



**Fission**  
URANIUM CORP.

Suite 700 – 1620 Dickson Ave.  
Kelowna, BC V1Y 9Y2

[rich@fissionuranium.com](mailto:rich@fissionuranium.com)  
[www.fissionuranium.com](http://www.fissionuranium.com)

TSX SYMBOL: FCU  
OTCQX SYMBOL: FCUUF  
FRANKFURT SYMBOL: 2FU

February 20, 2018

## **Fission Increases Indicated Resource; Doubles Inferred Resource**

### ***Continued Growth in Resource Reaffirms Triple R's Status as the Most Significant Shallow-Depth Uranium Deposit in the Athabasca Basin Region***

**FISSION URANIUM CORP.** ("**Fission**" or "**the Company**") is pleased to announce the results of an updated independent resource estimate for the Triple R deposit, which now includes the R1515W, R840W, R00E, R780E and R1620E zones at its 100% owned, award-winning Patterson Lake South (PLS) property in Canada's Athabasca Basin region. The updated resource represents a 95% increase in pounds U<sub>3</sub>O<sub>8</sub> classified as Inferred and an 8% increase in pounds U<sub>3</sub>O<sub>8</sub> classified as Indicated as compared to the previous Mineral Resource dated July 28, 2015. The increase in resource classified as Indicated is primarily due to infill drilling on the R780E zone, while the increase in resource classified as Inferred is primarily due to the discovery and delineation of the R1620E, R840W, and R1515W zones. This significant increase to the overall resource, has been achieved with prudent spending during the last three years of low uranium prices.

#### **The Triple R deposit is now estimated to contain:**

- 87,760,000 pounds U<sub>3</sub>O<sub>8</sub> Indicated Mineral Resource based on 2,186,000 tonnes at an average grade of 1.82% U<sub>3</sub>O<sub>8</sub>, including:
  - R780E high-grade zone of 48,246,000 pounds U<sub>3</sub>O<sub>8</sub> based on 119,000 tonnes at a grade of 18.39% U<sub>3</sub>O<sub>8</sub>
- 52,850,000 pounds U<sub>3</sub>O<sub>8</sub> Inferred Mineral Resource based on 1,331,000 tonnes at an average grade of 1.80% U<sub>3</sub>O<sub>8</sub>, including:
  - R780E high-grade zone of 14,710,000 pounds U<sub>3</sub>O<sub>8</sub> based on 32,000 tonnes at a grade of 20.85% U<sub>3</sub>O<sub>8</sub>

*\* Mineral Resources are reported within a preliminary open pit design at a cut-off grade of 0.15% U<sub>3</sub>O<sub>8</sub> and 0.3% for resources outside the pit that are potentially mined by underground methods. The R1620E, R840W and R1515W zones are evaluated as underground at this time.*

**Ongoing 'Triple R' Resource Growth and Exploration in 2018:** Fission is already targeting further growth of the R1515W zone in the current winter 2018 program and expects to continue exploration and resource growth in subsequent programs. Additionally, the 2018 winter drill program is focussing on geotechnical data gathering, and infill drilling in the R780E zones as part of the Pre-Feasibility Study "PFS" related work. There will be another update to the resource model after the 2018 drilling program, and that model will be used for the PFS work. Resource updates will be fully documented along with PFS results.

**Triple R is the Most Significant Large Near-Surface, High-Grade, Undeveloped Uranium Deposit in Athabasca Region:** This resource estimate reaffirms Fission's Triple

R deposit as an elite deposit in a group of high-grade uranium deposits of the Athabasca Basin region.

**Increased Size of Gold Resource:** Gold mineralization occurs within all of the zones of the Triple R deposit. The current resource estimate shows an increase in both the indicated and inferred category:

- 39,200 ounces Au Indicated Mineral Resource based on 2,186,000 tonnes of mineralization at an average grade of 0.56 g/t Au
- 24,000 ounces Au Inferred Mineral Resource based on 1,331,000 tonnes of mineralization at an average grade of 0.56 g/t Au

\* Prior to compositing, gold assays were cut to 10 g/t for all domains, and to 5 g/t outside the resource domain wireframes.

## Key Highlights

- **Value Added in Conjunction with Minimal Expenditures:** Fission has successfully added significantly to the overall resource, while at the same time being mindful of shareholder value and uranium sector market conditions, including low uranium prices, by being prudent in spending during the last three years
- **Deposit contained entirely in Basement Lithology**
- **Continued, Strong Growth Potential:** The Patterson Lake Corridor mineralized trend is open along strike and at depth. The current winter 2018 program is, in part, focusing on further growth of the R1515W zone.

Ross McElroy, President, COO, and Chief Geologist for Fission, commented,

"Our high-grade, near-surface, basement lithology-hosted deposit, in the world's premier high-grade uranium district, now has an Indicated Resource estimate of 87,760,000 pounds  $U_3O_8$ , plus 52,850,000 pounds  $U_3O_8$  in the Inferred category. We are also very pleased with the increased gold mineralization, which has the potential to enhance the economics of the deposit. With the deposit open in multiple directions, there is superb potential for continued growth. This is particularly the case for the R1515W zone, which is a high-priority focus in our current winter exploration program. Overall, this new resource estimate is a strong milestone as we continue towards pre-feasibility."

## Resource Estimation Methodology

The updated Mineral Resource estimate, reported herein, was completed by RPA Inc. (RPA) – a recognized independent consulting firm with significant resource estimation experience in high-grade Athabasca uranium deposits. For the updated Mineral Resource estimate, RPA used data collected from multiple diamond drilling campaigns completed during the last five years, including a total of 189,000 metres of drilling in 605 drill holes available as of January 4, 2018, which includes all drilling on the property up to hole PLS17-568. Estimated block model grades are based on chemical assays only. Mineral Resources are reported at a cut-off grade of 0.15%  $U_3O_8$  within the pit design used in the 2015 PEA and at a cut-off grade of 0.30%  $U_3O_8$  outside of the pit design for resources potentially accessed from underground mining methods. Mineral Reserves have not yet have been estimated at the project.

A set of cross-sections and level plans were interpreted to construct three-dimensional wireframe models for the mineralized zones at a minimum grade of 0.05%  $U_3O_8$ . Wireframes of the High Grade domain were created at a minimum grade of approximately 5%  $U_3O_8$ . The High Grade domain consists of one lens in the R840W Zone and seven lenses within the

R780E Main Zone, the largest continuous zone within the Triple R deposit area. Prior to compositing to two metre lengths, high U<sub>3</sub>O<sub>8</sub> assays were cut to 55% in the R780E High Grade domain, 35% in the R840W High Grade domain, 20% in the R840W Low Grade domain, 10% U<sub>3</sub>O<sub>8</sub> in all other domains, and to 7% U<sub>3</sub>O<sub>8</sub> outside the resource domain wireframes, designated as Low Grade Halo. Prior to compositing, Gold assays were cut to 10 g/t for all domains, and to 5 g/t outside the resource domain wireframes.

Block model grades were interpolated by inverse distance cubed (ID<sup>3</sup>). Density values were estimated from more than 2,000 measurements to be: 2.25 t/m<sup>3</sup> for the R00E Zone, 2.32 t/m<sup>3</sup> for the Main Zone and other zones in the R780E area, 2.35 t/m<sup>3</sup> for the High Grade Zone, and 2.39 t/m<sup>3</sup> for the Low Grade Halo. Classification into the Indicated and Inferred categories was guided by the drill hole spacing and the continuity of the mineralized zones.

The updated resource estimate represents an 8% increase in pounds U<sub>3</sub>O<sub>8</sub> classified as Indicated, and a 95% increase in pounds U<sub>3</sub>O<sub>8</sub> classified as Inferred as compared to the previous Mineral Resource dated July 28, 2015. The increase in resource classified as Indicated is primarily due to infill drilling while the increase in resource classified as Inferred is primarily due to the discovery and delineation of zones R1620E, R840W, and R1515W.

**Table 1 Mineral Resource Statement – February 20, 2018**

Classification	Tonnes	Grade (%U <sub>3</sub> O <sub>8</sub> )	Grade (Au g/t)	U <sub>3</sub> O <sub>8</sub> (lb)	Gold (oz)
<b>Indicated</b>					
Open Pit	1,335,000	2.24	0.54	66,061,000	23,200
Underground	852,000	1.16	0.59	21,700,000	16,000
<b>Total Indicated</b>	<b>2,186,000</b>	<b>1.82</b>	<b>0.56</b>	<b>87,760,000</b>	<b>39,200</b>
<b>Inferred</b>					
Open Pit	101,000	6.58	1.12	14,652,000	3,600
Underground	1,233,000	1.41	0.51	38,198,000	20,000
<b>Total Inferred</b>	<b>1,331,000</b>	<b>1.80</b>	<b>0.56</b>	<b>52,850,000</b>	<b>24,000</b>

Notes:

1. CIM definitions (2014) were followed for Mineral Resources.
2. Mineral Resources are reported within a preliminary optimized open pit shell at a cut-off grade of 0.15% U<sub>3</sub>O<sub>8</sub> and 0.3% U<sub>3</sub>O<sub>8</sub> for resources outside the pit that are potentially mined by underground methods.
3. The cut-off grades are based on price of US\$55 per lb U<sub>3</sub>O<sub>8</sub> and an exchange rate of 0.80 C\$/US\$.
4. Numbers may not add due to rounding.

**Table 2 Mineral Resource Statement by Zone – February 20, 2018**

Classification	Zone	Tonnes	Grade (%U <sub>3</sub> O <sub>8</sub> )	Grade (Au g/t)	U <sub>3</sub> O <sub>8</sub> (lb)	Gold (oz)	
Indicated	R780E_HG	119,000	18.39	2.74	48,246,000	10,500	
	R780E_MZ	1,694,000	0.78	0.44	29,204,000	23,700	
	R780E_OTHER	175,000	0.98	0.62	3,776,000	3,500	
	R000E	114,000	1.31	0.16	3,289,000	600	
	R840W	84,000	1.75	0.33	3,245,000	900	
<b>Indicated Total</b>		<b>2,186,000</b>	<b>1.82</b>	<b>0.56</b>	<b>87,760,000</b>	<b>39,200</b>	
Inferred	R780E_HG	32,000	20.85	2.62	14,710,000	2,700	
	R780E_MZ	79,000	1.32	0.87	2,306,000	2,200	
	R780E_OTHER	440,000	0.89	0.54	8,681,000	7,700	
	HALO	127,000	0.55	0.34	1,536,000	1,400	
	R000E	8,000	4.10	0.78	723,000	200	
	New Zone	R1620E	94,000	3.08	0.36	6,386,000	1,100
	New Zone	R840W	254,000	2.02	0.53	11,321,000	4,300

New Zone	R1515W	297,000	1.10	0.46	7,187,000	4,400
<b>Inferred Total</b>		<b>1,331,000</b>	<b>1.80</b>	<b>0.56</b>	<b>52,850,000</b>	<b>24,000</b>

Notes: See Table 1.

**Table 3 Detailed Mineral Resource Statement Open Pit vs. Underground, by Zone – February 20, 2018**

Classification	Zone	Tonnes	Grade (%U <sub>3</sub> O <sub>8</sub> )	Grade (Au g/t)	U <sub>3</sub> O <sub>8</sub> (lb)	Gold (oz)
Open Pit - Indicated	R780E_HG	115,000	18.20	2.74	46,118,000	10,100
	R780E_MZ	1,116,000	0.70	0.35	17,226,000	12,600
	R000E	104,000	1.19	0.14	2,716,000	500
<b>Open Pit - Indicated Total</b>		<b>1,335,000</b>	<b>2.24</b>	<b>0.54</b>	<b>66,061,000</b>	<b>23,200</b>
UG - Indicated	R780E_HG	4,000	23.03	3.28	2,128,000	400
	R780E_MZ	578,000	0.94	0.60	11,978,000	11,100
	R780E_OTHER	175,000	0.98	0.63	3,776,000	3,500
	R000E	10,000	2.50	0.22	573,000	100
	R840W	84,000	1.76	0.33	3,245,000	900
	<b>UG - Indicated Total</b>		<b>852,000</b>	<b>1.16</b>	<b>0.59</b>	<b>21,700,000</b>
Open Pit - Inferred	R780E_HG	29,000	20.48	2.65	13,293,000	2,500
	R780E_MZ	24,000	1.49	1.00	788,000	800
	R780E_OTHER	11,000	0.26	0.34	64,000	100
	HALO	33,000	0.42	0.21	307,000	200
	R000E	3,000	2.88	0.04	200,000	0
	<b>Open Pit - Inferred Total</b>		<b>101,000</b>	<b>6.58</b>	<b>1.12</b>	<b>14,652,000</b>
UG - Inferred	R780E_HG	3,000	23.43	2.56	1,417,000	200
	R780E_MZ	55,000	1.24	0.79	1,518,000	1,400
	R780E_OTHER	429,000	0.91	0.55	8,617,000	7,600
	HALO	94,000	0.59	0.40	1,229,000	1,200
	R000E	5,000	4.42	1.23	523,000	200
	R1620E	94,000	3.08	0.35	6,386,000	1,100
	R840W	254,000	2.02	0.53	11,321,000	4,300
	R1515W	297,000	1.10	0.42	7,187,000	4,000
<b>UG - Inferred Total</b>		<b>1,233,000</b>	<b>1.41</b>	<b>0.51</b>	<b>38,198,000</b>	<b>20,000</b>

Notes:

1. See Table 1 for main footnotes
2. See Table 2 for combined Indicated and Inferred totals of open pit plus underground by zone.

Updated maps and files can be found on the Company's website at <https://fissionuranium.com/project/triple-r-deposit/overview/>.

## PLS Mineralized Trend & Triple R Deposit Summary

Uranium mineralization of the Triple R deposit at PLS occurs within the Patterson Lake Conductive Corridor and has been traced by core drilling over ~3.18km of east-west strike length in five separated mineralized "zones" which collectively make up the Triple R deposit. From west to east, these zones are: R1515W, R840W, R00E, R780E and R1620E. Through successful exploration programs completed to date, Triple R has evolved into a large, near surface, basement hosted, structurally controlled high-grade uranium deposit. The discovery hole was announced on November 05, 2012 with drill hole PLS12-022, from what is now referred to as the R00E zone.

The R1515W, R840W and R00E zones make up the western region of the Triple R deposit and are located on land, where overburden thickness is generally between 55m to 100m. R1515W is the western-most of the zones and is drill defined to ~90m in strike-length,

where mineralization both to the west and east is open. R840W is located ~515m to the east along strike of R1515W and has a drill defined strike length of ~430m. R00E is located ~485m to the east along strike of R840W and is drill defined to ~115m in strike length. The R780E zone and R1620E zones make up the eastern region of the Triple R deposit. Both zones are located beneath Patterson Lake where water depth is generally less than six metres and overburden thickness is generally about 50m. R780E is located ~225m to the east of R00E and has a drill defined strike length of ~945m. R1620E is located ~210m along strike to the east of R780E, and is drill defined to ~185m in strike length.

Mineralization along the Patterson Lake Corridor trend remains prospective along strike in both the western and eastern directions. Basement rocks within the mineralized trend are identified primarily as mafic volcanic rocks with varying degrees of alteration. Mineralization is both located within and associated with mafic volcanic intrusives with varying degrees of silicification, metasomatic mineral assemblages and hydrothermal graphite. The graphitic sequences are associated with the PL-3B basement Electro-Magnetic (EM) conductor.

### **Patterson Lake South Property**

The 31,039 hectare PLS project is 100% owned and operated by Fission Uranium Corp. PLS is accessible by road with primary access from all-weather Highway 955, which runs north to the former Cluff Lake mine and passes through the nearby UEX-Areva Shea Creek discoveries located 50km to the north, currently under active exploration and development.

The technical information in this news release 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.

The Mineral Resource estimate was prepared by Mr. Mark Mathisen, C.P.G., Principal Geologist at RPA, who read and approved the related disclosure about the Mineral Resources in this press release. Mr. Mathisen is an independent Qualified Person in accordance with the requirements of NI 43-101.

### **About Fission Uranium Corp.**

Fission Uranium Corp. is a Canadian based resource company specializing in the strategic exploration and development of the Patterson Lake South uranium property - host to the class-leading Triple R uranium deposit - and is headquartered in Kelowna, British Columbia. Fission's common shares are listed on the TSX Exchange under the symbol "FCU" and trade on the OTCQX marketplace in the U.S. under the symbol "FCUUF."

### **ON BEHALF OF THE BOARD**

*"Ross McElroy"*

---

**Ross McElroy, President and COO**

Investor Relations

Rich Matthews

TF: 877-868-8140

[rich@fissionuranium.com](mailto:rich@fissionuranium.com)

[www.fissionuranium.com](http://www.fissionuranium.com)

**Cautionary Statement:**

*Certain information contained in this press release constitutes "forward-looking information", within the meaning of Canadian legislation. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur", "be achieved" or "has the potential to". Forward looking statements contained in this press release may include statements regarding the future operating or financial performance of Fission and Fission Uranium which involve known and unknown risks and uncertainties which may not prove to be accurate. Actual results and outcomes may differ materially from what is expressed or forecasted in these forward-looking statements. Such statements are qualified in their entirety by the inherent risks and uncertainties surrounding future expectations. Among those factors which could cause actual results to differ materially are the following: market conditions and other risk factors listed from time to time in our reports filed with Canadian securities regulators on SEDAR at [www.sedar.com](http://www.sedar.com). The forward-looking statements included in this press release are made as of the date of this press release and the Company and Fission Uranium disclaim any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as expressly required by applicable securities legislation.*