

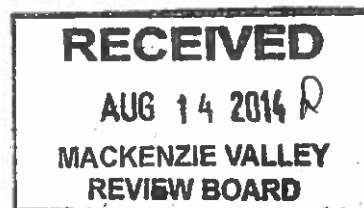
Ministre des Affaires autochtones  
et du développement du Nord



Minister of Aboriginal Affairs and  
Northern Development

Ottawa, Canada K1A 0H4

AUG 11 2014



Ms. JoAnne Deneron  
Chairperson  
Mackenzie Valley Environmental Impact Review Board  
200 Scotia Centre  
Box 938, 5102-50th Avenue  
YELLOWKNIFE NT X1A 2N7

**BY FACSIMILE 867-766-7074**

Dear Ms. Deneron:

As the Federal Minister under the *Mackenzie Valley Resource Management Act (Act)*, and on behalf of the Responsible Ministers (Environment Canada, Fisheries and Oceans Canada and the Government of the Northwest Territories) with jurisdiction in relation to the Giant Mine Remediation Project, I am writing to convey our final decision on the recommendation contained in the Mackenzie Valley Environmental Impact Review Board's Report of Environmental Assessment and Reasons for Decision (the Report) dated June 20, 2013.

In the Report, the Review Board recommended pursuant to sub-paragraph 128 (1)(b)(ii) of the *Act*, that the Giant Mine Remediation Project be approved subject to the imposition of 26 measures and proponent commitments necessary to mitigate significant adverse impacts on the environment, including cumulative impacts, and to address significant public concern.

Pursuant to sub-paragraph 130(1)(b)(ii) of the *Act*, we are adopting the recommendation of the Review Board, including modifications identified in your February 12, 2014 letter to me. The enclosed table details the final approved wording changes for the eight modified measures. For clarity, all other measures are accepted with original wording as per the June 20, 2013 report.

This Responsible Ministers' final decision was made after careful consideration of:

- the June 20, 2013 Report for this Project;
- the information attached to my letter of December 23, 2013, to the Review Board that initiated consultations on proposed modifications by Responsible Ministers;

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- the letters from the Yellowknives Dene First Nation to the Northern Projects Management Office dated August 15, 2013, and November 29, 2013; to the Responsible Ministers dated August 2, 2013; and to the Review Board dated November 24, 2013;
- the letters from the North Slave Métis Alliance to the Minister of Aboriginal Affairs dated August 22, 2013, and to the Review Board dated January 27, 2014;
- the letters from Alternatives North sent to the Responsible Ministers dated November 29, 2013, and to the Review Board dated January 27, 2014;
- the letters from the City of Yellowknife to the Review Board dated August 8, 2013, and January 24, 2014, and to the Responsible Ministers dated August 6, 2013, and November 26, 2013;
- the letters from the Northwest Territories Legislative Assembly to the Responsible Ministers, and a Motion on the Giant Mine project dated October 21, 2013;
- the letter from Member of Parliament Dennis Bevington dated October 7, 2013;
- the letters from the Giant Mine Remediation Project Team to the Northern Projects Management Office dated November 1, 2013, and to the Review Board dated January 27, 2014; and
- the results of the Responsible Ministers' officials consultation with Review Board officials on the proposed modifications, which your predecessor, Mr. Richard Edjericon approved in his letter to me dated February 12, 2014.

Having considered all of the concerns and views expressed in correspondence noted above, the Responsible Ministers have concluded our engagement and consultation process with all parties and Aboriginal groups on this environmental assessment. The Northern Projects Management Office will, on behalf of the Responsible Ministers, issue, in short order, a more specific response to correspondence from the Aboriginal groups.

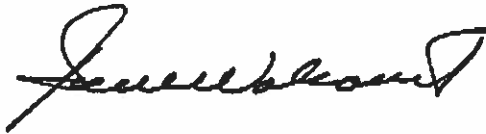
Having taken the time to complete a full assessment of the impacts of this decision on my departmental responsibilities for the Giant Mine, I am pleased to now permit the important work of the Giant Mine Remediation Project to move forward into the regulatory approvals process.

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I wish to thank the Review Board for effectively and efficiently discharging its duties under the *Mackenzie Valley Resource Management Act*.

Sincerely,



Bernard Valcourt, PC, QC, MP

Encl. (Table of Final Approved Wording of Modified Measures)

c.c.: The Honourable Gail Shea, PC, MP  
The Honourable Leona Aglukkaq, PC, MP  
The Honourable J. Michael Miltenberger, Department of Environment and Natural Resources, Government of the Northwest Territories  
Mr. Dennis Bevington, Member of Parliament, Western Arctic  
Ms. Wendy Bisaro, Mr. Bob Bromley and Mr. Robert Hawkins, MLAs of Northwest Territories Legislative Assembly  
Mr. Mark Heyck, Mayor, City of Yellowknife  
Grand Chief, Eddie Erasmus, Tlicho Government  
Chief Edward Sangris, Yellowknives Dene First Nation, Dettah  
Chief Ernest Betsina, Yellowknives Dene First Nation, N'dilo  
Mr. Bill Enge, President, North Slave Métis Alliance  
Mr. Kevin O'Reilly, Alternatives North

**REPORT OF ENVIRONMENTAL ASSESSMENT FOR  
THE GIANT MINE REMEDIATION PROJECT:  
FINAL APPROVED WORDING OF MODIFIED MEASURES**

<b><i>Measure #3 Original Wording</i></b>	<b><i>Final Approved Wording</i></b>
<p>To facilitate active research in emerging technologies towards finding a permanent solution for dealing with arsenic at the Giant mine site, the Developer will create a multi-stakeholder research agency with potentially affected Parties. The ongoing funding for this research agency will be negotiated and included as part of the environmental agreement specified in Measure 7. This body will, on a periodic basis:</p> <ol style="list-style-type: none"> <li>1. produce reports on relevant emerging technologies;</li> <li>2. identify research priorities;</li> <li>3. administer research funding;</li> <li>4. ensure the results of research are made public, and</li> <li>5. apply results of each cycle to the next cycle of these steps.</li> </ol>	<p>To facilitate active research in emerging technologies towards finding a permanent solution for dealing with arsenic at the Giant mine site, the Developer <b>will fund research activity as advised by stakeholders and potentially affected Parties through the Oversight Body.</b> The ongoing funding for this research, <b>and the additional resources required to manage its coordination,</b> will be negotiated and included as part of the environmental agreement specified in Measure 7 <b>and will make best use of existing research institutions and programs. The Oversight Body will ensure through the research activity that,</b> on a periodic basis:</p> <ol style="list-style-type: none"> <li>1. reports on relevant emerging technologies <b>are produced;</b></li> <li>2. research priorities <b>are identified;</b></li> <li>3. research funding <b>is administered;</b></li> <li>4. results of research are made public, and</li> <li>5. results of each cycle are applied to the next cycle of these steps.</li> </ol>
<b><i>Measure #4 Original Wording</i></b>	<b><i>Final Approved Wording</i></b>
<p>The research agency will provide the results of the research to the periodic reviews of the Project described in Measure 2. If better technological options are identified in-between these periodic 20-year reviews, the research agency will report these publicly to the Parties, the public and the Developer. The Developer will consider these technologies and make decisions regarding their feasibility. The Developer will make any such decisions public.</p>	<p>The <b>Oversight Body</b> will provide the results of the research <b>funded by the Developer</b> to the periodic reviews of the Project described in Measure 2. If better technological options are identified <b>through the funded research</b> in-between these periodic 20-year reviews, <b>these will be reported publicly by the Oversight Body</b> to the Parties, the Developer and <b>the Canadian public.</b> The Developer will consider these technologies and make decisions regarding their feasibility. The Developer will make any such decisions public.</p>

**REPORT OF ENVIRONMENTAL ASSESSMENT FOR  
THE GIANT MINE REMEDIATION PROJECT:  
FINAL APPROVED WORDING OF MODIFIED MEASURES**

<b>Measure #5 Original Wording</b>	<b>Final Approved Wording</b>
<p>In order to mitigate significant adverse impacts that are otherwise likely, the Developer will commission an independent quantitative risk assessment to be completed before the Project receives regulatory approvals. This will include:</p> <ol style="list-style-type: none"> <li>1. explicit acceptability thresholds, determined in consultation with potentially affected communities;</li> <li>2. an examination of risks from a holistic perspective, integrating the combined environmental, social, health and financial consequences;</li> <li>3. possible events of a worst-case/ low frequency high consequence nature;</li> <li>4. additional considerations specified in Appendix D of the Report of EA.</li> </ol> <p>From this, the Developer will identify any appropriate Project improvements and identify management responses to avoid or reduce the severity of predicted unacceptable risks:</p>	<p><i>(No change. Measure accepted by the Responsible Ministers as originally written in the June 20, 2013 report.)</i></p>

REPORT OF ENVIRONMENTAL ASSESSMENT FOR  
THE GIANT MINE REMEDIATION PROJECT:  
FINAL APPROVED WORDING OF MODIFIED MEASURES

<b><i>Measure #7 Original Wording</i></b>	<b><i>Final Approved Wording</i></b>
<p>The Developer will negotiate a legally-binding environmental agreement with, at a minimum, the members of the Oversight Working Group, and other appropriate representative organizations, to create an independent oversight body for the Giant Mine Remediation Project. These negotiations will build on the existing discussion paper and draft environmental agreement of the Giant Oversight Working Group. This oversight body will be in place before major Project activities begin on site, and will exist for the life of the Project. The environmental agreement will include a dispute resolution mechanism to ensure compliance with the agreement and a stable funding mechanism for the oversight body.</p>	<p>The Developer will negotiate a legally-binding environmental agreement with, at a minimum, the members of the Oversight Working Group, and other appropriate representative organizations, to create an independent Oversight Body for the Giant Mine Remediation Project. These negotiations will build on the existing discussion paper and draft environmental agreement of the Giant Oversight Working group. <b>This Oversight Body will exist for the life of the Project unless otherwise agreed by the Parties to the Environmental Agreement. Every effort will be made to have the Oversight Body in place as early as possible. The negotiations will make significant progress within six months of the Ministers' environmental assessment decision or proceed to mediation. The Developer will cover any mediation costs.</b> The environmental agreement will include a dispute resolution mechanism to ensure compliance with the agreement and a stable funding mechanism for the Oversight Body.</p>

**REPORT OF ENVIRONMENTAL ASSESSMENT FOR  
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FINAL APPROVED WORDING OF MODIFIED MEASURES**

<b>Measure #10 Original Wording</b>	<b>Final Approved Wording</b>
<p>The Developer will commission a comprehensive quantitative human health risk assessment by an independent, qualified human health risk assessor selected in collaboration with Health Canada, the Yellowknives Dene, the City of Yellowknife, and the Developer. This human health risk assessment will be completed before the Project receives regulatory approvals. It will:</p> <ol style="list-style-type: none"> <li>1. Include a critical review of the 2006 Tier II human health risk assessment and the previous screening reports;</li> <li>2. Consider additional exposures and thresholds (as specified in Appendix F of the Report of EA);</li> <li>3. Decide whether a Tier III risk assessment is appropriate;</li> <li>4. Provide a plain language explanation of the results in terms that are understandable to the general public, and communicate this to potentially affected communities in a culturally appropriate manner;</li> <li>5. Provide interpretation of results and related guidance; and</li> <li>6. Inform the broad health effects monitoring program (described in Measure 9 above).</li> </ol> <p>Based on the results of this human health risk assessment, and on the results of the health effects monitoring program (described in Measure 9 above), the Developer will, if necessary in response to this information, identify, design and implement appropriate design improvements and identify appropriate management responses to avoid or reduce the severity of any predicted unacceptable health risks.</p>	<p>The Developer will commission a comprehensive quantitative human health risk assessment by an independent, qualified human health risk assessor selected in collaboration with Health Canada, the Yellowknives Dene, the City of Yellowknife, and the Developer. This human health risk assessment will be completed before the Project receives regulatory approvals. It will:</p> <ol style="list-style-type: none"> <li>1. Include a critical review of the 2006 Tier II human health risk assessment and the previous screening reports;</li> <li>2. Consider additional exposures and thresholds (as specified in Appendix F of the Report of EA);</li> <li>3. Decide whether a Tier III risk assessment is appropriate;</li> <li>4. Provide a plain language explanation of the results in terms that are understandable to the general public, and communicate this to potentially affected communities in a culturally appropriate manner;</li> <li>5. Provide interpretation of results and related guidance; and</li> <li>6. Inform the broad health effects monitoring program (described in Measure 9 above).</li> </ol> <p><b>The Developer may conduct the human health risk assessment concurrently with the quantitative risk assessment described in Measure 5. Based on the results of this human health risk assessment, and on any existing results of the health effects monitoring program (described in Measure 9 above), the Developer will, if necessary in response to this information, identify, design and implement appropriate design improvements and identify appropriate management responses to avoid or reduce the severity of any predicted unacceptable health risks.</b></p> <p><b>Also, footnote #133 in the Report of EA (Appendix D) is revised to read, in its entirety, "Including inference of causality and pathologies deducted from any available health studies."</b></p>

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<b><i>Measure #11 Original Wording</i></b>	<b><i>Final Approved Wording</i></b>
<p>Within five years of receiving its water license, the Developer will divert Baker Creek to a north diversion route previously considered by the Developer, or another route that avoids the mine site and is determined appropriate by the Developer.</p>	<p><b>The Developer, with meaningful participation from the Oversight Body and other parties, will thoroughly assess options for, and the environmental impacts of, diversion of Baker Creek to a north diversion route previously considered by the Developer or another route that avoids the mine site and is determined appropriate by the Developer. Within one year of the project receiving its water license, a report outlining a comparison of options including the current on-site realignment will be provided to the appropriate regulatory authorities, the Oversight Body and the public.</b></p> <p><b>Once informed by the advice of the Oversight Body and regulatory authorities, the Developer will determine and implement the preferred option. In doing so, the Developer will consider the advice of the Oversight Body, regulatory authorities, and the public, and will ensure that the primary considerations in selecting an option are to:</b></p> <ul style="list-style-type: none"> <li><b>a) minimize the likelihood of Baker Creek flooding and entering the arsenic chambers, stopes and underground workings, and</b></li> <li><b>b) minimize the exposure of fish in Baker Creek to arsenic from existing contaminated sediments on the minesite, surface drainage from the minesite or tailings runoff. If off-site diversion is selected, the Developer will seek required regulatory approvals to implement the diversion within five years of receiving its initial water license.</b></li> </ul>



**REPORT OF ENVIRONMENTAL ASSESSMENT FOR  
THE GIANT MINE REMEDIATION PROJECT:  
FINAL APPROVED WORDING OF MODIFIED MEASURES**

<b>Measure #12 Original Wording</b>	<b>Final Approved Wording</b>
<p>To prevent significant adverse impacts on Great Slave Lake from contaminated surface waters in the former channel of Baker Creek, the Developer will ensure that water quality at the outlet of Baker Creek channel will meet site-specific water quality objectives based on the <i>CCME Guidance on the Site-Specific Application of Water Quality Guidelines in Canada</i>.</p>	<p>To prevent significant adverse impacts on Great Slave Lake from contaminated surface waters in the <b>existing or former</b> channel of Baker Creek, <b>should it be re-routed to avoid the mine site</b>, the Developer will ensure that water quality at the outlet of Baker Creek channel will meet site-specific water quality objectives based on the <i>CCME Guidance on the Site-Specific Application of Water Quality Guidelines in Canada</i>.</p>

<b>Measure #13 Original Wording</b>	<b>Final Approved Wording</b>
<p>The Developer will design and, with the applicable regulators, manage the Project to ensure that, with respect to arsenic and any other contaminants of potential concern, the following water quality objectives are achieved in the vicinity of the outlet of the former Baker Creek channel, excluding Reach 0:</p> <ul style="list-style-type: none"> <li>a) Water quality changes due to discharge from the former channel of Baker Creek will not reduce benthic invertebrate and plankton abundance or diversity;</li> <li>b) Water quality changes due to discharge from the former channel of Baker Creek will not harm fish health, abundance or diversity;</li> <li>c) Water quality changes due to discharge from the former channel of Baker Creek will not adversely affect areas used as drinking water sources;</li> <li>d) Water quality changes due to discharge from the former channel of Baker Creek will not adversely affect any traditional or recreational users; and,</li> <li>e) There is no increase in arsenic levels in Great Slave Lake due to discharge from the former channel of Baker Creek beyond the parameters described in Measure 12.</li> </ul>	<p>The Developer will design and, with the applicable regulators, manage the Project to ensure that, with respect to arsenic and any other contaminants of potential concern, the following water quality objectives are achieved in the vicinity of the outlet of the <b>existing or former</b> channel of Baker Creek, <b>should it be re-routed to avoid the mine site</b>, excluding Reach 0:</p> <ul style="list-style-type: none"> <li>a) Water quality changes due to discharge from Baker Creek will not reduce benthic invertebrate and plankton abundance or diversity;</li> <li>b) Water quality changes due to discharge from Baker Creek will not harm fish health, abundance or diversity;</li> <li>c) Water quality changes due to discharge from Baker Creek will not adversely affect areas used as drinking water sources;</li> <li>d) Water quality changes due to discharge from Baker Creek will not adversely affect any traditional or recreational users; and,</li> <li>e) There is no increase in arsenic levels in Great Slave Lake due to discharge from Baker Creek beyond the parameters described in Measure 12.</li> </ul>

**REPORT OF ENVIRONMENTAL ASSESSMENT FOR  
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<b>Measure #15 Original Wording</b>	<b>Final Approved Wording</b>
<p>The Developer and regulators will design and manage the Project so that, with respect to arsenic and any other contaminants of potential concern:</p> <ol style="list-style-type: none"> <li>1. Water quality at the outfall will meet the Health Canada Guidelines for Canadian Drinking Water Quality; and,</li> <li>2. The following water quality objectives in the receiving environment are met:               <ol style="list-style-type: none"> <li>e) Water quality changes due to effluent discharge will not reduce benthic invertebrate and plankton abundance or diversity beyond 200 metres of the outfall;</li> <li>f) Water quality changes due to effluent discharge will not harm fish health, abundance or diversity;</li> <li>g) Water quality changes due to effluent discharge will not adversely affect areas used as drinking water sources; and,</li> <li>h) There is no increase in arsenic levels in Yellowknife Bay water or sediments beyond 200 metres of the outfall.</li> </ol> </li> </ol>	<p>The Developer and regulators will design and manage the Project so that, with respect to arsenic and any other contaminants of potential concern:</p> <ol style="list-style-type: none"> <li>1. Water quality at the outfall will meet the Health Canada Guidelines for Canadian Drinking Water Quality; and,</li> <li>2. The following water quality objectives in the receiving environment are met:               <ol style="list-style-type: none"> <li>a) Water quality changes due to effluent discharge will not reduce benthic invertebrate and plankton abundance or diversity at 200 metres from the outfall;</li> <li>b) Water quality changes due to effluent discharge will not harm fish health, abundance or diversity;</li> <li>c) Water quality changes due to effluent discharge will not adversely affect areas used as drinking water sources; and,</li> <li>d) There is no increase in arsenic levels in Yellowknife Bay water at <b>200 metres</b> from the outfall; and</li> <li>e) There is no increase in arsenic levels in Yellowknife Bay sediments at <b>500 metres</b> from the outfall.</li> </ol> </li> </ol>