



# **PALADIN ENERGY LTD**

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**Investor Update  
October 2020**

**Ian Purdy – Chief Executive Officer**

# Disclaimer and Competent Persons Statement

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## Disclaimer

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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This presentation includes statements that may be deemed "forward-looking statements". All statements in this presentation, other than statements of historical facts, that address future production, reserve or resource potential, exploration drilling, exploration activities and events or developments that the Company expects to occur, are forward-looking statements.

Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from the expectations expressed in the forward-looking statements. Factors that could cause actual results to differ materially from the expectations expressed in those forward looking statements include market prices, exploitation and exploration successes, continued availability of capital and financing and general economic, market or business conditions and risk factors associated with the Uranium industry generally.

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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 Mineral Resource Table slides in the Appendix of this presentation.

## Competent Persons Statement

The information contained in this presentation relating to Exploration, Mineral Resources and Ore Reserves is, except where stated, based on information compiled by David Princep B.Sc P.Geo FAusIMM(CP) who is an independent consultant and who is a member of the AusIMM. Mr Princep has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking 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". Mr Princep consents to the inclusion of this information in the form and context in which it appears.



# Why Paladin?

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Paladin has streamlined the company with its sole focus on the restart of the globally significant Langer Heinrich operation in mining friendly Namibia

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The Langer Heinrich Mine Restart Plan<sup>1</sup> confirms the mine's position alongside other large-scale suspended Uranium operations and confirms restart capital, costs and operational performance

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Our existing infrastructure, historic mine development and 10-year operations track record provides Paladin an early mover option in an improving Uranium price market

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Paladin has a strong financial position with approximately US\$32.4M<sup>2,3</sup> in cash reserves and a FY2021 cash spend forecast of US\$9.5M

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Recent supply disruptions have exacerbated the structural supply deficit in the global Uranium market. Term contracting activity is expected to ramp-up as utilities look to increase their forward contract coverage

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We have the right team to deliver and execute the Company's strategy

1. ASX Announcement "Langer Heinrich Mine Restart Plan" dated 30 June 2020
2. As at 30 September 2020
3. Excluding US\$1m of restricted cash





# Langer Heinrich Mine

A Globally Significant Uranium Operation



# Langer Heinrich – a proven mining operation and Uranium supplier



Paladin owns 75%  
CNNC 25%<sup>1</sup>



10-year  
production track  
record



43Mlb U<sub>3</sub>O<sub>8</sub>  
produced  
and sold



Fully permitted  
to resume mining  
and Uranium  
exports



Located in a  
Uranium mining  
province with  
stable regulatory  
regime

1. CNNC Overseas Uranium Holdings Limited, a subsidiary of China National Nuclear Corporation (CNNC)



# Mine Restart Plan: Next Steps

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**Mine Restart Plan:** The Langer Heinrich Mine Restart Plan<sup>1</sup> (The Restart Plan), released on 30 June 2020, optimised previous PFS work and delivered a path to bring Langer Heinrich back into production

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**Next Steps:** Advance The Restart Plan to provide greater certainty on key operational and economic deliverables and prepare the operation for project execution. Future work will be focused on Mining & Processing work packages

## Mining

- Update the Ore Reserve model by utilising detailed drilling information to reduce the block model size
- Assign more physical characteristics to the model to improve the understanding of how mineralisation will be fed to the plant
- Update the Ore Reserve Statement with the higher resolution mining model and the detailed mine plan
- Complete contract mining tender documentation
- AMC Consultants have been appointed to assist in and deliver the Mining work package

## Processing

- Complete a detailed as-is condition survey of the processing plant, optimize critical restart priorities and prepare commercial documentation in preparation for the award of remediation work programs
- Continue process improvement design work, analysing historical downtime issues, modification impacts, the impact of various reagent combinations, and the impact of mine feed variability
- Elemental Engineering has been appointed for process modelling and the contract is being finalised with Lycopodium Minerals for process design

1. ASX Announcement “Langer Heinrich Mine Restart Plan” dated 30 June 2020



# Restart Plan confirms economic significance of Langer Heinrich Mine <sup>1,2</sup>



**Cost to Restart  
Operations**

US\$81M



**Life of Mine C1  
Cost of Production**

US\$27/lb



**Peak  
Production**

5.9Mlb U<sub>3</sub>O<sub>8</sub> pa for 7 years



**Mine  
Life**

17 years



**Restart Capital  
Intensity<sup>3</sup>**

US\$14/lb

1. Information within this slide as detailed in ASX Announcement "Langer Heinrich Mine Restart Plan" dated 30 June 2020 2. 100% Basis quoted 3. Capital restart costs divided by annual production volume.





# Langer Heinrich Mine - Key operational metrics<sup>1</sup>

## US\$81M of Pre-production Capex

- US\$34M of working capital and other cash expenditure to restart baseline operation
  - Works include maintenance on plant and infrastructure, replenish reagents, purchase spare parts, workforce recruitment, mobilisation and training
- US\$47M of targeted investments to maximise plant reliability and runtime
  - Works include product drying and packaging facility upgrade, leach feed surge tank, increase water storage, process control upgrade

## 3 phase approach to mining operations

- Ramp Up Phase: Ramp up to full production targeting 80% nameplate within six months and 100% nameplate within twelve months (McNulty Curve, Type One)
- Mining Phase: 7 years targeting 5.9Mlb pa  $U_3O_8$ . Further debottlenecking completed in year 3 to increase leach capacity by an additional 12.5% (c.US\$12M of capex)
- Stockpile Phase: 9 years of processing stockpiles at 336 ppm grade with production target of 3.5Mlb pa  $U_3O_8$  production

## Competitive cost position

- Life of mine production cash cost of US\$27/lb
- Freight and logistics of \$0.95/lb
- Sustaining capex US\$2.9/lb
- Government royalties are set at 3% of US\$ sales



1. Information within this slide as detailed in ASX Announcement "Langer Heinrich Mine Restart Plan" dated 30 June 2020





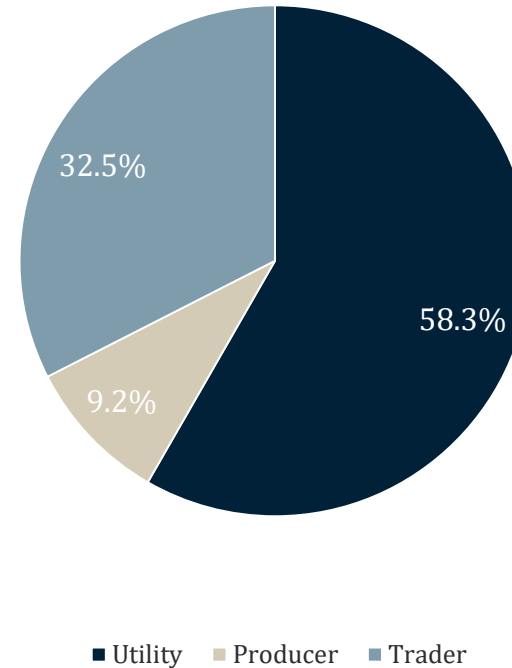
# Why Uranium?

Positive Structural Dynamics

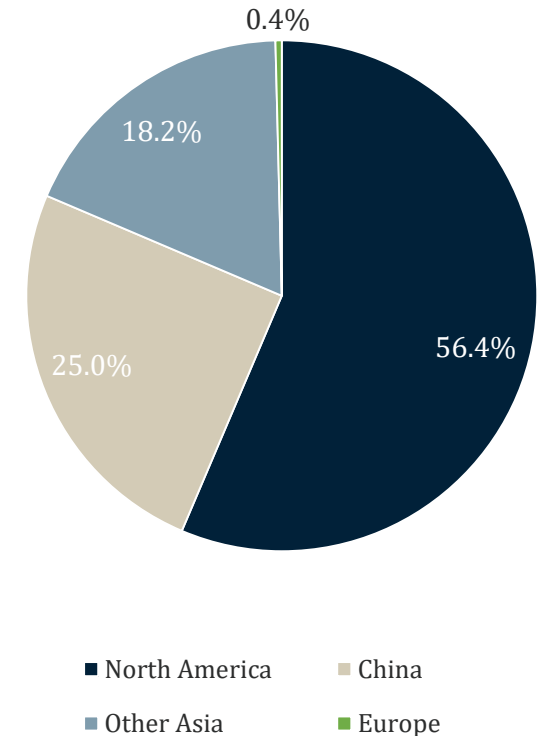
# Langer Heinrich's proven Uranium product

- 43Mlb U<sub>3</sub>O<sub>8</sub> successfully marketed over 10 years
- Delivered product aligned to feedstock specifications of global UF<sub>6</sub> conversion facilities operated by Cameco, Honeywell, Orano and CNNC
- Langer Heinrich never missed a shipment or had a shipment rejected
- Customers know the Langer Heinrich product
- Product packaging upgrade will enable UO<sub>4</sub> or U<sub>3</sub>O<sub>8</sub> production upon restart
- Langer Heinrich has a Life Of Mine offtake with CNNC for up to 25% of annual production at approximately the prevailing spot price
- The CNNC offtake is complimentary to the Company's plan to secure term offtake for the remaining 75% of uncontracted production and provides upside exposure to uranium prices

### Langer Heinrich Sales by Customer Group

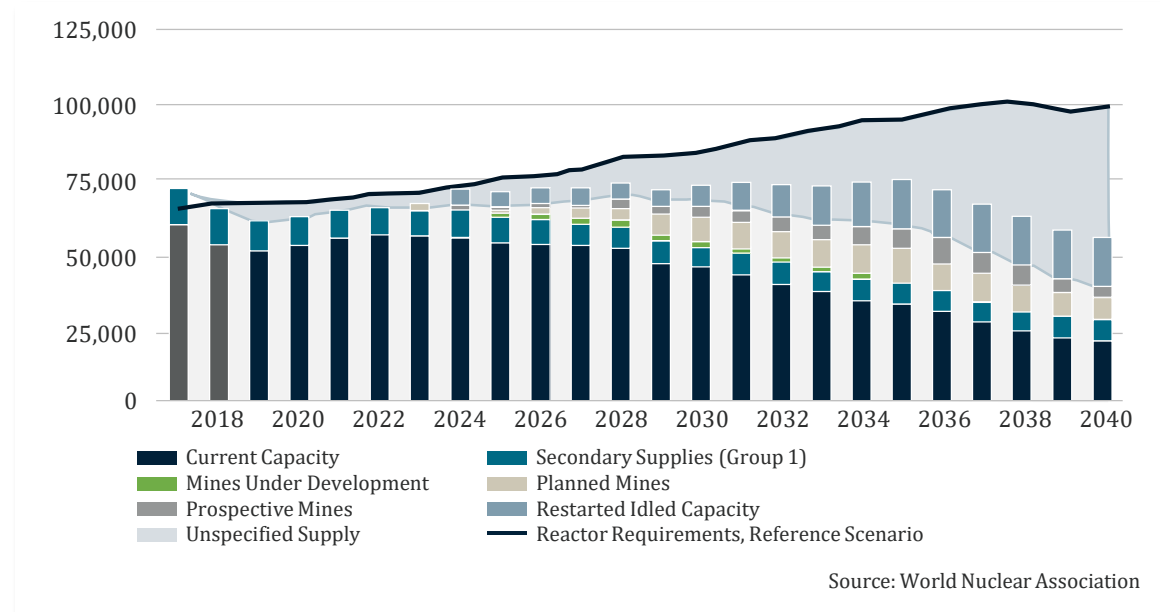


### Utility Sales by Region



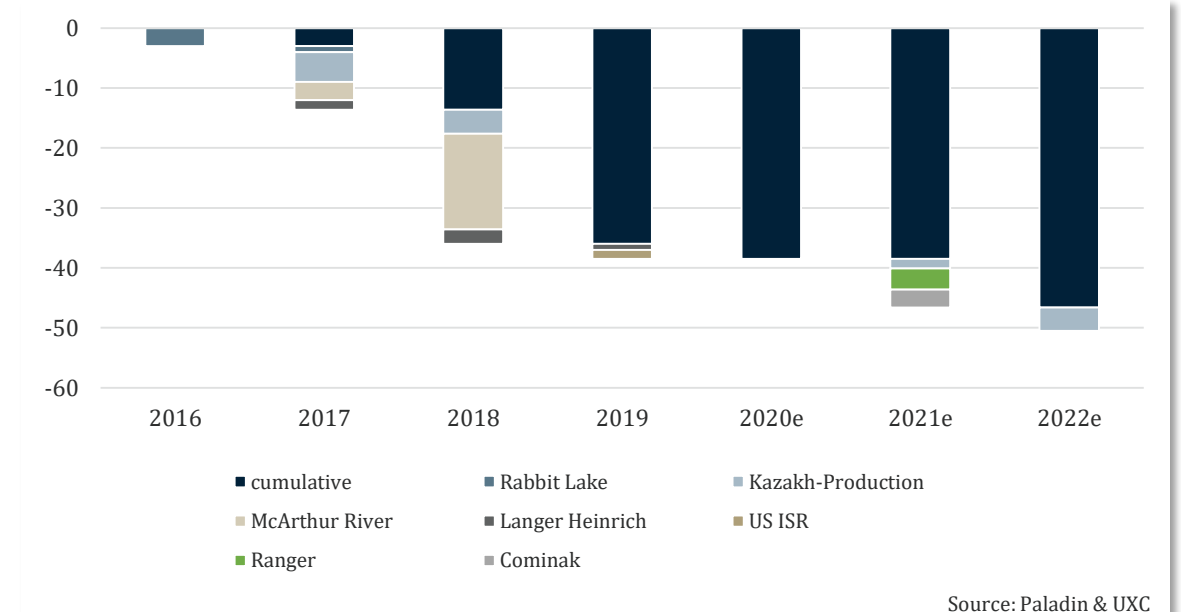
# Structural supply deficit

**World Nuclear Association Supply Shortage Graph**  
Tonnes U



- Current uranium supply unable to meet current demand
- 285 new nuclear reactors forecast to be built by 2040, further increasing demand
- Re-start of idled mine capacity and the development of Planned & Prospective mines requires incentive prices US\$40-80/lb

**Cumulative Mine Suspension & Closures**  
Mlb pa

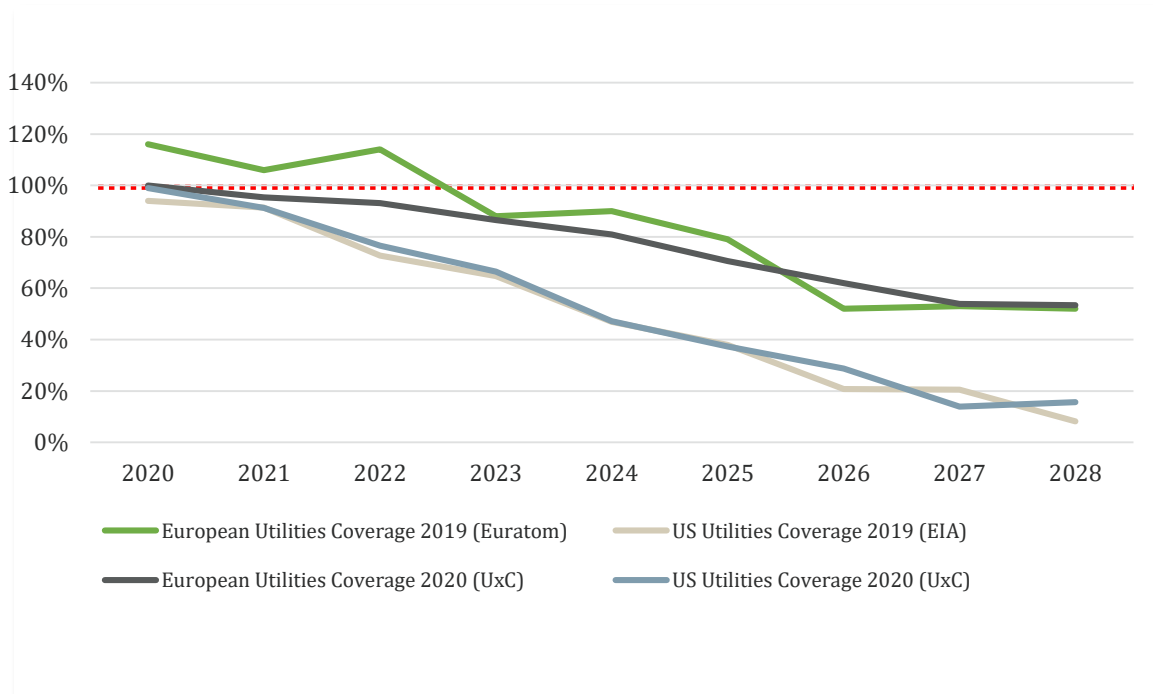


- Primary Uranium production cut-backs announced since 2016 total 45Mlb pa (excluding one-off 2020 COVID disruptions of c20mlbs)
- Kazatomprom has announced plans to maintain a 20% production cut through 2022 which is expected to remove an additional 14Mlb from global production and further tighten future supply dynamics



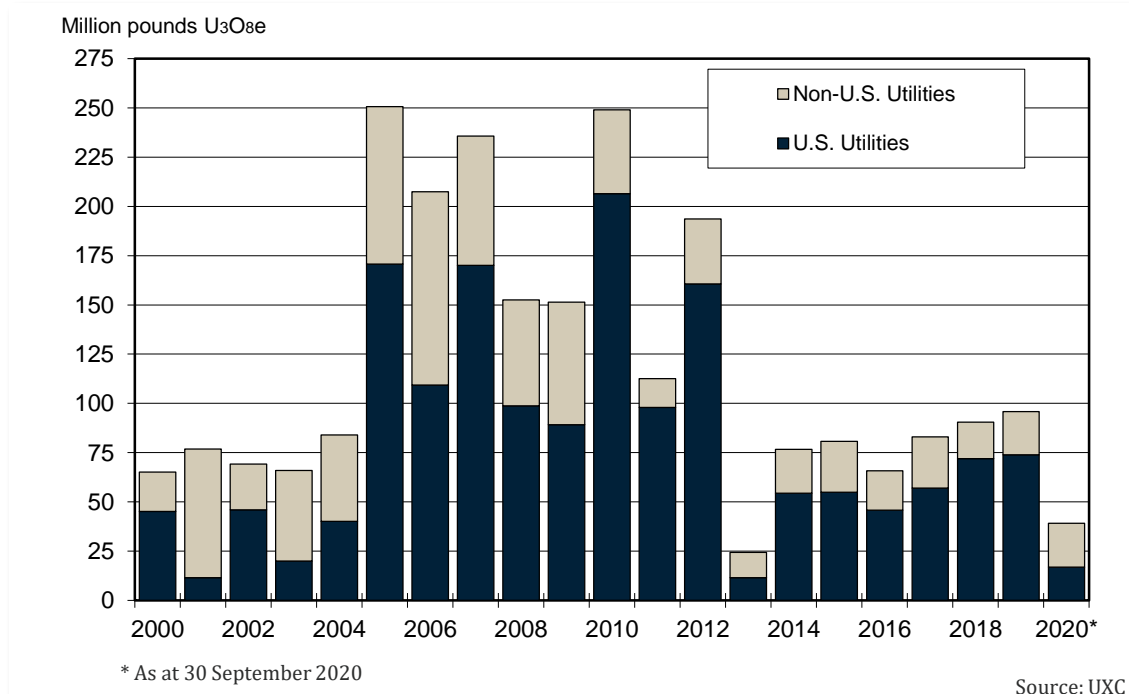
# Falling utility coverage rates will drive term contract activity

## Future Contracted Coverage Rates of US & European Utilities Contract coverage (% of total requirements)



- US contract coverage reaching critical lows with minimal change in contract coverage since 2018
- Extension of Russian Suspension Agreement provides regulatory certainty to future uranium supply requirements for US utilities

## Historic Term Contract Pricing Activity Mlb pa



- Tightening of the spot market expected to reduce the volume of mid-term carry trades
- Term contract activity expected to increase in 2021 with an increased number of market “RFPs” a precursor to improving term prices





# Paladin Investment Conclusion

# What does it mean for Paladin?

1

## Paladin is poised to take advantage of improving Uranium market

- Significant structural supply deficit
- Primary production cuts continuing & recent disruptions further tightening supply
- US utility contract coverage reaching critical lows
- Securing the appropriate term contracts is key to the restart of Langer Heinrich Mine

2

## Langer Heinrich is competitively positioned versus other suspended mines

- Industry competitive capital and operating costs
- Proven product quality
- Globally significant operation
- Significantly shorter time to deliver production and lower incentive price than green-fields projects

3

## Strong Financial Position

- Significant runway to execute strategy with US\$32.4M in cash
- Greatly reduced cash burn rate and significant cash on hand
- Disciplined and patient approach
- Flexibility to respond to market conditions





# Appendix



# Paladin corporate snapshot

## Market Snapshot ASX: PDN

Shares on issue	2.027B
Share price (as at 30 September 2020) A\$	0.125c
Market capitalisation A\$	253M
Market capitalisation US\$ <sup>1</sup>	180M
Unrestricted Cash US\$ <sup>2</sup>	32.4M
Debt US\$ <sup>3</sup>	149.3M

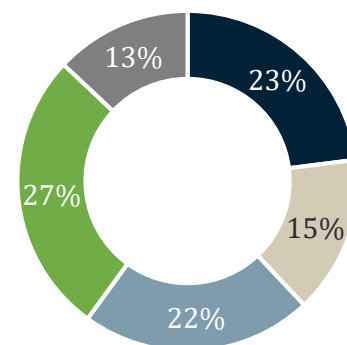
## Major Shareholders<sup>3</sup>

Tembo Capital Management	12.90%
Paradice Investment Managers	8.57%
Hopu Clean Energy	5.94%
Sachem Cove Partners	5.26%

1. A\$/US\$ exchange rate 0.71
2. As at 30 September 2020. Restricted Cash US\$1M
3. As at 30 September 2020

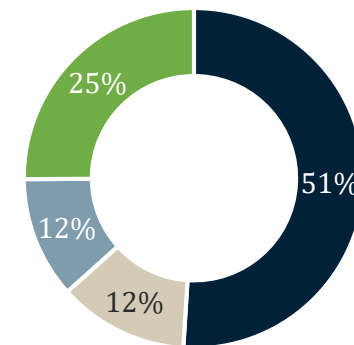
## A Supportive Shareholder Base<sup>3</sup>

### Geographic split



■ Australia ■ Asia ■ North America ■ UK/EU ■ RoW

### Top 50 holders own 90% of shares



■ Top 10 ■ Top 20 ■ Top 50 ■ Remaining Holders

## Specialist Uranium Funds<sup>3</sup>

Sachem Cove Partners	5.26%
Segra Capital Management	3.87%



# Meet the Board and CEO



**Cliff Lawrenson**  
**Non-Executive Chairman**

Mining executive with deep expertise in the minerals and energy sectors derived from global experience having worked extensively in project development and investment banking. A successful track record of leading strategic direction in companies and executing corporate transactions.



**Peter Main**  
**Non-Executive Director**

Mining and finance professional with extensive experience of the financial markets with a wealth of industry experience, having spent almost 15 years in a variety of roles in the mining industry from operations through to CEO of a TSX-V listed mining company.



**Peter Watson**  
**Non-Executive Director**

Chemical engineer with extensive experience in the global resources sector across senior technical, project, and management roles as well as running ASX-listed companies. His experience includes project development, project delivery, asset optimization and mining facilities operations across multiple commodities and global jurisdictions.



**Ian Purdy**  
**Chief Executive Officer**

Highly-respected executive with over three decades' experience within Australian and international resources companies. Ian has delivered significant shareholder value through managing and optimizing operations, delivering large projects and executing on business improvements and asset sales. Ian also has extensive capital markets experience and a proven track record of delivering company funding requirements.



# The executive team



**Anna Sudlow**  
**Chief Financial Officer**

Corporate finance professional with 25 years' of experience across the energy and resources sectors in senior management roles. Her experience includes funding execution, commercial management, accounting, finance and treasury in both the ASX listed and private sectors, and includes experience in international jurisdictions.



**Jonathon Clements**  
**General Manager  
Projects and Development**

Mining and mineral processing industry professional with over 30 years' of experience in the resource industry. His extensive experience and qualifications include the management of large sustaining capital portfolio's, feasibility studies, maintenance and global projects from concept to construction for ASX listed companies.



**Johan Roux**  
**General Manager  
Langer Heinrich**

Legal professional with over 30 years' experience in the management of corporate labour, mining, commercial, human resources and legal compliance laws in Namibia and South Africa, largely in the Mining and Oil & Gas sectors. Prior to joining Langer Heinrich, he was a partner of a legal firm in Namibia.



**Gary Stoker**  
**Principal Uranium  
Marketing Consultant**

Uranium marketing professional with over 30 years' experience in the nuclear fuels industry, working with Paladin in various capacities since 2008. Previously, co-founded a Uranium asset management company with prime responsibility for the management of nuclear fuels trading portfolios. Has worked as an investment advisor to a Uranium fund.

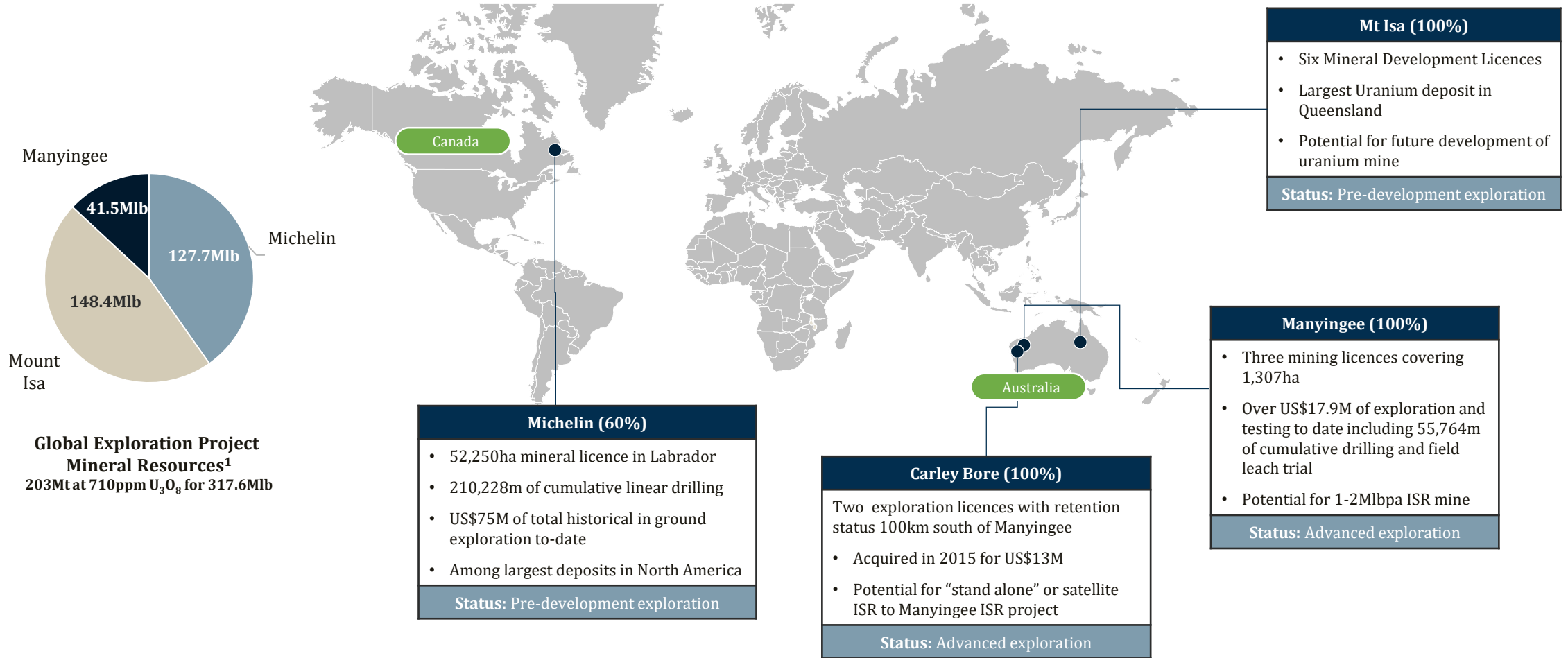


**Andrea Betti**  
**Company Secretary  
(Consultant)**

Accounting and corporate governance professional with over 20 years' experience in accounting, corporate governance, corporate advisory, finance and corporate banking, and has acted as Chief Financial Officer and Company Secretary for companies in the private and publicly listed sectors.



# A quality global suite of exploration assets



<sup>1</sup> Measured, Indicated and Inferred Mineral Resources for the Michelin, Mount Isa and Manyingee Projects (including Carley Bore) on a 100% Project basis as at 30 June 2020. Source: Paladin Research



# Mineral Resources Table – Langer Heinrich

Uranium Mineral Resources <sup>1</sup> 250ppm U <sub>3</sub> O <sub>8</sub> cutoff	Measured			Indicated			Inferred			Total			Paladin Ownership (%)
	Mt	Grade ppm U <sub>3</sub> O <sub>8</sub>	Mlb U <sub>3</sub> O <sub>8</sub> (100% basis)	Mt	Grade ppm U <sub>3</sub> O <sub>8</sub>	Mlb U <sub>3</sub> O <sub>8</sub> (100% basis)	Mt	Grade ppm U <sub>3</sub> O <sub>8</sub>	Mlb U <sub>3</sub> O <sub>8</sub> (100% basis)	Mt	Grade ppm U <sub>3</sub> O <sub>8</sub>	Mlb U <sub>3</sub> O <sub>8</sub> (100% basis)	
<b>Langer Heinrich</b>													
In-situ	66.2	490	71.9	18.8	435	18.0	6.3	420	5.8	91.3	475	95.7	75
MG <sup>2</sup> ROM Stockpiles	4.7	520	5.4	-	-	-	-	-	-	4.7	520	5.4	75
LG <sup>3</sup> ROM Stockpiles	26.1	325	18.7	-	-	-	-	-	-	26.1	325	18.7	75
<b>Total</b>	<b>97.0</b>	<b>445</b>	<b>95.9</b>	<b>18.8</b>	<b>435</b>	<b>18.0</b>	<b>6.3</b>	<b>420</b>	<b>5.8</b>	<b>122.1</b>	<b>445</b>	<b>119.7</b>	<b>75</b>

Vanadium Mineral Resources <sup>1</sup> 250ppm U <sub>3</sub> O <sub>8</sub> cutoff	Measured			Indicated			Inferred			Total			Paladin Ownership (%)
	Mt	Grade ppm V <sub>2</sub> O <sub>5</sub>	Mlb V <sub>2</sub> O <sub>5</sub> (100% basis)	Mt	Grade ppm V <sub>2</sub> O <sub>5</sub>	Mlb V <sub>2</sub> O <sub>5</sub> (100% basis)	Mt	Grade ppm V <sub>2</sub> O <sub>5</sub>	Mlb V <sub>2</sub> O <sub>5</sub> (100% basis)	Mt	Grade ppm V <sub>2</sub> O <sub>5</sub>	Mlb V <sub>2</sub> O <sub>5</sub> (100% basis)	
<b>Langer Heinrich</b>													
In-situ	66.2	160	23.3	18.8	140	5.8	6.3	135	1.9	91.3	155	31	75
MG <sup>2</sup> ROM Stockpiles	4.7	170	1.8	-	-	-	-	-	-	4.7	170	1.8	75
LG <sup>3</sup> ROM Stockpiles	26.1	105	6.0	-	-	-	-	-	-	26.1	105	6.0	75
<b>Total</b>	<b>97.0</b>	<b>145</b>	<b>31.1</b>	<b>18.8</b>	<b>140</b>	<b>5.8</b>	<b>6.3</b>	<b>135</b>	<b>1.9</b>	<b>122.1</b>	<b>145</b>	<b>38.8</b>	<b>75</b>

Note: Values may not add due to rounding

1. Refer ASX announcement 'Langer Heinrich Mine Restart Plan' released on 30 June 2020, JORC (2012) compliant 2. 'MG' refers to medium grade. 3. 'LG' refers to low grade



# Mineral Resources Table – Canadian Exploration portfolio

Mineral Resources		Mt	Grade ppm U <sub>3</sub> O <sub>8</sub>	Mlb U <sub>3</sub> O <sub>8</sub> (100% basis)	Paladin Ownership (%)
<b>Canada</b>					
Measured	Michelin <sup>1</sup>	17.6	965	37.6	60
	Rainbow <sup>2</sup>	0.2	920	0.4	60
Indicated	Gear <sup>2</sup>	0.4	770	0.6	60
	Inda <sup>2</sup>	1.2	690	1.8	60
	Jacques Lake <sup>1</sup>	13.0	630	18.0	60
	Michelin <sup>1</sup>	20.6	980	44.6	60
	Nash <sup>2</sup>	0.7	830	1.2	60
	Rainbow <sup>2</sup>	0.8	860	1.4	60
Inferred	Gear <sup>2</sup>	0.3	920	0.6	60
	Inda <sup>2</sup>	3.3	670	4.8	60
	Jacques Lake <sup>1</sup>	3.6	550	4.4	60
	Michelin <sup>1</sup>	4.5	985	9.9	60
	Nash <sup>2</sup>	0.5	720	0.8	60
	Rainbow <sup>2</sup>	0.9	810	1.6	60
<b>Total Canada</b>		<b>67.7</b>	<b>860</b>	<b>127.7</b>	<b>60</b>

Note: Values may not add due to rounding

<sup>1</sup>Refer ASX Announcement dated 31 January 2018 "Correction to 30 June 2017 Annual Report" pp13-15, JORC Code 2012 compliant

<sup>2</sup>Refer SEDAR lodgment (TSX:FRG) dated 8 September 2009 "Fronteer Reports Positive Preliminary Economic Assessment for Michelin Uranium Project", JORC Code 2004 compliant



# Mineral Resources Table – Australian Exploration portfolio

Mineral Resources		Mt	Grade ppm U <sub>3</sub> O <sub>8</sub>	Mlb U <sub>3</sub> O <sub>8</sub> (100% basis)	Paladin Ownership (%)
<b>Australia</b>					
Measured	Valhalla <sup>1</sup>	16	820	28.9	100
Indicated	Andersons <sup>2</sup>	1.4	1,450	4.6	100
	Bikini <sup>3</sup>	5.8	495	6.3	100
	Duke Batman <sup>4</sup>	0.5	1,370	1.6	100
	Odin <sup>5</sup>	8.2	555	10.0	100
	Skal <sup>6</sup>	14.3	640	20.2	100
	Valhalla <sup>1</sup>	18.6	840	34.5	100
	Carley Bore <sup>7</sup>	5.4	420	5.0	100
Inferred	Manyingee <sup>8</sup>	8.4	850	15.7	100
	Andersons <sup>2</sup>	0.1	1,640	0.4	100
	Bikini <sup>3</sup>	6.7	490	7.3	100
	Duke Batman <sup>4</sup>	0.3	1,100	0.7	100
	Honey Pot <sup>9</sup>	2.6	700	4.0	100
	Mirrioola <sup>10</sup>	2.0	560	2.5	100
	Odin <sup>5</sup>	5.8	590	7.6	100
	Skal <sup>6</sup>	1.4	520	1.6	100
	Valhalla <sup>1</sup>	9.1	640	12.8	100
	Watta <sup>11</sup>	5.6	400	5.0	100
	Warwai <sup>11</sup>	0.4	360	0.3	100
	Carley Bore <sup>7</sup>	17.4	280	10.6	100
	Manyingee <sup>8</sup>	5.4	850	10.2	100
	<b>Total Australia</b>		<b>135.4</b>	<b>635</b>	<b>189.8</b>

Note: Values may not add due to rounding

<sup>1</sup>Refer Announcement (ASX:SMM) dated 19 October 2010 "Resource Upgrade for the Valhalla Uranium Deposit", JORC Code 2004 compliant <sup>2</sup>Refer ASX Announcement dated 16 April 2012 "Quarterly Activities Report for period ending 31 March 2012", JORC Code 2004 compliant <sup>3</sup>Refer ASX Announcement dated 15 April 2011 "Quarterly Activities Report for period ending 31 March 2011, JORC Code 2004 compliant <sup>4</sup>Refer ASX Announcement dated 31 August 2011 "30 June 2011 Annual Report" p29, JORC Code 2004 compliant <sup>5</sup>Refer ASX Announcement dated 17 January 2012 "Quarterly Activities Report for period ending 31 December 2011", JORC Code 2004 compliant <sup>6</sup>Refer ASX Announcement dated 13 July 2012 "Quarterly Activities Report for period ending 30 June 2012", JORC Code 2004 compliant <sup>7</sup>Refer ASX Announcement (ASX:EMX) dated 12 February 2014 "Energia Delivers Significant Uranium Resource Upgrade", JORC Code 2012 compliant <sup>8</sup>Refer ASX Announcement dated 14 January 2014 "Manyingee Minerals Resources - Amendment", JORC Code 2012 compliant <sup>9</sup>Refer ASX Announcement dated 10 December 2008 "Maiden Uranium Resource at Valhalla North Project", JORC Code 2004 compliant <sup>10</sup>Refer ASX Announcement dated 30 August 2012 "30 June 2012 Annual Report" p27 and 129, JORC Code 2004 compliant <sup>11</sup>Refer ASX Announcement dated 29 August 2013 "30 June 2013 Annual Report" p24 <sup>16</sup>Refer ASX Announcement dated 27 August 2019 "30 June 2019 Annual Report" p14, JORC Code 2004 compliant





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