# North American Palladium Provides Update on Reserves and Resources at Lac des Iles

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TORONTO, ONTARIO--(Marketwired - Feb. 25, 2015) - North American Palladium Ltd. ("NAP" or the "Company") (TSX:PDL)(NYSE MKT:PAL) is pleased to provide an update on its mineral reserve and resource estimates for its Lac des Iles mine property (the "Property") in northwestern Ontario.

# **Highlights:**

- Total reserves of 20.4 million tonnes at a grade of 2.1 grams per tonne ("g/t") and total resources of 71.5 million tonnes at a grade of 2.0 g/t, representing a combined 5.9 million ounces of contained palladium.
- Significant increase in underground measured and indicated resource of 3.9 million tonnes at a grade of 2.67 g/t palladium (413,000 ounces of contained palladium). An increase of 16%.
- Increase in near surface reserve of 6.3 million tonnes at a grade of 1.0 g/t palladium (197,000 ounces of contained palladium). An increase of 101%.
- Increase in near surface resource of 9.8 million tonnes at a grade of 1.28 g/t palladium (274,000 ounces
  of contained palladium). An increase of 23%.

"The positive change in our global mineral reserve and resource estimate for Lac des Iles reflects both our recent exploration successes and the current, favourable longer-term outlook on palladium prices, which enhances our ability to pursue expansion opportunities at our mining operations," said Phil du Toit, President and Chief Executive Officer.

### Update to Mineral Reserves and Mineral Resources for the Lac des Iles Mine Property

The Company has completed an update to its LDI mineral reserves and resources. The effective dates for the new reserve estimate and resource estimate, shown in Table 1, are January 1, 2015 and February 2, 2015, respectively. The new estimates exclude material mined up until December 31, 2014. The resource estimates provided in Table 1 were prepared by NAP Qualified Persons in accordance with National Instrument 43-101 ("NI 43-101"). The reserve estimates provided in Table 1 are derived from the Company's NI 43-101 technical report entitled "Technical Report for Lac des Iles Mine, Ontario Incorporating Prefeasibility Study for Life of Mine Plan" dated March 21, 2014 (the "2014 Technical Report"), and have been updated to include depletion and conversion of RGO stockpile resources to reserves.

## **Mineral Resources**

The updated mineral resource estimate presented in Table 1 represents a significant change to the previously published (see 2014 Technical Report) mineral resource estimate for the Property. The known mineralized zones on the Property are shown in Figure 1. The main differences between the current resource estimate (Table 1) and the previously published resource estimate are highlighted in Table 2. In summary, the major differences between these two mineral resource estimates include:

- Increase to Offset Zone resources, including expanded Lower Offset Zone indicated resources;
- Increase to Roby Zone pit expansion resource based on a revised pit expansion concept that
  incorporates current palladium prices and foreign exchange rates, as well as improved long-term
  consensus palladium price forecasts that support lowering the Pd cut-off grade to 0.6 g/t;

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- Initial resource estimates for both the recently delineated Powerline and Upper Offset southeast extension zones; and
- Revision to the Sheriff Zone resource estimate based on the application of a lower Pd cut-off grade of 1.0 g/t, and the removal of the portion of the Powerline Zone resource that overlaps with the Sheriff Zone resource.

The net change to the LDI resource inventory in terms of contained palladium is an increase of 686,000 ounces, bringing the total measured and indicated resource at Lac des Iles to 71.5 million tonnes having an average grade of 1.98 g/t Pd and containing 4.54 million ounces of palladium. The components of this revised resource estimate are:

- Near surface measured and indicated resources of 35.6 million tonnes having a Pd grade of 1.28 g/t (1.46 million ounces of contained Pd);
- Underground Offset hangingwall zone measured and indicated resources of 7.6 million tonnes having a Pd grade of 4.36 g/t (1.07 million ounces of contained Pd); and
- Underground Offset and Roby footwall zones measured and indicated resources of 28.3 million tonnes having a Pd grade of 2.21 g/t (2.01 million ounces of contained Pd).

#### Mineral Reserves

The updated mineral reserve estimate presented in Table 1 is divided into the following categories: near surface (low grade stockpile and Roby Zone open pit) and underground (Offset hangingwall and Roby hangingwall). The only differences between the current reserve estimate and the previously published reserve estimate (see 2014 Technical Report) are:

- Depletion from mining activities in 2014 of Offset Zone reserves, RGO stockpile reserves and Roby hangingwall zone underground reserves; and
- Conversion of all RGO stockpile resources to reserves based on successful processing of this material in 2014.

Underground proven and probable reserves are restricted to the Roby and Offset hangingwall zones and total 8.2 million tonnes having an average diluted Pd grade of 3.82 g/t (1.0 million ounces of contained Pd) after adjusting for depletion from mining activities in 2014.

Near surface proven and probable reserves total 12.2 million tonnes with an average grade of 1.0 g/t Pd (390,000 ounces of contained Pd) after allowing for mining depletion in 2014 and the conversion of the RGO stockpile resources to reserves.

#### **Technical Information and Qualified Persons**

The content of this news release has been reviewed and approved by Dave Peck, P.Geo., the Company's Vice-President, Exploration, an employee of NAP and a Qualified Person as defined in National Instrument 43-101.

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 Lac des Iles mine ("LDI") located in Ontario, Canada since 1993. LDI is one of only two primary producers of palladium in the world, offering investors exposure to palladium. 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

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#### 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 Resource exists, or is economically or legally mineable.

#### **Cautionary Statement on Forward Looking Information**

Certain information contained 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. All statements other than statements of historical fact are forward-looking statements. The words 'will', 'expect', 'would', 'could', 'estimate' and similar expressions identify forward-looking statements. Forward-looking statements in this news release include, without limitation: any information as to future exploration results, statements with respect to the exploration potential of LDI, projected grades, information pertaining to the Company's strategy, plans or future financial or operating performance and other statements that express management's expectations or estimates of future performance. Forward-looking statements involve known and unknown risk factors 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 exploration targets may not meet management's expectations, uncertainty of mineral reserves and resources, metal price and foreign exchange rate volatility, the possibility that the LDI mine may not perform as planned, that the Company may not be able to obtain sufficient financing to meet its financial obligations as they become due. For more details on these and other risk factors see the Company's most recent Form 40-F/Annual Information Form on file with the SEC and Canadian provincial securities regulatory authorities.

Forward-looking statements are also 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 include, but are not limited to: that current estimates of mineral reserves and resources are accurate, that the Company's interpretations of the ore body are accurate, that the Company will be able to realize its assets and discharge its liabilities in the normal course of business, that metal prices and exchange rates between the Canadian and United States dollar will be consistent with the Company's expectations, that there will be no material delays affecting operations, and that prices for key mining and construction supplies will remain consistent with the Company's expectations. The forward-looking statements are not guarantees of future performance. 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.

**Figure 1.** Oblique longitudinal projection, looking west, of the Offset Zone deposit as outlined by selected current palladium grade shells, and relative to the position of the shaft and ramp system. The Lower Offset Zone below the 1065 meter level is open to the north and at depth and is completely untested south of the Camp Lake fault. The current limit of the hangingwall zone is approximated by the 2.25 g/t grade shell whereas the limit of the footwall zone resources is approximated by the 1.0 g/t Pd grade shell. **Click here** for access to figure 1.

**TABLE 1:** The effective dates for the reserve estimate and resource estimate are January 1, 2015 and February 2, 2015, respectively.

NEAR SURFACE RESERVES

Category/Source	Pd Cut-Off	Tonnes	Pd	Pt	Au	Ni	Cu	Pd Contained
Proven	(g/t)	(000's)	(g/t)	(g/t)	(g/t)	(%)	(%)	(000's oz)
Low-Grade Stockpile (RGO)	0.95	11,199	0.97	0.12	80.0	0.06	0.03	349
Roby Zone Open Pit	1.09	716	1.31	0.16	0.13	0.07	0.06	30

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Total Proven	-	11,915	0.99	0.12	0.08	0.06	0.03	379
Probable								
Roby Zone Open Pit	1.09						0.07	
Total Reserve	-	12,208	1.00	0.12	0.08	0.06	0.03	392
NEAR SURFACE RESOURCES (exclusive of reserves)								
Category/Source	Pd Cut-Off	Tonnes	Pd	Pt	Au	Ni	Cu	Pd Contained
Measured	(g/t)	(000's)	(g/t)	(g/t)	(g/t)	(%)	(%)	(000's oz)
Roby Zone Pit Expansion	0.60	20,108	1.23	0.17	0.10	0.07	0.05	795
Powerline Zone	1.00	251	3.04	0.22	0.12	0.06	0.04	25
Sheriff Zone	1.00	4,858	1.45	0.15	0.09	0.06	0.06	227
North VT Rim	1.00	437	2.03	0.12	0.03	0.03	0.01	29
Total Measured	-	25,654	1.30	0.17	0.10	0.06	0.05	1,076
Indicated								
Roby Zone Pit Expansion	0.60	,						372
Powerline Zone	1.00					0.05		5
Sheriff Zone	1.00					0.06		9
North VT Rim Total Indicated		14	•					1
		9,932	•					387
Total Measured + Indicated	-	35,586	1.28	0.17	0.10	0.07	0.05	1,463
Inferred	4.00		0.40	0.00		0.05	0.05	
Powerline Zone	1.00					0.05		
Sheriff Zone	1.00					0.07		
Total Inferred	1.00	530	1.66	0.21	0.10	0.07	0.07	
UNDERGROUND RESERVES - HANGINGWALL ZONES								
Category/Source	Pd Cut-Off	Tonnes	Pd	Pt	Au	Ni	Cu	Pd Contained
Proven	(g/t)	(000's)	(g/t)	(g/t)	(g/t)	(%)	(%)	(000's oz)
Offset Hangingwall Zone	2.60	3,660	3.95	0.28	0.28	0.11	80.0	465
Roby Hangingwall Zone	2.40	684	3.38	0.23	0.20	0.04	0.05	74
Total Proven	-	4,344	3.86	0.27	0.27	0.10	80.0	539
Probable								
Offset Hangingwall Zone	2.60	3,564	3.82	0.27	0.27	0.10	0.09	438
Roby Hangingwall Zone		251	•					
Total Probable	-	3,815	•					
Total Reserve	-	8,159	3.82	0.27	0.27	0.10	0.08	1,003
UNDERGROUND RESOURCES - HANGINGWALL ZONES (exclusive of reserves)								
Category/Source	Pd Cut-Off	Tonnes	Pd	Pt	Au	Ni	Cu	Pd Contained
Measured	(g/t)	(000's)	(g/t)	(g/t)	(g/t)	(%)	(%)	(000's oz)
Offset Hangingwall Zone	2.50	2,683	4.36	0.31	0.29	0.11	0.08	376
Indicated								
Offset Hangingwall Zone	2.50	4,952	4.36	0.31	0.30	0.12	0.09	694
Total Measured + Indicated	2.50	7,635	4.36	0.31	0.30	0.12	0.09	1,070
Inferred								
Offset Hangingwall Zone	2.50	4,581	3.90	0.27	0.25	0.10	0.09	
Upper Offset Southeast Extension	TBD	827	3.20	0.28	0.24	0.09	80.0	
Total Inferred	-	5,408	3.80	0.27	0.25	0.10	80.0	
UNDERGROUND RESOURCES - FOOTWALL ZONES (exclusive of reserves)								
Category/Source	Pd Cut-Off	Tonnoc	DΑ	Dŧ	Au	Nii	Cu	Pd Contained
Measured Measured		(000's)						(000's oz)
Offset Footwall Zone		10,584						755
Roby Footwall Zone		4,159						
Total Measured		14,743	-					
Indicated	1.50	. 1,1 40	20	0.22	J. 17	0.00	5.00	1,000
Offset Footwall Zone	1.50	11,163	2.10	0.21	0.15	0.08	0.07	754
Roby Footwall Zone		2,341						
Total Indicated		13,504	•					
Total Measured + Indicated		28,247	_					
	1.50			V. <u>~</u> I	J. 10	5.00	0.00	

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Inferred

 Offset Footwall Zone
 1.50
 8,853
 2.05
 0.16
 0.12
 0.07
 0.06

 Roby Footwall Zone
 1.50
 248
 2.43
 0.18
 0.08
 0.03
 0.02

 Total Inferred
 1.50
 9,101
 2.06
 0.17
 0.12
 0.07
 0.06

COMBINED RESERVES AND RESOURCES - ALL SOURCES

 Category/Source
 Tonnes
 Pd
 Pt
 Au
 Ni
 Cu
 Pd Contained

 Sub-Category
 (000's) (g/t) (g/

#### Notes for Table 1

- All reserve and resource estimates were 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. US investors should refer to the Annual Information Form for an overview on how Canadian Standards differ significantly from US requirements.
- 2. Resources listed in Table 1 are exclusive of reserves. Resources and reserves reflect depletion from mining activities to December 31, 2014.
- 3. The estimation of mineral reserves and mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
- 4. The mineral reserves were estimated from geological block models provided by Denis Decharte P.Eng. and from RGO stockpile resource information provided by Dave Penna, P. Geo., employees of North American Palladium (NAP) and qualified persons (QPs) under NI 43-101.
- 5. 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.
- 6. Tonnages are rounded to nearest '000 tonnes. Pd, Pt and Au grades are rounded to nearest .01 g/t. Ni and Cu grades are rounded to nearest .01%. Rounded numbers were used to calculate contained Pd (oz) and average resource and reserve tonnages.
- 7. The mineral reserves are based on the estimates, metal price assumptions, and exchange rates provided in the March 21, 2014 NI 43-101 Technical Report entitled "Technical Report for Lac des Iles Mine, Ontario Incorporating Prefeasibility Study for Life of Mine Plan" (US\$700/oz palladium, US\$1,453/oz platinum, US\$1,320/oz gold, US\$6.47/lb nickel, and US\$3.26/lb copper. A CDN\$/US\$ exchange rate of CDN\$1.00 = US\$0.95 was also applied). The reserves have been updated to account for mining depletion that occurred in 2014 as well as conversion of RGO stockpile resources to reserves. Mining depletion estimates were prepared by David N. Penna, P.Geo. and QP.
- 8. Reserves are estimated to the 1065 Mine Level (4,435 metre elevation), a maximum depth of 1,072.5 metres. The effective date of the Lac des lles Mine resource models that were used in the estimation of the current reserves for the Offset and Roby zones is December 31, 2013, as prepared by Denis Decharte P.Eng. and QP.
- 9. The mineral resource for the Offset hangingwall and footwall zones was estimated as of December 31, 2014 by Denis Decharte P.Eng. and QP. The mineral resource calculation uses a minimum 2.5 g/t palladium resource block cut-off for the hangingwall zone and a minimum 1.5 g/t palladium resource block cut-off for the footwall zone. The mineral resource estimate is based on the combination of geological modeling, geostatistics and conventional block modelling (5m by 5m by 5m blocks). 1m composite intervals were used with a grade capping at 30 g/t for palladium and 3 g/t for gold. Grade capping was determined not to be necessary for others metals. The Offset Zone resource models used the ordinary kriging (OK) grade interpolation method within a 3D block model with mineralized zones defined by wireframe solids. The mineral resource is exclusive of mineral reserve and mined-out material as of December 31, 2014.
- 10. The mineral resource for the Upper Offset southeast extension zone was estimated as of December 31, 2014 by Denis Decharte P.Eng. and QP. The mineral resource calculation was constrained by a 2.0 g/t Pd grade shell and with no Pd cutoff grade applied. The mineral resource estimate is based on the combination of geological modeling, geostatistics and conventional block modelling (5m by 5m by 5m blocks). 1m composite intervals were used. Grade capping was determined not to be necessary. The Upper Offset southeast extension zone resource model used the inverse distance squared (ID 2) grade interpolation method within a 3DI block model. The mineral resource is exclusive of mineral reserve and mined-out material as of December 31, 2014.
- 11. The mineral resource for the Roby footwall zone was estimated as of December 31, 2013 by Denis Decharte P.Eng. and QP. The mineral resource calculation uses a minimum 1.5 g/t palladium resource block cut-off. The mineral resource estimate is based on the combination of geological modeling, geostatistics and conventional block modelling (5m by 5m by 5m b) csp.). Grade capping was determined not to be necessary, however influence of composite intervals with palladium grade higher than 50 g/t were limited in space. The Roby Zone resource models used the ordinary kriging (OK) grade interpolation method within a 3D block model with mineralized zones defined by wireframe solids. The mineral resource is exclusive of mineral reserve and mined-out material as of December 31, 2014.
- 12. The mineral resource for the Powerline Zone was estimated as of February 2, 2015 by Chris Roney, P.Geo. and QP, a private consultant to the Company. This resource estimate was based on a 1.0 g/t Pd cut-off grade. The Powerline Zone mineral resources were estimated from drilling completed to December 31, 2014. The mineral resource uses a minimum 1.0 g/t Pd resource block cut-off. The mineral resource estimate is based on the combination of geological modeling, geostatistics and conventional block modeling (10m x 10m x 10m blocks). The Powerline Zone resource models used the Ordinary Kriging grade interpolation method.
- 13. The mineral resource for the Sheriff Zone is based on estimates originally provided in the Company's September 5, 2013 press release, adjusted to a cut-off grade of 1.0 g/t Pd and to account for the overlap with the preliminary resource estimates for the Powerline Zone by Chris Roney, P.Geo. and QP.
- 14. The mineral resource for the North VT Rim zone was estimated as at December 31st, 2013 by Chris Roney, P.Geo. and QP.
- 15. Mineral resource estimates for the low-grade stockpile (RGO) shown in the Company's March 21, 2014 statement of mineral reserves and mineral resources were converted to proven mineral reserves, under the direction of David N. Penna, P.Geo. and QP.

# Table 2. Comparison Between 2014 and 2015 Reserve and Resource Estimates for the Lac des Iles Mine Property.

Near Surface Sources				March 2014			February 2015		Change
		Tonnes	Pd Grade	Pd Contained	Tonnes	Pd Grade	Pd Contained	Pd Contained	Pd Contained
Source/Zone	Category	(000's)	(g/t)	(000's oz)	(000's)	(g/t)	(000's oz)	(000's oz)	(% difference)
Low-Grade Stockpile (RGO)	P&P Reserve	4,876	0.97	152	11,199	0.97	349	197	129.5
Low-Grade Stockpile (RGO)	M&IND Resource	7,679	0.97	239	0	0.97	0	-239	-100.0
Roby Zone Open Pit	P&P Reserve	1,009	1.33	43	1,009	1.33	43	0	0.0

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					-				
Roby Pit Expansion	M&IND Resource	15,869	1.58	804	29,742	1.22	1,167	363	45.1
Sheriff and Powerline Zones	M&IND Resource	1,760	2.05	116	5,394	1.53	266	150	129.3
North VT Rim	M&IND Resource	451	2.02	30	451	2.02	30	0	0.0
Total Near Surface Reserves	P&P Reserve	5,885	1.03	195	12,208	1.00	392	197	101.0
Total Near Surface Resources	M&IND Resource	25,759	1.44	1,189	35,587	1.28	1,463	274	23.0
Underground Sources		March 2014			n		February 2015		Change
		Tonnes	Pd Grade	Pd Contained	Tonnes	Pd Grade	Pd Contained	Pd Contained	Pd Contained
Source/Zone	Category	(000's)	(g/t)	(000's oz)	(000's)	(g/t)	(000's oz)	(000's oz)	(% difference)
Roby Hangingwall Zone	P&P Reserve	1,098	3.43	121	935	3.32	100	-21	-17.4
Roby Footwall Zone	M&IND Resource	6,500	2.40	501	6,500	2.40	501	0	0.0
Offset Hangingwall Zone	P&P Reserve	8,063	3.95	1,025	7,224	3.89	903	-122	-11.9
Offset Hangingwall Zone	M&IND Resource	5,652	4.25	773	7,635	4.36	1,070	297	38.4
Offset Footwall Zone	M&IND Resource	19,821	2.19	1,393	21,747	2.16	1,509	116	8.3
Total Underground Reserves	P&P Reserve	9,161	3.89	1,146	8,159	3.82	1,003	-143	-12.5
Total Underground Resources	M&IND Resource	31,973	2.60	2,667	35,882	2.67	3,080	413	15.5
Combined Surface and Underground Sources				March 2014			February 2015		Change
		Tonnes	Pd Grade	Pd Contained	Tonnes	Pd Grade	Pd Contained	Pd Contained	Pd Contained
Source/Zone	Category	(000's)	(g/t)	(000's oz)	(000's)	(g/t)	(000's oz)	(000's oz)	(% difference)
All Zones	P&P Reserve	15,046	2.77	1,341	20,367	2.13	1,395	54	4.0
All Zones	M&IND Resource	57,732	2.08	3,856	71,469	1.98	4,543	686	17.8
All Zones	Inferred Resource	15,720	2.77	-	15,039	2.67	-	-	

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