

Form 51-102F3
Material Change Report

Name and Address of Company

Kivalliq Energy Corporation (the "Company" or "Kivalliq")
1440 – 625 Howe Street
Vancouver, BC V6C 2T6

Date of Material Change

December 13th and 14th, 2010

News Release

The Company issued news releases December 13th and 14th, 2010. They were disseminated through the facilities of CCN Matthews, filed with SEDAR, posted on the Company's website (www.kivalliqenergy.com), and emailed to the Company's internal database of interested persons.

Summary of Material Changes

The Company announce final assay results from the Lac Cinquante Uranium deposit. The assay results from drill hole 10-NE-001 at the new zone yielded two distinct intervals of significant U₃O₈ mineralization: 0.83% U₃O₈ over 1.4 metres, in altered sulphidic tuff, starting at 33.9 metres; and 0.66% U₃O₈ over 2.4 metres, in brecciated basalt, starting at 72.3 metres. Assays reported from the eastern end of the Main Zone represents some of the highest grades reported to date on the property including 6.86% U₃O₈ over 0.58 metres. The area of known mineralization at the Lac Cinquante deposit has now been extended to over 1.35 km and drilling confirms the deposit remains open along strike and to depth.

Full Description of Material Change

The Company announced high grade assays results from drill hole 10-NE-001. This new zone is located 1.8 kilometres west of the Lac Cinquante Main Zone, and within the 225,000 acre Angilak Property in Nunavut, Canada.

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(Intervals reported are down-hole)

"The drill hole announced today reinforces our belief in the potential for discovering additional uranium deposits elsewhere on the Angilak Property," stated Jeff Ward, P. Geo., Kivalliq's President. "As part of the 2011 exploration program, we plan to drill this new zone along strike, with a goal of significantly expanding the known zone of mineralization."

Exploratory Drilling Increases Project Potential

An important component of the 2010 exploration program was to identify possible deposit analogues through exploratory drilling and prospecting. As announced on October 26th, 10-NE-001 was one of the last holes of the season, testing a separate geophysical conductor 1.8 kilometres west of Lac Cinquante.

This target was drill tested with one hole based on Kivalliq's increased understanding of the mineralization at the Lac Cinquante Main Zone and results from the 2010 summer prospecting program. Hole 10-NE-001 was inclined at -45 degrees and drilled to the northeast with an azimuth of 35 degrees. The hole intersected two radioactive zones at 25 and 50 metres vertical depth. The shallowest zone includes altered, sulphidic tuff hosting Lac Cinquante-style uranium mineralization; the deeper zone is an interval of altered basalt and breccia, with pitchblende-quartz-carbonate veining.

Since 2009, a total of four exploratory holes have been drilled outside of the Lac Cinquante Main Zone. Two of these (10-NE-001 and 10-LC-013) intersected potentially ore grade intercepts within the favourable Lac Cinquante stratigraphy. Drill hole 10-LC-013, released June 24, 2010, intersected 0.21% U3O8 over 1.96 metres approximately 500 metres west of the Lac Cinquante Main Zone. These results confirm the potential for either, extensions to the main zone, or separate analogous mineralized zones.

The Company also announced assay results from the final 27 holes drilled at the 225,000 acre Angilak Property in Nunavut, Canada. Assays reported from the eastern end of the Main Zone represent some of the highest grades reported to date on the property, including 6.86% U3O8 over 0.58 metres. The area of known mineralization at Lac Cinquante deposit has now been extended to over 1.35 km and drilling confirms the deposit remains open along strike and to depth.

“These drill intervals reinforce the high-grade nature of the deposit and demonstrate the potential to continue to expand the Main Zone along trend,” stated Kivalliq’s President Jeff Ward, P. Geo. “The receipt of these final assays allows commencement of the modelling work needed to deliver the project’s first NI 43-101 mineral resource by the first quarter of 2011.”

New Assay Highlights

Drill Hole ID - %U₃O₈ - True Width (estimate)

10-LC-089 – 6.86% over 0.58 metres

10-LC-090 – 2.25% over 1.05 metres

10-LC-091 – 1.02% over 2.04 metres

10-LC-099 – 3.56% over 0.86 metres

10-LC-101 – 2.77% over 1.62 metres

All holes reported herein were inclined to the northeast with an azimuth of 26 degrees, intersecting the Lac Cinquante Main Zone between 27 and 265 metres depth. See the table of results below, and visit www.kivalliqenergy.com for an updated drill plan map, drill sections and drill collar information.

Table 1: 2010 Phase 2 Assay Results – Lac Cinquante Drill Program

2010 Phase 2 Lac Cinquante Drilling Program - Final Assay Results*						
Drill Hole	From (m)	To (m)	Interval (m)	Est True Width**	U ₃ O ₈ %	Description
10-LC-072	165.9	167.6	1.7	0.95	0.39	Main Zone
10-LC-073	265.0	266.8	1.8	0.33	0.43	Main Zone
10-LC-075	67.5	68.2	0.7	0.32	0.20	Main Zone
10-LC-076	44.5	45.2	0.7	0.49	0.36	Main Zone
10-LC-078	229.0	230.4	1.3	1.17	0.87	Main Zone
10-LC-079	261.2	262.0	0.8	0.62	0.12	Main Zone
10-LC-080	295.8	296.2	0.4	0.26	0.14	Main Zone
10-LC-089	143.7	144.8	1.1	0.58	6.86	Main Zone - East

10-LC-090	53.8	54.9	1.1	1.05	2.25	Main Zone
10-LC-091	90.8	94.6	3.8	2.04	1.02	Main Zone
10-LC-092	135.9	136.6	0.7	0.53	1.49	Main Zone
10-LC-095	38.5	40.9	2.5	na	1.03	Qtz Carb Vein
10-LC-096	238.1	239.0	0.9	0.81	2.17	Main Zone
10-LC-098	274.8	276.8	2.0	1.58	0.10	Main Zone
10-LC-099	170.1	171.2	1.0	0.86	3.56	Main Zone - East
10-LC-101	153.6	155.3	1.7	1.62	2.77	Main Zone - East
10-LC-102	185.3	185.7	0.4	0.27	0.13	Main Zone - East
10-LC-110	212.5	213.0	0.5	0.41	0.02	Main Zone
10-LC-111	280.8	282.3	1.6	0.73	0.15	Main Zone
10-LC-112	141.0	141.3	0.3	0.24	0.27	Main Zone
*All samples subject to ICP 1 Analysis by SRC in Saskatoon, SK. ICP1 results >1000 ppm Uranium subject to SRC U₃O₈ Assay Full mineralized intervals may include ICP U analysis in ppm converted to U₃O₈%. Conversion to U₃O₈% = ppm x 0.01179% ** Estimates for true widths of mineralized zones based on measured core angles and attitude of Main Zone geology						

For seven drill holes not reported above: holes 10-LC-094 and 097 were abandoned due to bad ground; 10-LC-074, 077, 093 and 100 intersected the altered tuff host unit with no uranium mineralization; and exploratory hole 10-LC2-001 was collared in 18.5 metres of broken basalt while testing a geophysical target one kilometre east. No anomalous radiation was noted in core at 10-LC2-001 but further work is warranted.

Overview of 2010 Exploration Program at Angilak

The 2010 Program at Angilak operated from April to October and consisted of new camp construction, property-wide prospecting, environmental baseline studies, and a total of 16,600 metres of resource definition and exploratory drilling in 107 holes. All U₃O₈ assays from the 2010 drill program have now been reported.

The prime objective in 2010 was to generate data necessary to deliver the first NI 43-101 mineral resource at Lac Cinquante. New drilling has confirmed mineralization at the Main Zone, down to a depth of 275 metres, and expanded mineralization to 1.35 km of strike length. Lac Cinquante remains open in both directions and at depth based on the current drilling. The remainder of the year will be dedicated to technical and resource modeling analysis with the goal of establishing a NI 43-101 mineral resource by early 2011.

As part of the 2010 program, two exploratory holes encountered significant uranium mineralization 500 metres and 1.8 kilometres west of Lac Cinquante. These holes clearly demonstrate the potential to expand the Lac Cinquante Main Zone along trend and make new discoveries elsewhere on the Angilak Property.

Assay results from a property wide prospecting and sampling program will be released prior to the end of the year.

QA/QC

Samples from the 2010 Phase 2 drilling program comprised half split NQ drill core. All samples were analyzed for U₃O₈ and a multi-element suite by Saskatchewan Research Council (SRC) Geoanalytical

Laboratories. 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. The samples are first analyzed by SRC's ICP-OES multi-element Uranium exploration ICP1 method. ICP results U>1000 parts per million (ppm) are analyzed using SRC's ISO/IEC 17025:2005-accredited U₃O₈ Assay method. Laboratory quality control (QC) includes a repeat analysis on every 20th sample. Repeat samples had good reproducibility. Kivalliq's QC included the insertion of blanks into the sample inventory at the project site prior to shipment in sealed containers. All blank results were within expectations.

Disclosure of a technical nature contained in this release has been reviewed and approved by Jeff Ward, P.Geo. (President, Kivalliq) who is the Qualified Person for the purposes of National Instrument 43-101.

About Kivalliq Energy Corporation

Kivalliq Energy Corporation is a uranium exploration and development company, and the first company in Canada to sign a comprehensive agreement with the Inuit of Nunavut to explore for uranium on Inuit Owned Lands in Nunavut.

The Lac Cinquante Deposit is Canada's highest grade uranium deposit outside of the Athabasca Basin. Kivalliq's core asset, the 225,000 acre Angilak Property hosts the historic Lac Cinquante uranium deposit, and over 150 other uranium occurrences. Since acquiring the project in 2008 the Company has invested approximately \$11.9 million on the property conducting systematic exploration which has included ground and airborne geophysics, geological mapping, prospecting and 18,350 meters of drilling.

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

** The quoted disclosure of historical resource estimates for the Lac Cinquante Uranium Deposit was prepared by Aberford Resources Ltd in 1982, Abermin Corporation in 1986, and referenced by other subsequent sources. It was prepared prior to the implementation of National Instrument 43-101 (NI 43-101) and should not be relied upon since it does not comply with NI 43-101 Standards of Disclosure for Mineral Projects. A Qualified Person has not classified the historical estimates as current mineral resources or reserves, and therefore, Kivalliq is not treating them as such. Kivalliq has not completed any work to verify these estimates, but ongoing exploration programs are designed to evaluate the economic potential of the deposit and environs. It is uncertain if further exploration will result in the deposit being classified a mineral resource or reserve. However, the historical uranium resource estimate is relevant because: it is indicative of a mineralized zone worthy of follow-up exploration as it is based on drilling and surface exploration carried out by what is believed to be knowledgeable explorers in accordance with acceptable industry practices at the time of the estimate. Historic estimates were originally classified as "indicated" and "inferred" reserves, plus a third "possible" category; however, the equivalent categories acceptable under NI 43-101 are not known at this time.

Omitted Information

No information has been omitted on the basis that it is confidential information

Executive Officer

Jeff Ward, President Telephone: 604-646-4527.

DATED at Vancouver, BC, this the 15th day of December, 2010.