



**Fission**  
URANIUM CORP.

# Triple R Deposit Shallow, Large and Growing

Vancouver, Canada  
December 15, 2015

Baseline Economic Study

81.1M lbs  $U_3O_8$  Indicated

27.2M lbs  $U_3O_8$  Inferred

# Disclaimer

The following information may contain forward-looking statements. Forward-looking statements address future events and conditions and therefore involve inherent risks and uncertainties. Actual results may differ materially from those currently anticipated in such statements.

All historical resource estimates were completed prior to the implementation of NI 43-101 and the Company has not done the work necessary to verify the classification of the resource or reserve, they should not be relied upon or considered a defined resource according to NI 43-101; Except for those properties where NI 43-101 have been completed.

The technical information in this corporate presentation has been prepared in accordance with the Canadian regulatory requirements set out in National Instrument 43-101 and reviewed on behalf of the company by Ross McElroy, P.Geol. President and COO for Fission Uranium Corp., a qualified person.

# Ticking the Boxes



Large



High Grade

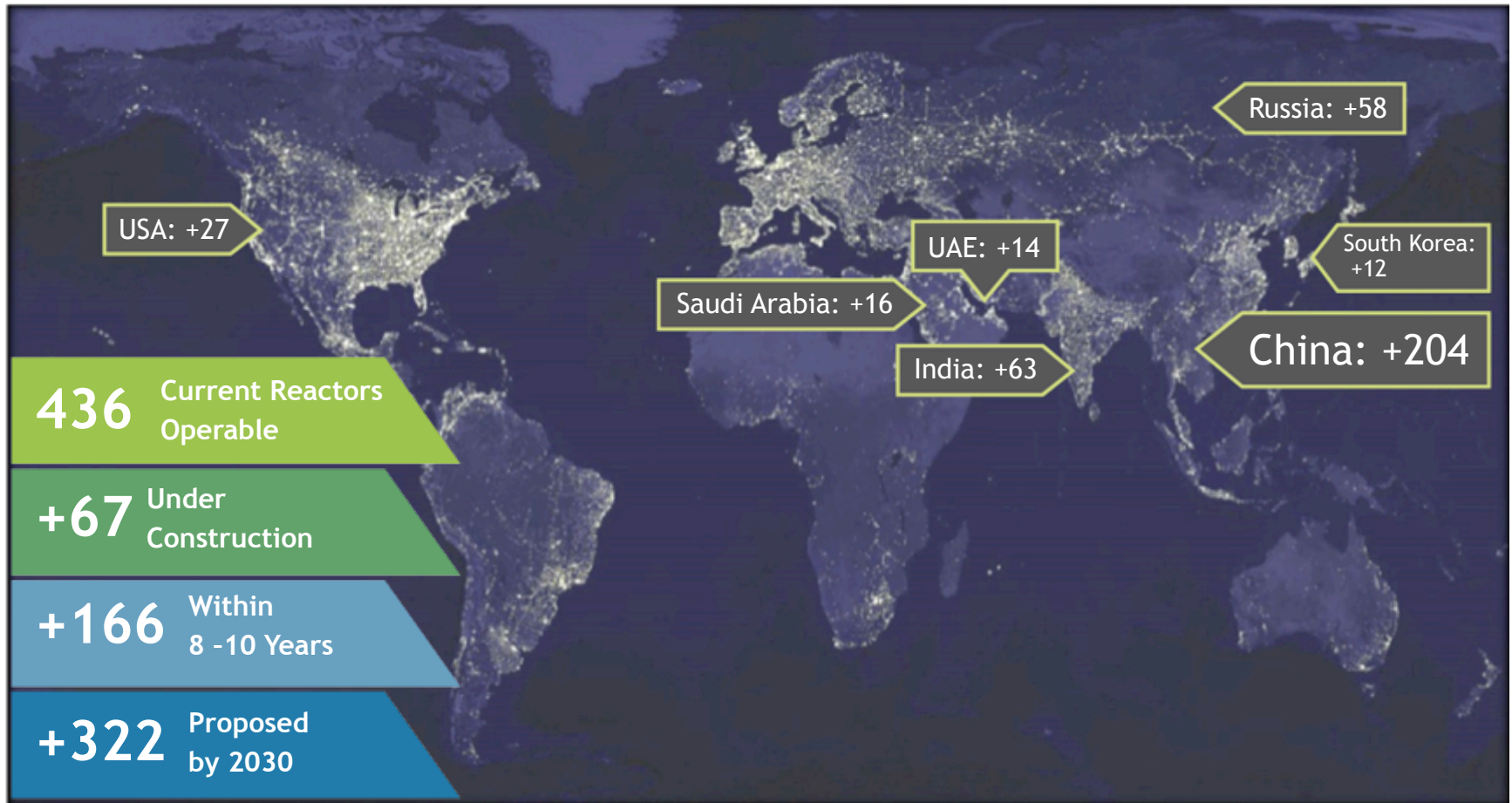


Shallow



Leading Jurisdiction

# Electricity Demand +76% by 2030, Reactor Numbers Rising



Forecast new reactors by 2030. (Source: World Nuclear Association, Aug 31, 2015)

# China Moving to Secure Uranium Supply

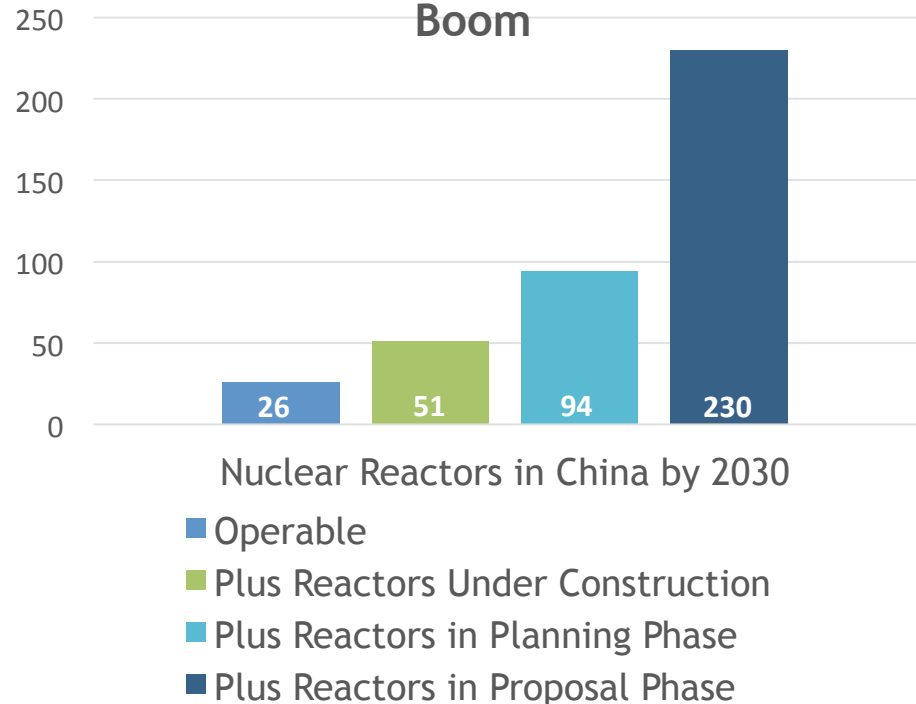
Non-fossil energy is currently 1.5% of China's primary energy

- 2020 target = 15% total primary energy  
Nuclear energy to grow **300%**
- 2030 target = 20% total primary energy  
Nuclear energy to grow **780%**

## The Latest Nuclear Energy IPOs

- Jun 2, 2015, China National Nuclear Power (CNNPC) to announce **US\$2.6bn** raise
- Dec 3, 2014, China General Nuclear Power (CGN) raised **US\$3.16bn**

## China's Reactor Construction Boom

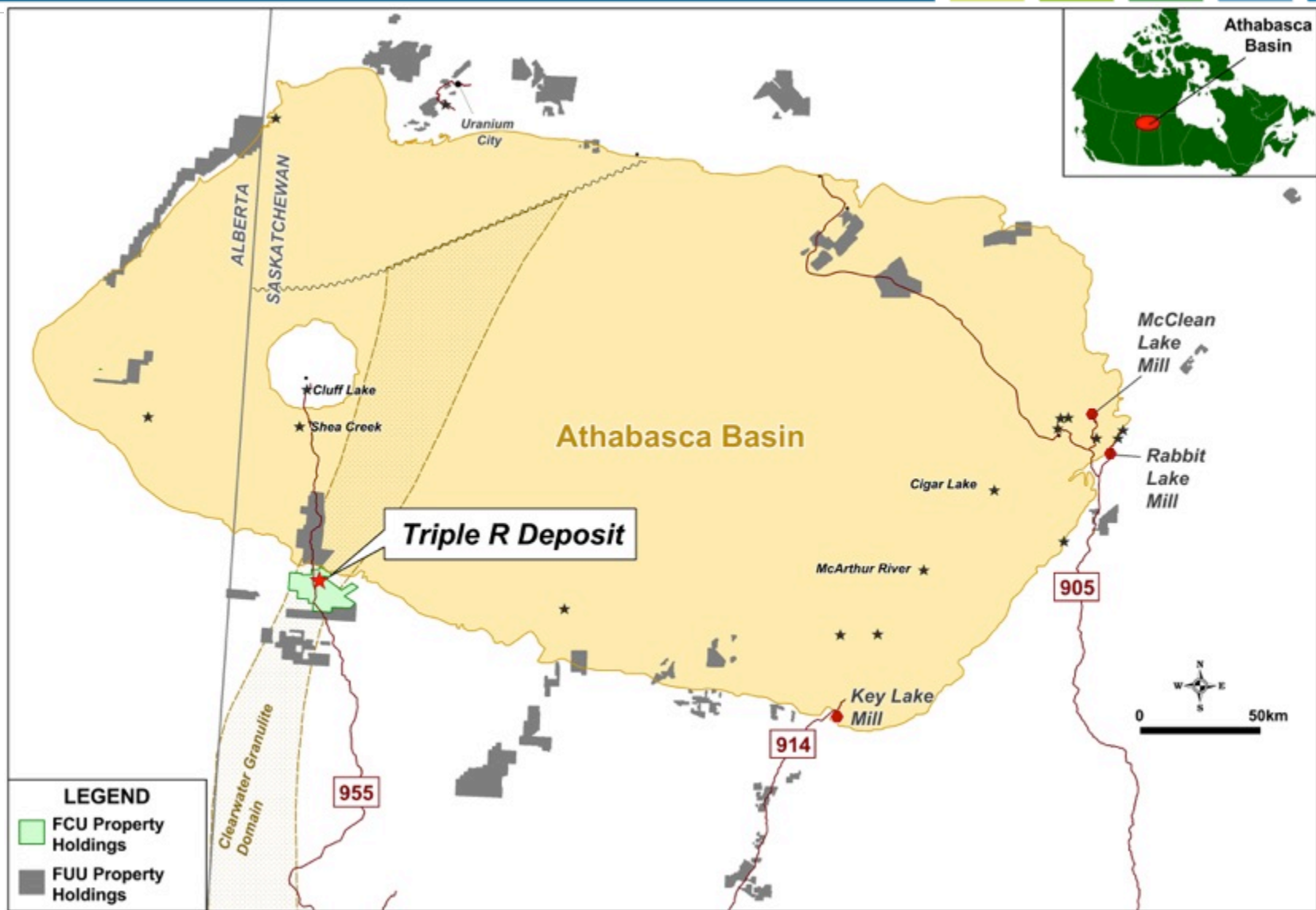


*"Canada's uranium reserves are among the largest in the world and we hope to cooperate with Canadian enterprises to complete the mission."*  
(Zhou Zhenxing, Chairman of CGN Uranium Resources, Dec 5, 2014)

Source - China State Council, Reuters, World Nuclear Association

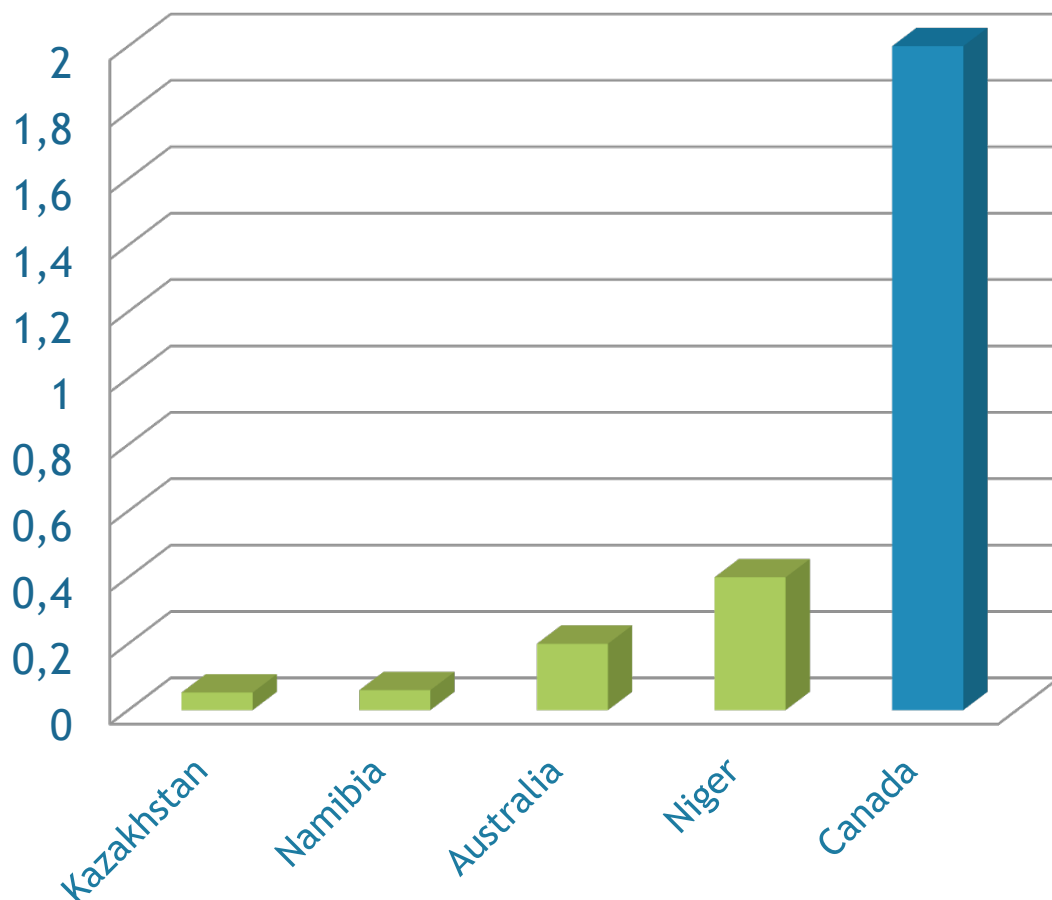


# Canada's Athabasca Basin District



# Athabasca: The Premier High-Grade Uranium District

2%  $\text{U}_3\text{O}_8$  Gold Equivalent = 51 g/t or 1.65 oz/t\*



**60+ years of mining, supplying 16% of the world's uranium**

## ENVIRONMENT

- Political stability
- Pro-mining
- Permitting

## INFRASTRUCTURE

- Mills nearby
- Power Grid
- Highways & Air

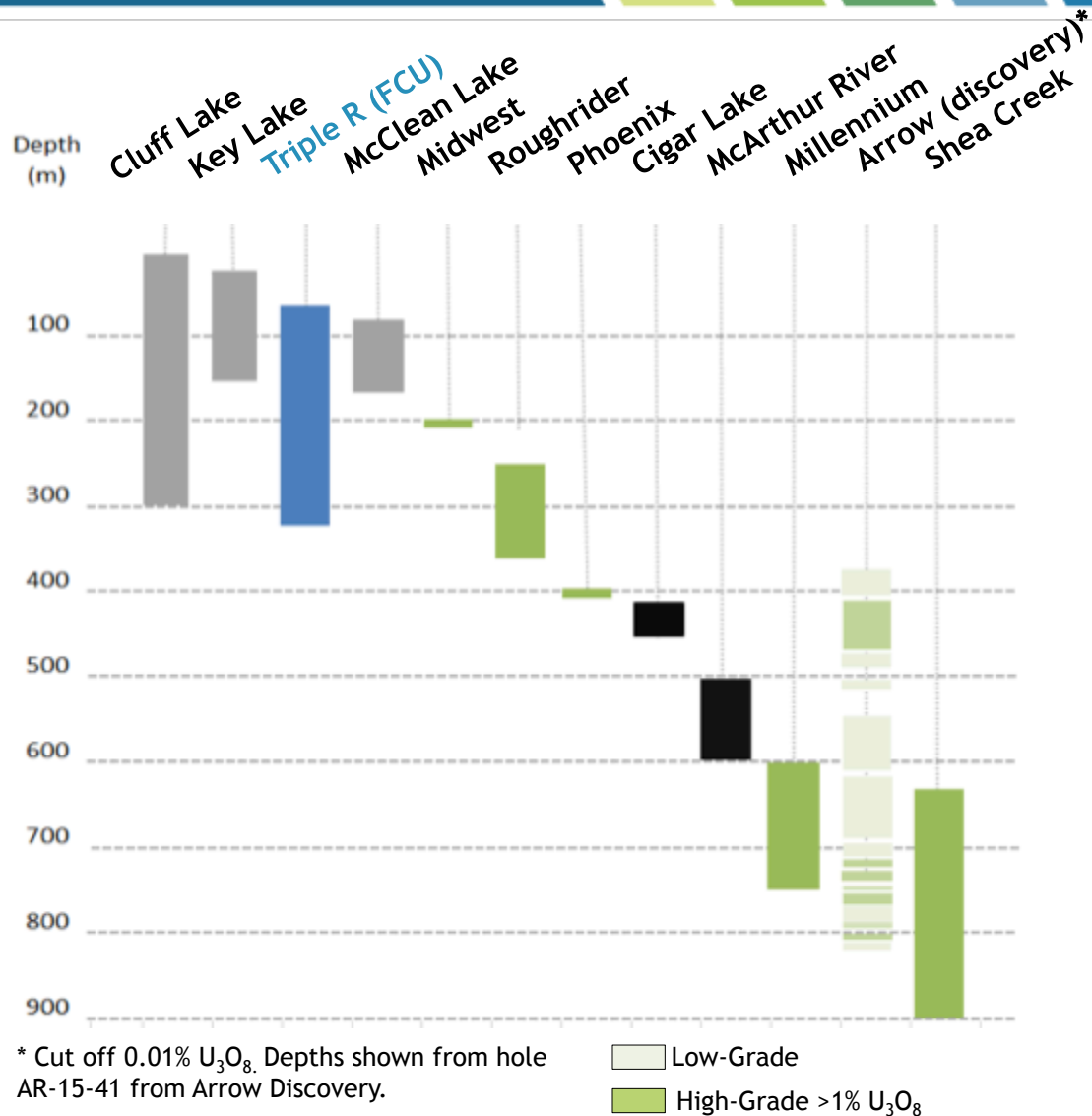
\* Gold equivalent based on \$40/lb  $\text{U}_3\text{O}_8$  and \$1070/oz gold

# Low Hanging Fruit Picked First

- Mined Out
- In Production
- Drilled



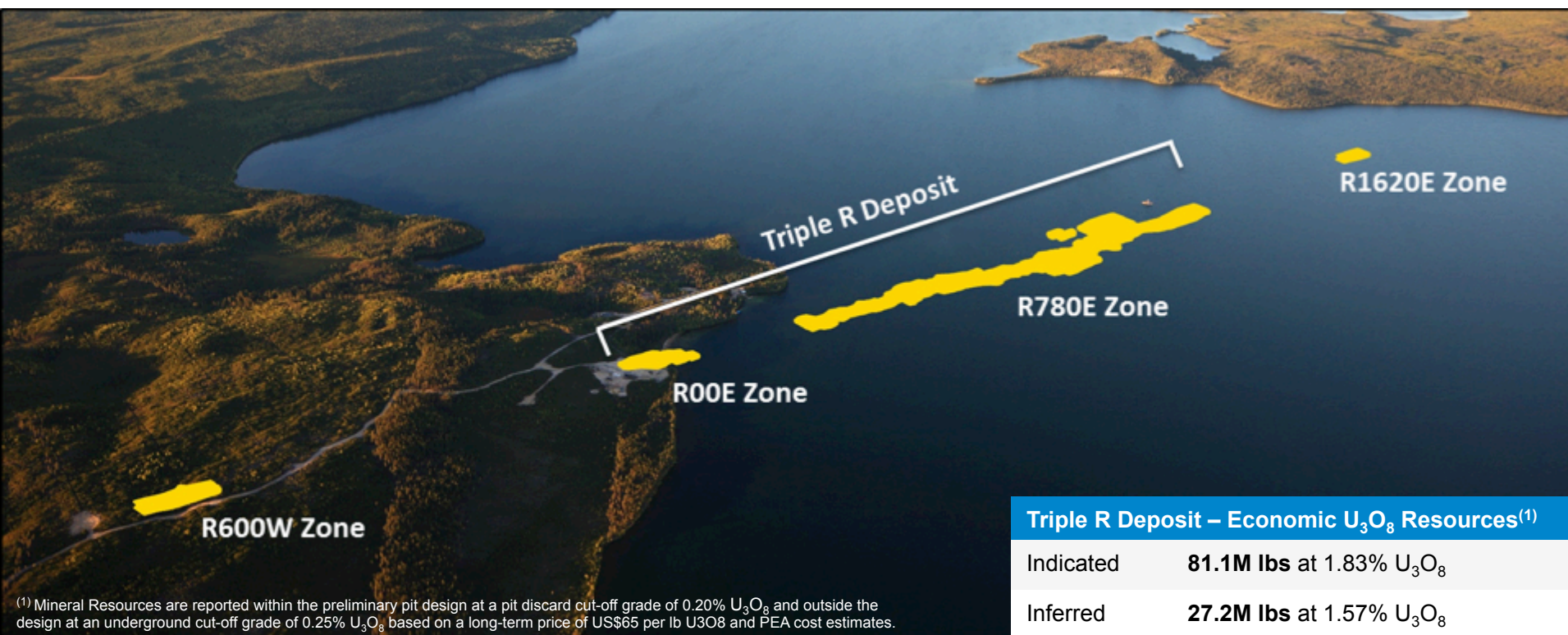
Diavik Mine, Northwest Territories  
Open Pit Mine (in lake) with depths in  
excess of 250m.



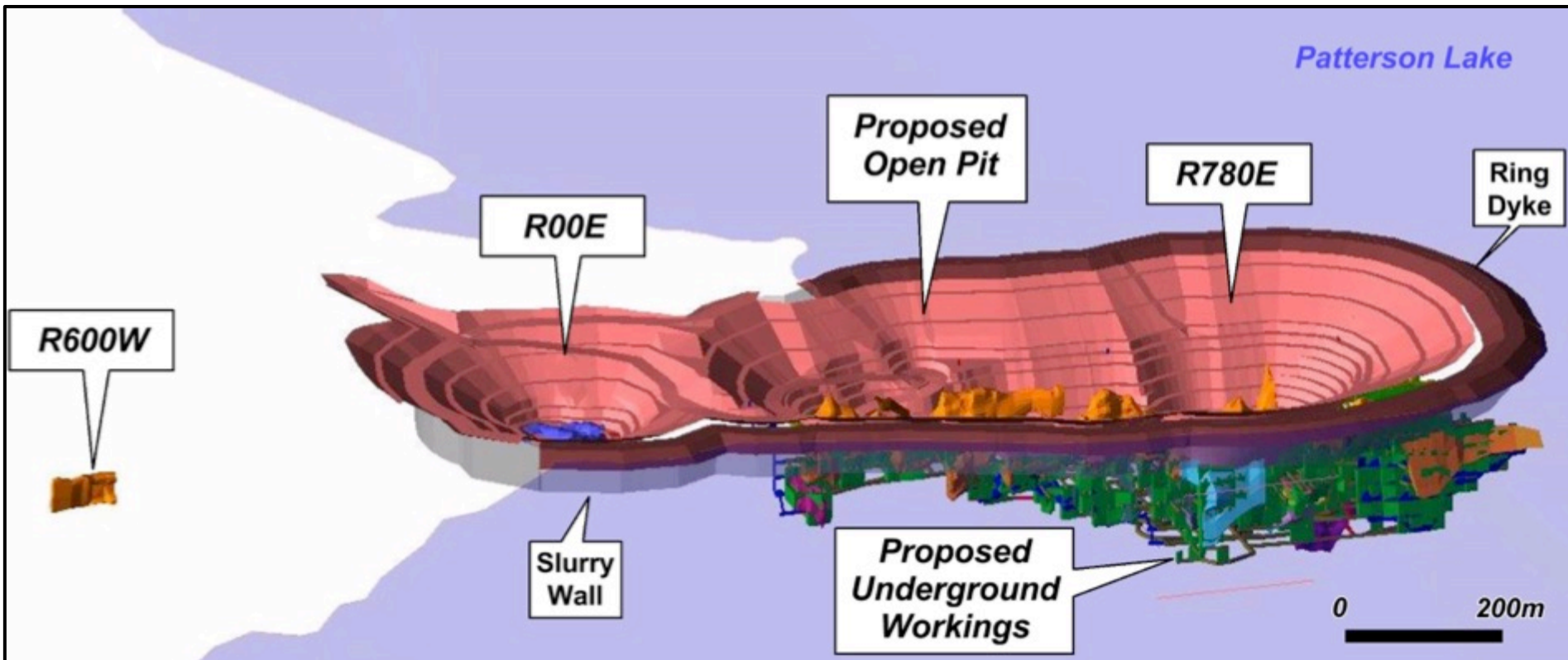


# The Triple R - Athabasca Basin's 3<sup>rd</sup> Largest Deposit

**The Largest Undeveloped Deposit in the Athabasca Basin Region**  
**Strong upside from R600W Zone (not included in resource estimate)**



# Potentially One of the World's Largest & Lowest Cost Uranium Producers



(Base case using US\$65/lb U3O8 and an exchange rate of US\$0.85:C\$1.00). All values in C\$ unless otherwise noted).

# How the Triple R Measures Up

- **Average OPEX of US\$14.02/lb U<sub>3</sub>O<sub>8</sub>**
- Pre-tax NPV of \$1.81 billion
- Pre-tax IRR of 46.7%
- **Rapid pay back (pre-tax) in 1.4 years**
- Pre-tax Net Cash Flow over LOM of \$4.12 billion
- Estimated CAPEX of \$1.1 billion

Project	OPEX (CDN\$/lb U <sub>3</sub> O <sub>8</sub> )	Owner/Operator
<b>Patterson Lake South (PLS)</b>	<b>\$16.60 <sup>(1)</sup></b>	<b>Fission Uranium</b>
Kazakhstan Ave. (ISL mining)	\$18.13 <sup>(2)</sup>	Uranium One
Cigar Lake	\$18.57 <sup>(3)</sup>	Cameco
McArthur River	\$19.23 <sup>(4)</sup>	Cameco
Hidden Bay	\$35.71 <sup>(5)</sup>	UEX
Willow Creek, US (ISL mining)	\$39.83 <sup>(6)</sup>	Uranium One

(1) Base case using US\$65/lb U<sub>3</sub>O<sub>8</sub> and an exchange rate of US\$0.85:C\$1.00

(2) Uranium One Inc., Audited Annual Consolidated Financial Statements For the years ended December 31, 2014 and 2013

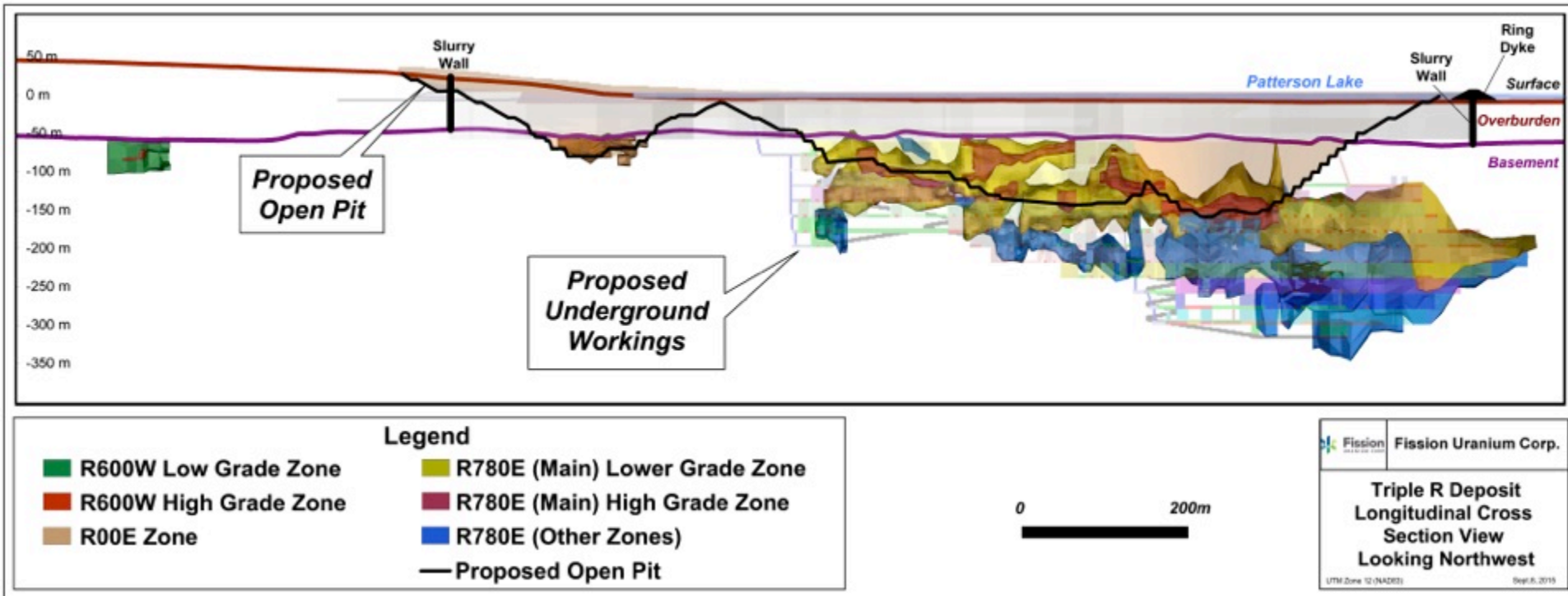
(3) Cigar Lake Project NI 43-101 Technical Report, February 24, 2012

(4) McArthur River Operation NI 43-101 Technical Report, November 2, 2012

(5) Preliminary Assessment Technical Report on the Horseshoe and Raven Deposits Hidden Bay Project, February 15, 2011

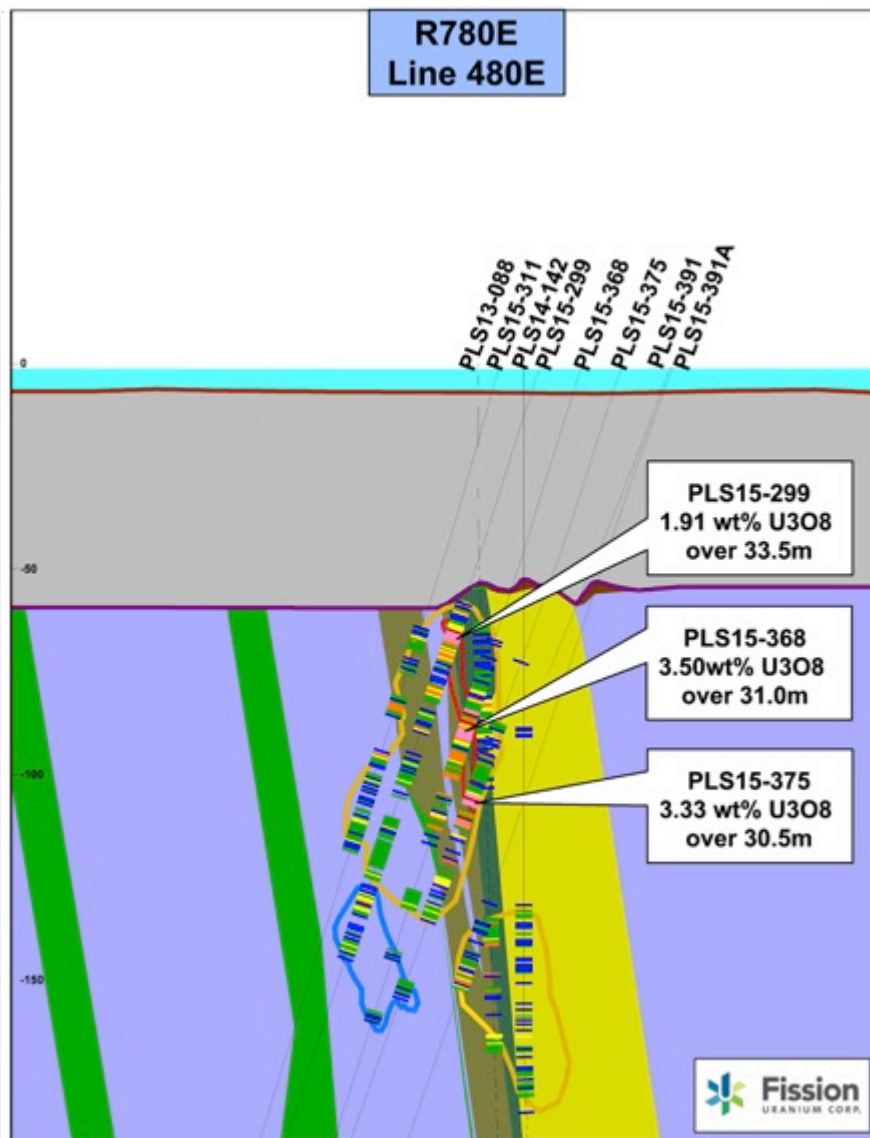
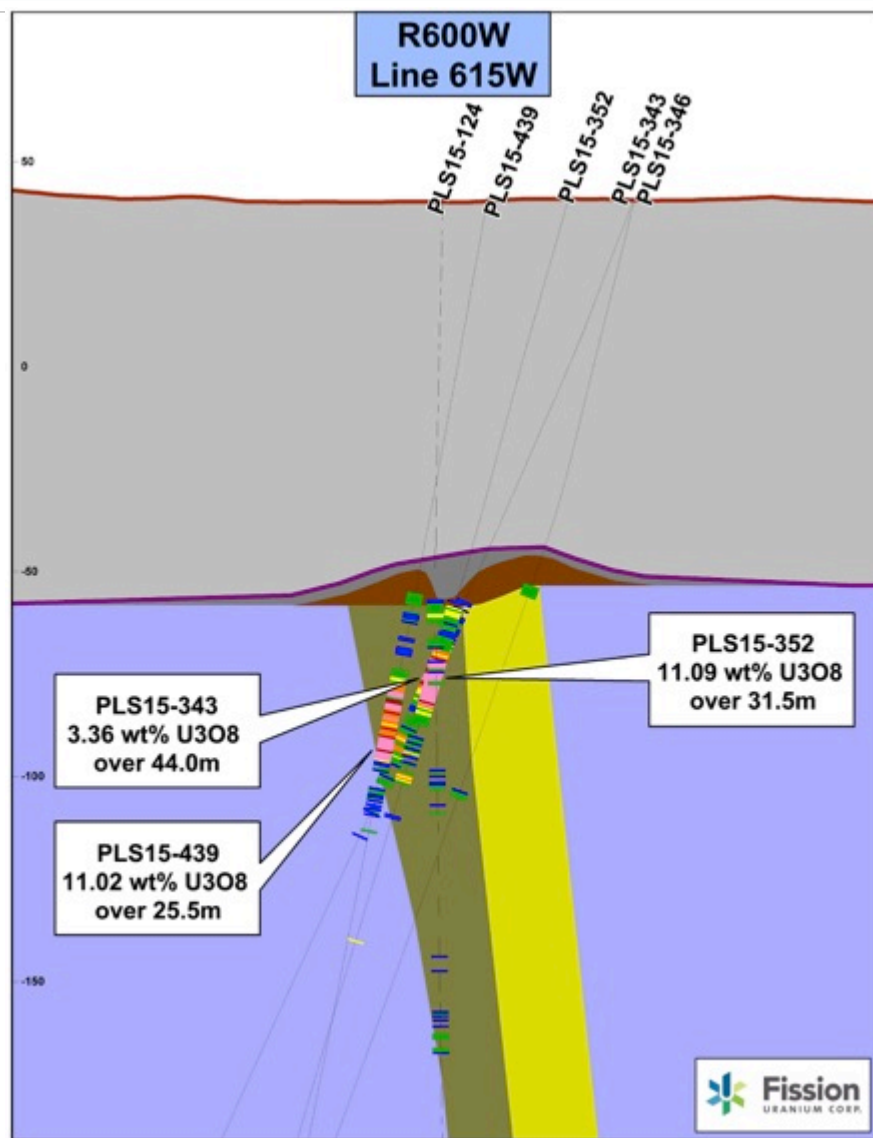
(6) Uranium One Inc., Audited Annual Consolidated Financial Statements For the years ended December 31, 2014 and 2013

# Triple R Deposit: Near Surface, Large, High Grade

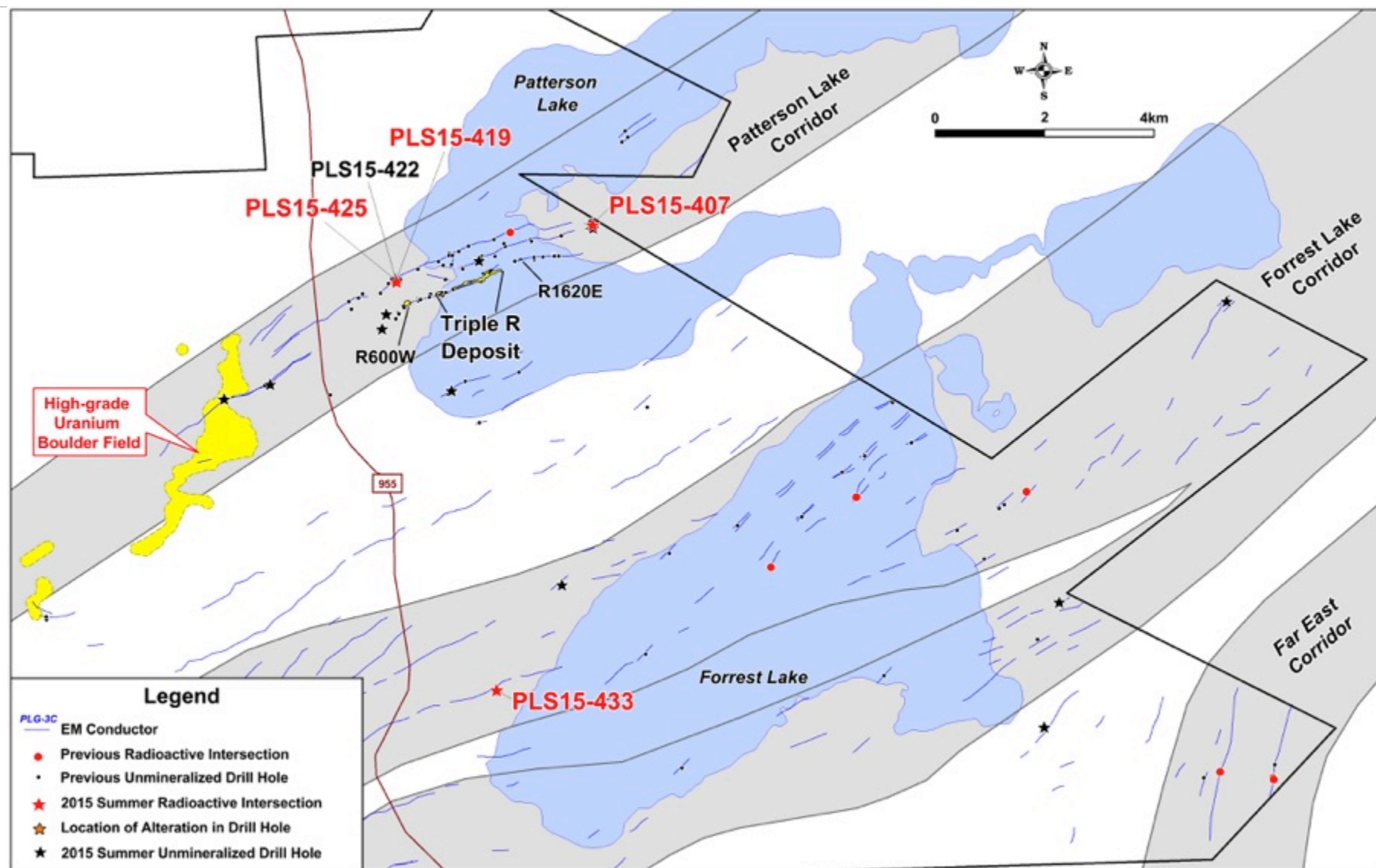




# Cross Sections R600W and R780E - Similar Features

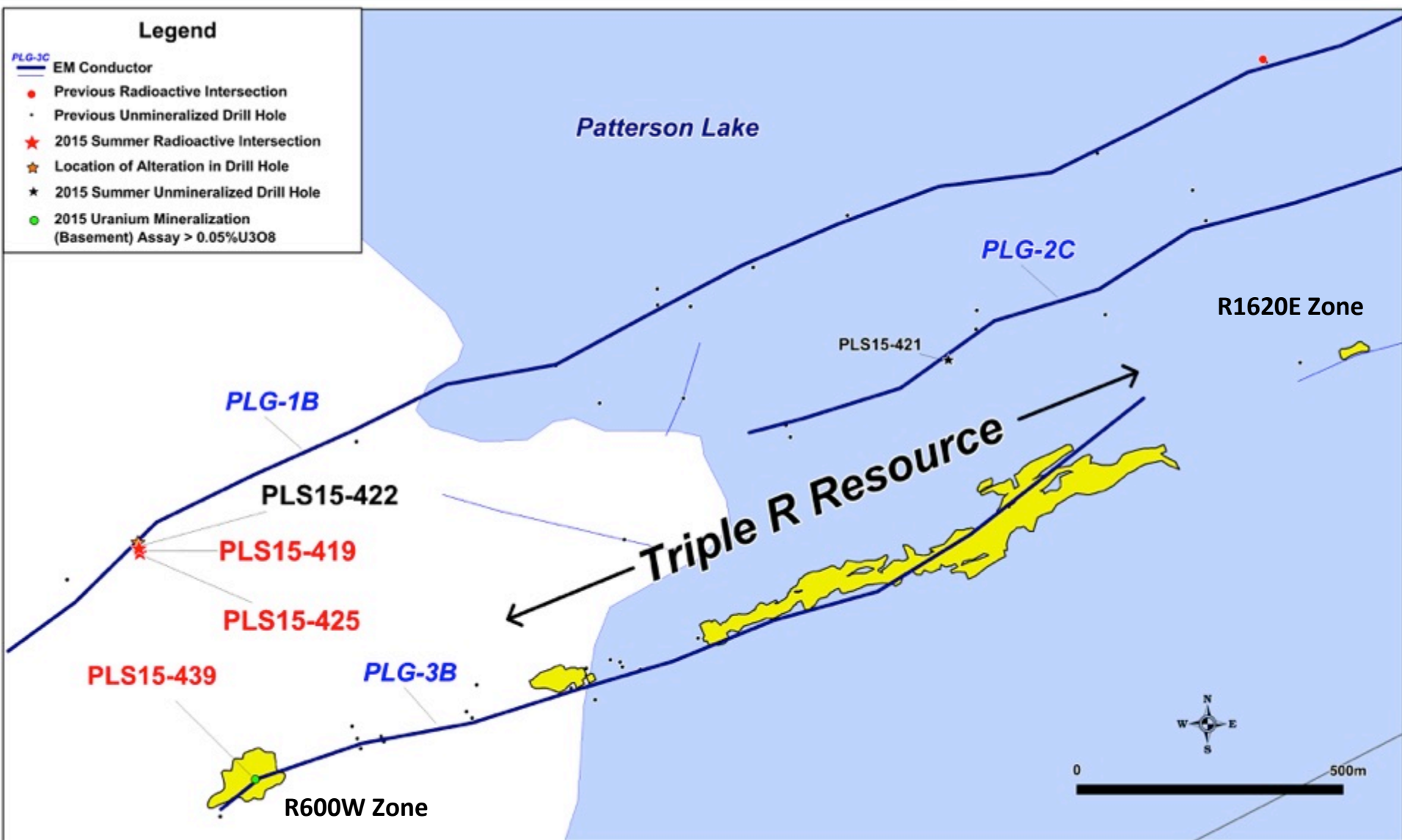


# Exploration Upside at PLS





# New Targets North of 2.33km Mineralized Trend



# Corporate Information

## Financial Summary

Market Cap: C\$ 224 million  
*(as at December 10, 2015)*

Cash: C\$ 12 million  
*(as at September 30, 2015)*

Daily trading Ave. (3 month) 1.2 million

Shares outstanding: 386.7 million

Warrants: 1.4 million

Options: 33.1 million

Fully diluted: 421.2 million  
*(as at October 31, 2015)*

## Analyst Coverage

David Talbot — Dundee Securities, Toronto

Rob Chang — Cantor Fitzgerald, Toronto

David Sadowski — Raymond James, Vancouver

Colin Healey — Haywood Securities, Vancouver

Heiko Ihle — H. C. Wainwright & Co., New York

Louis James — Casey Research, Florida

## Management Team:

Dev Randhawa, MBA — Chairman, CEO, Director  
Ross McElroy, P.Geol. — President & COO, Director  
Paul Charlsh - CFO  
Rich Matthews - Head of Marketing & IR

## Board of Directors:

Dev Randhawa, MBA — Chairman, CEO, Director  
Ross McElroy, P.Geol. — President & COO, Director  
Frank Estergaard, CA — Director  
William Marsh — Director  
Jeremy Ross — Director  
Anthony Milewski — Director

## Advisory Board:

Ron Netolitzky  
Michael Halvorson  
Chief Teddy Clark

# Fission's Management Team

## Dev Randhawa, Chairman & CEO

- Fission Energy founding CEO and chairman from 2007 to 2013 leading company to Tier One status
- **Finance Monthly 'Dealmaker of the Year 2013', Northern Miner 'Person of the Year 2013'**
- Founder of Pacific Asia China Energy, sold for \$34M

## Ross McElroy, President and COO

- Formerly with Cameco, Areva, BHP Billiton
- **PDAC 2014 'Bill Dennis Award for Exploration Success', Northern Miner 'Person of the Year 2013'**
- Significant role in 4 major uranium discoveries in Athabasca Basin, incl. Fission's Waterbury Lake & PLS
- Professional geologist of 25+ yrs exp

## Paul Charlish, CFO

- 30 years of finance experience including audit/tax in public practice and financial reporting and tax for public companies
- Specializes in the mining sector and is well versed in the requirements of complex regulatory environments

## Richard Matthews, IR Manager

- Experienced IR professional with considerable uranium sector experience
- Comprehensive marketing expertise in the mining sector and private business



BILL DENNIS 2014 AWARD • ROSS MCELROY

PROSPECTORS &  
DEVELOPERS  
ASSOCIATION  
OF CANADA



ROSS MCELROY and DEV RANDHAWA • Winners,  
The Northern Miner Person of the Year 2013 Award



DEV RANDHAWA • Winner, Finance Monthly  
Dealmaker of the Year 2013 Award



EY Entrepreneur  
Of The Year™

2014 Finalist

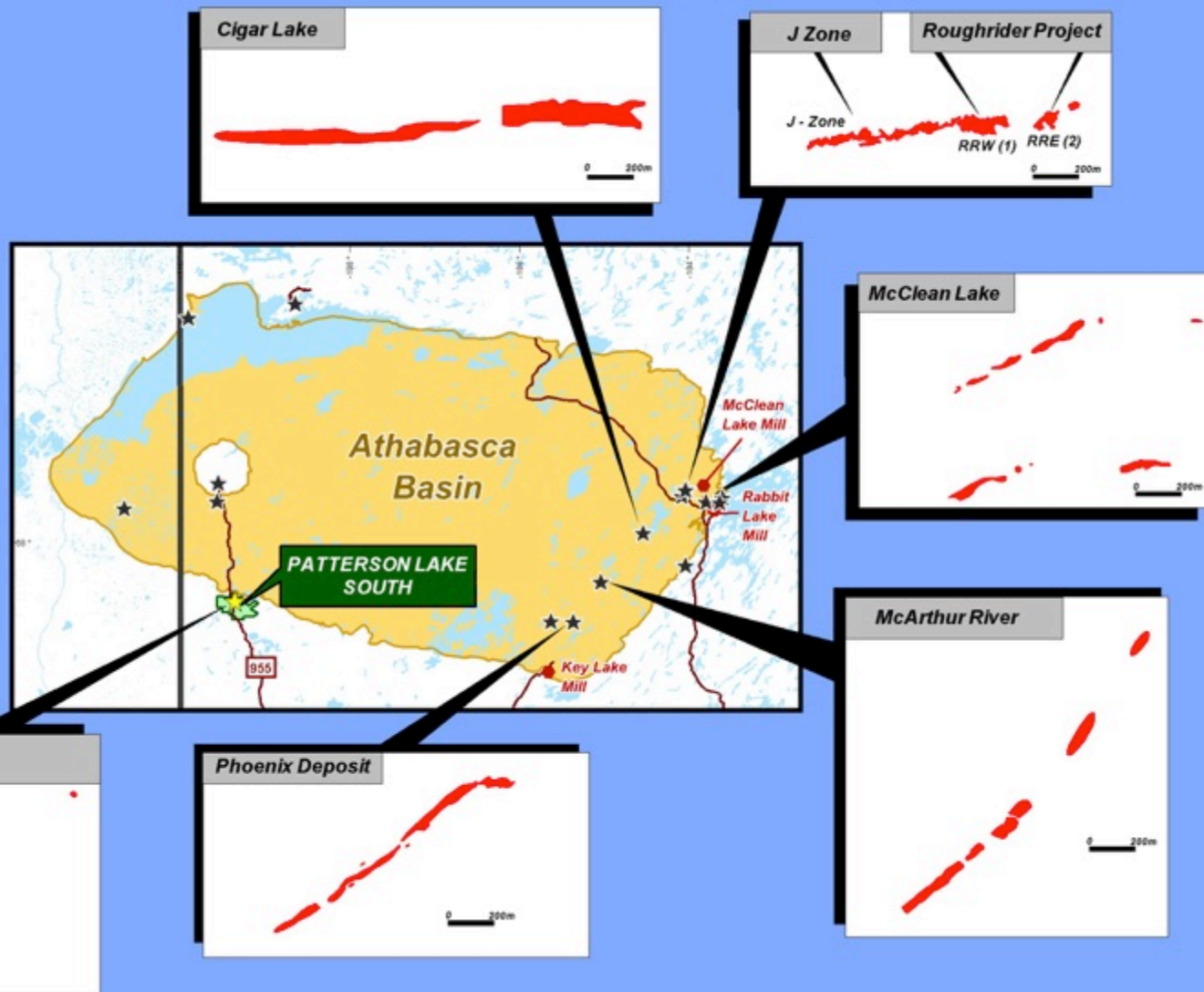


Winner, Exploration of the Year Award

# Appendix - Athabasca Basin Deposits



## Athabasca Basin Major Deposits and Mines



# Appendix - Triple R Tonnage and Grade by Cut-Off

**TABLE 14-10 TONNAGE AND GRADE BY CUT-OFF – JULY 28, 2015**  
**Fission Uranium Corp. - Patterson Lake South Property**

Classification	Cut-Off % U <sub>3</sub> O <sub>8</sub>	Tonnes	Grade % U <sub>3</sub> O <sub>8</sub>	Grade g/t Au	Pounds U <sub>3</sub> O <sub>8</sub>	Ounces Au
Indicated	0.30	1,693,000	2.13	0.67	79,324,000	37,000
	0.25	1,891,000	1.93	0.62	80,516,000	38,000
	0.20	2,136,000	1.74	0.57	81,729,000	39,000
	0.15	2,443,000	1.54	0.51	82,909,000	40,000
	0.10	2,766,000	1.37	0.46	83,797,000	41,000
Inferred	0.30	671,000	1.79	0.74	26,472,000	16,000
	0.25	778,000	1.58	0.67	27,123,000	17,000
	0.20	917,000	1.38	0.59	27,809,000	18,000
	0.15	1,091,000	1.18	0.52	28,479,000	18,000
	0.10	1,378,000	0.96	0.43	29,271,000	19,000

**Notes:**

1. CIM definitions were followed for Mineral Resources.
2. Mineral Resources are reported within the preliminary pit design at a pit discard cut-off grade of 0.20% U<sub>3</sub>O<sub>8</sub> and outside the design at an underground cut-off grade of 0.25% U<sub>3</sub>O<sub>8</sub> based on a long-term price of US\$85 per lb U<sub>3</sub>O<sub>8</sub> and PEA cost estimates. For the purposes of this table, the open pit and underground Mineral Resources are combined.
3. A minimum mining width of 2.0 m was used.
4. Numbers may not add due to rounding.





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