PROJECT ANNEX #6a

Between the: GEOLOGICAL SURVEY OF CANADA of the Earth Sciences Sector, Department of Natural Resources, Canada,

and the: U.S. GEOLOGICAL SURVEY of the Department of the Interior, United States of America, concerning:

EXTENSION OF THE HYDRAULIC PROPERTIES OF THE SEDIMENTARY ROCK AQUIFER SYSTEM IN THE CARBONIFEROUS BASIN IN THE MARITIMES, CANADA - PHASE#2

(hereinafter referred to as the "Project")

Authority: This is a Project Annex extension, originally under Project Annex No. 6, to the Memorandum of Cooperation (MOC) signed on the 9th day of April, 1999, between the Earth Sciences Sector of the Department of Natural Resources, Canada, and the U.S. Geological Survey of the Department of the Interior of the United States of America, hereinafter referred to as the "parties". This Project is approved in accordance with Article VI of the MOU.

Correspondents: <u>USGS</u>: Roger H. Morin, PO Box 25046, MS 403, Denver, CO 80225, phone: (303) 236-5915, fax: (303) 236-5968, e-mail: rhmorin@usgs.gov.

GSC: Yves Michaud, 880 chemin Ste-Foy, C. P. 7500, Sainte-Foy, Qc, G1V 4C7, phone: (418) 654 2673, fax: (418) 654 2615, e-mail: ymichaud@nrcan.gc.ca.

Responsible Senior Managers: <u>USGS</u>: P. Patrick Leahy, Associate Director for Geology, phone: (703) 648-6600; <u>GSC</u>: Dr. Jan Boon, Director General SMGB GSC, phone: (613) 995-2340.

Scope: This extension will expand upon the collaboration between GSC and USGS carried out under Project Annex #6, the MGWI Project (Maritimes Groundwater Initiative). Last year's participation of Roger H. Morin to the characterization of the Maritimes Carboniferous Basin has been extremely useful. Dr. Morin would again conduct geophysical logging within numerous selected boreholes in different hydrogeologic formations (Boss Point, Richibucto and Hillsborough formations) where information is lacking, so this will enhance the understanding of the regional hydrogeology in the fractured sedimentary rock aquifers. His work allows the evaluation of hydraulic properties, complementary to pumping tests and drilling, for the development of a conceptual hydrogeological model of the Basin.

Work Plan: The work plan is similar to the one described in Project Annex#6. The USGS will provide the expertise of Dr. Roger H. Morin and one technician for the service of geophysical logging for a period of one week between mid-July and mid-August of 2002, and advice in log analysis and interpretation techniques. The GSC will provide complementary information on the geology and the stratigraphy of the Carboniferous Basin in order to identify and characterize the aquifer formations. The USGS will provide a report including field results from geophysical logging and their interpretation, in both digital and hard format.

The GSC will be responsible for ensuring that any permits and/or authorizations required for the entry of the geophysical logging equipment to Canada are processed.

Funding Arrangements: The GSC will provide funding for accommodations and for travel expenses incurred by Dr. Morin and one technician up to a maximum of US\$3500. The USGS shall submit to the GSC, to the attention of Dr. Yves Michaud, <u>original</u> invoices with the Canadian federal government claims for the verification of expenditures. The USGS's final invoice shall be marked "Final" and submitted to GSC not later than October 31st 2002.

Intellectual Property: As per the "Agreement on the Allocation of Intellectual Property Rights, Interests and Royalties for Intellectual Property Created or Furnished under Certain Scientific and Technological Cooperative Research Activities" between the Government of Canada and the Government of the United States of February 4, 1997, parties to this PA shall retain existing intellectual property that they bring to the project. Intellectual property arising as a result of this Project shall be owned in equal parts by the GSC and USGS.

Duration and Termination: Notwithstanding the date of execution of the Agreement, this Agreement shall be effective as of the 1st day of July 2002 and shall terminate upon the earlier of: (a) March 31, 2003, this being the anticipated completion date of the Project, unless extended by the mutual written agreement of the parties; or (b) one month subsequent to the receipt of written Notice of Intent to Terminate from one party to the other.

Either party may, by giving the other party thirty (30) days written notice, terminate this Agreement. Either party shall immediately upon termination, return the other party's papers, materials or other property held for the purpose of carrying out the Project. In the event of termination of this Agreement, any expenses and costs incurred by USGS in support of the Project and costs for non-cancelable commitments outstanding as of the date of termination shall be paid for by GSC-Q.

FOR THE U.S. GEOLOGICAL SURVEY OF THE DEPARTMENT OF THE INTERIOR OF THE UNITED STATES OF AMERICA: FOR THE GEOLOGICAL SURVEY OF CANADA OF THE EARTH SCIENCES SECTOR OF THE DEPARTMENT OF NATURAL RESOURCES CANADA:

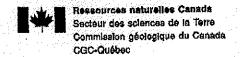
P. Patrick Leahy
Associate Director for Geology
United States Geological Survey
Department of the Interior

Jan Boon
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Geological Survey of Canada
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Natural Resources of Canada

200602

Date

Date



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| Date: | April 20, 2004 |
| Nombre de pages (incluant celle-ci): Number of pages (including this page): | 5 |
| Comme demandé : X | Retourner avec commentaires : Return with comments: |
| Pour votre information : For your information: | Retour immédiat par télécopieur : Return by fax immediatly: |
| Pour votre approbation : For you approval: | Faire le nécessaire : Follow-up: |
| Message : Hello Pat, | |
| Here are Annex #6 and Anne | ex #7. Hope this helps. |
| Thank you very much in adv | ance. Have a great day. |
| Christine | |

Canadä