PALADIN ENERGY LTD

PREFEASIBILITY STUDY OUTCOMES

14 October 2019

ASX: PDN

DISCLAIMER AND NOTES

JORC AND NI 43-101 MINERAL RESOURCES AND ORE RESERVES

This presentation contains summary information about the Company's activities current as at the date of this presentation. The information in this presentation is of a general background nature and does not purport to be complete or contain all the information investors would require to evaluate their investment in the Company, nor does it contain all the information which would be required in a prospectus or product disclosure statement prepared in accordance with the Corporations Act 2001 (Cth). The Company is not responsible for updating, nor undertakes to update, this presentation. This presentation should be read in conjunction with the Company's other periodic and continuous disclosure announcements, available at http://www.paladinenergy.com.au.

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In this presentation, for those deposits that are reported as conforming to the Joint Ore Reserves Committee (JORC) 2004 or 2012 code, the terms Inferred Mineral Resources, Indicated Mineral Resources, Measured Mineral Resources, Ore Reserves, Proved Ore Reserves, Probable Ore Reserves and Competent Person are equivalent to the terms Inferred Mineral Resources, Indicated Mineral Resources, Measured Mineral Resources, Mineral Reserves, Proven Mineral Reserves, Probable Mineral Reserves and Qualified Person, respectively, used in Canadian National Instrument 43-101 (NI 43-101).

The information in this presentation relating to the Mineral Resources and Ore Reserves for all of the Company's deposits other than Langer Heinrich, Michelin, Jacques Lake and Manyingee was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that this information has not materially changed since it was last reported. Refer to the Resource and Reserve Tables slide in the Appendix of this presentation.

Competent Persons Statement

The Mineral Resource estimates for the Langer Heinrich deposit were prepared by David Princep of Gill Lane Consulting. Mr. Princep has visited the Project on numerous occasions since 2003, with the most recent being in July 2016. Mr. Princep is a Fellow of the Australasian Institute of Mining and Metallurgy and a Chartered Professional Geologist. Mr. Princep has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC 2012). Mr Princep approves of and consents to the inclusion of the information in this announcement in the form and context in which it appears.

A FIRST PRODUCER IN A RECOVERED URANIUM MARKET

LANGER HEINRICH

A LOW COST, LONG LIFE URANIUM MINE

WE ARE NOT STANDING STILL…

WE ARE PLANNING FOR A RAPID, RELIABLE RESTART

Verify C&M practices to ensure asset is preserved for low-cost restart

Learn from 10 years of operation to ensure restart is safe, predictable and successful. Verify rights and obligations

Define further potential improvements and cost reduction initiatives to enhance value. Aspirational achievable target AISC[1] US$30/lb

Prefeasibility study for **rapid, low-risk restart (PFS1)** completed in October 2019.

Note: Concept Study results are ± 30% accuracy
PFS1 results are + 25%/-15%
[1] ASIC: All in Sustaining Cost

PREFEASIBILITY STUDY HIGHLIGHTS

- Prefeasibility Study (phase 1 – PFS1) confirms 12-month execution lead time for low risk restart
- Aspirational average life of mine AISC of US$30/lb achievable
- 5.2Mlbpa production for restart confirmed for capital of US$80M
- Opportunity to increase production at restart to 6.5Mlbpa with additional, high return discretionary capital of US$30M
- Maiden Vanadium Mineral Resource of 38.8Mlb V_2O_5 declared
- Potential for further AISC improvements as identified in the Concept Study of approximately US$4.50/lb through significant process changes to be studied in Phase 2 of the PFS

PFS1 HAS CONFIRMED RAPID RESTART PLAN

- PFS1 confirms Concept Study results of comparatively low initial restart expenditure requirements of ~US$80M for ~5.2 Mlbpa production capacity

Plant Repair & De-Preservation Costs
US$38M

+

Operations Restart Costs
US$42M
(includes: first fill of reagents, recommissioning, mobilisation of equipment and tailings dam costs)

PALADIN IDENTIFIES LOW COST EXPANSION OPPORTUNITY

2021 Production Potential

Potential to be **production ready from mid 2021** (funding and price dependent) if studies are completed in C&M window

Low Cost

US$30M for 1.3Mlb capacity expansion

Expand Production to 6.5Mlb Capacity

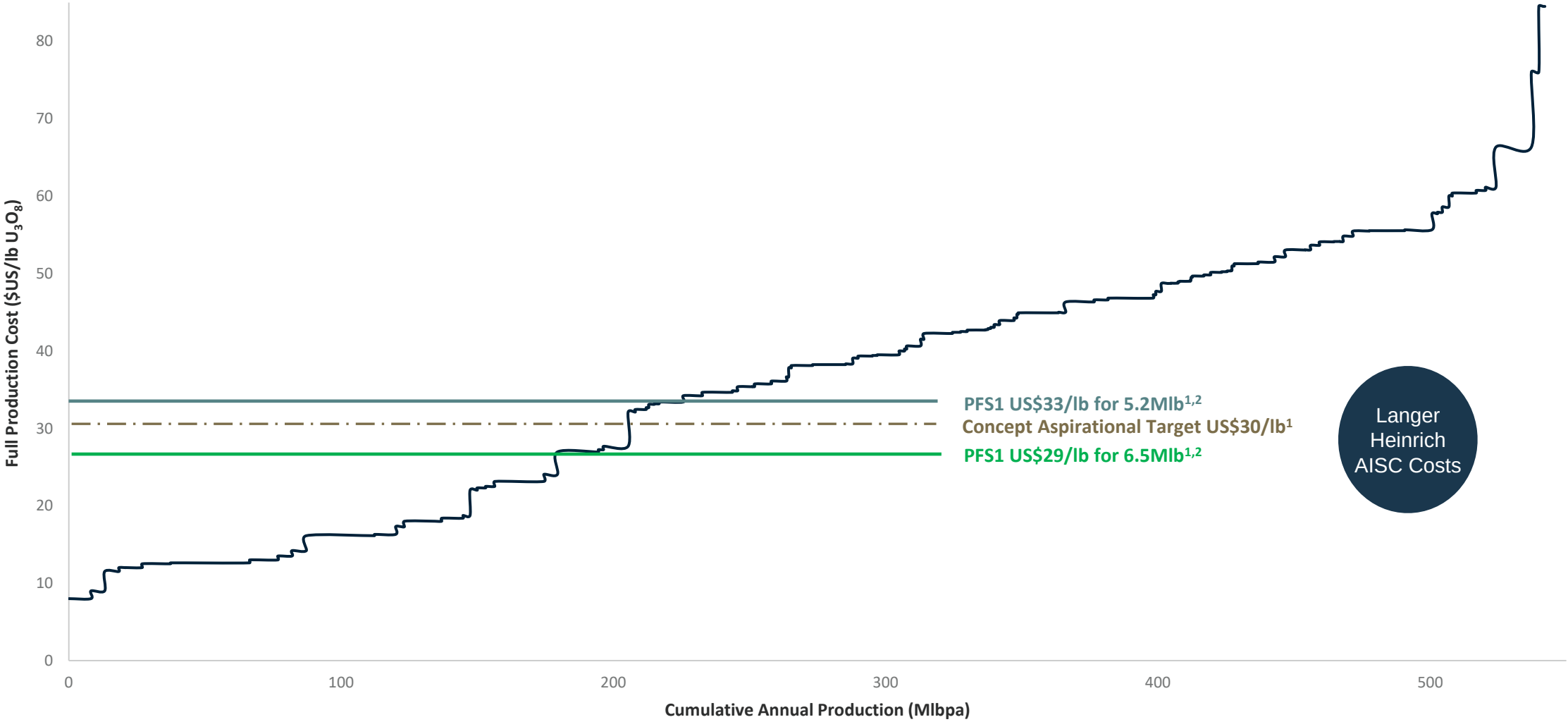
Low Risk

No novel technology or processes. Grow by optimising our current approach

High return expansion

Capital intensity of US$23/lb (leach debottlenecking, surge capacity, water storage, automation & reliability program)

WORLD WIDE PRODUCT COST CURVE – ALL PROJECTS



Source: UxC Production Cost Report 2019 – August 2019

Note [1] AISC: All in Sustaining Cost based on the results of Paladin's Langer Heinrich Concept Study completed in February 2019; [2] ASX Prefeasibility Study Announcement 14 October 2019

RAPID PRODUCTION RESTART ON URANIUM PRICE RECOVERY

DESCRIPTION	STATUS	TIMING	PURPOSE
Concept Study	✓	Completed February 2019	▪ Found no fatal flaws ▪ Generated improvement options
Prefeasibility Study 1 (Rapid Restart)	✓	Prefeasibility Study 1 - completed October 2019	**RAPID RESTART STUDY (PFS1)** ▪ Detailed restart plan ▪ Low risk production expansion by incremental debottlenecking reduces AISC to US$29/lb (life of asset) ▪ Maiden Vanadium Mineral Resource
Prefeasibility Study 2 (Process Optimisation)	In Progress on greatly reduced scope	Prefeasibility Study 2 – complete test work of options selection February 2020	**PROCESSING UPGRADE STUDY (PFS2)** ▪ Opportunities to reduce costs by ~US4.50/lb ▪ Reasonable prospects of Vanadium production ▪ Reduced scope to preserve cash. Will complete engineering at a later stage
Feasibility Study 1 (Rapid Restart)	Not committed	Undertake closer to restart decision – 9 months required	▪ +/- 10% accuracy ▪ Enable Rapid Restart to be triggered and clear path into production

1st uranium producer back into production

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APPENDIX

RESOURCE & RESERVE TABLES

30 June 2019

Ore Reserves		Mt	Grade ppm U_3O_8	Mlb U_3O_8	Paladin Ownership (%)	Paladin Attributable (Mlb)
Namibia	**Langer Heinrich**					
Proven		42	525	48.5	75	36.4
Probable		13.1	485	14	75	10.5
Stockpiles		30.8	355	24	75	18
Total Namibia		**85.9**	**455**	**86.5**	**75**	**64.9**
Malawi	**Kayelekera**					
Proven		0.4	1,170	1	85	0.85
Probable		5.3	880	10.4	85	8.84
Stockpiles		1.6	755	2.6	85	2.21
Total Malawi		**7.3**	**870**	**14**	**85**	**11.9**
Total Ore Reserves		**93.2**	**490**	**100.5**		**76.8**

Vanadium Mineral Resources		Mt	Grade ppm V_2O_5	Mlb V_2O_5 (100% basis)	Paladin Ownership (%)	Paladin Attributable (Mlb)
Namibia	**Langer Heinrich**					
Measured[1]		66.2	160	23.3	75	17.5
Indicated[1]		18.8	140	5.8	75	4.4
Inferred[1]		6.3	135	1.9	75	1.4
Stockpiles[1]		30.8	115	7.8	75	5.9
Total Namibia		**122.1**	**145**	**38.8**	**75**	**29.1**

[1]Refer ASX Announcement dated 14.10.2019 "Prefeasibility Study Delivers Improved Financials and Production Capacity For Langer Heinrich" p6; [2]Refer ASX Announcement dated 21.11.08 "Significant Resource Upgrade for Kayelekera"; [3]Refer ASX Announcement dated 31.01.2018 "Correction to 30 June 2017 Annual Report" pp13-15; [4]Refer SEDAR lodgment (TSX:FRG) dated 8.9.2009 "Fronteer Reports Positive Preliminary Economic Assessment for Michelin Uranium Project"; [5]Refer Announcement (ASX:SMM) dated 19.10.2010 "Resource Upgrade for the Valhalla Uranium Deposit"; [6]Refer ASX Announcement dated 16.04.2012 "Quarterly Activities Report for period ending 31 March 2012"; [7]Refer ASX Announcement dated 15.04.2011 "Quarterly Activities Report for period ending 31 March 2011; [8]Refer ASX Announcement dated 31.08.2011 "30 June 2011 Annual Report" p29; [9]Refer ASX Announcement dated 17.01.2012 "Quarterly Activities Report for period ending 31 December 2011"; [10]Refer ASX Announcement dated 13.07.2012 "Quarterly Activities Report for period ending 30 June 2012" ; [11]Refer ASX Announcement (ASX:EMX) dated 12.02.2014 "Energia Delivers Significant Uranium Resource Upgrade"; [12]Refer ASX Announcement dated 14.01.2014 "Manyingee Minerals Resources - Amendment"; [13]Refer ASX Announcement dated 10.12.2008 "Maiden Uranium Resource at Valhalla North Project"; [14]Refer ASX Announcement dated 30.08.12 "30 June 2012 Annual Report" p27 and 129; [15]Refer ASX Announcement dated 29.08.2013 "30 June 2013 Annual Report" p24.

The Group is not aware of any new information or data that materially affects the information in the relevant market announcements all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

Mineral Resources		Mt	Grade ppm U_3O_8	Mlb U_3O_8 (100% basis)	Paladin Ownership (%)	Paladin Attributable (Mlb)
Namibia	**Langer Heinrich**					
Measured[1]		66.2	490	71.9	75	53.9
Indicated[1]		18.8	435	18.0	75	13.5
Inferred[1]		6.3	420	5.8	75	4.4
Stockpiles[1]		30.8	355	24	75	18.0
Total Namibia		**122.1**	**445**	**119.6**	**75**	**89.7**
Malawi	**Kayelekera**					
Measured[2]		0.7	1,010	1.7	85	1.4
Indicated[2]		12.7	700	19.6	85	16.7
Inferred[2]		5.4	620	7.4	85	6.3
Stockpiles[2]		1.6	755	2.6	85	2.2
Total Malawi		**20.4**	**695**	**31.3**	**85**	**26.6**
Canada						
Measured	Michelin[3]	17.6	965	37.6	55	18.8
	Rainbow[4]	0.2	920	0.4	55	0.2
Indicated	Gear[4]	0.4	770	0.6	55	0.3
	Inda[4]	1.2	690	1.8	55	0.9
	Jacques Lake[3]	13	630	18	55	9.0
	Michelin[3]	20.6	980	44.6	55	22.3
	Nash[4]	0.7	830	1.2	55	0.6
	Rainbow[4]	0.8	860	1.4	55	0.7
Inferred	Gear[4]	0.3	920	0.6	55	0.3
	Inda[4]	3.3	670	4.8	55	2.4
	Jacques Lake[3]	3.6	550	4.4	55	2.2
	Michelin[3]	4.5	985	9.9	55	5.0
	Nash[4]	0.5	720	0.8	55	0.4
	Rainbow[4]	0.9	810	1.6	55	0.8
Total Canada		**67.7**	**860**	**127.7**	**55**	**63.9**
Australia						
Measured	Valhalla[5]	16	820	28.9	100	28.9
Indicated	Andersons[6]	1.4	1,450	4.6	100	4.6
	Bikini[7]	5.8	495	6.3	100	6.3
	Duke Batman[8]	0.5	1,370	1.6	100	1.6
	Odin[9]	8.2	555	10	100	10.0
	Skal[10]	14.3	640	20.2	100	20.2
	Valhalla[5]	18.6	840	34.5	100	34.5
	Carley Bore[11]	5.4	420	5	100	5.0
	Manyingee[12]	8.4	850	15.7	100	15.7
Inferred	Andersons[6]	0.1	1,640	0.4	100	0.4
	Bikini[7]	6.7	490	7.3	100	7.3
	Duke Batman[8]	0.3	1,100	0.7	100	0.7
	Honey Pot[13]	2.6	700	4	100	4.0
	Mirriola[14]	2	560	2.5	100	2.5
	Odin[9]	5.8	590	7.6	100	7.6
	Skal[10]	1.4	520	1.6	100	1.6
	Valhalla[5]	9.1	640	12.8	100	12.8
	Watta[15]	5.6	400	5	100	5.0
	Warwai[15]	0.4	360	0.3	100	0.3
	Carley Bore[11]	17.4	280	10.6	100	10.6
	Manyingee[12]	5.4	850	10.2	100	10.2
Total Australia		**135.4**	**635**	**189.8**	**100**	**189.8**
Total Mineral Resources		**345.6**	**615**	**468.4**		**369.9**