CanAlaska Uranium Ltd. Intersects 13.61% eU3O8 over 10.9 m at Pike Zone

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- Ultra High-Grade Unconformity-Hosted Uranium Mineralization Is Within Zone of 9.30% eU_3O_8 over 16.2 m

- Multiple Ultra High-Grade Uranium Intersections on Adjacent Section Confirm Pike Zone Extension; Target Remains Open

Vancouver, Sept. 17, 2024 - CanAlaska Uranium Ltd. (TSXV: CVV) (OTCQX: CVVUF) (FSE: DH7) ("CanAlaska" or the "Company") is pleased to provide an update on the summer diamond drill program at the Pike Zone on the West McArthur Joint Venture project (the "Project") in the eastern Athabasca Basin. Multiple drillholes, highlighted by WMA082-12 which intersected 9.30% eU_3O_8 over 16.2 metres, including 13.61% eU_3O_8 over 10.9 metres and WMA082-11 which intersected 4.77% eU_3O_8 over 25.9 metres, including 6.30% eU_3O_8 over 16.3 metres have confirmed high-grade unconformity-associated uranium mineralization along the first step out drill fence to the east. These drillholes, combined with previously reported WMA082-8 which intersected 6.87% eU_3O_8 over 16.9 metres, including 11.62% eU_3O_8 over 9.3 metres in the basement, indicate the potential for significant extensions of high-grade uranium mineralization at the Pike Zone. The West McArthur project, a Joint Venture with Cameco Corp., is operated by CanAlaska that holds an 83.35% ownership in the Project (Figure 1). CanAlaska is sole-funding the 2024 West McArthur program, further increasing its majority ownership in the Project.

Figure 1 - West McArthur Project Location

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https://images.newsfilecorp.com/files/2864/223564_e886959a5459b8b3_002full.jpg

CanAlaska CEO, Cory Belyk, comments, "The continued intersection of ultra high-grade uranium mineralization at Pike Zone this summer is an amazing result for CanAlaska, our shareholders, and the Joint Venture. Unconformity mineralization is now repeatable along strike from the original discovery holes and remains open in all directions including within the basement rocks below the unconformity. The results of the summer program clearly indicate the tier 1 potential of the Pike Zone along what is fast becoming a very prolific uranium mineralizing corridor which already includes the high-grade Fox Lake uranium deposit. I look forward to announcement of further drill results from the summer program in the context of an improving uranium market and return of investor interest."

Figure 2 - L85E Drill Fence Results

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L85E Summary

Drillholes reported within this release, combined with previously reported drillhole WMA082-8 (See News Release Dated July 16th, 2024), represent drilling to date along a new section (L85E) stepping out to the east at the Pike Zone. WMA082-11 and WMA082-12 extend the ultra high-grade unconformity-associated uranium mineralization from the L70E fence (WMA082-4/-5/-6/-7) to the east. WMA082-9, WMA082-14, and WMA082-8 extend the high-grade basement-hosted uranium mineralization down into the basement along the controlling structures. WMA082-13 overshot the basement wedge due to a significant unconformity elevation difference of approximately 15 metres caused by fault offset along the C10S corridor. This structural offset is indicative of post-Athabasca Basin re-activation along the C10S corridor and represents an important control for fluid movement and trap for mineralization along the unconformity. The ultra high-grade unconformity target at the Pike Zone remains open.

Table 1 - Radiometric Equivalent Uranium Grades

DDH	From (m)	To (m)	Length (m)[4]	Average Grade (% eU_3O_8)[5]
WMA082-9[1,2]	799.6	800.5	0.9	0.23
WMA082-9[1,2]	810.1	810.4	0.3	0.14
WMA082-9[1,2]	816.0	818.3	2.3	0.99
including[3]	817.2	817.6	0.4	2.59
WMA082-9[1,2]	822.6	825.3	2.7	0.90
including[3]	823.0	823.5	0.5	2.96
WMA082-9[1,2]	826.6	827.3	0.7	0.13
WMA082-9[1,2]	844.4	846.2	1.8	0.26
WMA082-11[1,2]	795.9	821.8	25.9	4.77
including[3]	796.9	813.2	16.3	6.30
including[3]	814.5	818.4	3.9	3.79
including[3]	820.2	821.3	1.1	3.40
WMA082-12[1,2]	797.0	813.2	16.2	9.30
including[3]	801.1	812.0	10.9	13.61
WMA082-14[1,2]	838.8	840.4	1.6	1.45
including[3]	839.2	839.8	0.6	3.17
WMA082-14[1,2]	843.3	846.8	3.5	1.12
including[3]	843.7	844.2	0.5	4.28
WMA082-14[1,2]	848.0	848.6	0.6	0.37
WMA082-14[1,2]	878.9	880.4	1.5	0.35

1. WMA082-9, WMA082-11, WMA082-12, and WMA082-14 were all drilled at an azimuth of 295˚ with an inclination of -79.3˚, collared at 477,345 mE / 6,396,525 mN, 605 m A.S.L. (UTM NAD83 Z13N) as daughter holes from WMA082.
2. Intersection interval is composited above a cut-off grade of 0.1% eU_3O_8 with a maximum of 1.0 m of internal dilution.
3. Intersection interval is composited above a cut-off grade of 2.0% eU_3O_8 with a maximum of 1.0 m of internal dilution.
4. 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.
5. Radiometric equivalent ("eU_3O_8") derived from a calibrated gamma downhole probe.

Drillhole Details:

WMA082-9: The lower sandstone column of WMA082-9 is strongly bleached with limonite alteration extending over 60 metres above the unconformity. Within the lower sandstone column, multiple metre-scale fault zones were intersected and are characterized by broken and blocky core, zones of quartz dissolution, hydrothermal dravitic breccias, and clay gouge that are locally associated with grey sooty pyrite alteration. One interval of unconformity-associated uranium mineralization was intersected within the grey altered sandstone (Figure 2; Table 1). The unconformity contact between the Athabasca sandstone and underlying basement rocks is interpreted to be at 801.7 metres down hole. Several intervals of basement-hosted uranium mineralization were intersected throughout the graphitic pelitic rocks (Figure 2; Table 1). These zones are characterized by structurally controlled, disseminated, and foliation-controlled uranium mineralization. The basement is strongly clay and chlorite altered as a broad halo around the basement-hosted uranium mineralization with multiple re-activated fault zones throughout the interval.

Figure 3 - WMA082-12 Core Photograph

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https://images.newsfilecorp.com/files/2864/223564_e886959a5459b8b3_005full.jpg

WMA082-11: The lower sandstone column of WMA082-11 is strongly bleached with limonite alteration extending over 80 metres above the unconformity. Within the lower sandstone column, multiple metre-scale fault zones were intersected and are characterized by broken and blocky core, zones of quartz dissolution, large hydrothermal dravitic breccias, and clay gouge. The unconformity contact between the Athabasca sandstone and underlying basement rocks is interpreted to be at approximately 803.0 metres down hole. WMA082-11 contains one main interval of unconformity-associated uranium mineralization characterized by massive to semi-massive mineralization associated with strong sooty pyrite, dark red hematite, and intense grey clay replacement alteration immediately around the unconformity contact (Figure 2; Table 1). The lower portion of the unconformity-associated uranium mineralization is structurally controlled, with localized intervals of semi-massive, blebby, and foliation-controlled mineralization within the graphitic pelite rocks (Figure 2; Table 1). Within the mineralized interval, isolated intervals of core loss were recorded due to intense alteration and quartz dissolution. The basement is strongly clay and chlorite altered as a broad halo around the high-grade uranium mineralization with multiple re-activated fault zones throughout the interval.

WMA082-12: The lower sandstone column of WMA082-12 is strongly bleached with limonite alteration extending over 100 metres above the unconformity. Within the lower sandstone column, multiple metre-scale fault zones were intersected and are characterized by broken and blocky core, zones of quartz dissolution, large hydrothermal dravitic breccias, and clay gouge. The unconformity contact between the Athabasca sandstone and underlying basement rocks is interpreted to be at approximately 803.0 metres down hole. WMA082-12 contains one main interval of unconformity-associated uranium mineralization characterized by massive to semi-massive, blebby, disseminated, and structurally controlled mineralization associated with strong sooty pyrite, bright red hematite, and intense grey clay replacement alteration immediately around the unconformity contact (Figure 2; Figure 3; Table 1). Within the mineralized interval, isolated intervals of core loss were recorded due to intense alteration and quartz dissolution. The basement is strongly clay and chlorite altered as a broad halo around the high-grade uranium mineralization with multiple re-activated fault zones throughout the interval.

WMA082-13: The lower sandstone column of WMA082-13 is strongly bleached with limonite alteration extending over 100 metres above the unconformity. Within the lower sandstone column, multiple metre-scale fault zones were intersected and are characterized by broken and blocky core, zones of quartz dissolution, large hydrothermal dravitic breccias, and clay gouge. In the lower sandstone column, these fault zones are associated with strong grey sooty pyrite alteration. The unconformity contact between the Athabasca sandstone and underlying basement rocks is interpreted to be at approximately 821.8 metres down hole. The upper basement of WMA082-13 is clay and chlorite altered. WMA082-13 overshot the basement wedge due to a significant unconformity elevation difference of approximately 15 metres caused by the controlling structures along C10S corridor.

WMA082-14: The lower sandstone column of WMA082-9 is strongly bleached with limonite alteration extending over 30 metres above the unconformity. Within the altered lower sandstone column, metre-scale fault zones are concentrated around the unconformity and are characterized by broken and blocky core with associated quartz dissolution and clay gouge that contain grey sooty pyrite alteration. The unconformity contact between the Athabasca sandstone and underlying basement rocks is interpreted to be at 797.8 metres down hole. Several intervals of basement-hosted uranium mineralization were intersected throughout the graphitic pelite rocks (Figure 2; Table 1). These zones are characterized by structurally controlled, disseminated, and foliation-controlled uranium mineralization. The basement is clay and chlorite altered as a broad halo around the basement-hosted uranium mineralization with multiple re-activated fault zones throughout the interval.

Summer Drill Program

The summer drill program on the West McArthur project is currently ongoing and the Company is on track to achieve approximately 15 unconformity target intersections. The Company is continuing to use downhole mud-motor deviation technology for increased drilling efficiency and targeting capability. The primary objective for the summer drilling program is delineation and expansion of the ultra high-grade Pike Zone uranium discovery at the unconformity and within the upper basement. A secondary objective is Pike Zone extension testing along the C10S corridor searching for additional zones of ultra high-grade uranium mineralization.

The Company expects to complete the summer portion of the 2024 exploration program in September. Geochemical assays from the summer portion of the 2024 exploration program are pending.

Geochemical Sampling Procedures and Use of Radiometric Equivalent Grades

All drill core samples from the program will be 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:NHO3:HClO4) and partial digestion (HNO3:HCl), boron by fusion, and U_3O_8 wt% assay by ICP-OES using higher grade standards. Assay samples are chosen based on downhole probing radiometric equivalent uranium grades and scintillometer (SPP2 or CT007-M) peaks. Assay sample intervals comprise 0.3 - 0.8 metre continuous half-core split samples over the mineralized intervals. With all assay samples, one half of the split sample is retained and the other sent to the SRC for analysis. The SRC is an ISO/IEC 17025/2005 and Standards Council of Canada certified analytical laboratory. Blanks, standard reference materials, and repeats are 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 drillholes are radiometrically logged using calibrated downhole GeoVista NGRS and TGGS (Triple GM) gamma probes which collect continuous readings along the length of the drillhole. 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 and from the comparison of probe results against geochemical analyses. At extremely high radiometric equivalent uranium grades, downhole gamma probes may become saturated, resulting in the probe being overwhelmed, which in turn can create difficulties in accurately determining extremely high-grade radiometric equivalent uranium grades, and a cap may be applied to the grade. 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 or non-existent, 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) (OTCQX: CVVUF) (FSE: DH7) is a Canadian based exploration company and holds interest in approximately 500,000 hectares (1,235,000 acres) in Canada's Athabasca Basin focused on exploration and discovery of high-grade unconformity uranium deposits. The Company is actively advancing the Pike Zone discovery - a new high-grade uranium discovery on its West McArthur Joint Venture project in the eastern Athabasca Basin. In addition, the Company has several other uranium-focused exploration programs. CanAlaska deploys a hybrid project generator model, focusing on the acquisition and sale of prospective projects, while also executing exploration programs on CanAlaska's most strategic land holdings. The Company's extensive portfolio has attracted international mining companies, including Cameco Corporation and Denison Mines as active partners. CanAlaska is led by an experienced team of professionals with a proven track record of discovery.

The Company's head office is in Saskatoon, Saskatchewan, Canada with a satellite office in Vancouver, BC, Canada. For further information visit www.canalaska.com.

The Qualified Person under National Instrument 43-101 Standards of Disclosure for Mineral Projects for this news release is Nathan Bridge, MSc., P. Geo., Vice-President Exploration for CanAlaska Uranium Ltd., who has reviewed and approved its contents.

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