Fission Uranium Corp. Advances Feasibility Study with Completion of Summer Work Program

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KELOWNA, Sept. 27, 2021 - Fission Uranium Corp. ("Fission" or "the Company") is pleased to announce the completion of a 72-hole geotechnical drill program in addition to the resource upgrade drilling (news release dated August 31, 2021), and the metallurgical drilling (news release dated September 7, 2021). The 72-hole geotechnical program was designed to advance the feasibility study at its' PLS project, in the Athabasca Basin region of Saskatchewan, Canada. The primary goals were to collect data to support the Feasibility Study, confirm the design of surface and underground infrastructure proposed in the PFS, and update information to further de-risk the project. Preliminary data assessment indicates that the location of proposed infrastructure, including the decline, ventilation shafts, stockpiles, TMF, and mill buildings, is optimal. Further laboratory testwork will be required to confirm the initial assessment. The drill program was completed successfully, and with minimal delays. Additionally, Fission has appointed Tetra Tech Canada as the lead consultant for the feasibility study.

Ross McElroy, President and CEO for Fission, commented, "With the 72-hole geotechnical summer program complete on schedule and with all goals successfully met, the work required for our feasibility study at PLS is off to a very strong start. Our expanded technical team and engineering consultants are now in place, and we are looking forward to continuing to deliver on our advancement plans."

Gary Haywood, VP Project Development for Fission, said, "We are very pleased that Tetra Tech has agreed to come on board as Fission's lead consultant for continuing with the feasibility study. Their team has an impressive track record in feasibility level work, which includes global experience in uranium mining and processing. Tetra Tech has presented Fission with an ideal opportunity to make the PLS project a future world class operation and we are committed to extracting the maximum value from the project through the Feasibility Study."

Feasibility Study Team

Tetra Tech, as lead consultant during the course of the feasibility study, will be supported by Clifton Engineering, a leading engineering and environmental consultancy, which has been retained by Fission to work on the Tailings Management Facility section of the study. In addition, SLR Consultants (formerly RPA) will continue as an independent support group to Fission during the feasibility study.

Summer 2021 Feasibility Study Work Program

72 holes were drilled for engineering and geotechnical purposes. These include:

- 21 holes along proposed decline alignment
- - 18 Geotechnical holes along the proposed decline alignment to gather data to be used to confirm decline constructability and final design
  - 3 Condemnation holes to confirm location of decline does not intersect mineralized zones or other major geological features that may interfere with decline construction
- 6 holes for Waste Rock Stockpile area (overburden only) to collect geotechnical data for stability assessment of the overburden to be used to confirm waste stockpile design height and slopes.
- 3 holes for area of Mill (overburden only) to collect geotechnical data for stability assessment of the overburden to be used to confirm mill building foundation design.
- 8 holes for Vent Shaft (Fresh Air and Exhaust Air) including 4 geotechnical holes drilled along each shaft alignment to gather data to be used to confirm shaft constructability and final design. A further 4 condemnation holes were drilled to confirm location of the shafts does not intersect mineralized zones or other major geological features that may interfere with shaft construction
- 4 Metallurgical test sample holes as reported in the September 7, 2021 news release

- 3 Rock Mechanic holes as reported in the September 7, 2021 news release
- 5 Hydrogeology holes (pumping and water monitoring holes) including 4 holes drilled around the planned decline, and 1 deep well drilled in the R840W zone to collect data required to characterize the hydrogeologic conditions and support hydrogeologic assessments in those areas. This data will be used for determining dewatering rates and impact on groundwater.
- 25 Tailings Management Facility holes (essentially all overburden holes) were drilled within the planned TMF area to collect geotechnical and hydrogeological data to confirm the planned TMF location, support the EIA pathways modelling work, and enable constructability assessment and design work to proceed at a Feasibility Level.
- 1 Camp Area hole (overburden hole) to collect geotechnical data for stability assessment of the overburden to be used to confirm camp building foundation design.

In addition, waste rock and mineralized rock samples were collected from both fresh and historical core samples to conduct assessment of the metal leaching (ML) and acid rock drainage (ARD) potential of mine wastes (i.e., waste rock, low grade ore, and overburden) to be produced during mine life.

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 ~3.18 km 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 55 m to 100 m. R1515W is the western-most of the zones and is drill defined to ~90 m in strike-length, ~68 m across strike and ~220 m vertical and where mineralization remains open in several directions. R840W is located ~515 m to the east along strike of R1515W and has a drill defined strike length of ~430 m. R00E is located ~485 m to the east along strike of R840W and is drill defined to ~115 m 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 50 m. R780E is located ~225 m to the east of R00E and has a drill defined strike length of ~945 m. R1620E is located ~210 m along strike to the east of R780E, and is drill defined to ~185 m in strike length.

The Company completed and filed a prefeasibility "PFS" study on November 07, 2019 titled "Pre-Feasibility Study on the Patterson Lake South Property Using Underground Mining Methods, Northern Saskatchewan, Canada". The report summarizes the Pre-Feasibility Study ("UG PFS"), which outlines an underground-only mining scenario for PLS which to date has only considered the R00E and R780E zones. Further work, including additional drilling may provide sufficient data for future inclusion of the R1515W, R840W and R1620E zones into the Feasibility Study mine plan.

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 the nearby Nexgen Arrow deposit located 3km to the east and UEX-Areva Shea Creek discoveries located 50km to the north.

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 CEO for Fission Uranium Corp., a qualified person.

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 CEO

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 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: risks related to the Offering, risks related to Fission's limited business history, risks related to the nature of mineral exploration and development, discrepancies between actual and estimated mineral resources, risks related to uranium market price volatility, risks related to the market value of the common shares of Fission, risks related to market conditions, risks related to the novel coronavirus (COVID-19) pandemic, including disruptions to the Company's business and operational plans, risks related to the global economic uncertainty as a result of the novel coronavirus (COVID-19) pandemic and other risk factors listed from time to time in our reports filed with Canadian securities regulators on SEDAR at 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 disclaims 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.

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