
STEWARDSON LAKE 2014 EXPLORATION PROGRAM

An exploration program and budget for 2014 was recently approved by Cameco Corporation (Cameco) on Uravan Minerals Inc. (“Uravan”) Stewardson Lake project, Athabasca Basin¹, Northern Saskatchewan [\[map link\]](#). The Stewardson Lake project is a joint exploration effort between Uravan and Cameco pursuant to the Halliday/Stewardson Option Agreement [\[press release link\]](#). Uravan is currently the operator with the responsibility to plan and implement the technical program on the project in consultation with, and on behalf of, Cameco.

Data modeling of the 2013 airborne ZTEM geophysical survey resulted in identifying two (2) prominent basement conductive features that transect the Stewardson project [\[press release link\]](#). These conductive features are interpreted to be the northern extension of the C- and E-conductors identified on Cameco’s Virgin River project, which adjoins the Stewardson Project to the south. The data modeling identified three (3) major basement conductive features associated with these conductors, identified as target areas A, B and C [\[map link\]](#).

Conductive target area ‘A’ is associated with positive surface geochemical anomalies resulting from Uravan’s 2011 surface geochemical sampling program completed over the Stewardson project [\[web link\]](#). Area ‘A’ outlines the most conductive portion of the E-conductor and is supported by significant surface geochemical anomalies consisting of radiogenic lead (Pb) isotopic ratios (²⁰⁷Pb/²⁰⁶Pb) in tree-cores and in the clay-size fraction of soil samples, and uranium anomalies in the clay-size fraction of soil samples [\[map link\]](#).

The interpreted conductive strength of target area ‘A’ combined with the strong correlation with anomalous surface geochemical signatures and associated structural lineaments, highlight area ‘A’ as being extremely prospective and the focus for Uravan’s 2014 exploration program. The program planned consists of three (3) components:

- Follow-up ground geophysical surveys
- Infill surface geochemical survey
- Diamond drilling

Ground Geophysical Surveys

Two ground geophysical systems are considered suitable for imaging basement conductors at depth: (1) SQUID fixed loop TDEM and (2) Internal Field Gradient (IFG). The SQUID fixed loop TDEM survey will consist of nine (9) lines positioned perpendicular to target ‘A’ (E-conductor) and surveyed at a frequency of 5 Hz. Three lines of IFG will be surveyed, positioned concordant with the three central lines of the SQUID profiles. The IFG survey will supplement the SQUID fixed loop TDEM survey data to provide maximum resolution for drill targeting [\[map link\]](#).

The SQUID fixed loop TDEM survey will be completed under winter conditions by Patterson Geophysics from Saskatchewan. The Internal Field Gradient (IFG) AMT survey will be completed in early summer by EMPulse Geophysics from Saskatchewan.

Infill Surface Geochemical Survey

Uravan’s experience from previous surface geochemical studies over known uranium² deposits (e.g. Cigar West² and Centennial³) indicates that positive surface geochemical anomalies and anomalous trends that define the surface projection of deposits at depths >800 m are better resolved with increased sampling density. Accordingly, an infill surface geochemical sampling program will be completed and oriented directly over the conductive anomaly in target area ‘A’. The infill surface geochemical program will consist of collecting tree-cores, B- and C- horizon soil samples for analysis of the clay-size fraction, and A2-horizon soil samples for MET analysis at approximately 450 survey sites. The sampling grid is designed to integrate the 2011 surface geochemical data to give an effective sampling density of approximately 200 m [\[map link\]](#).

Soil sample preparation will be by the Queen’s Facility for Isotope Research⁴ (QFIR) in Kingston, Ontario. Clay fractions of soil samples (<2 µm) will be separated at QFIR and forwarded to Acme Laboratories in Vancouver, B.C., where they will be analyzed for 53 elements plus all rare earth elements (REEs) and lead (Pb) isotopes, by ICP-MS and ICP-ES. The A2-horizon soil samples will be

analyzed by Environmental BioTechnologies Inc.⁵ (EBT) in Lodi, California, using their MET analytical method. The infill sampling program will be operated by Uravan's technical group and commence in early June, 2014.

Diamond Drilling

Two diamond drill-holes are proposed to test the E-conductor in the target 'A' area. Final drill-hole positioning will be determined based on the combined results and correlation of the ground geophysical survey and infill surface geochemical data. From our review of historical drilling in the area (DDH VR-01 and DDH VT09-01) and regional geophysical surveys, drill depths through the Athabasca Group sediments into the unconformity with the underlying crystalline basement rocks are estimated to be between 1200 m to 1400 m. Mobilization of drilling equipment to the Stewardson project will commence under early 2014 winter conditions. Drilling operations will commence in late summer and be conducted by Major Drilling Group International Inc. from Winnipeg, Manitoba.

Mr. Larry Lahusen, CEO with Uravan states, "I believe the E-conductor at target 'A' represents a significant 'conductive bright spot' that correlates amazingly well with surface anomalous lead (Pb) isotope values (²⁰⁷Pb/²⁰⁶Pb isotopic ratios) and uranium anomalies resulting from our 2011 geochemical program. The planned 2014 follow-up ground geophysical surveys and infill surface geochemical program will further define and resolve this major conductive feature, thereby assisting in vectoring drilling to the most probable location for intersecting uranium mineralization at depth. Since 2008, we have been pursuing innovative surface geochemical techniques that define fertile exploration targets associated with positive geophysical, structural and geological features. Following two surface geochemical studies over known high-grade uranium deposits at Cigar West and Centennial, and five other surface geochemical programs on Uravan's active projects, we are now starting to understand what a mineralized conductor looks like geochemically versus the many barren conductors that transect the Athabasca Basin. The 'conductive bright spot' at target 'A' that is so well correlated with positive anomalous surface geochemical patterns is a unique drilling opportunity at Stewardson and a potential 'game changer' for uranium exploration."



Dr. Colin Dunn, P. Geo., technical advisor for Uravan, is the Qualified Person for the purposes of NI 43-101 with respect to the technical information in this press release. Dr. Colin Dunn, an independent specialist in biogeochemistry, is working closely with Uravan's technical group and QFIR to advance the interpretation of biogeochemical results.

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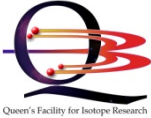
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¹The Athabasca Basin is an ancient (Paleoproterozoic) sandstone basin located in northern Saskatchewan, Canada. The Athabasca Sandstone (Manitou Falls (MF) Formation) hosts high-grade uranium deposits at and below the unconformity between the sandstone and the older crystalline basement rocks. These unconformity-type uranium deposits occur in sandstones at the sandstone-basement unconformity contact (sandstone-hosted mineralization) and within the underlying structurally disrupted crystalline basement (basement-hosted mineralization). These unconformity-type uranium deposits account for about 25 percent of the world's primary uranium production. The ore grades are high, typically grading 2% to 20% U₃O₈.

²The Cigar West Study was a collaborative applied research program conducted by Uravan and QFIR (Queen's Facility for Isotope Research⁴) in 2009 over a known high-grade uranium deposit in the Athabasca Basin. The study was designed to develop new surface geochemical techniques that can better identify bedrock sources of uranium mineralization at depth. This research clearly identified distinctive elements and isotopic compositions that have been mobilized from the deposit (geosphere) to the surface media (plants and soils) from depths >450 meters. The Cigar Lake deposit is on the Waterbury/Cigar uranium property located in the Athabasca Basin, Saskatchewan, and is a joint venture partnership between Cameco Corporation, AREVA, Idemitsu Kosan Co. Ltd., and Tokyo Electric Power Co. [TEPCO]. Uravan thanks both AREVA and Cameco for their collaboration and gracious support for the Cigar West Study, and the support provided by the Cigar Lake facility during our field operations.

³Uravan in collaboration with Cameco Corporation (Cameco), the Queen's Facility for Isotope Research (QFIR)⁴, and Environmental BioTechnologies Inc. (EBT)⁵, completed a multi-faceted surface geochemical sampling program over the Centennial uranium deposit (Centennial Survey), located on the Virgin River structural trend within the south-central portion of the Athabasca Basin³, Saskatchewan. The Centennial deposit is a high-grade unconformity-type uranium deposit occurring at a depth of approximately 800 m that is currently in the drill-developed stage by Cameco and its joint venture partners, Areva Resources Canada Inc. (AREVA) and Formation Metals Inc. (Coronation Mines). The spatial relationship and surface distribution of certain pathfinder elements, lead (Pb) isotopic

ratios ($^{207}\text{Pb}/^{206}\text{Pb}$), and MET microbial values in the surface media analyzed, provide a compelling, coincident surface anomaly that, when displayed with other known geophysical survey data and interpreted structural patterns, clearly defined the surface projection of the Centennial uranium deposit and would certainly vector drilling to a deposit at 800 meters depth in a 'green-fields' exploration setting [\[press release link\]](#).



⁴The Queen's Facility for Isotope Research (QFIR) at Queen's University, Ontario is a state-of-the-art research facility, comprising a group of highly experienced research geochemists. The QFIR lab contains some of the most technologically advanced analytical equipment in Canada. Under the direction of Dr. Kurt Kyser, the QFIR research team is working collaboratively with Uravan's technical group to develop new exploration technologies using applied research.



⁵Environment BioTechnologies Inc. (EBT) is a Lodi, California based laboratory and provider of biotechnology-based analytical processes primarily for the oil, gas and environmental industries since 1991. EBT, in collaboration with Uravan, has been testing and evaluating its Microbial Exploration Technology (MET) process for uranium exploration since 2007, on projects such as the Boomerang property in the Thelon Basin, Northwest Territories, and the Cigar West Study in the Athabasca Basin, Saskatchewan. The MET process assumes that gaseous hydrocarbons (methane) migrate from the redox environment at the surface of a uranium deposit at depth to the surface environment. These hydrocarbons serve as a nutrient source that promotes the growth of soil-based micro-organisms that exist in the aerobic zone of the surface environment. The MET process then measures the increased microbial activity from each soil sample collected.

Uravan is a Calgary, Alberta-based diversified mineral exploration company that utilizes applied research to develop new innovative exploration technologies to identify buried uranium, rare earth elements (REEs) and nickel-copper-platinum group element (Ni-Cu-PGE) deposits in under-explored areas. Our exploration focus in uranium is for potential high-grade unconformity-type uranium deposits in the Athabasca and Thelon Basins in Canada and other basin environments globally. Uravan is a publicly listed company on the TSX Venture Exchange under the trading symbol UVN. All of the mineral properties Uravan owns are considered in the exploration stage of development.

This press release may contain forward looking statements including those describing Uravan's future plans and the expectations of management that a stated result or condition will occur. Any statement addressing future events or conditions necessarily involves inherent risk and uncertainty. Actual results can differ materially from those anticipated by management at the time of writing due to many factors, the majority of which are beyond the control of Uravan and its management. In particular, this news release contains forward-looking statements pertaining, directly or indirectly, to the use of proceeds of the Offering. Readers are cautioned that the foregoing list of risk factors should not be construed as exhaustive. These statements speak only as of the date of this release or as of the date specified in the documents accompanying this release, as the case may be. The Corporation undertakes no obligation to publicly update or revise any forward-looking statements except as expressly required by applicable securities laws.

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