



Exploration Project
of the Year
Mining Journal
Outstanding
Achievement
Awards

Early Days at PLS

121 Conference
New York, NY June 6-7, 2017

FissionUranium.com

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.

Technical Information

Certain of the technical information contained herein is derived from the September 15, 2015 report entitled "Technical Report on the Preliminary Economic Assessment of the Patterson Lake South Property, Northern Saskatchewan, Canada" (the "PEA") – a copy of which is filed on the Company's profile on SEDAR at www.sedar.com. Readers should be aware that the PEA is preliminary in nature, that it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized. The PEA considers the PLS project as a stand-alone mine and mill operation, which includes development and extraction of the R00E and R780E zones (Triple R deposit) and that the PEA study is based on a number of qualifications and assumptions including the following (all values in C\$ unless otherwise noted):

Mineral Resources are reported within the preliminary pit design at a pit discard cut-off grade of 0.20% U3O8 and outside the design at an underground cut-off grade of 0.25% U3O8 based on a long-term price of US\$65 per lb U3O8 and PEA cost estimates. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability

Physicals:

- Three years of pre-production and 14 year mine life, processing nominally 1,000 tonnes per day (350,000 tonnes per year)
- Total Tonnes Processed: 4.8 million tonnes at 1.00% U3O8 average grade; open pit mining of 1.56 million tonnes at 2.21% U3O8
- Underground mining of 3.25 million tonnes at 0.42% U3O8
- Process recovery of 95%, supported by metallurgical testwork
- Production of 100.8 million lbs U3O8; an average of 13 million lbs U3O8 per year for 6 years, followed by an average of 3 million lbs U3O8 per year for 8 years

Revenue:

- Long term uranium price of US\$65 / lb U3O8
- Exchange rate of 0.85 US\$ / C\$1.00
- Gross revenue of \$7.71 billion, less Saskatchewan gross revenue royalties of \$556 million
- Less product transportation charges of \$34 million
- Net revenue of \$7.12 billion

Operating Costs

- Average OPEX of \$16.50/lb (US\$14.02/lb) U3O8 over the life of mine
- Unit Operating Costs of \$346 per tonne processed. Combined Mining \$154 per tonne processed
- Processing: \$114 per tonne processed
- Surface and G&A: \$78 per tonne processed
- Operating cash flow of \$5.45 billion

Capital Costs

- Pre-Production capital costs of \$1.1 billion
- Open pit mining \$363 million (includes dyke, slurry wall, and overburden removal)
- Process plant \$198 million
- Infrastructure \$117 million
- Indirects \$209 million
- Contingency \$208 million
- Sustaining capital costs of \$189 million (includes completion of overburden stripping, all underground mine capital costs, and tailings dam lifts)
- Reclamation and closure cost of \$50 million
- Cash flow from operations of \$4.12 billion

Award Winning Project and Team



PROSPECTORS &
DEVELOPERS
ASSOCIATION
OF CANADA

BILL DENNIS 2014 AWARD • ROSS McELROY



Dev Randhawa • Ross McElroy
Mining Person/s of the Year, 2013



Winner, Exploration of the Year Award



2014 FINALIST

Building Shareholder Value Since 1996

Strathmore Minerals Corp ('96)

- 1996 - Uranium at \$7/lb
- \$2M Mkt Cap ('96) to > \$457M ('07)
- Sumitomo Corp (Japan) JV (\$50M)
- Fission Energy Spin out (\$132M)



Fission Energy Corp ('07)

- \$16M Mkt Cap ('07) to > \$150M ('13)
- JV KEPCO (Korea) (\$44M)
- J-Zone Discovery & Sale to Denison (\$85M)
- Triple R Discovery



Fission Uranium Corp ('13)

- Fission takeover of Alpha Minerals (\$350M) Fission 3.0 Spin-Out (\$25M)
- Triple R 43-101 Resource 81.1M Indicated 27.2M Inferred
- PEA - OPEX \$14.02/lb US
- CGN (Chinese Utility) buys 19.99% (\$82M)

Major Exploration Success and Strong Prospects



New Discoveries: Still Early Days



Large, High Grade, Shallow



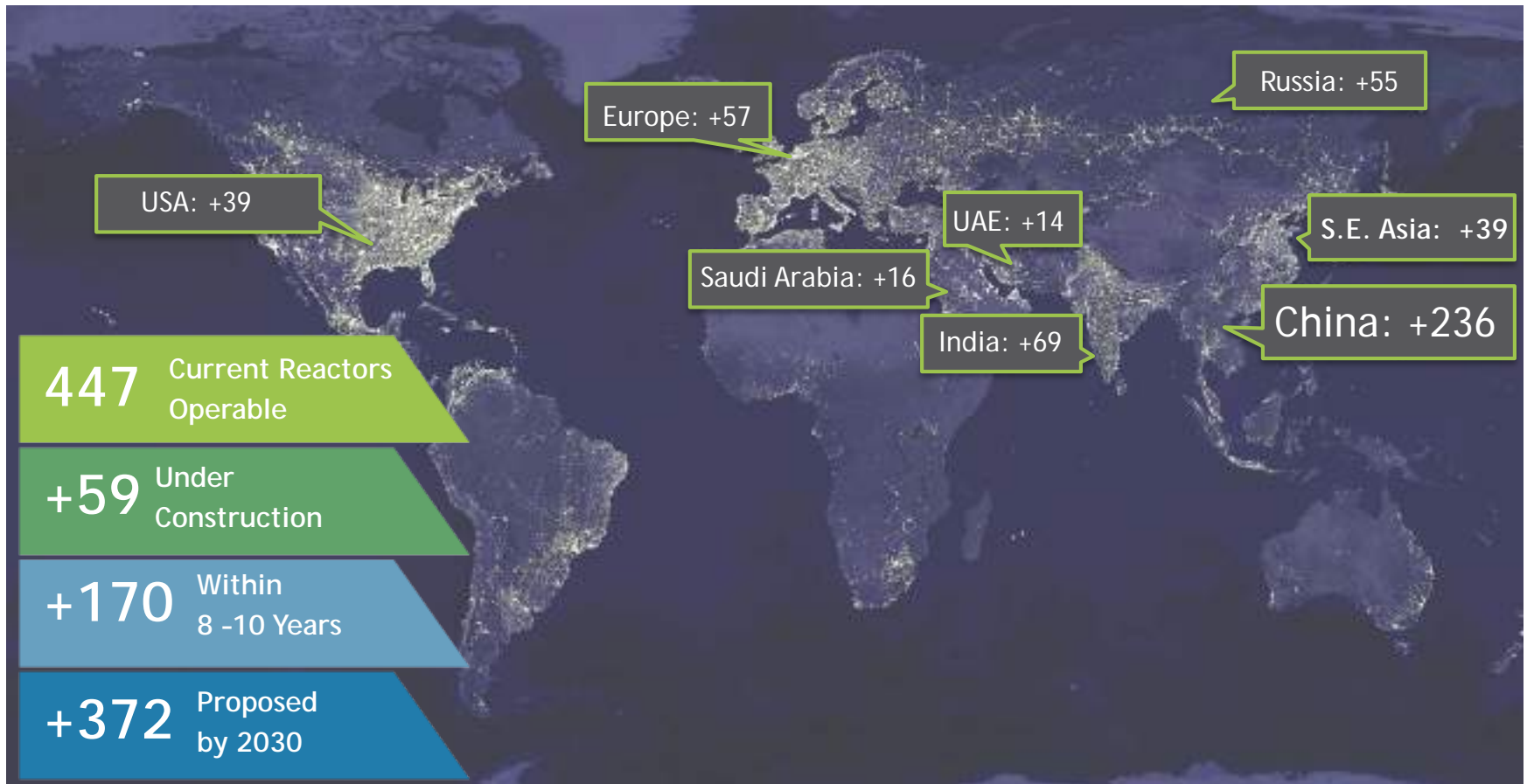
Resource Backed by PEA



Leading Jurisdiction

Electricity Demand +150% by 2035, Reactor Numbers Rising

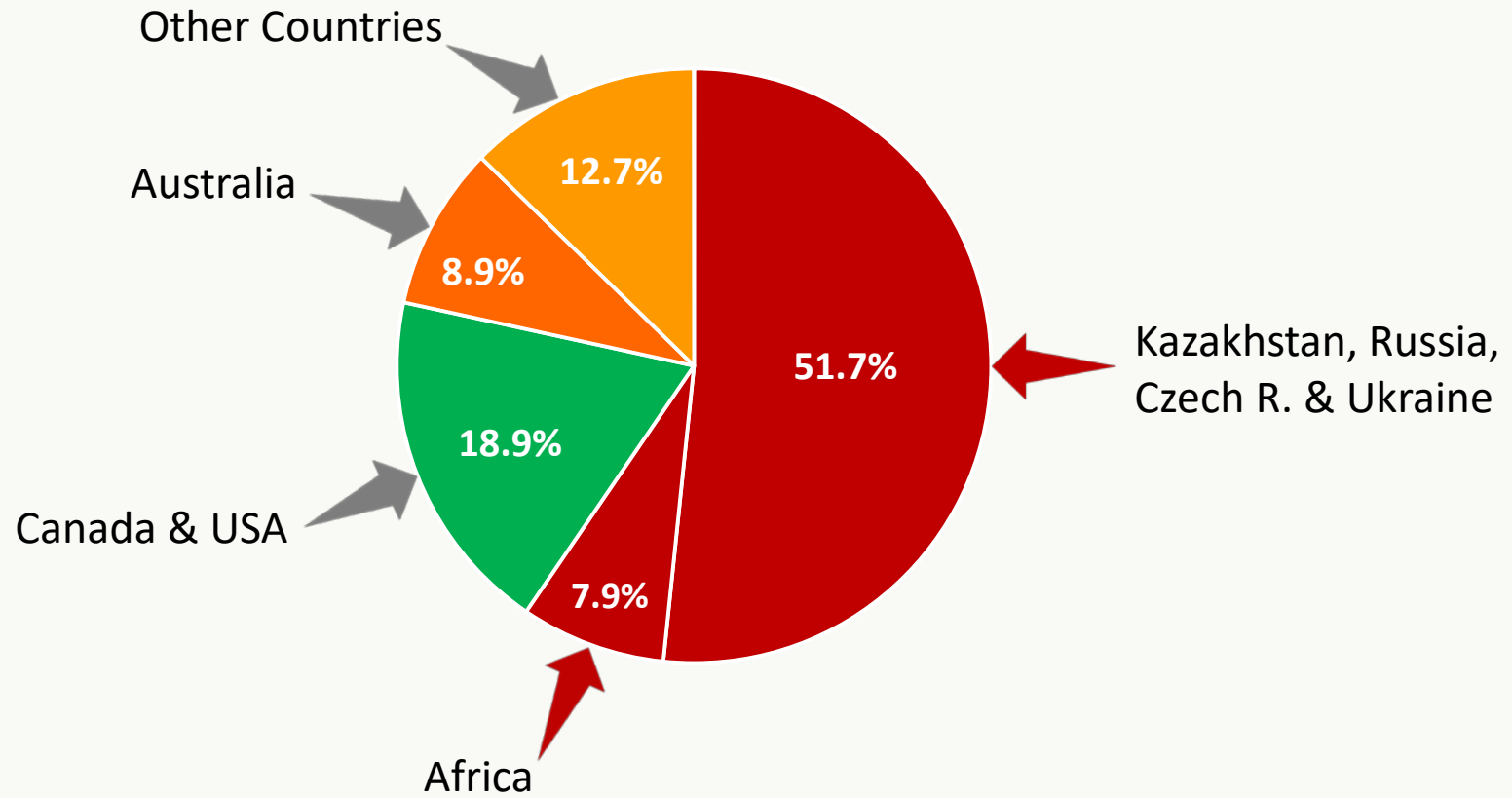
More reactors operating in 2017 than in any other time in history – 20% world energy



Forecast new reactors by 2030. (Source: World Nuclear Association, May 1, 2017)

Supply Side Vulnerable to Geopolitical Instabilities

Nearly 60% of primary supply comes from politically unstable sources

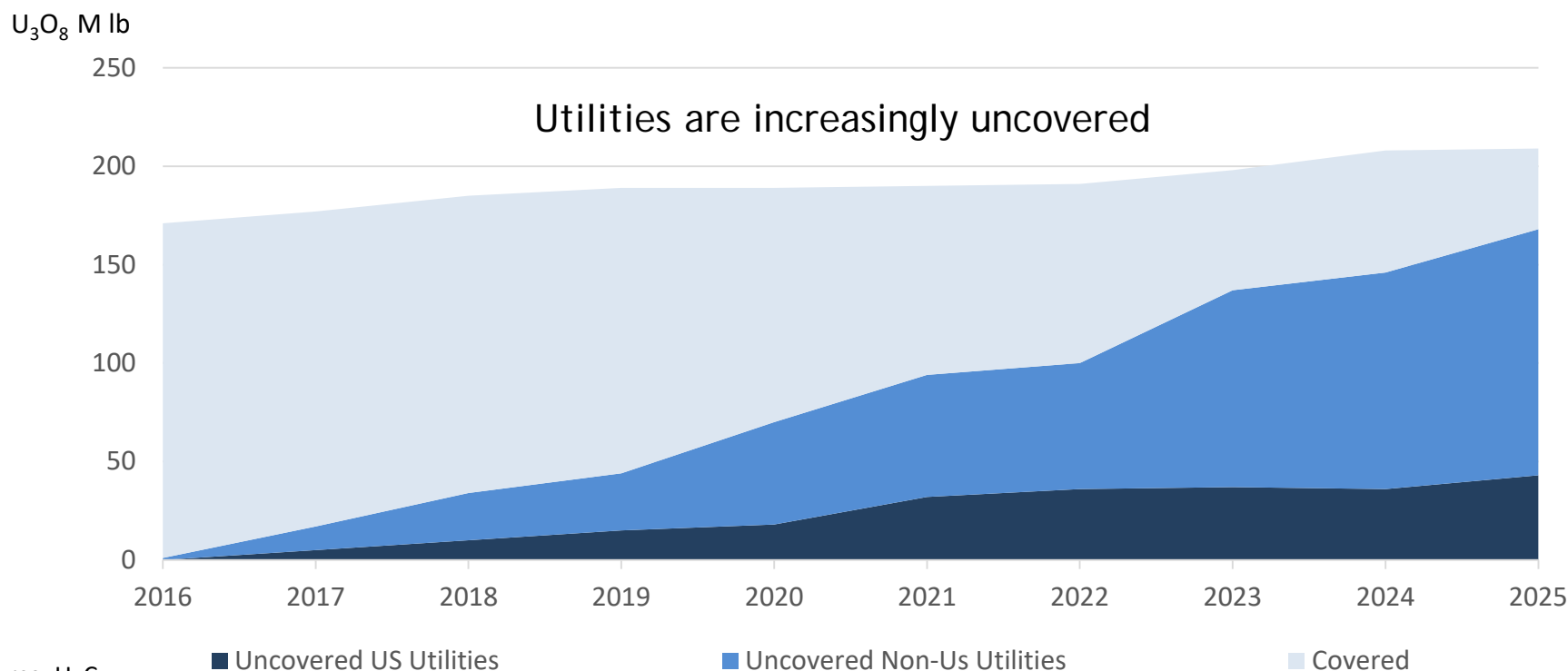


1B lbs U_3O_8 Uncovered in Next 8 Years But Supply Still Being Cut

Kazatomprom - announces 10% production cut for 2017

Cameco - low U_3O_8 price impact:

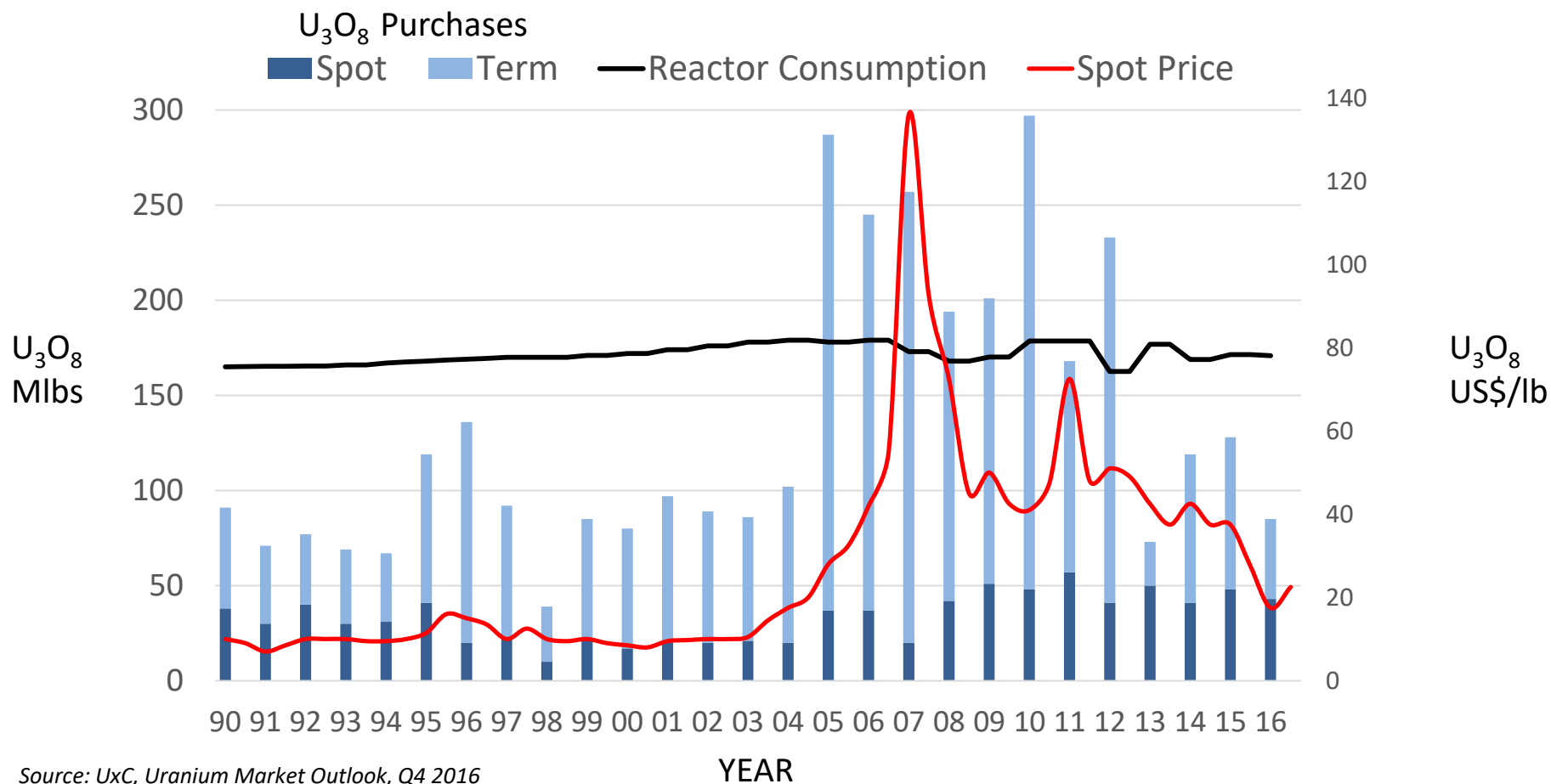
- operations shut down at Rabbit Lk and Eagle Pt 2016
- planned production cuts at McArthur River and Cigar Lk in 2017
- Yeelirre Mine production delayed



Source: UxC

Pressure is Growing for Return to Contracting

- *Lack of long-term contracting leaves utilities exposed*
- *For contracting to return, prices will have to rise*
- *The longer the wait, the stronger the upwards pressure on pricing*

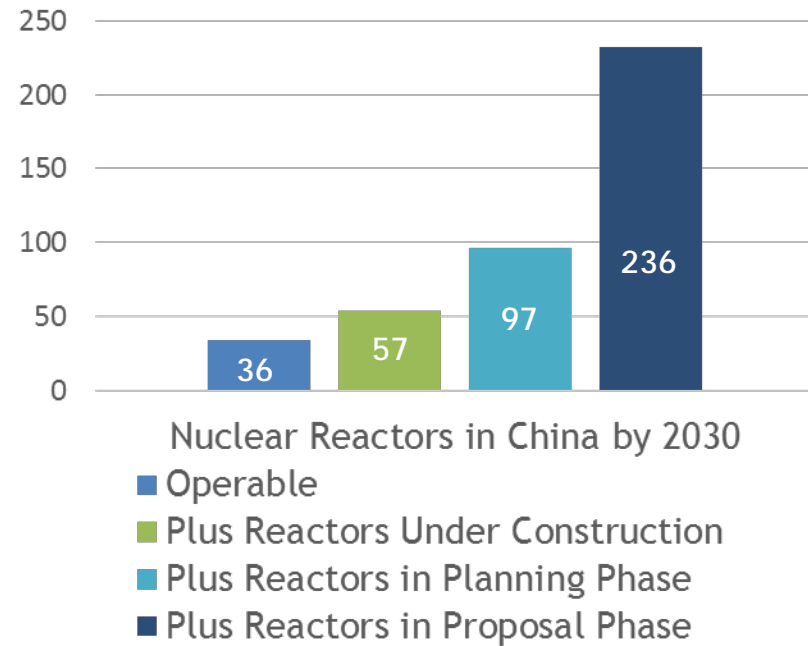


China's Leading Nuclear Builder Owns 19.9% of Fission



A sunny day in Beijing, China: Red Alert

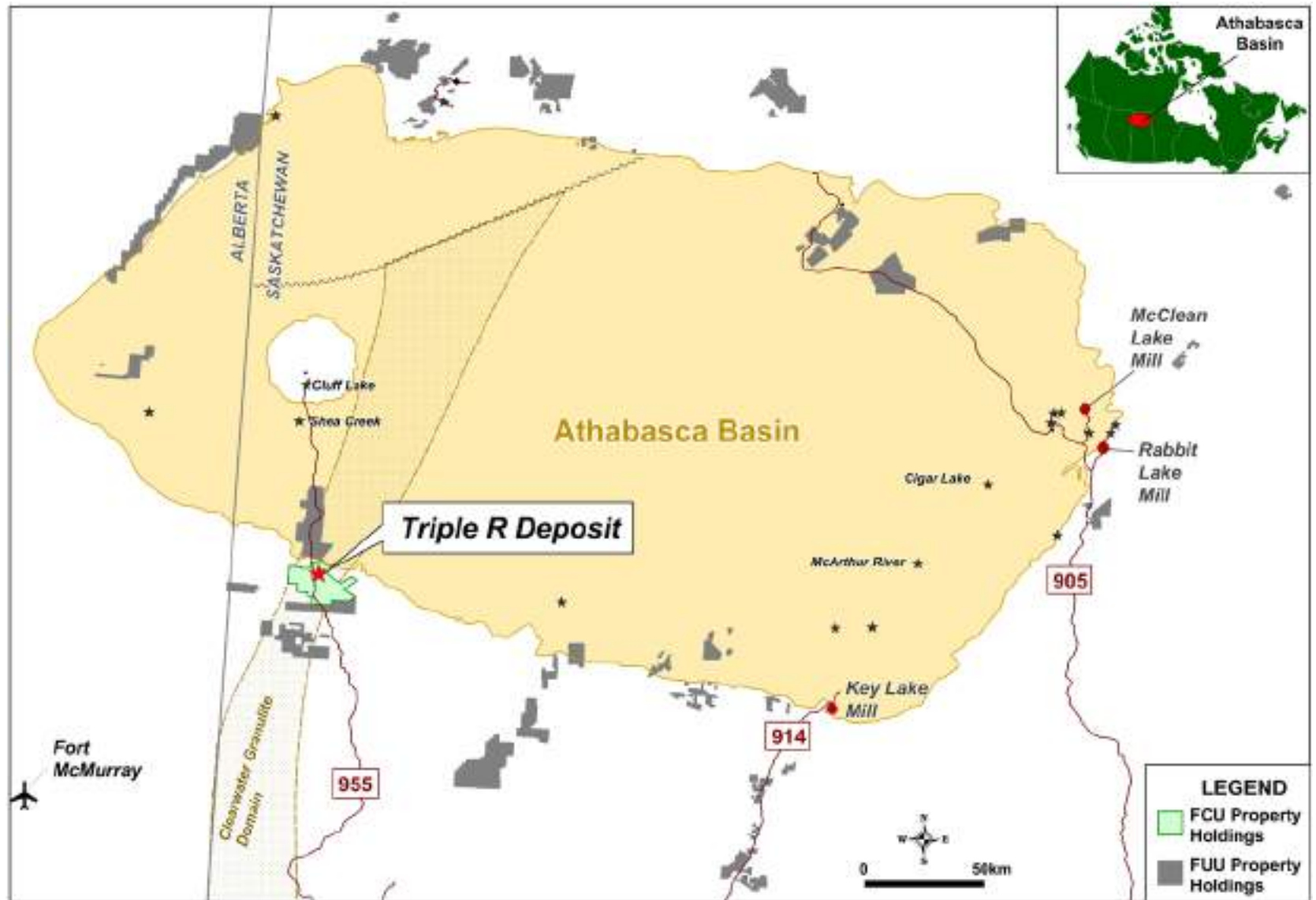
China's Reactor Construction Boom



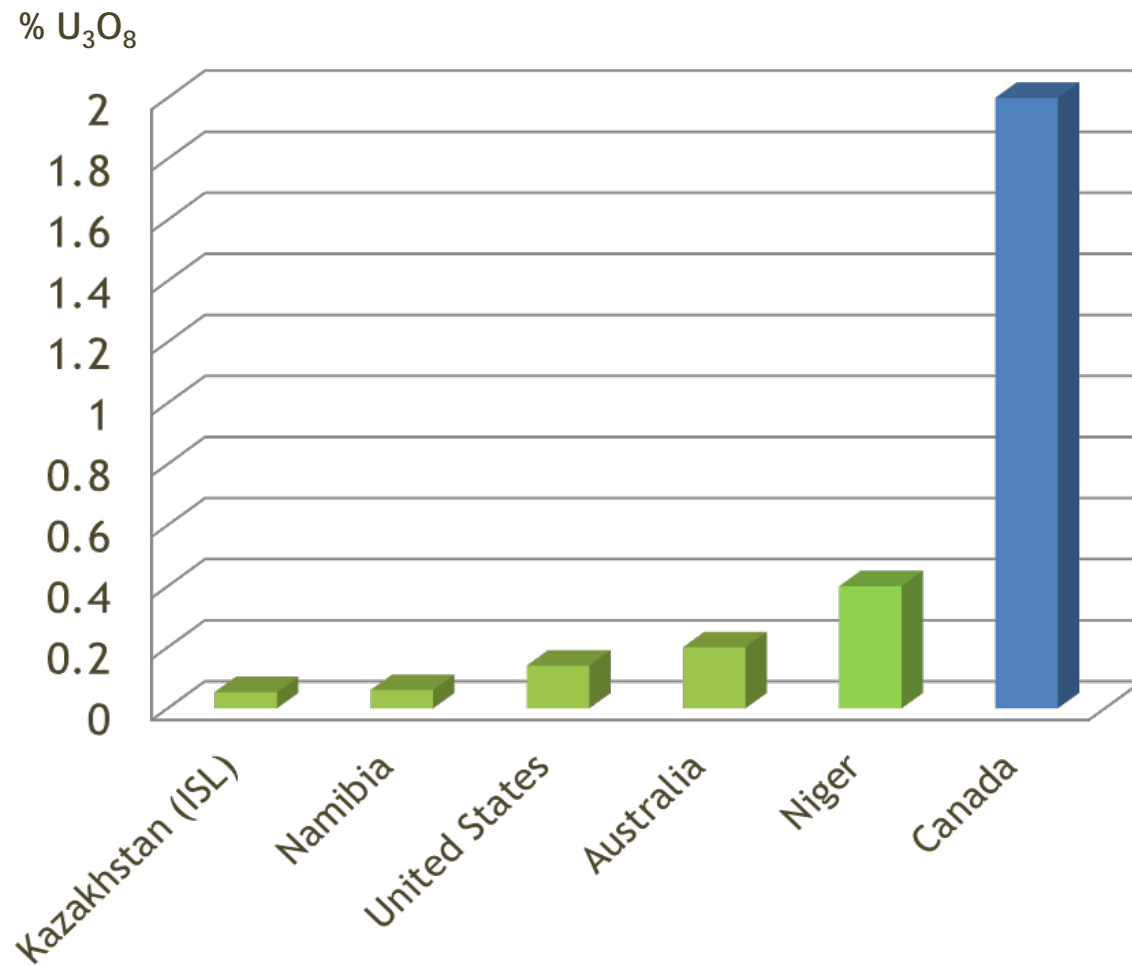
Fission's Strategic Partner

- CGN has 19 operating reactors and a further 23 new reactors in the construction phase
- CGN Mining will purchase 20% of annual uranium production from PLS; option to purchase additional 15% at industry std terms

Canada's Athabasca Basin District



Athabasca: The Premier High-Grade Uranium District



ENVIRONMENT

- Political stability
- Pro-mining
- Permitting

INFRASTRUCTURE

- Mills nearby
- Power Grid
- Highways & Air

EXPERIENCE

- 60+ years of mining
- Supplies 16% of the world's uranium

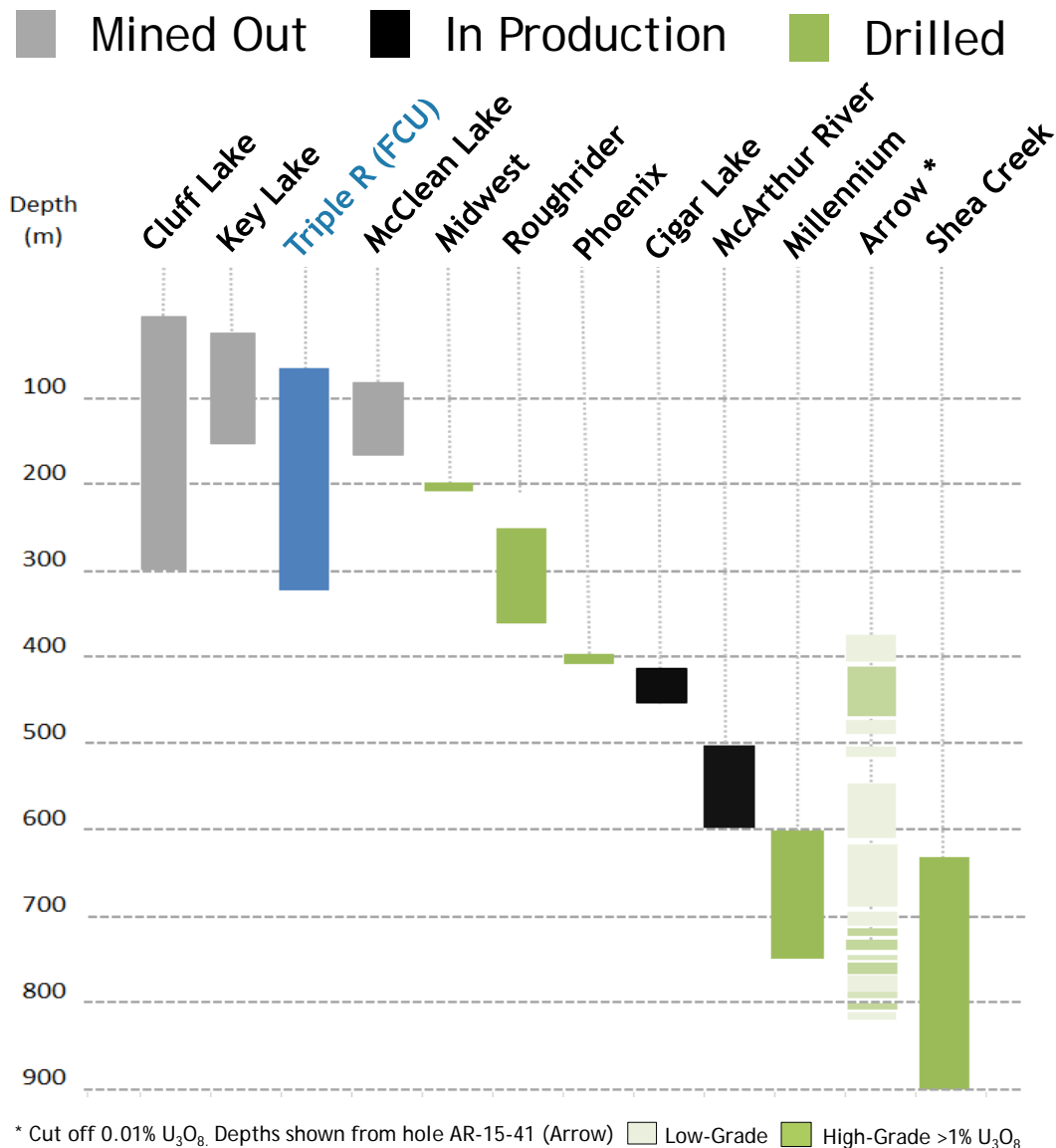
Low Hanging Fruit Picked First



McClean Lake Mine, Saskatchewan, Canada

OPEN PIT MINING

- Multi-decade, safe & successful history of open-pit uranium mining, using standard open-pit mining & dust suppression techniques
- Previous open pit uranium mines include: Key Lake, Cluff Lake, Rabbit Lake, McLean Lake



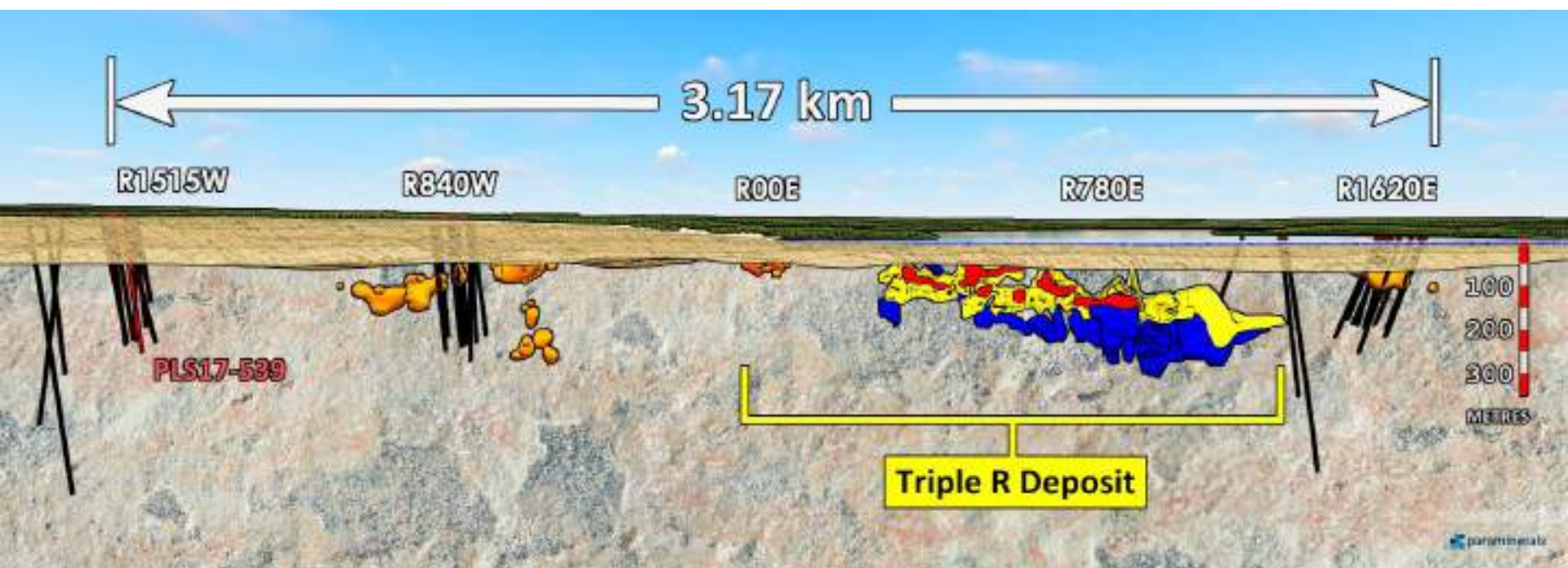
Early Days at PLS: Triple R Deposit & New Zones

"Total E-W strike length is now well beyond that of even Cigar Lake (1.95 km) or McArthur River (1.70 km) - such a lateral extent to us underlines the magnitude of the strength of the mineralizing system at PLS."

Raymond James



Triple R Deposit & New Zones Cross Section Looking North



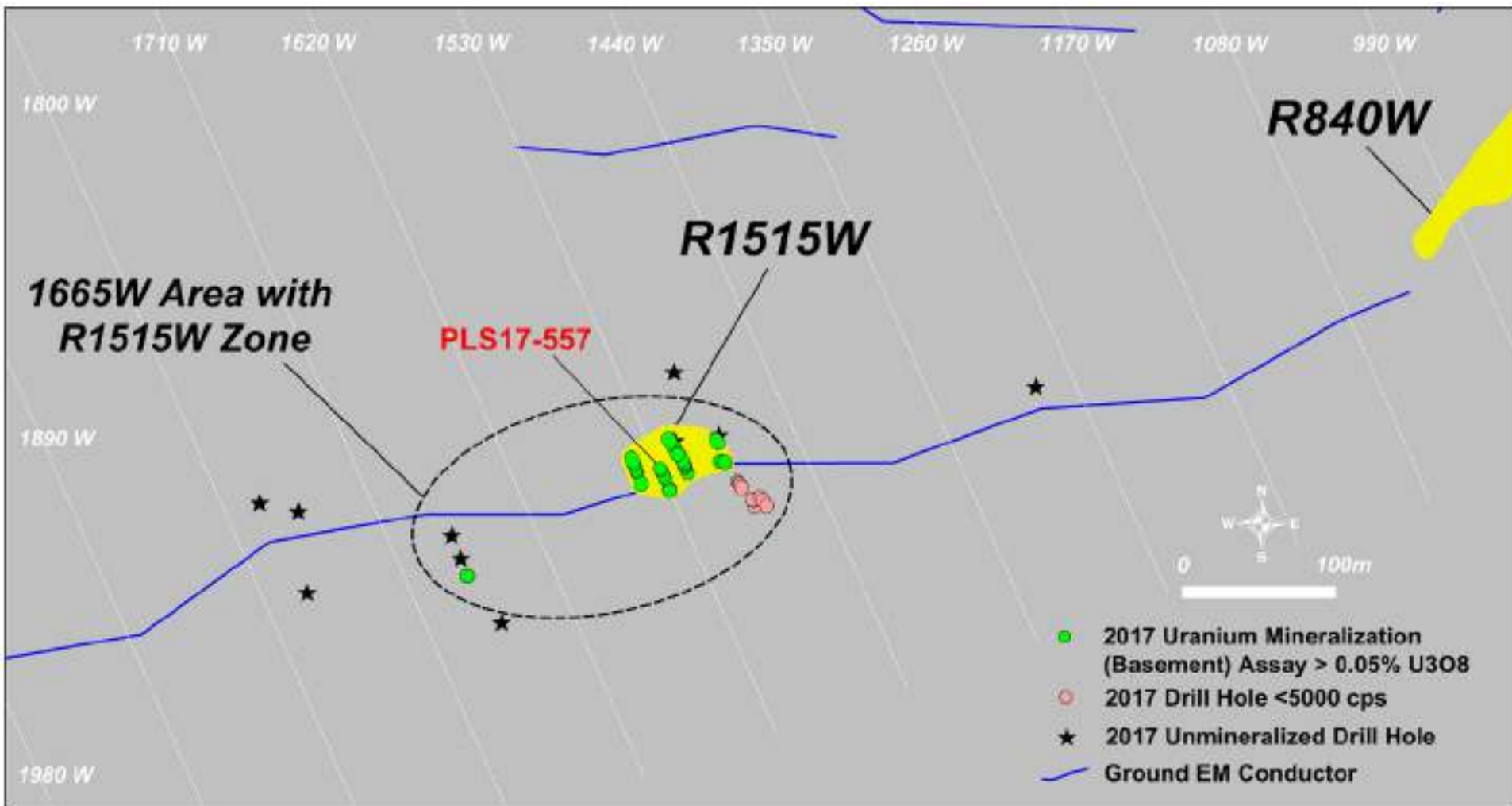
Triple R Deposit – Economic U_3O_8 Resources⁽¹⁾

Indicated **81.1M lbs** at 1.83% U_3O_8

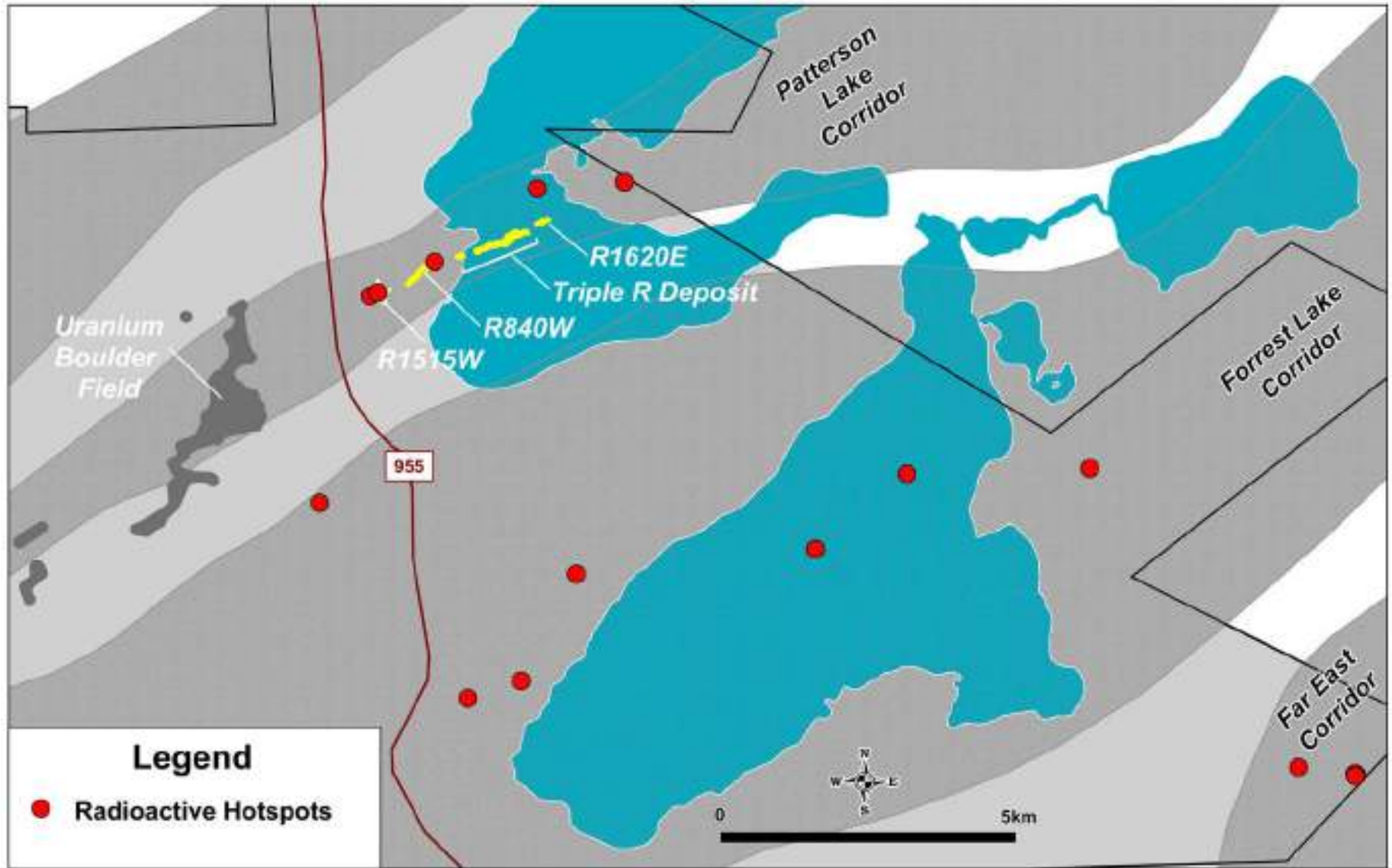
Inferred **27.2M lbs** at 1.57% U_3O_8

(1) Please see legal disclaimer on slides 2 and 3 of this presentation

Another New Zone Discovered (March 2017)



Exploration Potential



Early Days at PLS: Looking Ahead



Exploration Goals 2017

- Expand New High-Grade Discoveries
- Follow up on exploration hotspots
- Expand Triple R Deposit
- Test gaps between zones
- Exploration “Wildcat” drilling
- Geological Surveys
- Resource Estimate Update

Innovation continues to cut drilling costs helping to conserve capital

Progressing PLS Towards Potential Production

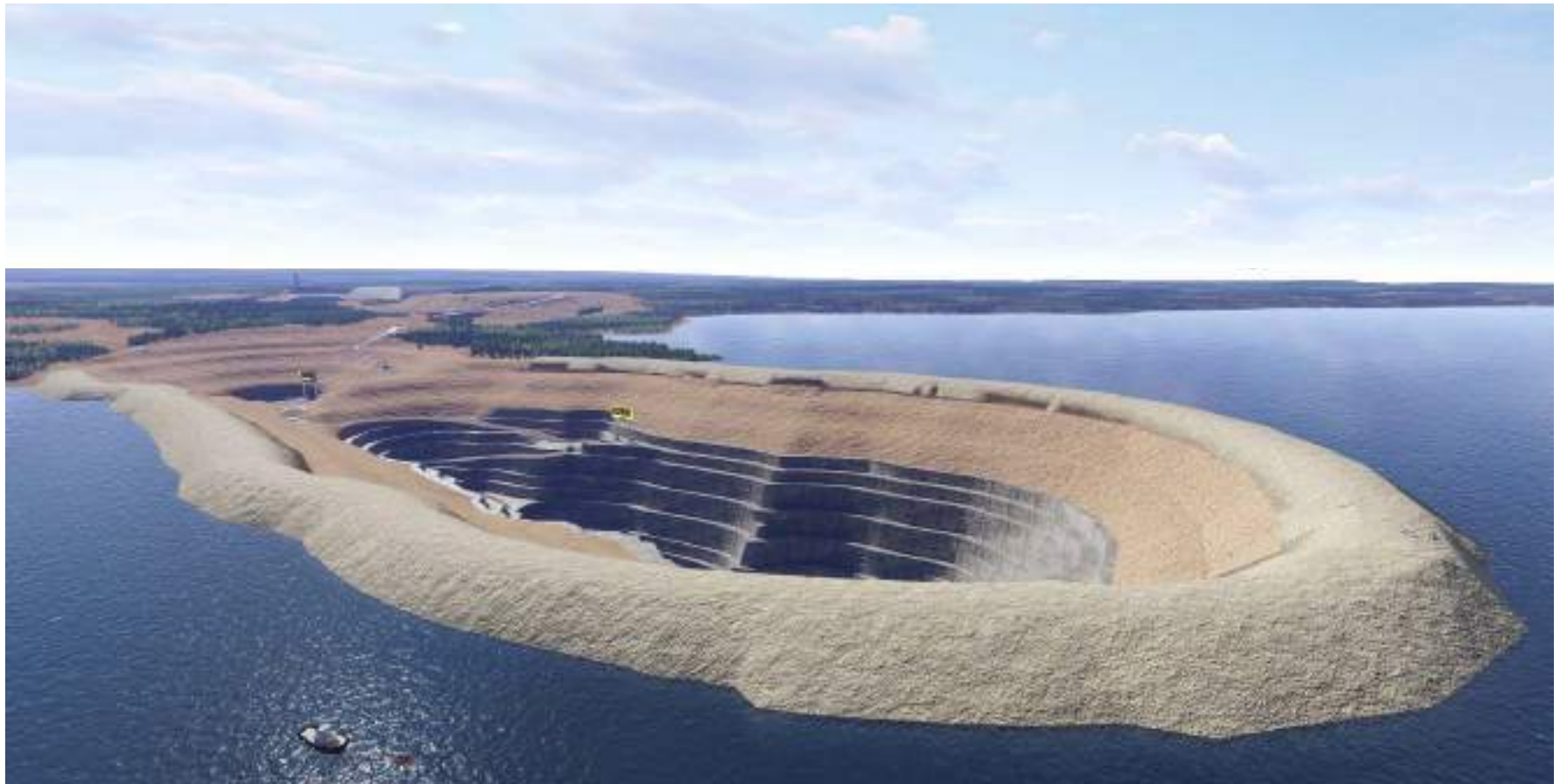
PFS estimated at \$15M Cdn*

Q3, 2017
Summer Drill Program

Q4, 2017
Resource Update

Q4, 2018
Baseline Studies Complete
Possible PFS

Q4, 2019
FS Complete
Submit EA



* Based on PEA

How the Triple R Measures Up

- **Average OPEX of US\$14.02/lb U₃O₈**
- **Rapid 1.4 yr pay back (pre-tax), 1.7 yr (post-tax)**
- Pre-tax NPV \$1.81 bln, post-tax NPV \$1.02 bln (10% discount rate)
- Pre-tax Net Cash Flow over LOM of \$4.12 bln, post-tax \$2.53 bln
- Pre-tax IRR 46.7%, post-tax IRR 34.2%
- Estimated CAPEX of \$1.1 billion

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

- (1) Base case using US\$65/lb U₃O₈ and an exchange rate of US\$0.85:CAD\$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

Corporate Information

Financial Summary

Market Cap: C\$305 million
(as at June 2, 2017)

Cash: C\$ 54.7 million
(as at March 31, 2017)

Daily trading Ave. (3 month) 1.8 million

Shares outstanding: 484.5 million
Options: 48.5 million
Fully diluted: 533.0 million
(as at Mar.31, 2017)

Analyst Coverage

David Talbot — Eight Capital, Toronto

Alex Pierce - BMO Capital Markets, London

Rob Chang — Cantor Fitzgerald, Toronto

Colin Healey — Haywood Securities, Vancouver

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

Louis James — Casey Research, Florida

Tyron Breytenbach — Cormark Securities, Toronto

Management Team:

Dev Randhawa, MBA — Chairman, CEO, Director
Ross McElroy, P.Geol. — President & COO, Director
Paul Charlish - 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
Anthony Milewski — Director
Raffi Babikian — Director
Paul Ma — Director
Xing Jianhua — 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

- Nearly 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
- Played an instrumental role in mergers, acquisitions, spin outs and divestments for mining companies, including Fission Energy and Fission Uranium

Richard Matthews, Head of Marketing and IR

- 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



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