CanAlaska Uranium Ltd. Announces West McArthur JV Drilling Extends Uranium Mineralization

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Large Fault Structures Identified Along "42 Zone" Corridor With Strong Alteration and Associated Anomalous Uranium and Metals

Winter Geophysics Program Completed To Identify Targets a Further 7 km Along 42 Zone Structure

Vancouver, April 14, 2022 - CanAlaska Uranium Ltd. (TSXV: CVV) (OTCQB: CVVUF) (FSE: DH7N) ("CanAlaska" or the "Company") is pleased to announce receipt of the full geochemical results for the 2021 summer drilling program at its West McArthur uranium project in the Eastern Athabasca Basin (Figure 1), a joint venture with Cameco Corporation (TSX: CCO) (NYSE: CCJ) ("Cameco"). Geochemical results received confirm the presence of high-grade uranium mineralization previously reported as 0.76 % eU_3O_8 over 10.0 m at the "42 zone" (See News Release dated December 16th, 2021). In addition, the results confirm anomalous uranium and pathfinder element concentrations in a second target 1.8 kilometres along strike to the West coincident with a drill-defined large alteration and fault system. The winter geophysical program at West McArthur has also been completed.

Figure 1 - West McArthur property location map

To view an enhanced version of Figure 1, please visit:
https://orders.newsfilecorp.com/files/2864/120416_81936386a40609fc_001full.jpg

As previously reported, the program objectives for the 2021 drilling were successfully met with the completion of the six hole, 5,419 m drill program in early November. A new high-grade intersection of 1.62 % eU_3O_8 over 2.6 metres (m) from 796.1 m within a 10 m wide interval of 0.76 % eU_3O_8 was identified in the "42 Zone".

The "42 Zone" mineralization in drillhole WMA063-1 had a strongly bleached lower sandstone column with black sooty pyrite, red hydrothermal hematite, and strong structurally-controlled clay alteration. Geochemical assays from WMA063-1 (Table 1), collared at an azimuth of 360˚ with a dip of -79.4˚ (Figure 2), confirm the previously reported equivalent uranium results. Unfortunately, within the highest grade section of the mineralized zone in WMA063-1, strong clay alteration and faulting provided very poor core recovery. As a result, only 5% of the core was recovered over a 5.0 metre sub-interval from 767.4 - 772.4 m. Due to the poor recovery, the equivalent uranium intercept calculated from the calibrated down-hole radiometric probe data is interpreted to be more representative with 1.46 % eU_3O_8 over 5.0 m from 767.4 m (Table 1). It is important to note that a 10 cm interval of core taken from within the poor recovery zone returned an assay value of 3.01% U_3O_8.

Figure 2 - West McArthur Project Plan View 42 Zone Sandstone Uranium Distribution

To view an enhanced version of Figure 2, please visit:
https://orders.newsfilecorp.com/files/2864/120416_81936386a40609fc_002full.jpg

The new high-grade intercept extends the "42 Zone" 35 m west of drill hole WMA055-2. The new drillhole intersected a significantly wider interval of mineralization than in the previous hole. WMA055-2, completed in 2019, intersected 2.3% U_3O_8 over 2.1 m, including 6.8% U_3O_8 over 0.7 metres.

Table 1 - WMA063-1 Mineralized Geochemical and Equivalent Uranium Intersections

Drill Hole	From (m)	To (m)	Length (m)[3]	Average Grade (%eU_3O_8)	Average Grade (%U_3O_8)	Maximum Grade (%eU_3O_8)
WMA063-1 [1]	760.9	762.4	1.5	0.17	0.21	0.35
WMA063-1 [1]	766.9	767.4	0.5	0.34	0.51	0.39
WMA063-1 [1, 2]	767.4	772.4	5.0	1.04	1.46	2.57
WMA063-1 [1]	772.4	776.9	4.5	0.5	0.39	1.29
WMA063-1 Composited [1,2]	766.9	776.9	10.0	0.76	0.93	2.57

Notes:
(1) Intersection interval is composited above a cut-off grade of 0.1% U_3O_8 / eU_3O_8
(2) Due to poor core recovery from 767.4 - 772.4 m, the geochemical grades over this interval r the entire interval.
(3) Length indicates downhole length and does not represent true-thickness of mineralization

In addition, WMA065-1 confirmed a large uranium and associated pathfinder metal elements halo in the sandstone approximately 19 m west of WMA063-1, typical of the "42 Zone" area (Figure 2). Within WMA065-1, elevated uranium (≥ 0.5 ppm uranium partial digest) consisting of up to 9.31 ppm in a composite sample extends 490 m vertically above the unconformity with elevated nickel (> 1 ppm nickel partial digest) up to 9.9 ppm and copper (> 1 ppm copper partial digest) up to 38.1 ppm in composite samples extending 300 m vertically above the unconformity. The presence of elevated pathfinder elements throughout the sandstone column in the "42 Zone" geochemical halo indicates that further drill testing is warranted targeting extensions of the "42 Zone", where the outlined unconformity-related uranium mineralization remains open in multiple directions.

Figure 3 - Uranium geochemistry associated with wide structural zone and alteration halo 1,800 m to the southwest of the "42 Zone"

To view an enhanced version of Figure 3, please visit:
https://orders.newsfilecorp.com/files/2864/120416_81936386a40609fc_003full.jpg

Evaluation of the southwestern extension of the conductive C10 corridor that hosts the controlling structure for the "42 Zone" mineralization and large Fox Lake Uranium Deposit was also successful during the 2021 drilling program. In WMA062 and wedge hole WMA062-1, collared at an azimuth of 320˚ with a dip of -65.4˚, 1,800 m to the Southwest of the "42 Zone" (Figure 3), highly anomalous uranium and copper values are associated with a large alteration halo and fault zone in the basal sandstone. The main fault zone, which is 51 m wide at the unconformity in WMA062-1, is characterized by strongly disrupted sandstone with broken to blocky core, re-activated sandy-clay gouge, structurally-controlled quartz dissolution, grey sooty pyrite alteration, and pervasive strong bedding- and fracture-controlled quartz dissolution causing very poor recovery (0 - 30%). The basal sandstone associated with the fault zone is associated with anomalous uranium (> 0.5 ppm uranium partial) up to 8.6 ppm, copper (>1.0 ppm copper partial) up to 24.4 ppm, and boron (> 100 ppm boron total) up to 2,350 ppm that reach approximately 180 m vertically above the unconformity. Below the unconformity and within the basement along this drill fence, the targeted fault zone is characterized by broken to blocky core with re-activated chloritic clay gouges hosting angular clasts of wall rock and ductile shear fabrics. Within the fault zone, the rock is strongly altered with hematite, chlorite, clay replacement, and bleaching. Pervasive hydrothermal basement alteration continues at depth in both WMA062 and WMA062-1.

CanAlaska VP Exploration, Nathan Bridge, comments, "The results returned from our assay samples confirm the initial probe equivalent results from the new mineralization intersected in WMA063-1. The outlined unconformity-associated mineralization in the "42 Zone" is open in multiple directions and warrants further testing. In addition, the geochemical results from the composite sampling program just to the west of the 42 Zone show the continuation of the strong geochemical halo. Furthermore, the anomalous uranium and pathfinder elements associated with the WMA062 section, 1.8 km along strike to the southwest, indicate elevated geochemical values associated with the large basement and sandstone alteration halo and fault zone. Further testing is needed in this area to evaluate the potential for further mineralization along the controlling structure. With the completion of the winter geophysical program, we'll be prepared to execute on these objectives."

CanAlaska CEO, Cory Belyk, comments, "The West McArthur project continues to respond to our

exploration investment delivering not only extensions of high-grade uranium at our "42 Zone", but also delivering multiple new target areas over several kilometres of the C10 corridor. Tier 1 unconformity uranium deposits in the Athabasca Basin occur in multiple zones or pods over several kilometres, some of which may be smaller than a football field. CanAlaska's exploration team has now developed several additional targets along this corridor and the C10 fault structure that have clear indications of mineralizing processes present. The geophysical program data will allow for refinement of drill targets within the "42 Zone" extension area and further along this mineralized corridor for drill testing in 2022. These are excellent results for the JV and for CanAlaska's shareholders in an ever-strengthening uranium market."

The 2021 program was fully funded by CanAlaska, the project operator, increasing the Company's majority interest in the West McArthur project to 75.55%.

2022 Geophysical Program

The Company is pleased to announce that the 2022 Time Domain Electromagnetic survey has been completed. The survey imaged 7 km of the C10 corridor to the west of the 42 Zone at 400 - 800 m spaced lines. Preliminary interpretation has identified multiple conductive responses interpreted to be associated with targeted graphitic pelite units in the basement rocks below the unconformity. This work was completed under the approved $5 million 2022 program. The geophysical data are currently being processed and will be reported on at a later date ahead of the upcoming summer drill program on the West McArthur project.

Geochemical Sampling Procedures and Use of Radiometric Equivalent Grades

Drill core samples were shipped to the Saskatchewan Research Council Geoanalytical Laboratories (SRC) in Saskatoon, Saskatchewan in secure containment for preparation, processing, and multi-element analysis by ICP-MS and ICP-OES using total ($HF:NHO_3:HClO_4$) and partial digestion (HNO_3:HCl), boron by fusion, and U_3O_8 wt% assay by ICP-OES using higher grade standards. Radiometric assay samples are chosen based on radiometric equivalent uranium grades and scintillometer (SPP2) peaks, and comprise 0.3 to 0.8 m continuous split-core samples over mineralized intervals. A 0.1% U_3O_8 and cut-off with a maximum internal dilution of 1 m is used for compositing and reporting the data. Sandstone and basement geochemical composite samples comprise multiple, equal sized, full core "pucks" spaced over the sample interval. The SRC is an ISO/IEC 17025/2005 and Standards Council of Canada certified analytical laboratory. Blanks, standard reference materials, and repeats were inserted into the sample stream at regular intervals by CanAlaska and the SRC in accordance with CanAlaska's quality assurance / quality control (QA/QC) procedures. Geochemical assay data are subject to verification procedures by qualified persons employed by CanAlaska prior to disclosure.

During active exploration programs, following the completion of a drillhole, the hole is radiometrically logged using calibrated downhole GeoVista NGRS and TGGS (Triple GM) gamma probes which collect continuous readings along the length of the drill hole. Preliminary radiometric equivalent uranium grades ("eU_3O_8") are then calculated from the downhole radiometric results. The probe is calibrated using an algorithm calculated from the calibration of the probe at the Saskatchewan Research Council facility in Saskatoon. A 0.1% eU_3O_8 cut-off with a maximum internal dilution of 1 m is used for compositing and reporting the data. The equivalent uranium grades are preliminary and are subsequently reported as definitive assay grades following sampling and chemical analysis of the mineralized drill core. In the case where core recovery within a mineralized intersection is poor, radiometric grades are considered to be more representative of the mineralized intersection and may be reported in the place of assay grades. Radiometric equivalent probe results are subject to verification procedures by qualified persons employed by CanAlaska prior to disclosure.

All reported depths and intervals are drill hole depths and intervals, unless otherwise noted, and do not represent true thicknesses, which have yet to be determined.

About CanAlaska Uranium

CanAlaska Uranium Ltd. (TSXV: CVV) (OTCQB: CVVUF) (FSE: DH7N) holds interests in approximately 300,000 hectares (750,000 acres), in Canada's Athabasca Basin - the "Saudi Arabia of Uranium." CanAlaska's strategic holdings have attracted major international mining companies. CanAlaska is currently working with Cameco and Denison at two of the Company's properties in the Eastern Athabasca Basin. CanAlaska is a project generator positioned for discovery success in the world's richest uranium district. The

Company also holds properties prospective for nickel, copper, gold and diamonds. For further information visit www.canalaska.com.

The qualified technical person for this news release is Nathan Bridge, MSc., P.Geo., CanAlaska's Vice President, Exploration.

On behalf of the Board of Directors
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