

North American Palladium

The *Only* Pure Play Palladium Producer

TSX:PDL | OTC:PALDF

2018 Investor Presentation



Disclaimers and Forward-Looking Information

All dollar amounts shown are in Canadian dollars unless otherwise stated

Certain information contained in this presentation constitutes 'forward-looking statements' or 'forward-looking information within the meaning of applicable Canadian securities laws. All statements other than statements of historical fact are forward-looking statements. The words 'target', 'plan', 'should', 'could', 'estimate', 'guidance', and similar expressions identify forward-looking statements. Forward-looking statements in this presentation include, without limitation: information pertaining to North American Palladium Ltd. (the "Company")'s strategy, plans or future financial or operating performance, such as statements with respect to, long term fundamentals for the business, operating performance expectations, project timelines, tailings management plan, mining method change, production forecasts, operating and capital cost estimates, expected mining and milling rates, cash balances, projected grades, mill recoveries, metal price and foreign exchange rates 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 metal prices and foreign exchange rates may fluctuate, the risk that the Lac des Iles ("LDI") mine may not perform as planned, that the Company may not be able to meet production forecasts, the possibility that the Company may not be able to generate sufficient cash to service its indebtedness and may be forced to take other actions, inherent risks associated with development, exploration, mining and processing including environmental risks and risks to tailings capacity, employment disruptions, including in connection with collective agreements between the Company and unions and the risks associated with obtaining necessary licenses and permits. For more details on these and other risk factors see the Company's

most recent Management's Discussion and Analysis report and Annual Information Form on file with Canadian securities regulatory authorities on SEDAR at www.sedar.com under the heading "Risk Factors".

This presentation also contains references to estimates of mineral resources and mineral reserves. The estimation of mineral resources is inherently uncertain and involves subjective judgments about many relevant factors. Mineral resources that are not mineral reserves do not have demonstrated economic viability. The accuracy of any such estimates is a function of the quantity and quality of available data, and of the assumptions made and judgments used in engineering and geological interpretation (including estimated future production from the LDI mine, the anticipated tonnages and grades that will be mined and the estimated level of recovery that will be realized), which may prove to be unreliable and depend, to a certain extent, upon the analysis of drilling results and statistical inferences that may ultimately prove to be inaccurate. Mineral resource or mineral reserve estimates may have to be re-estimated based on: (i) fluctuations in the price of platinum; (ii) results of drilling, (iii) metallurgical testing and other studies; (iv) mining operations, including dilution; (v) the evaluation of mine plans subsequent to the date of any estimates; and (vi) the possible failure to receive required permits, approvals and licenses or changes to existing mining licences.

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 presentation, which may prove to be incorrect, include, but are not limited to: that the Company will be able to continue normal business operations at its

LDI mine, 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 significant disruptions affecting operations, and that prices for key mining and construction supplies, including labour, 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.

Investing in the Company's common shares involves significant risks. Prospective investors should carefully read and consider the risk factors described or referenced under the heading "Risk Factors" in the final base shelf prospectus, contained in any of the documents incorporated by reference therein, and in any applicable prospectus supplement, before purchasing common shares.

The Company prepares and presents its financial statements in accordance with IFRS. Certain financial measures highlighted in this presentation are financial measures that have not been prepared in accordance with IFRS. For a definition and reconciliation of these non-IFRS financial measures to the nearest IFRS financial measures, please refer to the appendix to this presentation. Such non-IFRS financial measures are used from time to time herein but should not be viewed as a substitute for IFRS measures of performance and others in the industry may define these measures differently.

Investment Summary

The Only Pure Play Palladium Producer

Lac des Iles mine ("LDI") re-engineered into a strong operating cash flow generator

- Five consecutive quarters of positive earnings.
- Adjusted EBITDA of \$65.6 million for the first half of 2018.
- Adjusted EBITDA of \$86.2 million in 2017.
- Improved key financial metrics in 2018 Feasibility Study; including total revenue of \$3.64 billion, total EBITDA¹ of \$1.51 billion and after-tax NPV_(8%) of \$637 million, generated by an average operating margin of 43% (\$37.86 per tonne of ore milled).

Primary palladium mine in a low risk jurisdiction

- NAP is the only pure play palladium producer in the world.
- Located in Canada, a proven mining-friendly jurisdiction.
- ~80% of global palladium production is from higher-risk regions (South Africa and Russia).

World-class PGM exploration portfolio

- Ideal balance of early-stage and advanced greenfields properties and brownfields resource delineation targets.
- Brownfields opportunities continue to replace reserves at a very low cost.
- Several currently active greenfields exploration targets, providing encouraging results.

Favourable palladium market fundamentals

- Long-term analysts' consensus continues to forecast a supply deficit, driven by a lack of new primary production, and potential significant supply risks from declining South African production.
- Tightening global emission standards, the shift from diesel to gasoline powered vehicles, and the growth of hybrid sales support increased global consumption of palladium.
- Analysts are forecasting strong palladium pricing >US\$1,000/oz through 2021².

(¹Non-IFRS measure. ²Bloomberg)

Company Overview

Strong Cash Flow | Improved Balance Sheet | Strategic Process Underway

- The Lac des Iles mine is located 90km northwest of Thunder Bay, with all season road access.
- Existing producer with over 25 years in operation, with 15,000 tpd mill facility.
- New Feasibility Study and Technical Report published in October 2018, outlining a 9 year mine life:
 - 40.9 million tonnes of underground and surface reserves at an average palladium grade of 2.31 g/t.
 - Developing a second, bulk mining area to extract maximum value from several near-surface resources.
- Current management team, with the support of Brookfield (92% shareholder), completed the turnaround of the Company by:
 - Substantially improving operating performance; and
 - De-levering the balance sheet.



Capital Structure

(as at September 18, 2017)

Shares Outstanding	58.1 million
Options Granted	1.5 million
Share Price	\$9.03
Market Capitalization	\$525 million
Cash	\$33 million
Debt ¹	\$76 million
Enterprise Value	\$568 million

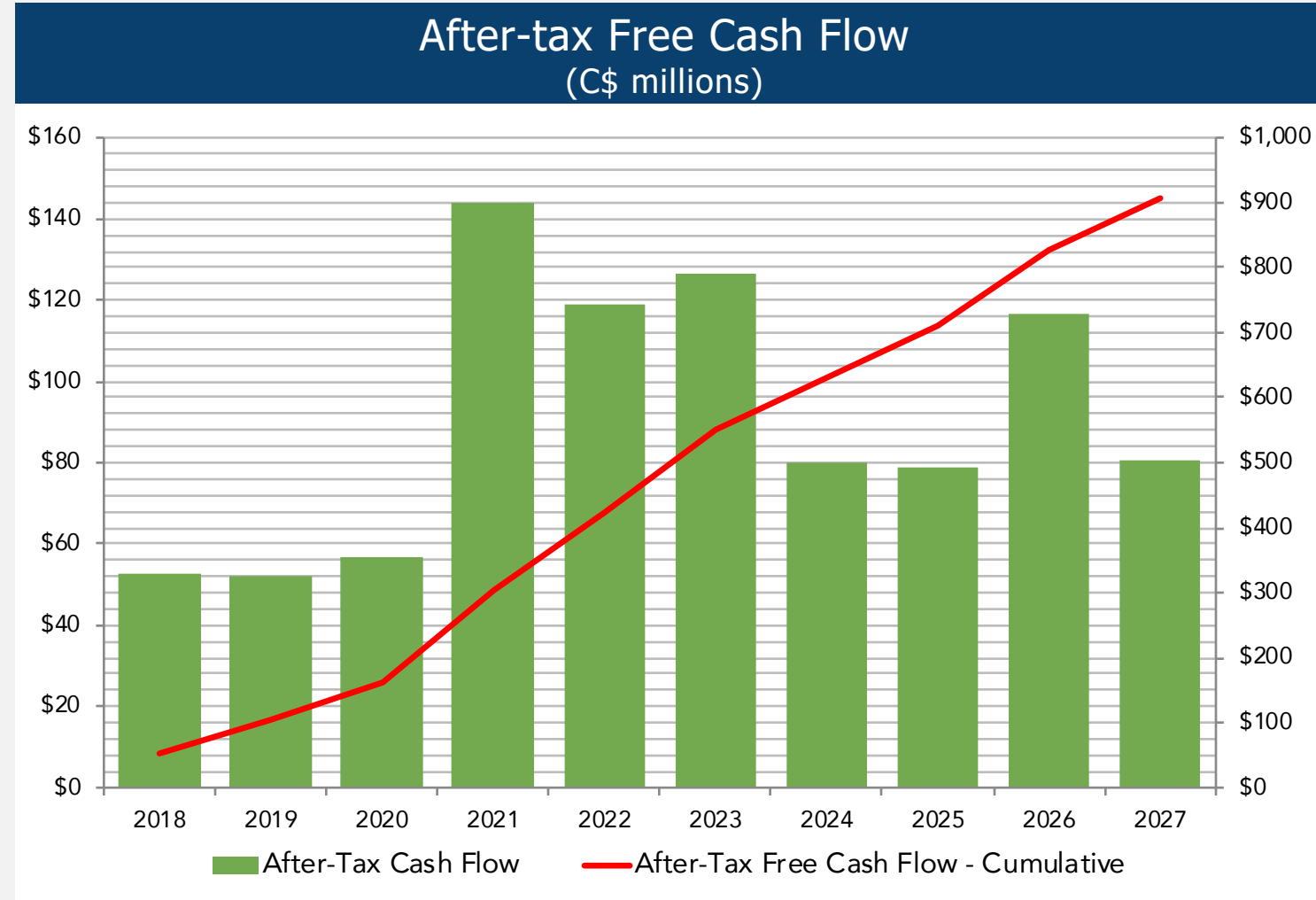
(¹Debt includes senior secured term loan (\$45.5mm), credit facility (\$14.0 mm) and capital leases (\$16.4mm).)

National Instrument 43-101

Released September 2018

Palladium Reserves (Contained)	3.038 M oz
Palladium Reserve Grade	2.31 g/t
Total Ore Reserves	40.9 M tonnes
Total Underground Ore Reserves	37.1 M tonnes
Average ¹ Mill Throughput	12,238 tpd
Average Palladium Recovery	81.3%
Total Payable Palladium Production	2.32 M oz
Average ¹ Payable Palladium Production	255,000 oz
Mine Life	9 years
Average ¹ Cash Costs ²	US\$504 per oz
Total Capital Expenditures	\$425 M
Average ¹ All-Inclusive Sustaining Costs ²	US\$622 per oz
EBITDA	\$1,505 M
After-tax cash flow	\$909 M
After-tax NPV _(8%)	\$637 M

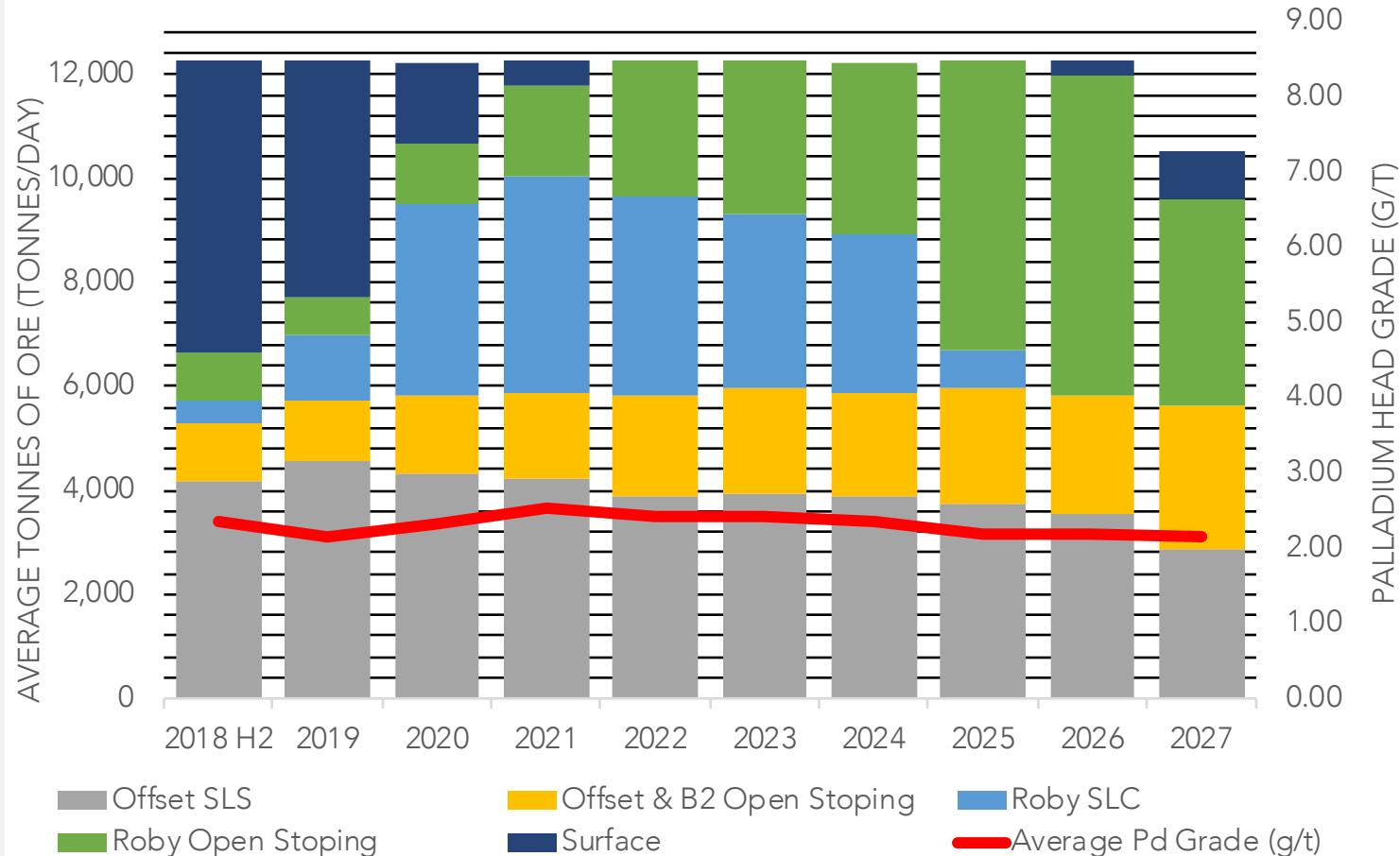
(¹Based on full production years 2019-2026. ²Net of by-product revenue.)



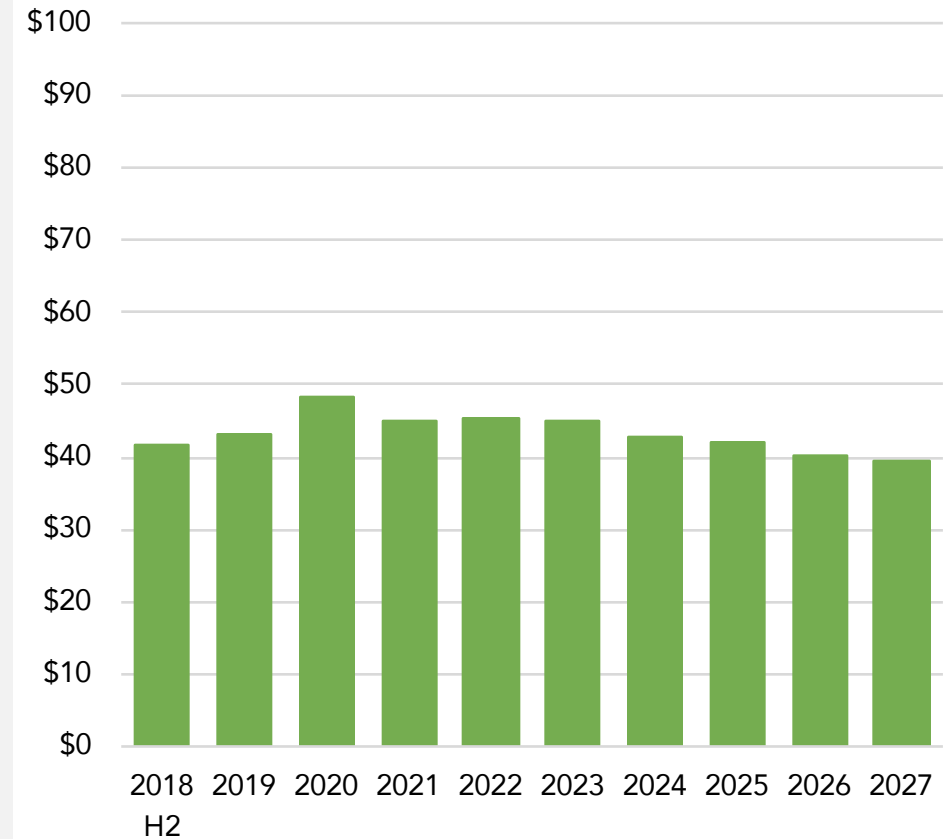
National Instrument 43-101

One of Canada's Largest, Low Cost Underground Mines

Ore Source and Grade



Production Costs¹ (\$/tonne ore milled)

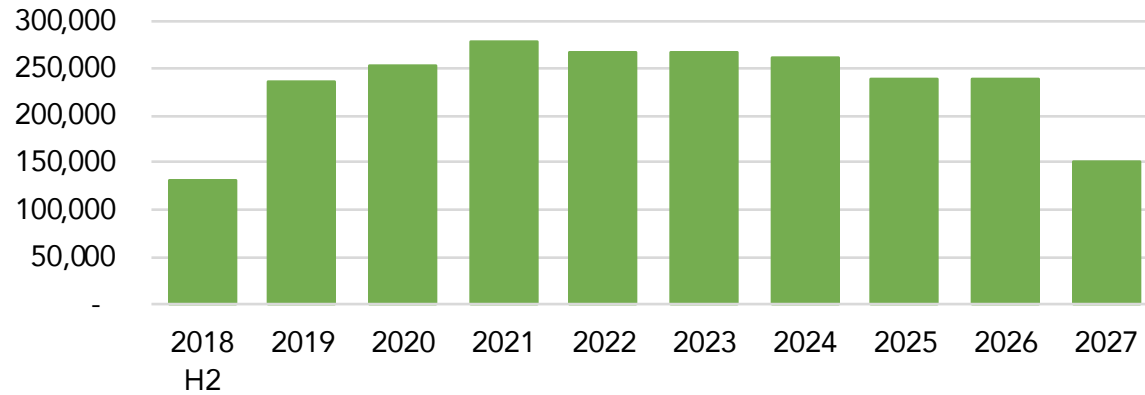


(¹Includes mining, milling and site G&A)

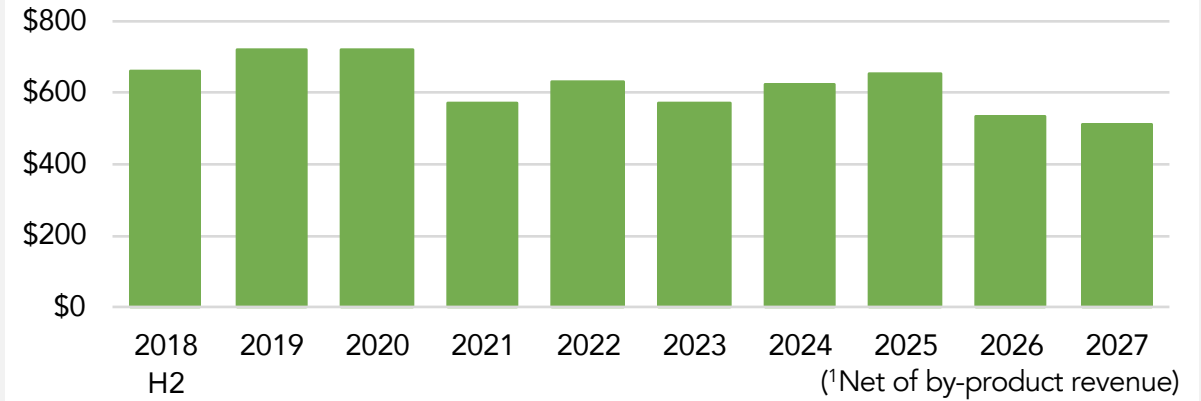
National Instrument 43-101

Financial Results

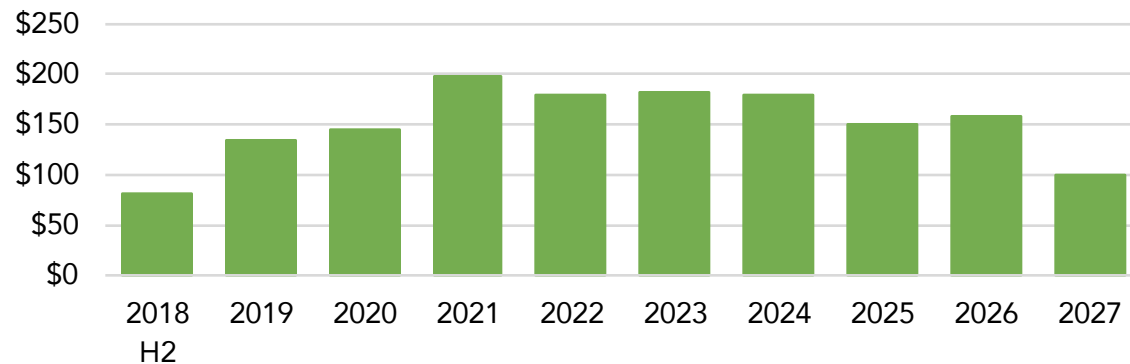
Payable Palladium (ounces)



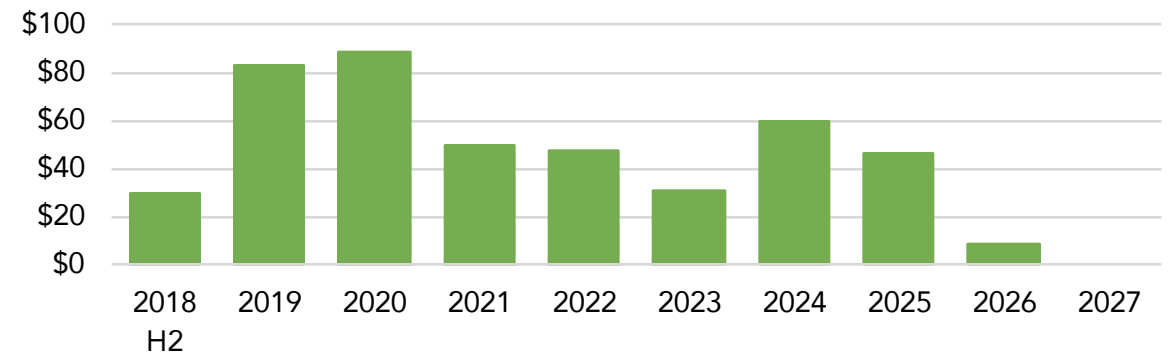
AISC¹ (US\$/oz Pd)



EBITDA (C\$ millions)



Capital Costs (C\$ millions)



Mine Reserves

Multiple Ore Sources

Offset Block

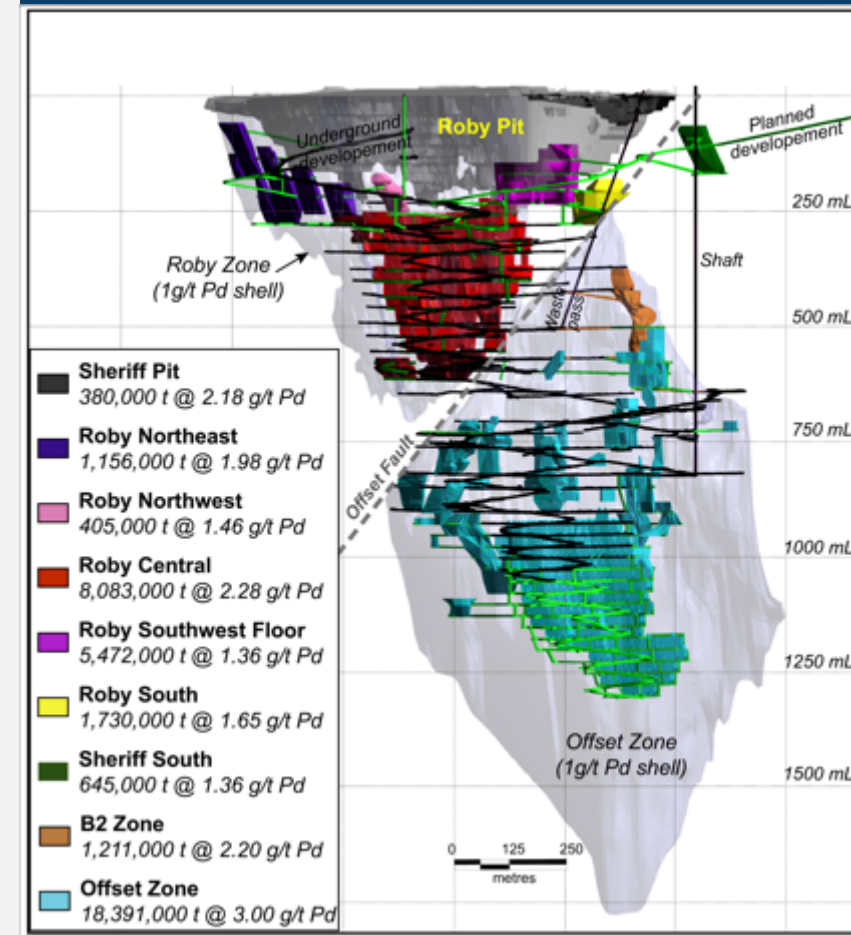
- Continued focus on sub-level shrinkage mining of the best grade-thickness ore.
- Supplemental feed from B2 zone (remains open) and Sheriff South.

Roby Block

- New mass mining approach will extract more of the better-grade resources below the Roby pit.
- Augmented by new production from the extremities of the Roby deposit.

Reserves	Category	Tonnes (000's)	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)	Contained Pd Ounces (000's)
Offset Block	Proven	3,089	2.30	0.214	0.164	0.05	0.07	228
Underground	Probable	17,159	3.01	0.243	0.240	0.08	0.10	1,661
Roby Block	Proven	2,279	1.76	0.198	0.118	0.04	0.04	128
Underground	Probable	14,569	1.89	0.192	0.132	0.05	0.05	886
Roby Block	Proven	300	1.94	0.164	0.099	0.05	0.06	18
Surface (Sheriff North Zone)	Probable	80	3.11	0.217	0.061	0.04	0.05	8
Low-Grade Stockpile	Probable	3,399	0.970	0.120	0.080	0.03	0.06	106
TOTAL RESERVE	2P	40,877	2.31	0.209	0.174	0.06	0.07	3,038

Longitudinal View – Looking East



Exploration - Underground Targets

On-Going Expansion of Existing Reserves

Offset South

- Resource gains from 2017 and 2018 are currently being quantified.
- New high-grade mineralization identified in Q2 2018.

Camp Lake

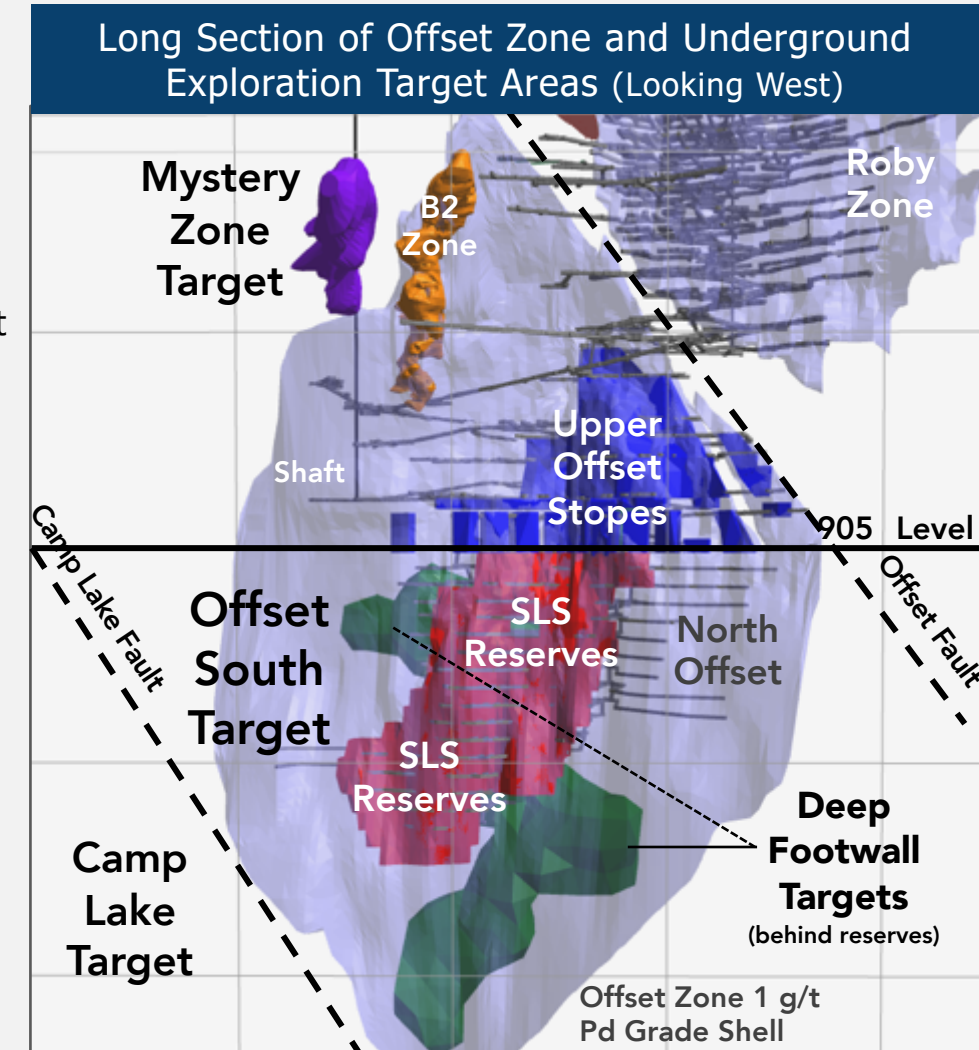
- Down plunge extension of the Offset Zone but difficult to reach from current ramp.
- Construction of a new exploration drift is planned for 2019 to effectively explore.

Mystery Zone

- Confirmed as a satellite ore zone, detached from the Roby and Offset deposits.
- Exploration drilling to resume in Q4 2018 to assess size and grade potential.

Deep Footwall

- Drilling commenced in Q3 2018 on this large target located ~150m into the footwall.
- Goal is to discover a parallel zone to the Offset Zone with thick, high-grade areas.



Exploration – Surface Brownfields

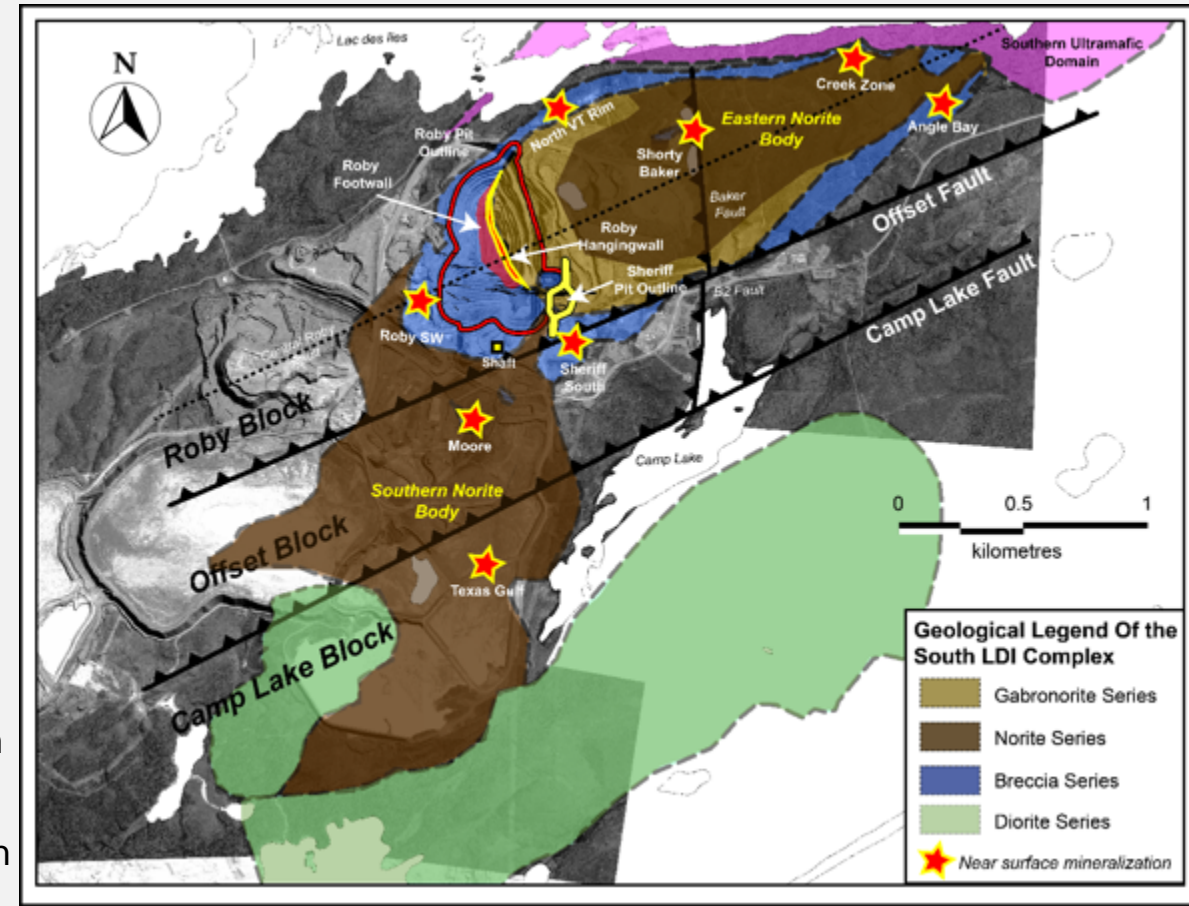
Several High Potential Targets

East Mine Block

- Highest potential exploration targets on the property.
- High-grade palladium mineralization discovered at Creek Zone in Q2 2018 includes higher copper and nickel grades than the Offset zone.
- 3D modeling suggests the presence of one or more mineralized feeder structures and a similar geological environment to Roby-Offset.
- New geophysical survey program in Sept/Oct 2018 designed to map out large, metal-rich sulfide zones to several hundred metres depth.
- Expect to generate many new drill targets from this program.

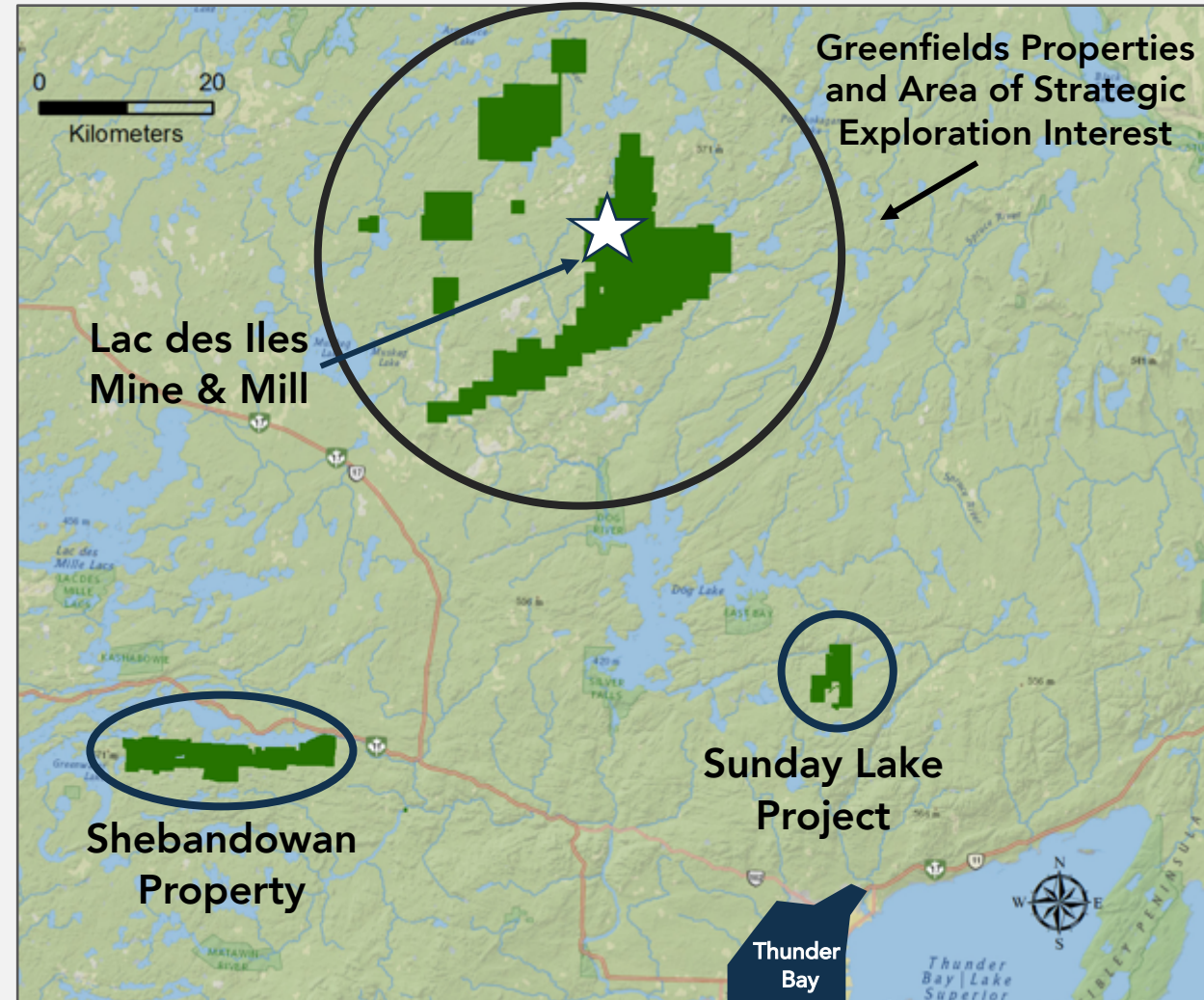
South Mine Block

- The presence of thick areas of base metal-rich sulfide mineralization was confirmed in 2017 but the sulfides have low PGE grades.
- Best potential is along the east of the southern norite, directly south of the Sheriff South Zone.



Exploration - Greenfields

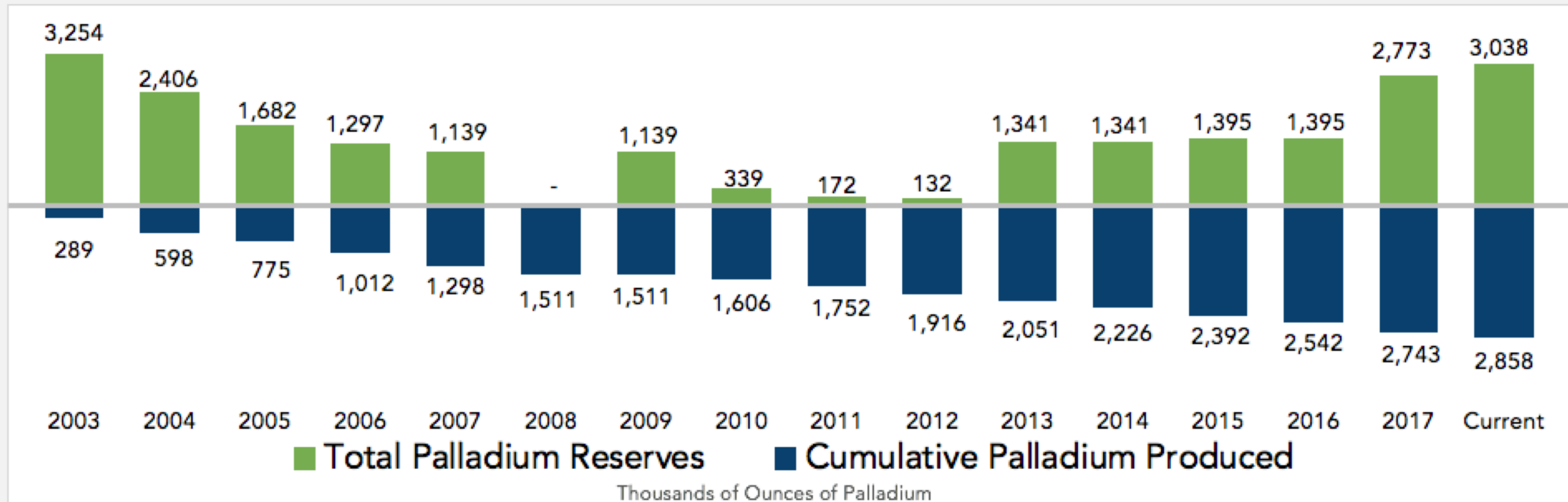
- Low risk jurisdiction.
- Reflects many years of strategic land acquisitions.
- Applying modern geophysical and geochemical methods and new LDI deposit model to unlock value.
- Encouraging results from first program on the Sunday Lake option; massive sulfide potential remains a focus.
- Planned expenditures of several million dollars per year for Brownfields and Greenfields exploration.



Mine Life

Reserve Replacement

- LDI has maintained a track record of reserve replacement, growing palladium reserves above the depletion rate.
- Management expects this trend to continue with sustained investment in exploration.



Management

Overview



Jim Gallagher
President & Chief
Executive Officer

Jim Gallagher is a Professional Mining Engineer with over 35 years of experience in the mining industry which includes progressive roles in operations management, technical services, consulting and projects. During a 24 year career at Falconbridge and 8 years as Global Director of Mining for Hatch, Mr. Gallagher has had the opportunity to work for or benchmark some of the largest and most complex mines and mining projects around the world. He is a visionary leader who believes in cultural evolution as the means to achieving excellence in safety and operations. Mr. Gallagher joined NAP in October of 2013 as Chief Operating Officer and was instrumental in an operational turnaround at the Lac des Iles site. He was appointed President and Chief Executive Officer in August of 2015. Mr. Gallagher holds a Bachelor of Engineering degree from Laurentian University in Sudbury, Canada. Mr. Gallagher is currently a Director of Continental Gold Inc.



Timothy Hill
Vice President, Finance
& Chief Financial Officer

Timothy Hill joined North American Palladium in 2015 as Director of Business Improvement and was appointed to the position of Vice President, Finance and Chief Financial Officer on August 4, 2016. Mr. Hill plays a leading role in securing funding for North American Palladium's growth and is responsible for the Company's financial reporting and disclosure practices, corporate treasury, financial planning and information technology. Mr. Hill is a finance professional with 19 years of experience in the mining industry. Prior to joining North American Palladium, Mr. Hill held a series of progressively senior positions at Vale Canada Ltd. in operations, finance and business planning for the North Atlantic base metals business. Mr. Hill is a Chartered Public Accountant and a Certified Management Accountant and holds a MSc. (Finance) from Queen's University Belfast and a BSc. (Economics) from the University of Victoria.



David Peck
Vice President,
Exploration

Dr. David Peck is a Professional Geoscientist with over 30 years of exploration and applied research experience specializing in magmatic Ni-Cu-PGE ore deposits. Prior to joining NAP, Dr. Peck operated an independent geoscience consulting business, was President and co-founder of Revelation Geoscience Ltd., spent several years as Global Nickel Commodity Leader at Anglo American plc and worked as a mineral deposits geologist in both the government and academic sectors. He received a Ph.D. degree in Geology from Melbourne University and holds a M.Sc. degree in Geology from the University of Windsor.

Learn More

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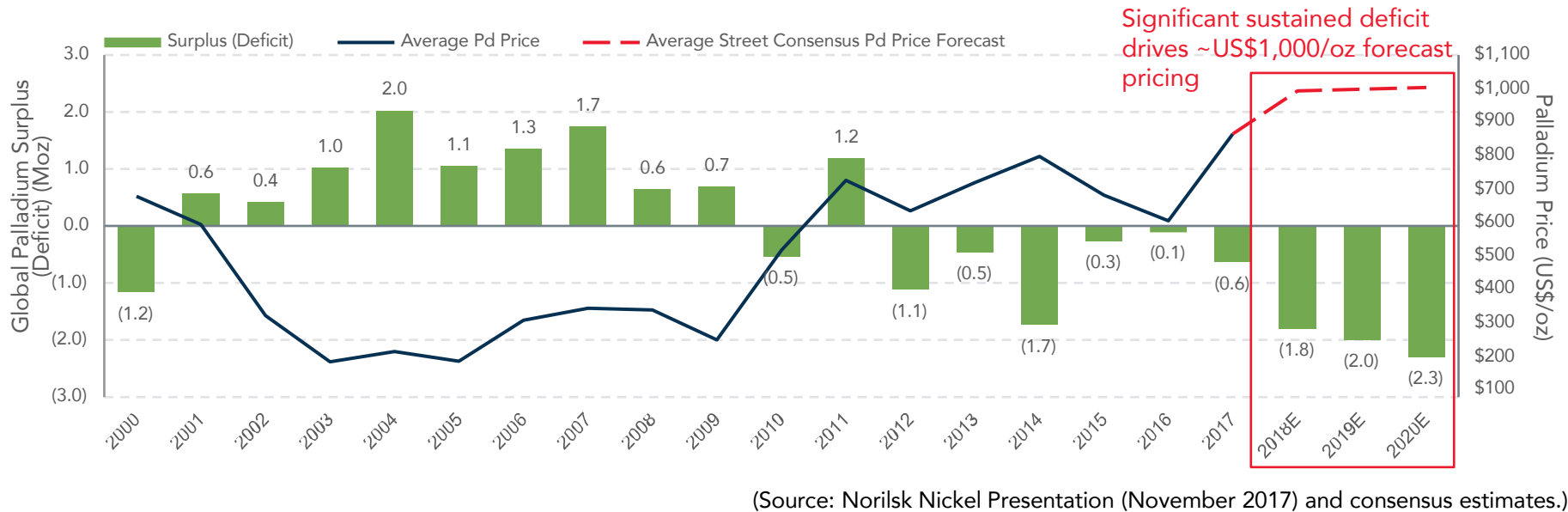


Palladium Supply and Demand Balance

Market Deficiency Expected to Continue

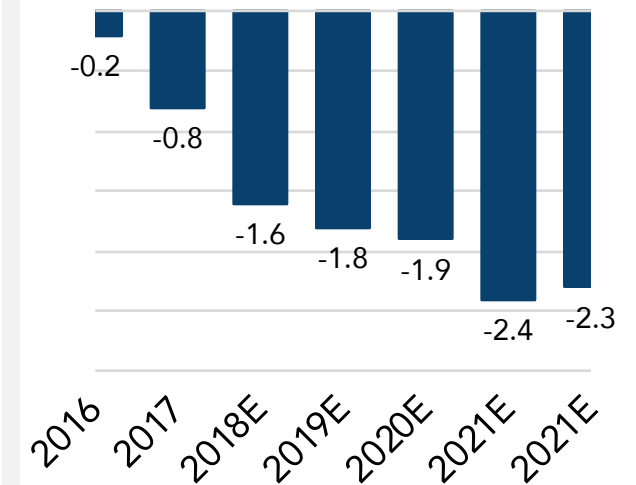
- Significant deficit in palladium supply/demand market balance expected for the foreseeable future.
- Deficit situation echoed by multiple industry participants and research analysts.

Major Structural Deficit in Global Palladium Market Expected to Persist



HSBC Forecasted Palladium Market Deficit

Global Palladium Surplus (Deficit) (Moz)

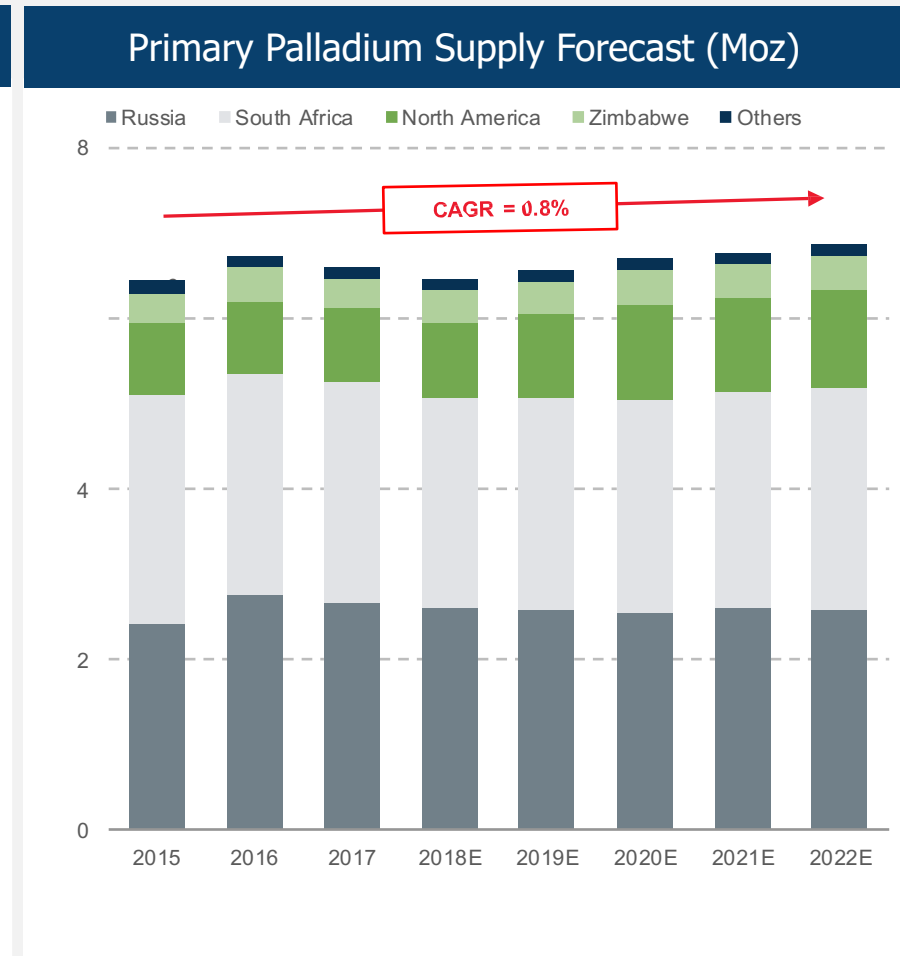
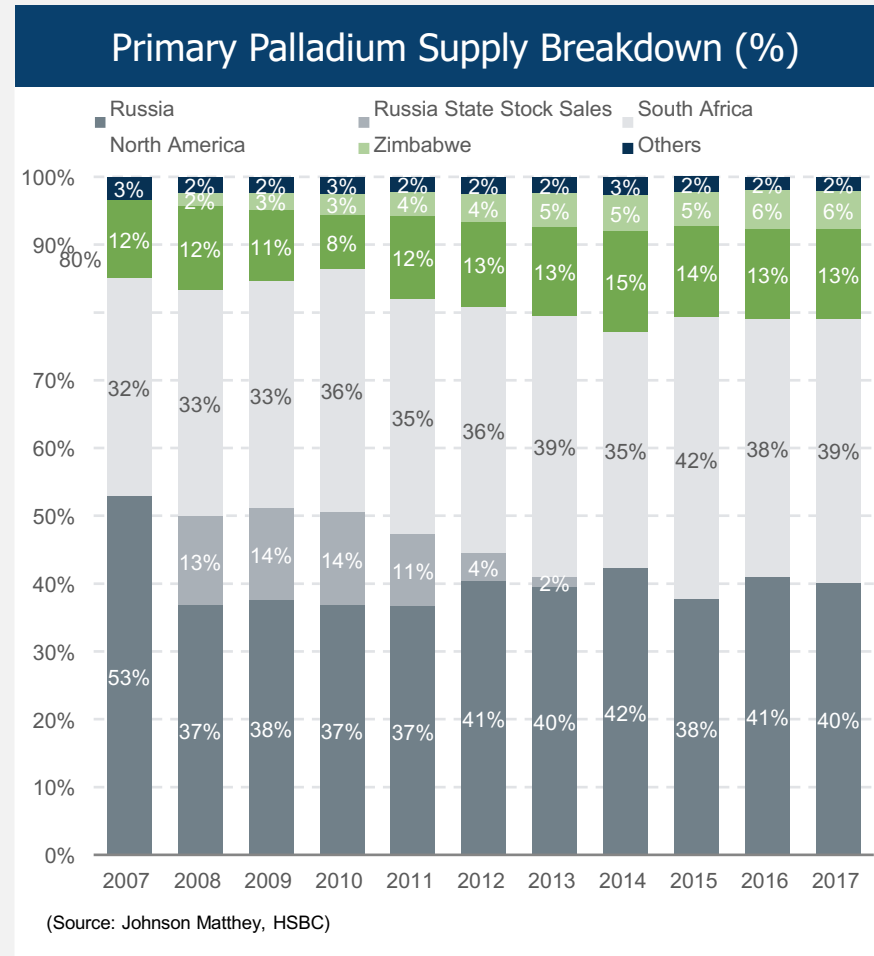


(Source: HSBC research.)

Palladium Supply

Limited Primary Supply From Low-risk Jurisdictions

- Palladium supply is largely linked to the primary base metal production from Russia and North America and primary platinum production from South Africa.
- ~80% of primary palladium supply comes from regions with high political risk (Russia and South Africa).



Palladium Demand

Automobile Sales Growth to Further Drive Demand

Key Drivers of Palladium Demand



Growth of SUV market share / increase in engine size



Strengthening emissions legislation worldwide



Diesel substitution by gasoline vehicles in Europe



Sustainable global automotive growth

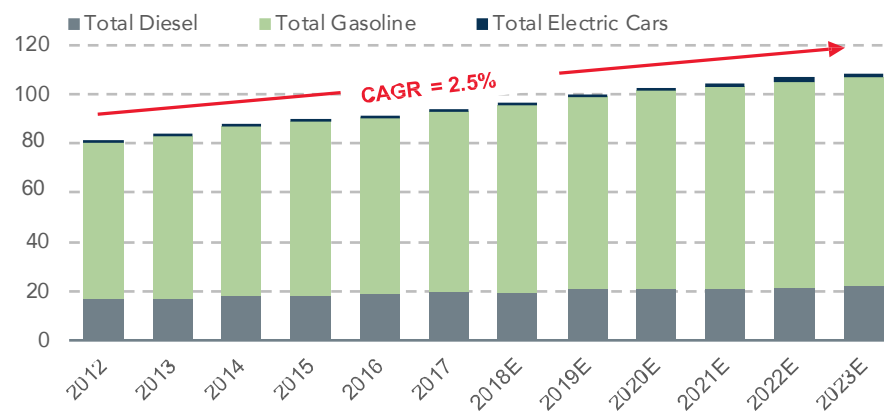


Growth of hybrid vehicle market worldwide

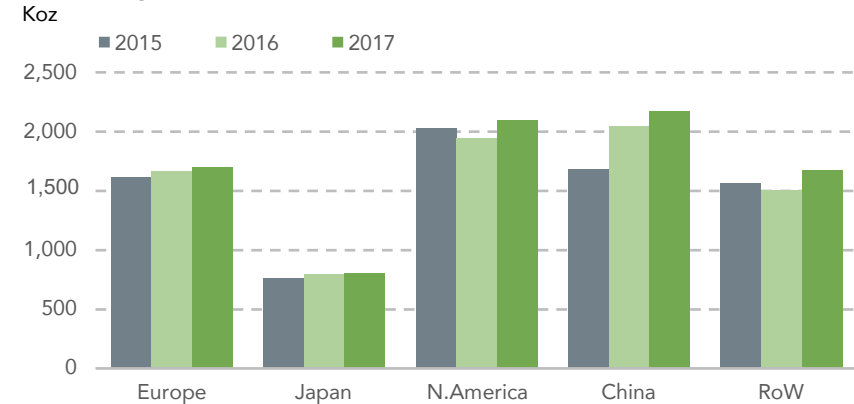
Global Automobile Demand Expected to Grow...

...With Meaningful Increases in Autocatalyst Demand

Global Automobile Sales
Millions of Cars



Autocatalyst Demand for Palladium



(Sources: Bloomberg New Energy Finance; HIS)