

QIMC Announces Major Natural Hydrogen Results: High of over 7000 PPM at 50m Shallow Depth in Fault Zone amid Harsh Winter Conditions at St-Bruno-de-Guigues Hydrogen Project

St-Bruno-de-Guigues, Quebec--(Newsfile Corp. - January 21, 2025) - Québec Innovative Materials Corp. (CSE: QIMC) (FSE: 7FJ) (OTCQB: QIMCF) ("QIMC" or the "Company") is thrilled to announce a major breakthrough at its St-Bruno-de-Guigues Hydrogen project. Our latest tests, in shallow monitoring wells, have exceeded expectations, with one hydrogen concentration measurement reaching a high of 7119 parts per million (ppm) and plateauing at 2886 ppm and five other measurements above 550 ppm including one of over 2400 ppm, one of over 1000 ppm and one of over 900 ppm. These outstanding results, recorded at shallow depths of up to 50 meters, are located in new fault zones inferred from electrical tomography imagery performed by INRS during fall 2024. The observation of high concentrations of hydrogen in the fissured rocks and/or under the soil horizons confirms our previous observations that hydrogen originates from deep geological sources and not from biogenic fermentation processes involving soil organic matter. Furthermore, the near absence of carbon dioxide (CO₂) and methane (CH₄) (concentrations in trace amounts) in the samples highlights the purity of this deep-seated hydrogen, reinforcing the environmental benefits of this resource.

"This achievement despite the challenging very cold winter conditions underscores the robustness of our geological and geophysical models, validating our geophysical identification of potentially advective fault zones as key areas for abundant natural hydrogen," states John Karagiannidis, CEO of QIMC. "The absence of harmful greenhouse gases further positions QIMC at the forefront of Quebec's sustainable energy development, contributing to establishing geologic hydrogen as a primary energy source."

Recently, QIMC conducted a campaign to install shallow monitoring wells in anomalous areas previously identified during the 2024 hydrogen soil gas surveys or the fall 2024 electrical tomographic surveys. These surface wells, drilled by Multi-Drilling of Rouyn-Noranda, were installed along public roads in St-Bruno-de-Guigues and on private land. The first two wells were drilled along chemin des deuxième et troisième rangs (line 7), wells 3 and 4 along chemin de l'ancienne mine Aiguebelle, wells 5 and 6 north of chemin du Quai (line 3). Further drilling is planned for well 7 west of chemin des deuxième et troisième rangs (line 7), for well 8 north of chemin du Quai (Line 3) and finally wells 9 and 10 along chemin du rang IV (line 1) in St-Bruno-de-Guigues.

The objectives of the campaign to install monitoring wells are several. Firstly, to explain the spatio-temporal dynamics of hydrogen rise in the soils of the region. QIMC needed several monitoring wells to sample below the soil horizon and in places in the shallow fractured rock. In addition, the silty-clay nature of the Quaternary deposits in the St-Bruno-de-Guigues area and the regional meteorological context meant that shallow groundwater was likely to interfere with hydrogen deposition. The wells allow sampling of hydrogen dissolved in water and also of the gas accumulated at the head of the wells (head space gas).

When the wells were drilled, rock cores were systematically taken in order to characterise the petrophysical, petrographic and geochemical properties of the Proterozoic rocks of the Cobalt Group and, locally, the Ordovician dolomitic limestones of the New Liskeard Group. The rocks of the Cobalt Group are ancient sedimentary rocks, slightly metamorphosed but only weakly deformed, and unconformably overlying the belt of Archean volcanic and intrusive rocks of the Baby Group. According to our exploration model, this very low-permeability unit is ubiquitous in the region and could act as a low-permeability blanket limiting the ascent of hydrogen to zones fractured late by the extensional faulting

related to the Lake Témiscamingue graben.

Concurrently with this work, INRS carried out a geoelectric tomography (ERT) survey (2 km section) and an audiomagnetotelluric survey over agricultural fields bordering chemins des deuxième et troisième rang (line 7) and chemin du Quai (line 3) in St-Bruno-de-Guigues. The main objective of the Line 7 ERT section was to obtain geoelectric data from the Cobalt Group sandstones, in order to verify the homogeneity and integrity of this unit, considered by INRS as a low-gas-permeability barrier. The survey also aimed to document the presence of glacial-lacustrine thickening pits (local thickening of the overburden). These areas could have been affected by, among other things, later faults associated with the Lake Témiscamingue graben. The following figure (**Figure 1**) shows the results of 2D inversion of geoelectric data acquired using a cable array totalling 1600 m with an inter-electrode spacing of 20 m. The ERT imagery obtained and thin section petrographical observations highlights that, despite the sedimentary origin of the Cobalt Group sandstones, low grade metamorphism has greatly reduced the permeability of these cap rocks (**C domain**) and that this unit is extremely homogeneous and electrically isotropic (electrical resistivity). A pit (**D domain**), present between 500 and 750 m along the section, shows the presence of more than 100 m of moderately resistive sediments resting above the Cobalt Group (**C domain**). This domain seems to be related to the presence of sandy and gravelly materials located below the glacio-lacustrine clay-silty horizon (**A domain**). A unit present at the top of the pit (**E domain**) and below the silty-clay unit (**A domain**), shows anomalously resistive values that could be interpreted as a zone of gas accumulation in porous and permeable Quaternary materials. Similarly, the anomalous **F domain**, located between 1025 and 1150 m, could also contain a local accumulation of gas paving the way for advanced soil gas analyses and the strategic installation of additional wells to fully harness the site's potential (**Fig. 1**).

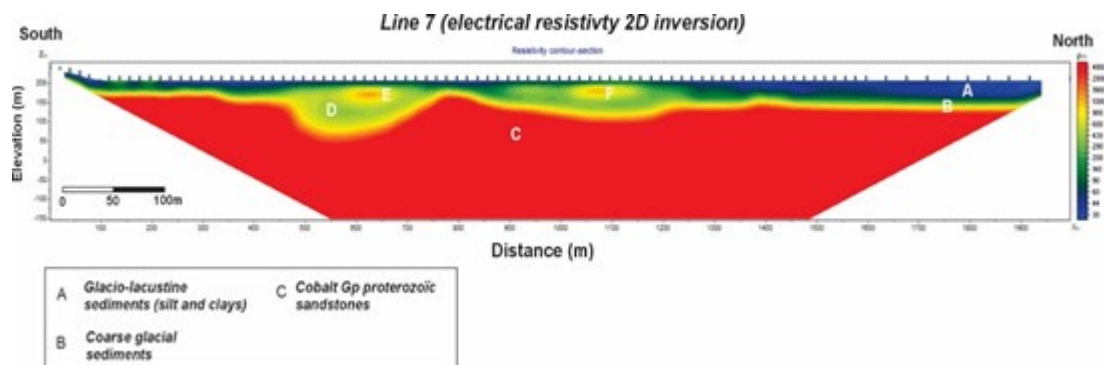


Figure 1. Geoelectric 2D inversion model of electrical resistivity data measured along the 2km section east of Chemin des 2e et 3e rangs in St-Bruno-de-Guigues. 4 cables of 400m each (total 1.6km) with electrodes every 20m. Gradient acquisition method.

To view an enhanced version of this graphic, please visit:

https://images.newsfilecorp.com/files/7968/237883_6273efa7349b3bdf_001full.jpg

"These results represent a pivotal achievement for QIMC and the province of Quebec," notes John Karagiannidis, CEO of QIMC. "Reaching such high-purity natural hydrogen in demanding winter conditions highlights our technological excellence and strategic vision. This milestone accelerates our mission to deliver sustainable, clean natural hydrogen and solidifies QIMC's leadership in geologic hydrogen. We are committed to driving growth and creating long-term value for our stakeholders."

Furthermore, in Spring 2025, QIMC will commence a 15-hole geotechnical drilling program designed to provide critical subsurface data. This initiative will enhance our understanding of the site conditions and ensure the integrity of future infrastructure development.

About the INRS and Pr. Marc Richer-LaFlèche, P.Geo.

The Institut National de la Recherche Scientifique ("INRS") is a high-level research and training institute.

Pr. Richer-LaFlèche's team has exceptional geological, geochemical and geophysical experience specifically in the regions of QIMC's newly acquired claims. They have carried out over six years of geophysical and geochemical work and collected thousands of C1-C4 Soil-Gas analyses.

M. Richer-LaFlèche also holds an FRQNT grant, in partnership with Quebec MRN and the mining industry, to develop and optimize a Soil-Gas method for the direct detection of mineralized bodies and faults under Quaternary cover. In addition to sulphide gases, hydrogen was systematically analyzed in the numerous surveys carried out in 2023 in Abitibi, Témiscamingue and also in the Quebec Appalachians. M. Richer-LaFlèche is the Qualified Person responsible for the technical information contained in this news release and has read the information contained herein.

In addition, the INRS team has several portable gas spectrometers and the sampling equipment and logistics necessary for taking gas samples and geophysical measurements on the ground or in the aquatic environment. He is a professional geologist registered with the Ordre des géologues du Québec and is the Qualified Person responsible for the technical information contained in this news release and has read the information contained herein and approves the press release.

For more information about Quebec Innovative Materials Corp. and its products, please visit www.qimaterials.com

About Québec Innovative Materials Corp.

Québec Innovative Materials Corp. is a mineral exploration, and development company dedicated to exploring and harnessing the potential of Canada's abundant resources. With properties in Ontario and Québec, QIMC is focused on specializing in the exploration of white (natural) hydrogen and high-grade silica deposits, QIMC is committed to sustainable practices and innovation. With a focus on environmental stewardship and cutting-edge extraction technology, we aim to unlock the full potential of these materials to drive forward clean energy solutions to power the AI and carbon-neutral economy and contribute to a more sustainable future.

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Although Québec Innovative Materials believes the forward-looking information contained in this news

release is reasonable based on information available on the date hereof, by their nature, forward-looking statements involve assumptions, known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements, or other future events, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements.

Examples of such assumptions, risks and uncertainties include, without limitation, assumptions, risks and uncertainties associated with general economic conditions; adverse industry events; future legislative and regulatory developments in the mining sector; the Company's ability to access sufficient capital from internal and external sources, and/or inability to access sufficient capital on favorable terms; mining industry and markets in Canada and generally; the ability of Québec Innovative Materials Corp. to implement its business strategies; competition; and other assumptions, risks and uncertainties.

The forward-looking information contained in this news release represents the expectations of the Company as of the date of this news release and, accordingly, is subject to change after such date. Readers should not place undue importance on forward-looking information and should not rely upon this information as of any other date. While the Company may elect to, it does not undertake to update this information at any particular time except as required in accordance with applicable laws.



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