2.5 g/t Pd cutoff grade also resulted in the following increases from the 3.5 g/t cutoff for previously stated resources (see the Company's August 8, 2012 news release):

Offset Zone Resources	Contained Pd (using 2.5 g/t cutoff)	Contained Pd Ounces Increase	Tonnage Increase
Measured & Indicated	3.1 M oz	31%	55%
Inferred	1.6 M oz	77%	117%

Pages 14-31 through 14-37 of the Prefeasibility Study include tables and graphs using various cutoff grades to demonstrate the robust nature of the resources. The Company plans to provide its next annual reserve and resource update in the third quarter of 2013 using the 2.5 g/t cutoff grade for all underground resource models.

For comparative purposes, the following Offset Zone mineral resource estimate (which formed the basis for the conversion of the reserves) also uses a 2.5 g/t cutoff:

OFFSET ZONE MINERAL RESOURCES (before removal of reserves)							
CATEGORY	Tonnes (000'S)	Pd (g/t)	Pt (g/t)	Au (g/t)	Ni (%)	Cu (%)	Pd (000's oz)
Measured	10,437	4.67	0.33	0.32	0.12	0.09	1,567
Indicated	11,616	4.18	0.32	0.30	0.11	0.09	1,561
Total Measured & Indicated	22,053	4.41	0.32	0.31	0.12	0.09	3,128
Inferred	13,669	3.59	0.30	0.23	0.09	0.08	1,576

See notes below.

The following table provides the remaining known resources for the Offset Zone after removal of the reserves associated with the technical report as at March 31, 2012, using a 2.5 g/t cutoff:

OFFSET ZONE MINERAL RESOURCES (after removal of reserves)							
CATEGORY	Tonnes (000'S)	Pd (g/t)	Pt (g/t)	Au (g/t)	Ni (%)	Cu (%)	Pd (000's oz)
Measured	4,943	4.56	0.33	0.31	0.12	0.10	724
Indicated	9,557	4.11	0.31	0.29	0.11	0.09	1,263
Total Measured & Indicated	14,500	4.26	0.32	0.30	0.12	0.10	1,987
Inferred	13,669	3.59	0.30	0.23	0.09	0.08	1,576

See notes below.

Notes:

- Prepared in accordance with National Instrument 43-101 - Standards of Disclosure for Mineral Projects (NI 43-101) and the Canadian Institute of Mining, Metallurgy and Petroleum classification system. U.S. investors should refer to the Annual Information Form for an overview on how Canadian standards differ significantly from U.S. requirements.
- Palladium ounces are stated as contained ounces. Disclosure of contained ounces is permitted under Canadian regulations; however, the SEC generally permits resources to be reported only as in place tonnage and grade. Numbers may not add due to rounding.
- Mineral reserves for the Offset Zone were estimated by Todd McCracken, P. Geo., William Richard McBride, P. Eng., Todd Kanhai, P. Eng., and Phillip Bridson, P. Eng. of Tetra Tech, independent Qualified Persons within the meaning of NI 43-101. The mineral reserves were estimated from drilling completed to March 31, 2012.
- Reserves were estimated to the 990 Mine Level (4490 m elevation), a maximum depth of 1017.5 metres.
- The following metal price assumptions were used for reserves estimation: US\$675/oz palladium, US\$1,675/oz platinum, US\$1,750/oz gold, US\$8.00/lb nickel, and US\$3.50/lb copper. A US\$/Cdn\$ exchange rate of US\$1.00 = CDN\$1.00 was also applied. An average production rate of

- 3500 tonnes per day was used to determine the reserves.
6. The following mill recoveries were used in the assumptions to determine the reserves: 80.45% palladium, 71.30% platinum, 83.97% gold, 43.13% nickel and 88.55% copper.
 7. Mineral resources for the Offset Zone were estimated by Todd McCracken, P.Geo., of Tetra Tech, an independent Qualified Person within the meaning of NI 43-101. The mineral resources were estimated from drilling completed to March 31, 2012. The mineral resource calculation uses a minimum 2.5 g/t Pd resource block cut-off. The mineral resource estimate is based on the combination of geological modeling, geostatistics and conventional block modeling (5 m x 5 m x 5 m blocks). Assay grade capping was determined not to be necessary. The Offset Zone resource models used the ordinary kriging (OK) grade interpolation method within a three-dimensional block model with mineralized zones defined by wireframed solids. The QA/QC protocols and corresponding sample preparation and shipment procedures for the Offset Zone have been reviewed by Tetra Tech. Resources were estimated to the 4070 Mine Level (-930 m elevation), a maximum depth of 1,430 m. The following metal price assumptions were used: US\$675/oz palladium, US\$1,675/oz platinum, US\$1,750/oz gold, US\$8.00/lb nickel, and US\$3.50/lb copper. A US\$/Cdn\$ exchange rate of US\$1.00 = CDN\$1.00 was also applied.
 8. Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues. The quantity and grade of reported inferred resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred resources as an Indicated or Measured mineral resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured mineral resource category.

The 7.7 million tonnes of Offset Zone reserves grading above 2.5 g/t palladium represent only approximately one third of the 22.1 million tonnes of the overall measured and indicated resources grading above 2.5 g/t. Using the same 2.5 g/t cutoff, there are approximately 14 million additional tonnes of identified Offset Zone inferred resources, therefore the Prefeasibility Study takes a conservative view of the Offset Zone relative to the total resource wireframe. The Company has a clear resource replacement strategy and remains confident that it can continue to expand its reserves and resources through exploration. See Figure #1 below for a visual of the Offset Zone reserves contemplated in the Prefeasibility Study, relative to the other known resources.

To view "Figure #1: Offset Zone deposit (looking east)," please visit the following link:

http://media3.marketwire.com/docs/pdl_fig01_feb19.pdf

The remaining resources require further definition before they can be converted into reserves. Development plans and stoping schedules have been applied to total mineral reserves in anticipation of upgrading the remaining known resources. Accordingly, the Company intends to study the extension of development and shaft sinking adjacent to the lower portion of the Offset Zone and conduct further definition and extension drilling of the Offset Zone.

Economic Analysis

The economic analysis in the Prefeasibility Study uses a conservative palladium price assumption however management estimates that at current prices, the economics show additional upside.

	Current Prices (US\$750 Pd)	Study Prices (US\$675 Pd)
Post-Tax Cash Flow (Offset Zone reserves only)	\$226 M	\$171 M
IRR	95%	64%
Payback Period	27 months	32 months
NPV (at a 5% discount rate)	\$187 M	\$138 M

Notes:

1. Metal price assumptions used for the "current prices" economic analysis: US\$750 Pd US\$1,700 Pt, US\$1,650 Au, US\$3.70 Cu and US\$8.20 Ni.
2. Metal price assumptions used in the Prefeasibility Study: US\$675 Pd, US\$1,675 Pt, US\$1,750 Au, US\$3.50 Cu and US\$8.00 Ni.

Capital Expenditures to Extract Offset Zone Reserves

The Prefeasibility Study also highlights a \$79-million investment in 2013 to complete Phase I of the LDI mine expansion (as detailed in the Prefeasibility Study), which will transition operations to shaft production in the third quarter of 2013, allowing the Company to increase underground mining at a reduced cash cost per ounce. This investment is based only on the new Offset Zone reserves, and includes sinking the shaft to the 825-metre level, and advancing underground development in the Offset Zone (including extending the ramp at depth, completing the new mine levels and setting up mining stopes), as well as mine-expansion related sustaining capex.

Exploration Upside Potential

The Company believes there remains significant upside potential from continued exploration at the LDI property, where a number of surface and underground targets have been identified for follow up exploration. The Offset Zone remains open to the west, south and at depth, and management is confident that further drilling has a high probability of finding more resources close to the new underground infrastructure.

The Company's recent exploration program returned excellent drilling results (see January 31, 2013 news release) that showed potential to extend the Offset Zone and identified new potential sources of near-surface, pit-grade ore, highlighting the potential for future resource expansion at LDI. Work has already commenced to assess the production potential of the Sheriff Zone and the 2013 exploration efforts will be focused on defining extensions to both the Offset and Roby zone resources, as well as identifying additional pit-grade material at surface.

Other important information to note when reading the technical report:

- As noted above, the Prefeasibility Study takes a conservative view of the entire Offset Zone deposit, focusing exclusively on just the Offset Zone reserves, as required for a prefeasibility level study. The capital spend discussed in the economic analysis of the technical report is only for the initial reserves, however much of the infrastructure capital associated with exploiting those reserves is expected to also be utilized for accessing additional mining phases in the future.
- The production profile contained in the Prefeasibility Study for the initial Offset Zone reserves extends to

2018 based on the assumed mining rate, however the Company anticipates that the mine life will be extended well beyond 2018 through further exploration success discovering additional resources and converting known resources into reserves.

- The Prefeasibility Study presents a production profile based upon a single production platform through Phase I development, with the shaft operating on average at 3,500 tonnes per day. Should additional resources be converted into reserves, a second production platform could be established, allowing the Company to potentially increase its underground mining rate to 5,500 tonnes per day.
- The Prefeasibility Study shows mine expansion-related capital expenditures for the Offset Zone reserves under \$25 million in 2014, however it should be noted that future development capital will need to be updated to reflect additional reserves and continued expansion at depth, which will require more development.
- Other discussions in the technical report, as it pertains to the mine expansion, are based on the measured and indicated resources of the Offset Zone, detailing the mine design, mining methods, and production scenarios. These assumptions remain predominately unchanged from the Company's current approach and previously disclosed plans (see October 5, 2011 news release). The mine design at this stage includes all development and construction required to access the diluted mineable reserve for mining by a bulk mining method and to transport the mined ore via shaft to the existing milling facilities on site.

Technical Information and Qualified Persons

This news release was prepared under the supervision of Kevin Small, P.Eng., Director of Technical Services, and David Peck, Ph.D., P.Geo., Head of Exploration for the Company, who are Qualified Persons as defined by National Instrument 43-101, with input from Greg Struble, Vice President and Chief Operating Officer.

Additional information can be found in NAP's Form 40-F/Annual Information Form on file with the US Securities and Exchange Commission and Canadian provincial securities regulatory authorities, available at www.sec.gov and www.sedar.com, respectively. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

About North American Palladium

NAP is an established precious metals producer that has been operating its flagship Lac des Iles mine (LDI) located in Ontario, Canada since 1993. LDI is one of only two primary producers of palladium in the world, and is currently

undergoing a major expansion to increase production and reduce cash costs per ounce. NAP also operates the Veza gold mine located in the Abitibi region of Quebec. The Company's shares trade on the NYSE MKT under the symbol PAL and on the TSX under the symbol PDL.

Cautionary Note to US Investors Concerning Estimates of Measured, Indicated and Inferred Resources

This press release uses the terms "Measured", "Indicated" and "Inferred" Resources. United States investors are advised that while such terms are recognized and required by Canadian regulations, the United States Securities and Exchange Commission does not recognize them. "Inferred Mineral Resources" have a great amount of uncertainty as to their existence, and as to their economic and legal feasibility. It cannot be assumed that all or any part of an Inferred Mineral Resource will ever be upgraded to a higher category. Under Canadian rules, estimates of Inferred Mineral Resources may not form the basis of feasibility or other economic studies. United States investors are cautioned not to assume that all or any part of Measured or Indicated Mineral Resources will ever be converted into Mineral Reserves. United States investors are also cautioned not to assume that all or any part of an Inferred Mineral Resource exists, or is economically or legally mineable.

Cautionary Statement on Forward Looking Information

Certain information included in this news release constitutes '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', 'forecast', and similar expressions identify forward-looking statements. Such statements include, without limitation, any information as to our future exploration, financial or operating performance, including: the Company's forward looking production guidance, projected capital expenditures, operating cost estimates, project timelines, mining and milling rates, the methods by which ore will be extracted, projected grades, mill recoveries, and other statements that express management's expectations or estimates of future performance. Forward-looking statements are necessarily based upon a number of factors and assumptions that, while considered reasonable by management, are inherently subject to significant business, economic and competitive uncertainties and contingencies. The factors and assumptions contained in this news release, which may prove to be incorrect, include, but are not limited to: that metal prices will be consistent with the Company's expectations, that the exchange rate between the Canadian dollar and the United States dollar will be consistent with the Company's expectations, that there will be no significant disruptions affecting development projects including the LDI mine expansion or operations, that prices for key mining and construction supplies, including labour and transportation costs, will remain consistent with the Company's expectations, and that the Company's current estimates of mineral reserves and resources are accurate. The forward-looking statements are not guarantees of future performance.

The Company cautions the reader that such forward-looking statements involve known and unknown risks that

may cause the actual results to be materially different from those expressed or implied by the forward-looking statements. Such risks include, but are not limited to: the possibility that metal prices, foreign exchange rates or operating costs may differ from management's expectations, uncertainty of mineral reserves and resources, inherent risks associated with mining and processing, the risk that the Lac des Iles may not perform as planned and that the Offset Zone and other properties may not be successfully developed, and uncertainty of the ability of the Company to obtain financing. For more details on the factors, assumptions and risks 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, whether as a result of new information, events or otherwise, except as expressly required by law. Readers are cautioned not to put undue reliance on these forward-looking statements.

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