



March 4, 2013

Ms. Tracey Braun, M.Sc.
Director, Environmental Assessment & Licensing Branch
Manitoba Conservation and Water Stewardship
123 Main Street, Suite 160
Winnipeg, Manitoba
R3C 1A5

Dear Ms. Braun:

RE: Reed Project and Environmental Application

I write with respect to the comments that have been made in the public press and on websites operated by the Wilderness Committee of Manitoba and Manitoba Wildlands concerning the proposed Reed Mine located in the Grass River Provincial Park. We have taken note of quotes attributed to Eric Reder in articles that appeared in the Free Press on February 1 and 2, 2013 and comments received on the Winnipeg Free Press website in response to their articles.

We also take this opportunity to respond to the February 19, 2013 letter submitted by Eric Reder to Hudbay containing a request for additional information, letters to Manitoba Conservation received through the Wilderness Committee website and a letter to the Editor of the Winnipeg Free Press from Kate Storey dated February 16, 2013, a letter to Premier Selinger from Hugh Arklie dated February 13, 2013.

I believe that this letter, together with the enclosed supplemental AECOM report, addresses all these concerns.

I have written to Mr. Reder to invite him and members of his group to meet with us to review information about the proposed mine and to visit the site for a guided tour. To date, he has not accepted our offer of a meeting or site visit. I attach a copy of my letter, which may be added to the Registry file, along with this letter, the enclosed supplemental AECOM summary report. I have also replied to Mr. Reder's letter of February 19, 2013, with the information he requested and reiterated that invitation. I enclose a copy of my reply.

We note that most of the comments on the Free Press website support the mine project. Most of the those that do not support the project oppose the idea of permitting mining in parks, rather than this proposed project in particular. As well, most of the comments provided to Manitoba Conservation through the Wilderness Committee's website similarly deal with matters of provincial policy rather than this proposal. Minister Macintosh already has articulated the policy reasons for continuation of mining in certain portions of a handful of Manitoba's 86 Provincial Parks, which I trust is sufficient response to the policy question.

The concerns identified by Mr. Reder, the Wilderness Committee, Manitoba Wildlands and members of the public may be addressed as follows:

Caribou Migration and Calving

While it is correct to say that caribou are present in the region, it is not true that caribou are or were present on the site of the Reed project. The migration and calving locations of these caribou are very well-understood, based on research that has been undertaken by Manitoba Conservation, with financial support from Hudbay and others. None of the locations currently used by caribou are affected by the construction or operation of the Reed AEP or Mine. The Reed project does not block migration routes, thus there is little or no risk that caribou movements or the health of the herd(s) may have been affected by the Reed Advanced Exploration Project or would in future be affected by operation of Reed Mine. I have asked AECOM to prepare a summary of the information concerning caribou contained in the Reed Property Advanced Exploration Project Plan dated September 2011 and the Reed Mine Environment Act Proposal Report, dated December 2012 and that summary is enclosed.

Hudbay has planned its activities on the Reed site while consulting with Manitoba Conservation's wildlife experts. We suggest that you contact Wayde Roberts, Regional Director, Regional Services and Parks, Northwest Region in the Pas, and Kent Whaley, Regional Wildlife Manager in that regard.

Alleged Impact of Mining on Future Enjoyment of the Park

As noted in some of the comments made by the public on the Free Press website, modern mining operations are subject to rigorous closure standards. These apply to the Reed Advanced Exploration Project and will apply to the Reed Mine. Before it could commence operation of its advanced exploration project, Hudbay had to comply with these standards. Hudbay has filed a closure plan, backed by financial assurance for the total cost of returning the site to pre-project conditions.

The Reed site is in an area of the Park which has not been developed for recreational purposes. At the end of mining, the mine site will be indistinguishable from other areas that have been cleared for use as picnic grounds or campsites. Since the mine site is less than 300 metres from PR 39, it could easily be converted to recreational uses. Hudbay has offered to work with Regional Manitoba Conservation officials to explore opportunities for alternative final uses of the Reed site, such as a highway rest stop, that could enhance the recreational use of the Grass River Provincial Park.

Alleged Contamination of the Grass River Provincial Park - impact of Historic Mining

Modern mining methods are highly protective of the environment. There will be no impact on the quality of Reed Lake. Mr. Reder has been invited to the site for a tour of the Advanced Exploration Project so that he (and other members of his group) can see for themselves that the site is being protected from environmental impact.

Mr. Reder also comments on the condition of the Spruce Point Mine site. On his website, Mr. Reder displays the small portion of the Spruce Point Mine site which is sparsely vegetated. Most of the site is in excellent condition, the cleared areas having been successfully re-vegetated.

Spruce Point Mine was constructed in the 1980's, when mining practices were very different. In those days, it was common to use waste rock brought up from the mine for constructing mine access roads and other features on mine sites. Miners and, on occasion, the Provincial Government used waste rock for construction based on visual evidence of its quality, without subjecting it to testing. In the course of time, it was discovered that some of this mine rock was acid generating when exposed to air and rain.

The small (1.3 km) mining access road from PTH 39 to the Spruce Mine site was constructed during this period. The Spruce Point Mine was closed and the site reclaimed in 1992 and 1993, applying standards in effect at that time, in accordance with inspection and approval by Manitoba Environment.

In the years following closure of the Spruce Point site, as the road was exposed to rain and air, the rock in several spots in the road and other small features has been oxidizing. This effect can be seen in Mr. Reder's film. Mr. Reder says that this is a "toxic legacy" and evidence of tailings left on site. Neither of these "facts" is true. The drainage from these areas has been tested, as well as the quality of water in the water bodies close to the Spruce Point site. The drainage is unattractive but it presents no risk to the water bodies in the local environment. Much of this drainage is retained to the site, as the water is stagnant and there is minimal off site flow. At no time has there ever been ore-processing or tailings on the Spruce Point site.

Since the early 1990's, Hudbay's practice has been to test rock in advance to make sure that any waste rock to be used for construction is non-acid generating. Thus, modern practice has eliminated the risk of using rock that, in time, turns out to be acid generating. As well, today, closure standards require miners to address aesthetic as well as human health, safety and environmental protection.

In terms of the current condition of the Spruce Point site, removing the road altogether would improve aesthetics, but it would be expensive and it would not change the environmental health of surrounding water bodies.

Mr. Reder's film also shows debris on the site, but the debris does not appear to us to relate to historic mining activity. Hudbay has not occupied the site for over 20 years. Other people, including trappers and another mining exploration company, have frequented the site. Even so, in the summer of 2012, after Mr. Reder's film was displayed on his website, Hudbay sent a contractor to the site to remove unwanted debris and we intend to have the contractor return in the next summer season.

By the way, Mr. Reder had never contacted us for information or attempted to discuss any of his concerns with us until after I wrote to him on February 4, 2013.

Other Comments and Approval Process

I would like to offer just a few other comments and corrections, if I may. Mr. Reder's article suggests that the Reed Project is on the edge of Reed Lake but, in reality, the mine site is adjacent to and south of PTH 39. Reed Lake is north of PTH 39. The nearest point of Reed Lake is approximately 3 kilometers from the site of the mine, with the highway, forest and fen in between. No one standing on the shore of Reed Lake would be able to see or hear any activity on the mine site.

Mr. Reder complains of the construction undertaken to date. The Reed Advanced Exploration Project, currently under construction, was not subject to an *Environment Act* process, but it was and is subject to the closure requirements provided for in Part 14 of *The Mines and Minerals Act* and the Mine Closure Regulation, including posting with Manitoba financial assurance for the full costs of restoring the site. Mr. Reder's comments give no credit to changes in mining practice or the legal regime that governs mining that have taken place over the last 15 years.

The AEP approval process that was followed by the Director of Mines includes sharing the proponent's proposal with all relevant officers of Manitoba Conservation and Water Stewardship and federal agencies and departments. We also consulted with the Regional Manager of Manitoba Conservation and Water Stewardship located in The Pas and noted their comments.

With respect to Mr. Hernandez' comments, I would just add that the environmental baseline information for the Reed site is extensive and fully adequate for the purpose, as may be verified by reviewing the report which has now been uploaded to your website.

I hope that this additional filing is of assistance to you.

Please note that we will also be inviting Mr. Arklie, Ms Storey, Mr. Reder and the others who emailed Manitoba Conservation through the Wilderness Committee website to a meeting to be held in Winnipeg on April 4, 2013 to discuss the project, which we hope will be of assistance in addressing their concerns and those of Mr. Arklie in relation to opportunities to receive information and share their views. We also hope to provide sufficient information to allay their concerns about caribou and other environmental matter. Please advise if you require any other information.

Thank you for your continuing attention to this application.

Sincerely,



Stephen West
Superintendent, Environmental Control

cc: John N. Fox, P.Eng.
Assistant Deputy Minister
Mineral Resources Division
Manitoba Innovation, Energy and Mines
360-1395 Ellice Avenue
Winnipeg MB R3G 3P2



February 4, 2013

Via E-mail
eric@wildernesscommittee.org

Wilderness Committee
3rd Floor, 303 Portage Ave
Winnipeg, MB R3B 2B4

Attention: Mr. Eric Reder

Dear Mr. Reder:

RE: Reed Project & Environmental Application

I had the opportunity to review the Press Release of the Wilderness Committee issued February 1, 2013. I write to invite you and any members of your group who would be interested to meet with us to discuss your concerns about the Reed Project. The concerns you have identified in your Press Release are addressed in our environmental impact assessment material, which is available through Manitoba Conservation. Since you have expressed an interest, I enclose for your convenience a copy of the application material that is on file with Manitoba Conservation. I would be pleased to review with you the environmental impact assessment of this project and explain the environmental management practices that are in place. I am in Winnipeg from time to time and could arrange a time to get together at our mutual convenience. I also would be glad to invite the AECOM experts who carried out the environmental studies relating to the Reed Project to attend our meeting.

I believe a discussion of this nature would be of great assistance in allaying your concerns. For example, since 2007, Hudbay has participated in funding caribou studies in the region which have produced reliable information about herd location, calving grounds and migration patterns. All Hudbay activities are planned with this information in mind, to make sure that caribou are not impacted. We are confident that the activities related to the Reed Project do not adversely affect caribou.

You also are quoted in the Free Press article dated February 2, 2013 as indicating that caribou require 50 year old forest. You will be interested to know that the footprint of the existing Reed Advanced Exploration Project (AEP) lies within an area that had been logged out some 25 years ago. Very little additional clearing was required. Any re-growth that had to be removed was cut up and donated to Parks management for use in nearby campgrounds used by members of the public who enjoy the Park. Given the vegetative buffer around the site and its relative distance from campgrounds and lodges, the operation of the mine is unlikely to disturb other Park users.

Finally, the Reed Mine will have a relatively short life - less than a decade of operation is anticipated. We have filed a closure plan (backed by financial assurance), which includes re-vegetation of the site. Please also note that Section 2.7.2 of Environment Act Proposal material (page 17) deals with end use of the site. Hudbay has offered to work with Parks officials to explore opportunities for alternative final uses of the Reed site that could enhance recreational use of the Grass River Provincial Park.

I believe as well that a site visit would be of great benefit to inform our discussion. I would be pleased to take you and a small group of your members on a guided tour of the site.

I also can advise that we have held public information meetings in Flin Flon and Snow Lake, and I have planned another public information meeting for Monday, February 11th in Snow Lake. We would be pleased to see you at any of our public meetings.

I look forward to hearing from you.

Sincerely,



Stephen West, P.Eng.
Environmental Superintendent

cc: **Tracey Braun**
Director, Environmental Assessment & Licensing Branch
Manitoba Conservation and Water Stewardship
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Winnipeg, MB R3C 1A5

John N. Fox, P.Eng.
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March 1, 2013

Mr. Stephen West
Hudson Bay Mining and Smelting Co., Limited
PO Box 1500
#1 Company Road
Flin Flon, Manitoba
R8A

Dear Mr. West:

Project No: 60263703 (402.19)

Regarding: Supplementary Filing for the Reed Mine Environment Act Application

AECOM Canada Ltd. is pleased to submit our report on the above referenced project. If you have any questions regarding this report, please do not hesitate to contact Cliff Samoiloff of our office directly at (204) 928-7427.

Sincerely,

AECOM Canada Ltd.

Per



Ron Typilski, P.Eng.
Vice President, Manitoba District
Canada West Region

MH:dh

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AECOM Canada Ltd. (AECOM) has prepared this supplementary report concerning the Reed Mine Environment Act Proposal (EAP) in response to comments found in the public press and letters to Hudbay, Premier Selinger, and to Manitoba Conservation.

1. **Wilderness Committee/Green Party Articles, and Letter to the Editor of the Winnipeg Free Press**

Issues have been raised by the Manitoba Chapter of the Wilderness Committee and by the Manitoba Green Party on their website:

http://wildernesscommittee.org/takeaction/stop_the_reed_mine_grass_river_provincial_park

http://wildernesscommittee.org/write_wild_say_no_reed_mine_grass_river_park

http://greenparty.mb.ca/press_releases/greens-call-for-moratorium-mining-provincial-parks

This report also addresses the four requests for additional information set forth in a letter from the Wilderness Committee to Hudbay dated February 19, 2013, letters to Manitoba Conservation received through the Wilderness Committee website, a letter to the Editor of the Winnipeg Free Press from Kate Storey dated February 18, 2013, and a letter to Premier Selinger from Hugh Arkle dated February 13, 2013.

1.1 **Site Clearing**

1.1.1 ***"The site for this new mine has already been bulldozed and infrastructure put in place before the public comment period even started, as the government quietly authorized an advanced exploration project. The impact of this project, even if it were to be stopped, would still be seen in the park for the next half century."*** –Wilderness Committee

In the fall of 2010 and spring of 2011, AECOM was instructed to perform a wildlife and vegetation assessment in anticipation of a potential future Advanced Exploration Project (AEP) on the Reed Mine Site.

AECOM defined study areas that would take into account the site itself and the resources in the broader region surrounding the site. The **Project Site** is the site of the Reed AEP itself (which is also the site of proposed Reed Mine) and the access road to the intersection with PTH 39. The **Project Area** includes the 2 km beyond the Project Site, which is the area that AECOM felt could be disturbed by project effects, including noise, vehicle emissions, traffic, etc. The **Project Region** includes the 10 km around the Project Site, which could include more remote effects of the Project, such as greenhouse gas emissions.

The work done in 2010 and 2011 included "ground truthing" to confirm the presence or absence of endangered, threatened, or special concern species on the Project Site and within the Project Area, and to conduct an inventory of botanical species to support a desktop review. An aerial

reconnaissance survey of the Project Region was also conducted. No species at risk were observed during the assessment.

AECOM personnel identified three distinct floral communities in the Project Area: a large clear-cut area (dating from logging activities that occurred about 25 years ago); a mature mixed wood forest with a dense canopy; and a wet fen (see sections 4.3 and 9.2 of the *Reed Property Advanced Exploration Project Plan* dated September 2011 and section 4.9, 5.8 and 5.9 of the *Reed Mine Environment Act Proposal* (EAP) Report dated December 2012).

The Reed AEP has been constructed inside the clear-cut area described above. The Reed Mine will be comprised primarily of the facilities that have been approved and are being constructed for the Reed AEP, and therefore will not require any additional footprint. In fact, the area planned to be cleared for the Reed AEP has been substantially reduced (from 14 ha to 7 ha), by reconfiguring the design of the facilities to fit within the footprint of areas cleared prior to Hudbay's use of the site (see section 2.3.1 of the Reed EAP report).

The Reed AEP Closure Plan accepted by Manitoba calls for the Reed site to be returned to its natural pre-project state to the maximum extent possible. During the closure phase, re-vegetation as well as natural succession will substantially return the mine site to pre-mine conditions. Vegetation growth will be monitored and if necessary, areas may need to be re-vegetated until vegetation has been re-established. Once these efforts have been completed, aesthetic conditions on the site will be substantially restored to conditions that existed before mineral exploration on the site.

In accordance with the Closure Plan, to ensure the success of the re-vegetation program, a re-vegetation monitoring program will be implemented. Regular monitoring during the growing season will determine the success of the re-vegetation program, and will determine if follow up reseeding or replanting is required. (Please see the Reed AEP Closure Plan contained in Appendix C to the Reed AEP Report).

1.2 Boreal Woodland Caribou

1.2.1 *The project is located in the "Naosap" range, which the Manitoba government lists as one of the three most high-risk caribou herds in the province, and which the Canadian government lists as not self-sustaining. –Wilderness Committee*

The Naosap range is located to the west and north of the Reed Site, outside of the Project Area, and therefore not of concern in relation to the Reed AEP or proposed mine project. For this reason details regarding the Naosap range have not been provided in the EAP.

1.2.2 *"Species like the woodland caribou—listed as "threatened" under both the federal and provincial endangered species acts—depend on undisturbed wilderness to survive." –Wilderness Committee*

The Reed Site is not located within "undisturbed wilderness". As indicated in the Reed Mine EAP report the Project Site is located within a large area that was subject to historical clear-cut logging activities during the 1970's. There is no evidence of supplemental planting in the clear-cut area, and trees in this area are not mature, averaging about 2 m in height.

The Project Site is contained within the Reed caribou herd range. Manitoba Conservation lists the Reed Range to be of medium conservation concern and numbering between 100 and 150 individuals (Manitoba Conservation 2012).

Boreal Woodland Caribou are listed as "threatened" by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and Manitoba's Boreal Woodland Caribou populations were listed as threatened under *The Endangered Species Act* in June 2006 (Manitoba Conservation 2012). See section 4.11.1 of the Reed Mine EAP for more information.

1.2.3 "Even worse, the mine is in the heart of critical woodland caribou habitat, a species listed under both the federal and provincial endangered species acts as threatened. – Wilderness Committee

As confirmed through terrestrial investigations by AECOM and correspondence with the Regional Wildlife Manager concerning Manitoba's caribou tracking studies, the Reed AEP / Mine Site does not contain habitat of critical value, such as calving, rutting, or over-wintering areas.

Although the Reed project has resulted in loss of a small amount of habitat (because of clearing activities during AEP), the type of habitat that was lost is common in the Project Area and Region. Boreal Woodland Caribou range throughout most of the Grass River Provincial Park during the year, and are most often associated with mature forest for most of their seasonal range. The area in and around the Project Region not affected by the Project includes large amounts of very high quality habitat, which varies according to the season.

Boreal Woodland Caribou are known to avoid areas with a high degree of human disturbance, and when they do need to move across areas of disturbance they do so quickly. The Reed AEP is immediately adjacent to PTH 39, which would be one such area. See section 5.9.1 of the Reed Mine EAP that addresses concerns relating to caribou and concludes that the Reed AEP / Mine has little or no impact.

1.2.4 "For decades, the Manitoba government has recorded caribou migration through this region, as the threatened animals move from wintering grounds onto the isolated islands on Reed Lake, where they give birth."-Wilderness Committee

The Reed herd caribou spend the majority of their time on the west side of Reed Lake, which is outside of the Project Region. Hudbay participates in Manitoba Conservation's ongoing large-scale caribou study in Northern Manitoba, including the Reed Project Region, which contributes information used in Manitoba's Conservation and Recovery Strategy for Boreal Woodland Caribou. See section 7.3 of the Reed Mine EAP on HBMS involvement with the participation in the Northwest Region Woodland Caribou Research and Management Committee.

1.2.5 *"The Reed Mine site is located within a key caribou migration route and right beside calving grounds on Reed Lake."* – Wilderness Committee

The areas identified areas by Manitoba Conservation's ongoing large scale caribou study as migration corridors and calving are outside the Project Site. Neither migration nor calving will be affected by the Reed Project.

1.2.6 *"The Reed Mine will destroy the woodland Caribou herd which the park was intended to protect."* – Manitoba Green Party

The Grass River Provincial Park was not established with the sole intent of protecting woodland caribou. The purposes of the park are to preserve areas that are representative of the Churchill River Upland portion of the Precambrian Boreal Forest Natural Region, and the Mid-Boreal portion of the Manitoba Lowlands Natural Region and accommodate a diversity of recreational opportunities and resource uses.

The park is categorized for "resource management" under the Provincial Parks Designation Regulation (Manitoba Regulation 37/97)). It is classified as a "natural park" that will accommodate commercial resources, including mining, where such activities do not compromise other park purposes.

1.2.7 *"Five years of industrial activity means five years of calf deaths to the caribou herd already endangered by logging. The mine may very well be the tipping point which destroys one of Manitoba's last herds of woodland caribou."* – Manitoba Green Party

As stated above in Section 1.2.5., the areas identified areas by Manitoba Conservation's ongoing large scale caribou study as migration corridors and calving are outside the Project Site. Neither migration nor calving will be affected by the Reed Project.

1.3 *Vegetative Buffers*

1.3.1 *"Please note that there is no evidence whatsoever that vegetative buffers significantly mitigate industrial noise. They are far too porous and not absorptive, especially in the winter, spring and fall."* – Hugh Arklie

The use of vegetative buffer has not been proposed as the sole source of noise mitigation. The primary mitigation measures proposed to assist with noise reduction at the site are described in detail in Section 5.4.3. of the EAP, and include the use of a variety of engineered and operational controls. The vegetative buffer, which is approximately 100 m along the length of the access road, consists primarily of coniferous species, which will retain most of their cover throughout all seasons.

It should be emphasized that based on the remote location of the Reed Mine, intermittent nature of noise resulting from project activities, and the influence of wind direction (primarily from the west and northwest and away from Reed Lake) noise levels are not expected to cause disturbance to human receptors.

1.4 Grass River Provincial Park

1.4.1 "Grass River Provincial Park is a small park surrounding Reed Lake. The park is a rare area of ideal woodland caribou habitat". – Manitoba Green Party

Grass River Provincial Park is approximately 2,279 km², which ranks it as the second largest of the 19 Natural Parks in Manitoba. The Grass River Provincial Park includes numerous lakes and rivers, including the Reed Lake, Simonhouse Lake, Iskwasum Lake, Elbow Lake, Wedge Lake and the Grass River. Although the Grass River Provincial Park does contain habitat that can be considered woodland caribou habitat, woodland caribou occur in a broad geographic range across the boreal forest region of central Manitoba. These caribou are widely dispersed in the boreal zone from approximately the Black Lake area in the southeast to the Lynn Lake area in the northwest, an area of approximately 251,930 km².

The Reed Project Site is 0.07 km² in size, which is approximately 0.003% of the total area of the Grass River Provincial Park, and 0.00002% of the total area of the woodland caribou broad geographic range.

2. Wilderness Committee Letter – February 19, 2013

2.1.1 The water quality of surrounding water bodies is insufficiently presented

The Environment Act Proposal submitted by AECOM presented a summary of the information collected during the various environmental studies conducted for this project (Section 4 – Environmental Setting). Detailed information collected during these studies, including water quality information from the surrounding water bodies, can be found in the *Reed Project Environmental Baseline Assessment* prepared by AECOM and referenced in the Environment Act Proposal. A copy has been submitted to Manitoba Conservation.

2.1.2 Additional information regarding the calculation of total carbon footprint from this project

Total carbon footprint for the project has been calculated using the standard emission factors reference in the *National Inventory Report 1990-2008*, Environment Canada, 2010. Using this Environment Canada method, emission factors are calculated using the following formula:

Diesel

$$\begin{aligned} \text{CO}_2 &= (\text{L Diesel})/1000 \times 2.663 \text{ tonnes CO}_2/\text{kL} \\ \text{CH}_4 &= (\text{L Diesel})/1000 \times 0.000120 \text{ tonnes CH}_4/\text{kL} \\ \text{N}_2\text{O} &= (\text{L Diesel})/1000 \times 0.000082 \text{ tonnes N}_2\text{O}/\text{kL} \end{aligned}$$

Gasoline

$$\begin{aligned} \text{CO}_2 &= (\text{L Gasoline})/1000 \times 2.289 \text{ tonnes CO}_2/\text{kL} \\ \text{CH}_4 &= (\text{L Gasoline})/1000 \times 0.000130 \text{ tonnes CH}_4/\text{kL} \\ \text{N}_2\text{O} &= (\text{L Gasoline})/1000 \times 0.000250 \text{ tonnes N}_2\text{O}/\text{kL} \end{aligned}$$

Propane $\text{CO}_2 = (\text{L Propane})/1000 \times 1.51 \text{ tonnes CO}_2/\text{kL}$ $\text{CH}_4 = (\text{L Propane})/1000 \times 0.000024 \text{ tonnes CH}_4/\text{kL}$ $\text{N}_2\text{O} = (\text{L Propane})/1000 \times 0.000108 \text{ tonnes N}_2\text{O}/\text{kL}$

Where,

$$\text{CO}_2\text{e} = \text{CO}_2 + (\text{CH}_4 \times 21) + (\text{N}_2\text{O} \times 310)$$

Environment Canada has since released a 2012 reference document with revised standard emission factors. AECOM has reviewed this document and has determined that using revised factors there would be a negligible increase in the overall calculated CO_2e based on CH_4 and N_2O emission factors (increase in the 3rd or 4th significant digit).

The estimated annual fuel consumption for the Reed Mine have been provided in Section 2.4.9 of the Environment Act Proposal.

2.1.3 The section on Woodland Caribou is lacking details for an entire caribou range

Refer to Section 1.2 of this report.

AECOM Signatures

Report Prepared By:



Mark Hadfield, B.Sc.
Environmental Scientist

Report Reviewed By:



Cliff Samoiloff, B.Sc., EP(OEA)
Manager, Environment, Health & Safety
Consulting



March 4, 2013

Via E-mail
eric@wildernesscommittee.org

Wilderness Committee
3rd Floor, 303 Portage Ave
Winnipeg, MB R3B 2B4

Attention: Mr. Eric Reder

Dear Mr. Reder:

RE: Reed Project and Environmental Application

I write with respect to your letter commenting on your review of the *Reed Mine Environment Act Proposal* (EAP) submitted to Manitoba Conservation. In your letter you have identified four items that, in your opinion, require some additional follow up or clarification. These items can be addressed as follows:

1. The water quality of surrounding water bodies is insufficiently presented

The EAP submitted by AECOM presented a summary of the information collected during the various environmental studies conducted for this project (Section 4 – Environmental Setting). Detailed information collected during these studies, including water quality information from the surrounding water bodies, can be found in the *Reed Project Environmental Baseline Assessment* prepared by AECOM and referenced in the EAP. A copy has been submitted to Manitoba Conservation and is posted on the public registry, and an electronic copy has also been enclosed.

2. Additional information regarding the calculation of total carbon footprint from this project

Greenhouse gas emissions have been calculated using the standard emission factors reference in the *National Inventory Report 1990-2008*, Environment Canada, 2010. The calculations are provided below:

Diesel

$CO_2 = (L \text{ Diesel})/1000 \times 2.663 \text{ tonnes } CO_2/kL$
 $CH_4 = (L \text{ Diesel})/1000 \times 0.000120 \text{ tonnes } CH_4/kL$
 $N_2O = (L \text{ Diesel})/1000 \times 0.000082 \text{ tonnes } N_2O/kL$

Gasoline

$CO_2 = (L \text{ Gasoline})/1000 \times 2.289 \text{ tonnes } CO_2/kL$
 $CH_4 = (L \text{ Gasoline})/1000 \times 0.000130 \text{ tonnes } CH_4/kL$
 $N_2O = (L \text{ Gasoline})/1000 \times 0.000250 \text{ tonnes } N_2O/kL$

Propane

$\text{CO}_2 = (\text{L Propane})/1000 \times 1.51 \text{ tonnes CO}_2/\text{kL}$

$\text{CH}_4 = (\text{L Propane})/1000 \times 0.000024 \text{ tonnes CH}_4/\text{kL}$

$\text{N}_2\text{O} = (\text{L Propane})/1000 \times 0.000108 \text{ tonnes N}_2\text{O}/\text{kL}$

Where,

$$\text{CO}_2\text{e} = \text{CO}_2 + (\text{CH}_4 \times 21) + (\text{N}_2\text{O} \times 310)$$

Environment Canada has since released a 2012 reference document with revised standard emission factors. AECOM has reviewed this document and has determined that using revised factors there would be a negligible increase in the overall calculated CO₂e based on CH₄ and N₂O emission factors (increase in the 3rd or 4th significant digit).

The estimated annual fuel consumption for the Reed Mine have been provided in Section 2.4.9 of the EAP.

3. The section on Woodland Caribou is lacking details for an entire caribou range

Details regarding the Naosap range have not been addressed in the EAP as it was determined that this particular range is located to the west and north of the Reed site, outside of the Project Area, and therefore not of concern in relation to the Reed Advanced Exploration Project (AEP) or the proposed Reed Mine. This is supported by information provided by Manitoba Conservation (Manitoba Conservation, Wildlife and Ecosystem Branch. 2005; *Manitoba's Conservation and Recovery Strategy for Boreal Woodland Caribou (Rangifer tarandus caribou)* and Environment Canada (*Recovery Strategy for the Woodland Caribou (Rangifer tarandus caribou), Boreal population, in Canada. Species at Risk Act Recovery Strategy Series. 2012*).

Ongoing additional research and field studies conducted by Manitoba Conservation support the above information.

Details regarding the Reed caribou herd, which is located within the Project Area, have been provided in the AECOM *Reed Project Environmental Baseline Assessment* and EAP report.

4. Appearance of the Former Spruce Point Mine

The former Spruce Point Mine was constructed in 1980-81, when mining practices were very different. In those days, it was common to use waste rock brought up from the mine for constructing roads. Miners and the Provincial Government, too, used waste rock for road construction. In the course of time, some of this rock was found to be acid-generating when exposed to rain and air. Since the early 1990's, Hudbay practice has been to test rock in advance and make sure that any waste rock to be used for construction is non-acid generating.

Most of the Spruce Point site is in excellent condition, and the cleared areas that previously contained mine infrastructure have been successfully re-vegetated with grasses common to the area.

Although there is a small amount of debris on the site, much of this was not left by historic mining activity. Hudbay has not occupied the site for over 20 years. Other people, including trappers and another mining exploration company, have frequented the site. As well, since the road continues to exist, the general public can access the site, although there is no direct connection with the road to PTH 39. Even so, Hudbay has sent a contractor to the site to remove unwanted debris and will have the contractor return in the next summer season.

The small (1.3 km) mining access road from Provincial Trunk Highway 39 to the former Spruce Point Mine site contains a few spots that are oxidizing. The drainage from these few spots has been tested, as well as the quality of water in the water bodies close to the Spruce Point site. Testing has determined that these small areas of oxidation present no risk to the water bodies in the local environment. At no time was there ever ore-processing or tailings on the Spruce Point site.

I trust that this information answers the questions in your letter of February 19, 2013. In my letter of February 4, 2013, I had extended an invitation to you to meet with us for a tour of the Reed site. That invitation still stands. As well, to accommodate concerns that information meetings were held only in the north, we are scheduling an information meeting to be held in Winnipeg on the evening of April 4, 2013 at the Holiday Inn South. We intend to review the environmental impact assessment of this project and explain the environmental management practices that are in place. The AECOM experts who carried out the environmental studies relating to the Reed project also will be in attendance to answer participants' questions.

Please let me know if you would be willing to participate in such a meeting, and I will ensure that you receive an invitation.

I look forward to hearing from you.

Sincerely,



Stephen West, P.Eng.
Superintendent, Environmental Control

cc: Tracey Braun
Director, Environmental Assessment & Licensing Branch
Manitoba Conservation and Water Stewardship
123 Main St., Suite 160
Winnipeg, MB R3C 1A5

John N. Fox, P.Eng.
Assistant Deputy Minister
Mineral Resources Division
Manitoba Innovation, Energy and Mines
360-1395 Ellice Avenue
Winnipeg MB R3G 3P2



March 4, 2013

C. Hugh Arklie
Box 126 RR 2
Winnipeg, MB R3B 2B4

Dear Mr. Arklie,

Thank you for copying me on your letter to Premier Selinger dated February 13, 2013. I enclose my letter of today's date to the Director of Environmental Assessment and Licensing Branch and supplementary report by AECOM Canada Ltd. that I believe address your concerns that relate specifically to the proposed Reed Mine.

I would like to respond directly to your concern that information meetings were held only in the North. To accommodate your concern, we are scheduling an information meeting to be held in Winnipeg on the evening of Thursday, April 4, 2013 at the Holiday Inn South. We intend to review the environmental impact assessment of this project and explain the environmental management practices that are in place. The AECOM experts who carried out the environmental studies relating to the Reed Project also will be in attendance to answer participants' questions.

Please let me know if you would be willing to participate in such a meeting and I will ensure that you receive an invitation. In that regard, if you have an email address, I would be glad to communicate with you electronically.

I look forward to hearing from you.

Sincerely,

Stephen West, P.Eng.
Environmental Superintendent

- cc: Tracey Braun, Director, Environmental Assessment & Licensing Branch
Manitoba Conservation and Water Stewardship
160 - 123 Main Street
Winnipeg, MB R3C 1A5
- cc: John Fox, P.Eng., Assistant Deputy Minister
Mineral Resources Division
Manitoba Innovation, Energy and Mines
360 - 1395 Ellice Avenue
Winnipeg, MB R3G 3P2
- cc: Wayde Roberts, Regional Director
Manitoba Conservation and Water Stewardship
Box 2550
The Pas, MB R9A 1M4
- cc: Premier Greg Selinger
Legislative Building
450 Broadway
Winnipeg, MB R3C 0V8



March 4, 2013

Kate Storey
Green Party Office

Dear Ms Storey,

I write in relation to your letter to the Editor dated February 16, 2013 and your comments contained in the Green Party website dated February 13, 2013. I enclose my letter of today's date to the Director of Environmental Assessment and Licensing Branch and supplementary report by AECOM Canada Ltd. that I believe address your concerns that relate specifically to the proposed Reed Mine.

As well, to address these concerns, we are scheduling an information meeting to be held in Winnipeg on the evening of Thursday, April 4, 2013 at the Holiday Inn South. We intend to review the environmental impact assessment of this project and explain the environmental management practices that are in place. The AECOM experts who carried out the environmental studies relating to the Reed Project also will be in attendance to answer participants' questions.

Please let me know if you would be willing to participate in such a meeting and I will ensure that you receive an invitation. In that regard, if you have an email address, I would be glad to communicate with you electronically.

I look forward to hearing from you.

Sincerely,

Stephen West, P.Eng.
Environmental Superintendent

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