Roughrider Announces Final Results from 2014 Phase I Exploration Program at Genesis Property

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Vancouver, BC / ACCESSWIRE / December 1, 2014 / Roughrider Exploration Limited (TSX-V: REL) ("Roughrider") together with partner Kivallaq Energy Corporation ("Kivalliq") announce final results from the 2014 Phase I Exploration Program on the 200,677 hectare (495,883 acre) Genesis Property uranium project in Saskatchewan and Manitoba. Final data has now been received from 5,984 line kilometres of DIGHEM airborne magnetic, electromagnetic (EM) and radiometric surveying, 291 lake sediment samples, 1,347 enzyme leach (EL) soil samples, 62 biogeochemical samples and 16 rocks samples collected from the property.

The Phase 1 program was undertaken between July 22 and September 10, 2014. Exploration was focused on the definition of near surface, basement-hosted, structurally controlled uranium targets analogous to the Millennium, Roughrider and Eagle Point deposits are located southwest of the Genesis Property in basement lithologies below the unconformity with the Proterozoic Athabasca Basin. Roughrider funded the Phase 1 program pursuant to an Option Agreement allowing Roughrider to acquire up to an 85% interest in the Genesis Property.

Scott Gibson, Roughrider Exploration's CEO stated "we're pleased that the Phase I program was successful in both strengthening the priority target areas indicated by Kivalliq's desktop studies and in adding new targets with this focused program. The number of good basement hosted uranium targets across such a broad area that can now be advanced as distinct targets and as a group is a testament to the regional scale and prospectivity of this large project."

"Results from this Phase 1 geophysical and geochemical sampling program affirm our confidence in the exploration potential of the Genesis Property," stated Kivalliq's president, Jeff Ward. "Anomalous geochemical results correlate strongly to geophysically defined basement structures in several locations across the extent of the Genesis Property. We will leverage this new understanding to maximize our exploration success as we advance the project in 2015."

Genesis Uranium Property - 2014 Phase 1 Exploration Program Highlights

- The identification of six new priority target areas highlights the success of the 2014 Phase 1 exploration program: Jurgen 1, Jurgen 2, Johnston/GAP, Kingston, Daniel’s Bay and Sava Lake.

- Over 410 kilometres of linear EM conductors identified by airborne geophysical surveying

- Prospecting samples from the Johnston/GAP include two, frost-heaved subcrop samples assaying 0.36% U3O8 and 1.40% U3O8. A newly discovered float occurrence in the Jurgen Lake area assayed 1.41% U3O8.

- Several EL soil sample grids with multielement anomalies correlating to EM conductors; referred to as Jurgen 1 and Jurgen 2, two conductors returned characteristic apical and contact peak soil signatures yielding values of up to 44.1 ppb uranium (U) and 17.2 ppb U respectively.

- Multielement biogeochemical anomalies associated with values up to 20 ppb Uranium at Daniel's Bay correlate with an arcuate EM conductor and anomalous EL soil results.

- Multielement biogeochemical anomaliesoccur adjacent to the 16 kilometer long Sava Lake conductor (see Roughrider Exploration news release of Oct 21, 2014)

- Lake sediment samples have identified a strong uranium value in a bay on the northeast end of Wollaston Lake and confirmed highly anomalous uranium values with follow-up to historic results at Burrill Bay, Sava Lake and Melnick Lake target areas.

For maps showing results from the 2014 Phase 1 Exploration Program at Genesis and for additional Genesis

Property related data, tables and maps, please visit: http://bit.ly/RRGen

CGG DIGHEM Airborne Survey

Multiple EM conductors were identified in each of eight airborne grids flown. The structures noted include a conductor swarm at Johnston/GAP, anticlinal structures at Burrill Bay and Daniels Bay, a circular conductive trend around a magnetically defined dome at Kingston Lake and a unique 16 kilometre long conductor at Sava Lake intersected by north striking magnetic linears. Combined with 2006 historic airborne EM survey data, the Genesis property hosts over 410 kilometres of linear EM conductors.

The 5,984 line kilometre helicopter-borne Frequency Domain DIGHEM electromagnetic, magnetic and radiometric survey was flown over eight target blocks by CGG Canada Services Ltd between July 23 and August 14, 2014. The blocks were flown at line intervals of either 100 metres or 200 metres along flight lines oriented at azimuth 135° and 315°.

Prospecting

Radioactive frost heaved boulders were confirmed in two locations at the newly acquired GAP claims just over the Manitoba border (see Roughrider Exploration news release of Oct 30, 2014) Two samples of altered calc-silicate boulders measured up to 14,000 counts per second (cps) and 27,700 cps in the field and assayed 0.36% U3O8 and 1.40% U3O8 respectively.

While investigating two discrete parallel conductive trends on the Jurgen Lake block, exploration crews identified pitchblende blebs in a highly altered fibrous meta-sedimentary boulder (calc-silicate?) occurrence with in situ radiometric values measuring >14,000 cps. A sample from this occurrence assayed 1.41% U3O8.

Prospecting traverses were focused on conductive and structural trends indicated by airborne geophysical surveys, as follow up to known historic uranium showings and in conjunction with the geochemical sampling program. Rock samples and site descriptions were collected where warranted. A total of 139 prospecting sites were noted and 16 rock samples were collected from seven areas. All samples were analyzed by multi-element ICP at SRC Geoanalytical Laboratories (SRC). Assays Samples with results of greater than 1,000 ppm U were assayed for U3O8.

Enzyme Leach Soil Sampling

A total of 1,347 soil samples were collected from 28 target areas, along sample lines or within sample grids, to investigate anomalous geological (historic rock, soil or lake sediment data) or geophysical features (conductors or structures defined by the 2014 DIGHEM survey or from historic data). These samples were sent to Activation Laboratories Ltd. (Actlabs). Results have identified several target areas where mulitelement EL soil anomalies, measured in parts per billion (ppb), occur coincident to EM conductive trends consistent with structurally controled basement hosted uranium mineralization. Results range from below the detection threshold at 0.1ppb U to 44.1 ppb U, with a background of 1.2 ppb U.

In the Jurgen Lake area, at the Jurgen 1 target, 18 samples were collected along three lines spaced 200 metres apart that cross an EM conductor in an area where a 2007 till sample from previous workers had shown an anomalous flourimetric U value of 2.69 parts per million (ppm) U. Three samples at Jurgen 1 yielded the highest uranium values from the 2014 EL sampling program with 44.1 ppb U, 25.3 ppb U and 21.9 ppb U respectively. Anomlous mulitielement values loosely define a characteristic soil geochemical signature with anomalous values on either side of the conductor sampled.

Five kilometres west of Jurgen 1, but on a parallel EM conductor, results from 66 samples collected on six lines spaced 200 metres apart across the Jurgen 2 conductor where a 2007 till sample from previous workers had shown an anomalous flourimetric U result. . The Jurgen 2 sample grid returned five uranium values above the 2014 EL program 98th percentile. The three highest values are 17.2 ppb U, 14.2 ppb U and 7.5 ppb U respectively. Similarly, anomlous multielement values show a characteristic soil geochemical signature at Jurgen 2 with apical values centered over the EM conductor and contact values on either side.

Several sample lines were collected across a conductive fold nose/anticline structure at Daniels Bay. Three samples apical to the structure returned uranium values above the 98th percentile. Two adjacent samples over the fold nose returned 5.7 ppb U and 7.1 ppb U respectively. A third sample over the southeast limb of the structure returned 11.7 ppb U.

At Kingston Lake an EM conductor flanks the southeast edge of a domal intrusive. This feature and an

associated conductive splay striking northeast were investigated with 93 EL samples on eight sample lines over 3 separate areas. Each of the three conductive areas tested returned anomalous correlating apical uranium in soil values; two samples wereabove the 98th percentile (9.2 ppb U, 6.1 ppb U) and the third was above the 95th percentile (5.2 ppb U).

At Johnston Lake the mineral potential of a swarm of northeast striking conductors was assessed with 86 samples taken along eight widely sample lines placed along a strike length of approximately 2.5 kilometres. Five results from the sampling returned uranium values above the 98th percentile. The highest values were 12.2 ppb U, 9.9 ppb U and 6.2 ppb U.

Biogeochem Sampling

Anomalous multi-element values were identified on two of the four biogeochemical orientation grids completed at Daniel's Bay, Sava Lake and Cochrane River and Kingston Lake.

On the south limb of the Daniels Bay conductive structure, where EL samples returned uranium values above the 98th percentile, biogeochemical samples returned spatially corroborating values of 20 ppb U and 4 ppb U.

Four lines with a total of 71 biogeochemical samples were collected along a strike length of 1.4 kilometers over the Sava Lake conductor where the structure strikes adjacent to a strongly anomalous 89.2 ppm U lake sediment value. Eight samples returned values above the 95th percentile for uranium. On the eastern most line sampled, high counts of 8 ppb U, 7 ppb U and 6 ppb U respectively (announced by REL Oct 21, 2014) occurred adjacent to each other north of the conductor.

Black spruce trees, generally ubiquitous throughout the Genesis property area including areas of muskeg cover where soil is absent, have been identified as a reliable source of sampling media (needles, barks and twigs) yielding reproducible biogeochemical results documented in several academic studies and exploration programs. A total of 162 orientation black spruce samples (twigs with needles) were sent to Actlabs for un-ashed vegetation 63 element ICP/MS biogeochemical analysis. Uranium results ranged from below the detection limit at 1 ppb U to a maximum of 20 ppb U, with a background of 2 ppb U.

Lake Sediment Sampling

The work has identified an anomalous bay on Wollaston Lake (Southwest Jurgen area) with a sample returning 50.6 ppm U from lake sediments overlying a well defined EM conductor. In addition, as follow-up to historic results, lake sediment samples collected over the apex of an anticlinal structure at Burrill Bay returned 102 ppm U with two promixal samples recovering 69.9 ppm U and 53.2 ppm U. On the east side of the Sava Lake area, adjacent to the 16 kilometre long Sava Lake conductor, a sample returned 89.2 ppm U. On the west side of the Sava Lake area, where the Sava conductor is broken and offset by north-south trending linears seen in the magnetic data a second sample returned a strongly anomalous 63.3 ppm U. In the Melnick Lake target area, 3 adjacent samples collected from a single lake overlying an east-west trending magnetic break returned values ranging from 41.7 ppm U to to 51.2 ppm U, with a background of 8.6 pm U.

A total of 291 lake sediment samples were sent to SRC Geoanalytical Laboratories (SRC) for 44 element ICP-MS analysis. Uranium values ranged from 0.7 ppm U to 102 ppm U.

2014 Geochemical Program Frequency Analysis

Anomalous uranium thresholds for the Genesis Property 2014 geochemical sampling program as defined by percentiles values are shown in Table 1 below.

Table 1. Genesis 2014 Geochemical Sampling Program - Comparative Percentile Values for Uranium

Enzyme Leach Soil Samples			Biogeochemical Samples			Lake Sediment Samples		
Percentile	U	Number	Percentile	U	Number	Percentile	U	Number
	ppb	(n)		ppb	(n)		ppm	(n)
98	5.5	28	95	4.0	14	95	26.4	
95	3.4	68	90	3.0	28	90	16.0	
90	2.1	146	80	2.0	75	80	10.7	
Min	0.1	2	Min	1.0	92	Min	0.7	
Max	44.1	1	Max	20.0	1	Max	102.0	
Mean	1.2	-	Mean	2.0	-	Mean	8.6	
Total	-	1351	Total	-	162	Total	-	

Anomalous ranges for Enzyme Leach and Biogeochemical uranium analyses received from Actlabs and lake sediment uranium analyses received from SRC were generated through statistical frequency analysis. Background was determined by the population mean. A general association with copper (Cu), nickel (Ni), molybdenum (Mo), lead (Pb) and rare earth elements (REE's) is demonstrated with anomalous uranium in soils, biogeochemical and lake sediment samples.

QA/QC

Rock and lake sediment samples from the Genesis Property were sent to the Saskatchewan Research Council Geoanalytical Laboratories ("SRC") for analysis. The SRC facility operates in accordance with ISO/IEC 17025:2005 (CAN-P-4E), General Requirements for the Competence of Mineral Testing and Calibration laboratories and is accredited by the Standards Council of Canada. Rock samples are first analyzed by SRC's ICP-OES multi-element Uranium exploration ICP1 method. ICP results U>1,000 parts per million (ppm) are analyzed using SRC's ISO/IEC 17025:2005-accredited U3O8 Assay method. Lake sediment samples are analyzed by ICP-MS method. The detection limit for uranium is 0.01 parts per million (ppm). A 0.520 g pulp is digested with 2.25 ml of 8:1 ultrapure nitric and hydrochloric acids (HNO3:HCl) for 1 hour at 95° C in a hot water bath and then diluted using deionized water prior to analysis. The instruments used were Optima 4300DV or Optima 5300DV. Laboratory rock sample quality control (QC) includes a repeat analysis on every 20th sample. Laboratory lake sediment quality control (QC) includes quality control samples are prepared and analyzed with each batch of samples and a duplicate analysis in every 40 samples. Kivalliq's quality assurance and quality control procedures include the systematic insertion of blanks and standards into the lake sediment sample string. All QA/QC results for both rocks and lake sediments were within expectations.

Genesis Property Enzyme leach soil samples and biogeochemical samples were sent to Activation Laboratories Ltd. (Actlabs). The Actlabs facility is accredited to international quality standards through the International Organization for Standardization/International Electrotechnical Commission (ISO/IEC) 17025 (ISO/IEC 17025 includes ISO 9001 and ISO 9002 specifications) with CAN-P-1578 (Forensics), CAN-P-1579 (Mineral Analysis) and CAN-P-1585 (Environmental) for specific registered tests by the SCC. For EL soil sample analysis, a 0.75 gram sample of -60 mesh B soil horizon is leached in an enzyme matrix containing a glucose oxidaze solution at 30°C for one hour, where it reacts with amorphous MnO2 dissolving it. Metals complex with the gluconic acid present and solutions are then analyzed on a Perkin Elmer ELAN 6000, 6100 or 9000 ICP/MS. For Biogeochemical analysis, raw vegetation samples are digested in aqua regia at 95°C for 2 hours. Resultant sample solutions are diluted and analyzed on a Perkin Elmer Sciex ELAN 6000, 6100 or 9000 ICP/MS. Laboratory enzyme leach soil sample quality control (QC) includes four controls and one blank for every 49 samples leached and a repeat analysis on every 10th sample. Field quality assurance and quality control procedures for soil samples included the systematic insertion of blanks, standards and duplicates in the field. Laboratory biogeochemical sample quality control (QC) includes instrument recalibration and insertion and analysis of one blank and two digested controls every 69 samples. Duplicates are digested and analyzed every 14 samples. All QA/QC results were within expectations.

David W. Tupper, P.Geo., V.P. of Exploration and a Qualified Person under National Instrument 43‐101 has reviewed and approved the technical information contained in this release.

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