



Giant Mine Environmental Assessment

IR Response

Round One: Information Request - North Slave Métis Alliance #04

June 17, 2011

INFORMATION REQUEST RESPONSE

EA No: 0809-001

Information Request No: NSMA #04

Date Received

February 28, 2011

Linkage to Other IRs

Date of this Response

June 17, 2011

Request

Have all of the past studies been licensed in the Northwest Territories according to the Scientists Act, or peer-reviewed? Please provide a table showing date of research, research licence number, researchers name, title of research, a summary of the conclusions, and a link to final peer-reviewed publications.

Reference to DAR (relevant DAR Sections)

s. 2.5 Supporting Studies and Technical Documents
Table 2.5.1 Summary of Supporting Documents to the DAR

Summary

Yes, the past studies in the Supporting Documents have been peer-reviewed or licensed as appropriate.

Response

Peer reviewed Supporting Documents

As described in Section 1.5.3 of the Developer's Assessment Report (DAR), the Giant Mine Remediation Project (Remediation Project) was subjected to a rigorous review by an Independent Peer Review Panel (IPRP) consisting of nine recognized experts whose qualifications and experience collectively covered the fields relevant to project. This review included the majority of the supporting documents to the DAR which described the various studies characterizing site and environmental conditions. The membership of the IPRP included specialists that were nominated by communities and the local public. Reports under the Metal Mining Effluent Regulations (MMER) were peer reviewed by a Technical Advisory Panel (TAP) administered by Environment Canada. University studies undergo peer review for completion and publication of thesis material. In addition to the above, a variety of procurement





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procedures and contractual requirements have been established to ensure the quality of any research and investigations that are performed. These include requirements that ensure organizations performing site investigations possess the required experience and professional credentials, and that appropriate internal peer reviews are conducted.

Licensing

As agreed to with the Aurora Research Institute (ARI), activities carried out at Giant Mine under the Northern Contaminated Sites Program of Indian and Northern Affairs Canada (INAC) do not qualify as research under the *Northwest Territories Scientists Act*. As such, studies of Giant Mine do not require a Scientific Research License from the Aurora Research Institute.

There were two exceptions to this: (1) independent research conducted by universities and (2) select biological monitoring conducted by consultants. A university student's work does qualify as research under the *Northwest Territories Scientists Act*. Larger-scale biological monitoring studies under the Metal Mining Regulations or other ecological investigations were licensed for the sake of completeness. Smaller scale studies completed as part of remediation planning were not licensed as noted above. Table 1 Summary of Scientific Research Licenses in relation to biological monitoring at Giant Mine summarizes the relevant programs that have been conducted at Giant Mine and the applicable Aurora Institute Scientific Research License numbers. A two-hundred word summary was provided to the ARI at the end of each year and was distributed to communities and researchers through the annual ARI Compendia of Research; a link to the summary of results is provided in Table 1. Copies of the final reports and theses were made available to the public through the Giant Mine Public Registry. Table 2 summarizes licensing information from additional monitoring at Giant Mine. This information is provided for transparency and ease of reference.

Table 1: Summary of Scientific Research Licenses in relation to biological monitoring at Giant Mine

Date of Research:	Title of Research:	Investigator:	Research License #:	Link to Summary of Results
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Remediation Plan Supporting Document A6

1998	Baker Creek Fisheries Habitat and Restoration Study	THOMAS, Craig; Dillon Consulting Limited	<u>13004</u>	http://data.nwtresearch.com/entry.aspx?licence=3dc1f988-4a51-4e4f-b6fc-ab3eebe94877
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Remediation Plan Supporting Document A5

2003	Baker Creek Environmental Monitoring Program	MOORE, Peter; Dillon Consulting Limited	<u>13444</u>	http://data.nwtresearch.com/entry.aspx?licence=948769da-46a7-48c4-9e2c-c2f86ff45f13
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Remediation Plan Supporting Document A3

2003	<i>Ecological Investigation at the Giant Mine</i>	D'ENTREMONT, Marc Jacques Whitford Environment Ltd.	<u>13529</u> <u>http://data.nwtresearch.com/entry.aspx?licence=e33d0b7c-0ffe-49a1-a760-6331f4d9fb5f</u>
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Remediation Plan Supporting Document A8

2003	<i>Arsenic Speciation in Fish for Back Bay, Yellowknife, and Consequences for Human Health</i>	DE ROSEMOND, Simone University of Saskatchewan	<u>13543</u> <u>http://data.nwtresearch.com/entry.aspx?licence=68472f6c-942f-4e62-b52d-d024a31e9627</u>
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Remediation Plan Supporting Document F2

2004	<u>Investigation of the Extent of Historic Tailings in Back Bay/Yellowknife Bay</u>	CAUGHILL, Dave Golder Associates Ltd.	13697 <u>http://data.nwtresearch.com/entry.aspx?licence=c7ab2a4e-27fe-4072-becc-5f220fc734ba</u>
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Remediation Plan Supporting Document F3

2005	<u>The Potential for Geochemical and Microbial Remobilization of Arsenic from Sediments in Yellowknife Bay, Great Slave Lake</u>	<u>ANDRADE, Claudio</u> Queen's University	13525 <u>http://data.nwtresearch.com/entry.aspx?licence=c7ab2a4e-27fe-4072-becc-5f220fc734ba</u>
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Table 2: Summary of Additional Scientific Research Licenses in relation to biological monitoring or university studies at Giant Mine

Date of Research:	Title of Research:	Investigator:	ARI Research License #:	Link to Summary of Results
2001	<i>Alteration Study of the Giant Mine, Yellowknife. Investigator</i>	<i>Laura Hubbard of Simon Fraser University</i>	<u>13212</u>	<u>http://data.nwtr.esearch.com/entry.aspx?licence=b38a102-1e3e-4051-9ae7-a540571fa8b6</u>
2001	<i>Structural Geology and Timing of Gold Mineralization in the Giant and Con Gold Deposits, Yellowknife, Canada. Investigator</i>	<i>James Siddorn of the University of Toronto</i>	<u>13208</u>	<u>http://data.nwtr.esearch.com/entry.aspx?licence=4ff9ab25-52c5-4d52-9580-c30212f27f03</u>
2003	<i>Environmental Effects Monitoring for Miramar Con and Giant Mines</i>	<i>Dave Caughill of Golder Associates Ltd.</i>	13518	<u>http://data.nwtr.esearch.com/entry.aspx?licence=89685229-2963-47e9-bc21-70d3fba2320b</u>
2004	<i>Environmental Effects Monitoring for Miramar Con Mine Ltd. and Miramar Giant Mine Ltd.</i>	<i>Richard Schryer of Golder Associates Ltd.</i>	13625	<u>http://data.nwtr.esearch.com/entry.aspx?licence=c49f87fd-89ab-4ab5-b3a1-d23433312cef</u>
2005	<i>Speciation and Mobility of Antimony in Soil, Sediment, and Water in the Region of the Giant Mine Roaster</i>	<i>Skya Fawcett of Queen's University</i>	<u>13823</u>	<u>http://data.nwtr.esearch.com/entry.aspx?licence=55c7a419-e05c-4a38-a489-8059b52b82cc</u>
2005	<i>Sediment Investigation of Baker Creek, Giant Mine.</i>	<i>Laura Barnette of Jacques Whitford/DIAND</i>	<u>13905</u>	<u>http://data.nwtr.esearch.com/entry.aspx?licence=7f0e3057-4af0-4af7-97fa-7728095fa24d</u>





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2006	<i>Speciation and Mobility of Antimony in Sediment, Pore Water and Surface Water in the Region of the Giant Mine, Yellowknife.</i>	Skya Fawcett of Queen's University	<u>14010</u>	<u>http://data.nwtr.esearch.com/entry.aspx?licence=19907ca5-05af-4145-ae8e-75a8982aed3d</u>
2006	<i>Cycle 2 Environmental Effects Monitoring for Giant Mine</i>	Sharon Vogel of Golder Associates Ltd.	14008	<u>http://data.nwtr.esearch.com/entry.aspx?licence=96d2a07c-6dae-427f-a44c-88832e045105</u>
2006	<i>Dendrochemical Investigation of Arsenic Exposure from Giant Mine on Spruce and Jack Pine Forests, Yellowknife, NWT.</i>	Sonia St.Onge of Carleton University	<u>13985</u>	<u>http://data.nwtr.esearch.com/entry.aspx?licence=264e2318-acbb-4cd9-9e9e-3a9efff35b98</u>
2007	<i>Mobility and Speciation of Antimony and Arsenic in the Aqueous Environment around the Giant Mine, Yellowknife, NWT</i>	Skya Fawcett of Queen's University	<u>14115</u>	<u>http://data.nwtr.esearch.com/entry.aspx?licence=d1b0c112-989e-41b1-b3d9-7ba76be467f8</u>
2007	<i>Baker Creek Fish Monitoring Plan</i>	Bill Mitchell of Indian and Northern Affairs Canada	<u>14158</u>	<u>http://data.nwtr.esearch.com/entry.aspx?licence=4e194d78-1d8c-48f2-8f98-7e4504319812</u>
2007	<i>Speciation of Arsenic in Yellowknife, NT Soils</i>	Lori Wrye of Queen's University	<u>14135</u>	<u>http://data.nwtr.esearch.com/entry.aspx?licence=d44c9688-d39a-4c97-a322-de5a11499125</u>





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2010	<i>The Presence and Persistence of Arsenic Trioxide in Soils Around Giant Mine, NWT</i>	<u>Mackenzie Bromstad of Queen's University</u>	14696	<u>http://data.nwtr.esearch.com/entry.aspx?licence=5c4b77b4-1f2d-4d3c-99ce-7d4f316094cd</u>
2010	<i>The Effectiveness of Community Consultation Information: A Case Study of the Giant Mine Remediation Plan.</i>	Cindy Jardine of University of Alberta	<u>14808</u>	<u>http://data.nwtr.esearch.com/entry.aspx?licence=f63ed012-4884-40d5-adaa-363bfbf3b72b</u>
2010	<i>Giant Mine Phase 3 EEM</i>	Hilary Machtans of Golder Associates Ltd.	14775	Pending

