

WOODWARD & COMPANY

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October 1, 2020

By Email & Regular Mail

Honourable George Heyman
Minister of Environment and Climate Change Strategy
Parliament Buildings
Victoria, BC V8V 1X4
ENV.minister@gov.bc.ca

Andy Oetter
Director, Authorizations (Resource Authorizations – Kamloops)
Ministry of Forests, Lands, Natural Resource Operations and Rural Development
Parliament Buildings
Victoria, BC V8V 1X4
Andy.Oetter@gov.bc.ca

Greg Kylo
Official Opposition Critic for Environment and Parks
BC Liberal Party
greg.kylo@bcliberals.com

Dear Honourable Minister Heyman, Mr. Oetter, and Mr. Kylo:

**Re: Requesting Review of and Amendments to Effluent Permit PE-3904
Held by KGHM Ajax Mining Inc.**

We write to you today on behalf of our client the Kamloops Area Preservation Association (“KAPA”), to request a review of, and amendments to, Effluent Permit PE-3904 (the “Permit”), which is held by KGHM Ajax Mining Inc (“KAM”).

Introduction

The Permit is associated with the monitoring of the historic Ajax copper mine which is owned by KAM and located to the south of the City of Kamloops.

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The Permit imposes certain requirements on KAM, including a requirement to monitor water contamination from the Ajax mine site. KAM's most recent monitoring data continues to show increasing contamination of Peterson Creek and its aquifer from the waste rock of the historic Ajax mine. Peterson Creek and its aquifer serve as a source of domestic water for the Knutsford Knoll development, the Kamloops RV Campground, and several individual homes.¹

KAPA recently retained hydrogeologist, Dr. Kevin A. Morin, to review and prepare an expert report on the Permit. After reviewing the annual and 5-year reports required by the Permit, and the many relevant documents from the environmental assessment for the rejected ("new") Ajax Mine Project, Dr. Morin concluded, among other things, that the current water monitoring conditions of the Permit:

- are "woefully inadequate and ambiguous";
- do not ensure the proper monitoring of surface water and underground water;
- do not adequately protect Peterson Creek and downstream waters; and
- do not explain the dramatic increasing contamination of Peterson Creek by minesite-derived elements.²

In summary, Dr. Morin's report definitively shows that the Permit's current water monitoring conditions are insufficient.

As the Minister responsible for administration of the *Environmental Management Act* ("EMA"), and on behalf of KAPA, we respectfully urge you to exercise your powers under s. 16 of the Act and amend the Permit to significantly strengthen its water monitoring conditions.³

The fact that the Permit's water monitoring conditions are insufficient and must be significantly strengthened is evidenced by Dr. Morin's expert report,⁴ the 2019 Annual Report on the Permit prepared by Knight Piésold Ltd for KAM,⁵ and your government's October 2019 finding that KAM is not even complying with the inadequate monitoring conditions of the Permit.⁶

¹ Dr Gilles Wendling, "Potential Impact of the Proposed Ajax Mine on the Drinking Water" (8 August 2017) GW Solutions (pdf) [Wendling Report] at p 5.

² Dr Kevin A Morin, "Peterson Creek and Aquifer - Review of Ajax Mine Permit 3904 for Reliably Characterizing and Preventing Water Contamination by Existing Mine Wastes" (15 April 2020) Minesite Drainage Assessment Group (pdf) [Review of Ajax Mine Permit 3904] at pp v, viii, and 34.

³ *Environmental Management Act*, SBC 2003, c 53 ("EMA"), s 16.

⁴ Dr Kevin A Morin, Review of Ajax Mine Permit 3904, *supra* note 2.

⁵ "Ajax Project: Environmental Management Act Permit 3904 Annual Report 2019" (10 February 2020) Knight Piésold Ltd (pdf) [Ajax Project 2019 Annual Report].

⁶ British Columbia, Ministry of Environment and Climate Change Strategy – Environmental Protection Division, *Natural Resources Compliance and Enforcement Database* (Victoria: Ministry of Environment and Climate Change Strategy, 2020) <<https://nrccd.gov.bc.ca/records;keywords=ajax;ms=483;currentPage=1;pageSize=25;sortBy=-dateIssued>> accessed 24 September 2020 [NRCED].

Dr. Morin's Review of Ajax Mine Permit 3904

In reviewing the Permit, Dr. Morin found that the Permit only requires KAM to monitor surface water contamination, and only for a few components that represent sources of contaminated water.⁷ Per Dr. Morin, the conditions imposed for monitoring surface water contamination of only some components are insufficient, and the Permit should require the permittee to monitor the surface water contamination of additional components, as well as monitor groundwater contamination.⁸ This is apparent for several reasons:

- First, total mine waste rock that was previously estimated to be around 15 million tonnes, was recently estimated to be nearly 50 million tonnes,⁹ in addition to 7 million tonnes of water-contaminating overburden.¹⁰ This does not include the volume of other components.¹¹
- Second, the mine site components have no observed surface pathways to Peterson Creek, leading previous reports to conclude that contaminated water from the old mine site is not entering Peterson Creek.¹² However, subsurface pathways exist that do deliver contaminated water to Peterson Creek.¹³ This is particularly apparent where a comparison of upstream and downstream concentrations from Peterson Creek reveal increased contaminant concentrations downstream of the mine site.¹⁴
- Third, it was thought that pits surrounding the mine site would theoretically prevent contaminated groundwater from the old mine site from reaching Peterson Creek, but the most recent reports show that these pits have very limited effect on groundwater flow and that most contaminated groundwater from the mine site enters the aquifer, at least part of which reaches Peterson Creek.¹⁵
- Fourth, as of February 2020, KAM's own monitoring data continues to show increasing contamination of Peterson Creek downstream of the old mine site.¹⁶

Dr. Morin also found the wording of the Permit to be ambiguous and contradictory.¹⁷ For example, the Permit stipulates that contaminated water may seep into the ground at an average of 25 m³ per day, but the permit holder has not provided any data to determine if this limit is exceeded.¹⁸

⁷ Dr Kevin A Morin, Review of Ajax Mine Permit 3904, *supra* note 2 at pp vii and 10.

⁸ *Ibid* at p ix and 34.

⁹ *Ibid* at pp vii and 9.

¹⁰ *Ibid* at pp vii.

¹¹ *Ibid* at pp vii and 9.

¹² *Ibid* at pp vi and 9.

¹³ *Ibid* at pp vi, viii, 6, 8, and 11-14.

¹⁴ *Ibid* at pp vii-viii, 10, and 14.

¹⁵ *Ibid* at pp vii, 21, 24, and 28.

¹⁶ *Ibid* at p v.

¹⁷ *Ibid* at pp v-viii, 1, 10, 12, and 34.

¹⁸ *Ibid* at pp vii and 12.

Based on his findings, Dr. Morin concluded that major revisions to the Permit are needed and recommended that the revisions require the following:

- Monthly measurements of creek flows and chemistry, and of groundwater levels and chemistry, are necessary due to the highly variable seasonal fluctuations that are not adequately addressed by current biannual chemistry-only measurements as currently required in the Permit;
- At least 20 surrounding monitor wells and piezometers should be monitored under the Permit; and
- All elements and parameters with water-quality guidelines for drinking, irrigation, wildlife, and aquatic life should be analyzed in dissolved (i.e. filtered) and total forms and, due to seasonal peaks, each monthly value should be compared to guidelines, rather than comparing annual averages to guidelines.¹⁹

The 2019 Annual Report for the Permit

The 2019 Annual Report for the Ajax Project revealed that concentrations of molybdenum and selenium exceeded several water quality guidelines at several of the Permit monitoring sites.²⁰ Moreover, Dr. Morin's report found that the most recent molybdenum peak exceeded the Maximum Acceptable Human Source Drinking Water Quality Guideline of 0.25 mg/L.²¹ The 2019 Annual Report also found that concentrations of sulphate exceeded several water quality guidelines.²²

BC Government Site Inspection

In October 2019, the Environmental Protection Division of your government performed a compliance inspection in relation to the Permit and found KAM was out of compliance with the Permit, primarily due to missing monitoring data and reporting.²³ This was communicated to KAM in November 2019.²⁴

It is quite likely the missing monitoring data and reports would have further confirmed increasing levels of contamination in Peterson Creek and its aquifer from the old Ajax minesite. That KAM is not even complying with the "woefully inadequate" water monitoring conditions is deeply concerning to KAPA and its members.

¹⁹ *Ibid* at pp ix and 34.

²⁰ Ajax Project 2019 Annual Report, *supra* note 5 at pp I and 18.

²¹ Dr Kevin A Morin, Review of Ajax Mine Permit 3904, *supra* note 2 at p 14.

²² Ajax Project 2019 Annual Report, *supra* note 5 at p 18.

²³ BC Ministry of Environment and Climate Change Strategy – Environmental Protection Division, *NRCED*, *supra* note 6.

²⁴ Dr Kevin A Morin, Review of Ajax Mine Permit 3904, *supra* note 2 at pp v, vi, 1, and 10.

Conclusion

The overarching aim of the *EMA* is to serve the public interest, which involves ensuring that “if contaminated waste is to be discharged into the environment, the process must occur in a manner that will not be harmful to the environment and human health”, and balancing environmental protection with economic growth and development.²⁵ Given the findings summarized above, and particularly the ongoing risk of contamination exceeding several water quality guidelines, including drinking water quality guidelines, it is in the public’s interest to amend the permit in accordance with Dr. Morin’s recommendations. Failing to do so would be contrary to public’s interest.

On behalf of our client, we urge you once again to amend the Permit under s. 16 of the *EMA* to require the following, as recommended by Dr. Morin:

- Monthly measurements of creek flows and chemistry, and of groundwater levels and chemistry, are necessary due to the highly variable seasonal fluctuations that are not adequately addressed by current biannual chemistry-only measurements as currently required in the Permit;
- At least 20 surrounding monitor wells and piezometers should be monitored under the Permit; and
- All elements and parameters with water-quality guidelines for drinking, irrigation, wildlife, and aquatic life should be analyzed in dissolved (i.e. filtered) and total forms and, due to seasonal peaks, each monthly value should be compared to guidelines, rather than comparing annual averages to guidelines.²⁶

We kindly ask that you advise whether you will be exercising your powers to amend the Permit under s. 16 of the *EMA* by October 15, 2020.

On behalf of KAPA, we thank you for your consideration and look forward to your response.

Sincerely,



Woodward & Company LLP

Cc: John Horgan (BC Premier, Leader of the New Democratic Party of BC), Andrew Wilkinson (Leader of the Liberal Party of BC), Trevor Bolin (Leader of the Conservative Party of BC), and Sonia Furstenau (Leader of the Green Party of BC)

²⁵ *Cobble Hill Holdings Ltd v BC*, 2020 BCCA 91, paras 61 and 104.

²⁶ Dr Kevin A Morin, Review of Ajax Mine Permit 3904, *ibid* at pp ix and 34.