

EAO's Summary Evaluation Report for an Extension of an Environmental Assessment Certificate

Kerr-Sulphurets-Mitchell Project

Certificate #M14-01

Amendment #2: Extension of Certificate

Requested by:
KSM Mining ULC

March 21, 2019

Pursuant to Section 18 (2) of the Environmental Assessment Act, S.B.C. 2002, c.43 (Act)

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ACRONYM AND DEFINITION LIST

Aboriginal Interests	Aboriginal rights and title	GHCO	Gitanyow Hereditary Chiefs Office
Act	<i>Environmental Assessment Act</i>	Holder	KSM Mining ULC
Application	Environmental Assessment Certificate Application approved for review by the EAO on August 12, 2013	km	kilometre
BAT	Best Available Technology	KSM Project	Kerr-Sulphurets-Mitchell Project
BC	British Columbia	NLG	Nisga'a Lisims Government
CPD	Certified Project Description (Schedule A of the EAC)	PTMA	Processing Tailings Management Area
EA	Environmental Assessment	Report	Summary Evaluation Report
EAC	Environmental Assessment Certificate	TCG	Tahltan Central Government
EAO	Environmental Assessment Office	TOC	Table of Conditions (Schedule C of the EAC)
ECCC	Environment and Climate Change Canada	UNDRIP	<i>United Nations Declaration on the Rights of Indigenous Peoples</i>
EMPR	Ministry of Energy, Mines and Petroleum Resources	WEMP	Wildlife Effects Monitoring Plan
ENV	Ministry of Environment and Climate Change Strategy	WG	EAO Advisory Working Group
ePIC	EAO electronic Project Information Centre		
Extension Application	Application to request a one-time five-year extension of the EAC #14-01 for the KSM Project		
FLNRORD	Ministry of Forests, Lands, Natural Resource Operations and Rural Development		

1.0 OVERVIEW OF REQUESTED EXTENSION

On July 29, 2014, the Minister of Environment and the Minister of Energy and Mines issued Seabridge Gold Inc. the Environmental Assessment Certificate #M14-01 (EAC) for the Kerr-Sulphurets-Mitchell Project (KSM Project). Documentation relating to the Environmental Assessment (EA) of the KSM Project, the EAC, Schedule A - Certified Project Description (CPD), and Schedule B - Table of Conditions (TOC) are on the Environmental Assessment Office (EAO) electronic Project Information Centre (ePIC) at <https://projects.eao.gov.bc.ca/p/ksm/docs>.

Effective October 1, 2018, the EAC was amended and transferred to KSM Mining ULC (Holder). The duration of the deadline specified in the EAC is for five years, expiring on July 29, 2019. Section 18(2) of the *Environmental Assessment Act* (the Act) allows the Holder to apply for an extension of the deadline specified in the EAC. On October 3, 2018, the Holder submitted an application to the EAO requesting a one-time five-year extension of the EAC (Extension Application) which, if approved, would extend the Certificate to July 29, 2024. The [Extension Application](#) states that construction on the KSM Project has not yet begun and that additional time is needed to secure a suitable joint venture partner.

2.0 PROJECT DESCRIPTION

The KSM Project involves the extraction of gold, silver, copper and molybdenum from four deposits located in northwestern British Columbia (BC), 65 kilometres (km) northwest of Stewart, BC and 30 km northeast of the border between BC and the State of Alaska (Figure 1). The mine will produce up to 30,000 tonnes of ore each day. The KSM Project will operate for up to 52 years.

The Extension Application does not propose any changes to the KSM Project as it is described in the CPD. The scope, scale and design for all authorized mine site facilities and Processing Tailings Management Area (PTMA) facilities, and access roads, are described in the CPD.

If the Extension Application is approved, the Holder anticipates construction could begin in early 2022, subject to the requirements of the EAC, CPD and TOC, and other regulatory requirements.



Figure 1: Location of the KSM Project

3.0 THE EXTENSION APPLICATION REVIEW

On October 9, 2018, the EAO accepted the Extension Application for review. The EAO established an advisory working group (WG), based on participation in the WG of the EA, to provide technical advice on the review of the Extension Application for the KSM Project. The following agencies and Indigenous groups were invited to participate as members on the WG:

- Ministry of Energy, Mines and Petroleum Resources (EMPR);
- Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD);
- Environment and Climate Change Canada (ECCC);
- Transport Canada;
- City of Stewart;
- City of Terrace;
- Gitanyow Nation;
- Gitxsan Nation;
- Nisga'a Lisims Government (NLG);
- Tahltan Central Government (TCG); and
- Tsetsault/Skii km Lax Ha

Of the groups invited FLNRORD, and City of Stewart chose not to participate in the Extension Application.

The EAO distributed the Extension Application to the WG from October 15, 2018 to November 9, 2018, and the draft Summary Evaluation Report on January 16, 2019.

Gitxan Treaty Society indicated their support on behalf of the Gitxsan Nation for the extension request and the City of Terrace and NLG advised that they had no comments or concerns with the extension request. Tsetsault/Skii km Lax Ha advised the EAO that it could not participate due to insufficient financial resources. The EAO understands that the Holder offered funding to Tsetsault/Skii km Lax Ha but Tsetsault/Skii km Lax Ha did not respond to any of the Holder's attempts to engage. The EAO offered to consult with Tsetsault/Skii km Lax Ha on Extension Application concerns but did not receive a response.

The EAO received comments from ECCC, TC, TCG, NLG and the Gitanyow Hereditary Chiefs Office (GHCO) of the Gitanyow Nation. The key concerns are discussed in Section 5 of this Report. The WG tracking table includes all WG comments and the Holder's responses is available on ePIC at <https://projects.eao.gov.bc.ca/p/ksm/docs?folder=245>.

On February 20, 2019, the EAO distributed another draft of the Summary Evaluation Report that incorporated comments or input on the earlier draft. The EAO received comments only from NLG which indicated no concerns with the second draft.

To inform the Executive Director's decision on whether to extend the Certificate, the EAO considered whether there have been any material and specific changes in circumstances that have occurred since the original EA that could affect the conclusions reached in the EA, and that revisions to the EAC, CPD or TOC would be required.

4.0 REGULATORY CONTEXT AND REQUIREMENTS

Since the EAC was issued in 2014, the EAO has introduced a new requirement for an assessment of best available technology (BAT) and best available practices for proposed tailing management facilities. In 2016, the Holder voluntarily completed a BAT study to re-evaluate their proposed tailings management strategy for the KSM Project. The study stated that the tailings management strategy proposed in the original EAC Application is the most appropriate option to minimize physical, geochemical, biophysical and social risks over the life of the KSM Project. A [plain language summary](#) of the report is available on ePIC.

In addition to the requirements of the EAC, the KSM Project requires approvals from EMPR, the authority for mines in BC pursuant to the *Mines Act* and the Health, Safety and Reclamation Code for Mines in BC, and approvals from the Ministry of Environment and Climate Change Strategy (ENV), the authority for the discharge of waste into the environment pursuant to the *Environmental Management Act*. Many conditions in the TOC refer to requirements that the Holder must meet in the joint *Mines Act* and *Environmental Management Act* permit application process.

5.0 SUMMARY OF ISSUES AND EFFECTS

5.1 Wildlife

5.1.1 *Bats and Hibernacula*

ECCC raised concerns that the Holder's proposed method to detect the presence of suitable bat hibernacula and verify the use of hibernacula features is not adequate. ECCC further concluded that the Holder's commitment to conduct pre-clearing surveys during hibernation and breeding periods is insufficient and that tree clearing must be undertaken outside the identified Provincial breeding window.

The EAO is satisfied that concerns relating to the presence and use of suitable bat roosts and hibernacula in the KSM Project wildlife local study area were considered during the EA and the existing EAC condition #27 (Wildlife and Wildlife Habitat) and CPD #10.1 (Wildlife Effects Monitoring Plan [WEMP]) will ensure that any new information, mitigation and adaptive management will be considered in the development of the WEMP as part of the permit application process under the *Environmental Management Act*.

5.1.2 *Black Swift*

ECCC raised concerns that the KSM Project will impact black swift which is currently provincially and federally listed¹. ECCC recommends that a survey for black swift be undertaken and

¹ Black swift is currently red-listed by Committee on the Status of Endangered Wildlife in Canada and listed as endangered in Schedule 1 of *Species At Risk Act*.

mitigation measures be considered.

The EAO is satisfied that the EAC condition #27 (Wildlife and Wildlife Habitat) and CPD #10.1 (Wildlife Effects Monitoring Plan) provide for any new information, mitigation and adaptive management related to the black swift to be considered in the development of the WEMP in the permit application process under the *Environmental Management Act*.

5.2 Water Quality

5.2.1 Climate/Glacier Change and Associated Impacts on Water Quality and Hydrology

The GHCO expressed concerns regarding the effects of discharge from the tailings management facility, seepage and runoff water from the tailing dams, and associated impacts on downstream water quality and flow. The GHCO is of the view that the additional monitoring data collected by the Holder for permitting since the completion of the EA need to be reviewed and analyzed during the Extension Application. In addition, the GHCO provided EAO a memo highlighting technical concerns related to the Holder's review of climate and glacier change, and their associated impacts on water quality, quantity, and flow which in GHCO's view is new and material scientific information that should be taken into consideration for determining whether an extension of the EAC for the KSM Project should be granted.

The Holder responded that a comparison was conducted between baseline water quality data collected prior to the submission of the EAC Application, and included in the EAC Application, and baseline water baseline water quality data collected since the submission of the EAC Application. The Holder concluded that baseline water quality data collected since the submission of the EAC Application were comparable and representative of the baseline water quality data included in the EAC Application. Based on this conclusion, the Holder is of the view that modeling using more baseline water quality data would not change the results of the impact assessment on surface water quality or existing EAC conditions.

The EAO requested ENV and EMPR review the memo from Gitanyow to determine if this information would be considered in the joint *Mines Act* and *Environmental Act* permit application process. ENV responded that climate and glacier changes and associated changes to water quality, quantity and flow would be considered in the permitting process in consultation with Indigenous groups. The joint permitting process will involve a detailed review of the water models, including sources and changes in water supply and water quality. EMPR responded that they support the response provided by ENV.

The EAO is satisfied that concerns relating to climate and glacier changes and associated changes to water quality were considered during the EA and that the EAC conditions #6 (Geochemistry and Water Quality), 8, 9, 11 (Water Management/Treatment and Monitoring), 11, 16 and 17 (Selenium Management/Treatment), and CPD #10.2 (Aquatic Effects Monitoring Plan) provide for any new information, mitigation and adaptive management to be adequately considered in the development of these plans which are required to satisfy permit

requirements.

5.3 Impacts to Aboriginal Interests

On November 30, 2018, the EAO received a letter and memo from the GHCO. The GHCO raised concerns that the EAO's approach to consultation is inconsistent with the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP) and Bill 51². The EAO responded its intent to consult with the Gitanyow Nation in a collaborative manner to fully understand and address concerns of the Gitanyow Nation. The EAO also stated the hope to reach consensus with the GHCO on whether the proposed extension should be granted.

On February 26, 2019, the GHCO re-stated to the EAO that, in their perspective, the information they provided on climate and glacier changes should be considered new and material and that it should be taken into consideration in determining whether an extension of the EAC for the KSM Project should be granted. GHCO also stated that leaving the review of information to permitting would not be consistent with UNDRIP and that they do not support the extension application. It is the EAO's view that the issues raised have been adequately addressed for the purpose of the extension application review and are more appropriately considered and discussed as part of the continued Crown consultation obligations related to the requirements of the EAC and of subsequent permitting.

6.0 CONCLUSIONS

Based on:

- Information contained in the Holders' Extension Application;
- Supplemental information provided by the Holder during the Extension Application review process regarding baseline water quality monitoring, analysis and findings;
- The Holders' consultation record with NLG, TCG, Gitanyow Nation, Gitxsan Nation and Tsetsault/Skii km Lax Ha; and
- The Holders' responses to comments and concerns from the WG and the EAO;

And given:

- The EAO's conclusion that concerns about bat hibernacula, black swift, climate change and glacier change and their associated downstream impacts on water quality, quantity, and flow, are not material and specific changes in circumstances that have occurred since the original EA that could affect the conclusions reached in the EA, and that revisions to the EAC, CPD or TOC would not be justified;

The EAO is satisfied that:

² Bill 51 is the proposed legislation to replace the current *Environmental Assessment Act*. Bill 51 received Royal Assent on November 27, 2018. A primary objective of Bill 51 is to advance reconciliation with Indigenous peoples.

- The Aboriginal Interests of NLG, TCG, Gitanyow Nation, Gitxsan Nation and Tsetsault/Skii km Lax Ha will not be adversely affected by a five-year extension of the EAC for the KSM Project;
- The EAO has adequately discharged its duty to consult with NLG, TCG, Gitanyow Nation, Gitxsan Nation and Tsetsault/Skii km Lax Ha; and
- The Crown's duty to consult and appropriately accommodate potential impacts of the proposed extension on Aboriginal Interests has been adequately fulfilled.

The EAO recommends that the Executive Director issue an Order under Section 18 of the Act to extend the EAC for the KSM Project, noting that all other conditions and requirements arising from the original EA remain in effect for the duration of the lifecycle of the KSM Project.