
HALLIDAY DRILLING UPDATE

On September 3, 2012 Uravan Minerals Inc. (“Uravan”) completed drilling operations on its Halliday Lake project, Athabasca Basin¹, Northern Saskatchewan [[map link](#)]. The technical program consisted of completing five (5) diamond drill-holes (HL-01, -02, -03, -05 and -06) and one abandoned drill-hole (HL-04)² totaling 4,836 meters drilled [[map link](#)].

All drill-holes were positioned to test the potential occurrence of uranium mineralization at depth along a prominent 5 kilometre long, east-west trending corridor [[Press Release Link](#)]. This corridor was defined by a linear clustering of anomalous surface geochemical signatures that are coincident with a major EM (electromagnetic) geophysical conductor and a linear magnetic low [[map link](#)]. The surface geochemical anomalies consist of favourable radiogenic lead (Pb) isotope values (²⁰⁷Pb/²⁰⁶Pb isotopic ratios) in clay separates taken from B-and C-horizon soils and in tree-core samples³. These coincident radiogenic Pb isotopic anomalies also strongly correlate with other anomalous element signatures occurring in the same media which are indicative of uranium mineralization and alteration at depth [[map link](#)].

All drill-holes were surveyed using a Mount Sopris Triple Gamma Probe (2GHF-1000) for detecting anomalous radioactivity (suggesting potential uranium mineralization). The results from these down-hole radiometric surveys disclose anomalous radioactivity in most drill-holes, occurring predominantly in the underlying structurally disrupted basement rocks (granites and metasediments). The levels of radioactivity intersected, ranging from 400 cps to 1200 cps (counts per second) are considered anomalous, albeit not quantitative. This anomalous radioactivity indicates the presence of mineralizing processes; however, based on the triple-gamma probe data, no economic uranium mineralization was encountered during this drill program. All zones of anomalous radioactivity were systematically sampled and will be analyzed for uranium content. Analytical results will be announced when available.

Key characteristics required for uranium mineralization were intersected in all drill-holes, including:

- Pervasive sandstone bleaching over broad areas above the unconformity and moderately pervasive throughout the Athabasca Sandstone section. These are coincident with broad zones of secondary interstratified hematite alteration;
- Significant hydrothermal activity from the basement environment;
- The presence of graphitic metapelitic rocks at the unconformity in contact with the overlying Athabasca Sandstone;
- The presence of illite and chlorite clay alteration occurring over significant thicknesses at and above the unconformity; in certain drill-holes illite alteration is persistent in the sandstone from the unconformity to the surface.
- The occurrence of major basement faulting resulting in extensive fracture envelopes which radiate upward into the Athabasca Sandstone; all suggestive of major structural reactivation.

The observations made and technical information collected from all drill-hole data at this preliminary stage confirm the source and positioning of the surface geochemical anomalies (radiogenic ²⁰⁷Pb/²⁰⁶Pb isotopic ratios) and EM conductor surface traces tested. The favourable surface radiogenic lead (Pb) isotope values in tree-core samples are believed to have a basement uranium source that has migrated to the surface environment (soils and trees) through structural conduits that extend from the basement through the Athabasca Sandstone. The reactivated basement faulting appears to be coeval with widespread basement hydrothermal activity.

Mr. Larry Lahusen, CEO of Uravan, believes “the technical significance of this first phase of drilling at Halliday cannot be emphasized enough. What we have confirmed from this drill program is that the anomalous element signatures and isotopic compositions obtained from sampling the surface media (soils and trees) originated from the unconformity below and have effectively mapped the source of anomalous radioactivity intersected in this drill program at depths >800 meters. These observations combined with subsequent geochemical data that will be obtained from the analysis of core samples will allow Uravan’s technical team to advance and refine its surface geochemical technologies for future drill programs”.

All drill cores were systematically scanned using ASD Terraspec instrumentation for determining clay mineralogy which provides a means of establishing the extent of hydrothermal alteration. The drill core has been routinely sampled and will be assayed at Acme Laboratories in Vancouver by multi-element ICP-MS for 52 elements, plus all the REE and Pb isotopes. The Queen’s Facility for

Isotope Research⁵ (QFIR) will conduct additional analysis of core samples using High-Resolution ICP-MS to determine the concentration of certain isotopic compositions.

The Halliday drill program was managed and directed by Uravan's technical group. Drilling operations were performed by Bryson Drilling Ltd. from Archerwill, Saskatchewan.

The summer 2012 drill program on the Halliday project was a joint exploration effort by Uravan and Cameco Corporation (Cameco). Uravan is currently the operator with the responsibility to plan and implement the exploration program on behalf of Cameco. Cameco is funding 100% of the 2012 exploration expenditures to the extent of its earn-in obligations pursuant to the Halliday/Stewardson Option Agreement [[Press Release link](#)].

Uravan expects to announce further results and future plans on the Halliday project as analytical results become available and the technical data have been evaluated.

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.

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¹The Athabasca Basin is an ancient (Paleoproterozoic) sandstone basin located in northern Saskatchewan, Canada. The Athabasca Basin sandstone (Manitou Falls 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 28 percent of the world's primary uranium production. The ore grades are high, typically grading 2% to 20% U₃O₈.

²Drill-hole HL-04 was abandoned in the upper Athabasca Sandstone section (250 meters) due to broken ground as a result of heavy fracturing and faulting.

³The Halliday surface anomalies were identified by a multifaceted geochemical sampling program completed by Uravan in the summer of 2011. This surface program capitalized on new geochemical technologies developed from a geochemical remote sensing study conducted over the Cigar West Uranium deposit (Cigar Lake Study)⁴, which focused on the detection of buried unconformity-related uranium mineralization in under-explored areas in the Athabasca Basin

⁴The Cigar West Study was a collaborative applied research program conducted by Uravan and QFIR (Queen's Facility for Isotope Research⁵) 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.



⁵The 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.



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. Dr. Kurt Kyser and Dr. Colin Dunn are key technical advisors for Uravan.

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 (REE) 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.



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Further, Uravan is pursuing the exploration of its advanced- stage Rottenstone Ni-Cu-PGE project supported by the development of new drill targets defined by recent geophysical re-interpretation. 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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