# **KSM Project Overview**



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KSM Mining ULC, a subsidiary of Seabridge Gold Inc., is the holder of the KSM Project, a proposed gold, copper, silver and molybdenum mine in northwest BC. The Project is located about 65 km north of Stewart, 20 km. northwest of the now-closed Eskay Creek mine and 30 km northeast of the Alaska border. With the Environmental Assessment approved mine life of 50+ years, the Project will generate approximately 1,500\* direct jobs during its five-year construction and approximately 1,400\* direct jobs when in production.

Placer gold was discovered in the proposed KSM Project area in the late 1800s



# **Project Details**

- · Successfully completed a joint harmonized environmental assessment review as outlined by the British Columbia Environmental Assessment Act, the Canadian Environmental Assessment Act and the Nisga'a Final Agreement in 2014.
- · The Project comprises five large gold and copper deposits Kerr, Sulphurets, Mitchell, East Mitchell and Iron Cap.
- Sulphurets, Mitchell and East Mitchell deposits together contain probable reserves of 47.3 million ounces of gold, 7.3 billion pounds of copper, 160 million ounces of silver and 385 million pounds of molybdenum.
- Seabridge Gold acquired the East Mitchell (formerly Snowfield) deposit in 2020 from Pretium Resources, adjacent to the KSM Project. The drill results from the 2021 program have validated the future integration of the East Mitchell deposit into the KSM mine plan.
- Project components include ore and non-ore rock handling, mineral processing, tailing and non-ore rock disposal, road access, a transmission line, concentrate shipping, accommodation, administration and maintenance complexes.
- · Trucks will take the gold/copper concentrate to Stewart for transport by ship to market.
- The Project's capital cost is estimated at US \$6.4 billion.
- The estimated total GDP that the KSM Project would contribute over the life of the mine for BC and Canada is estimated at \$30.6 billion and \$50.7 billion.



# 2014

Received federal and provincial environmental approval

KSM Project

Sustainability agreement with Gitanyow Signed Benefits Key construction agreement with Nisga'a

Signed Environmental

2015

Established Independent Geotechnical Review Board (IGRB)

# 2017

Addition of significant resources through Iron Cap exploration

Received the Robert R. Hedley award

Continued search for a partner with a major mining company

#### 2020

Acquired East Mitchell (formerly Snowfield) deposit adjacent to KSM Project

# 2021

BC FA certificate extended until July, 2026

# 2022

Drill program validated integration of East Mitchell Deposit into KSM mine plan

Agreement with BC Hydro to Supply Green, Low-Cost Construction Power to KSM Project

Updated Preliminary Feasibility Study

Released a Preliminary Economic Assessment Study for a potential copper-rich underground mine (Iron Cap and Kerr deposits)

Established community office in Terrace, BC

permit issued for Nation

# **KSM Project Components**

Every resource development project has key project components that make it unique. Located 65 km north of Stewart, BC, the proposed KSM Project's key components include two controlled access roads, Kerr, Sulphurets, Mitchell, East Mitchell and Iron Cap deposits, rock storage facilities, water treatment facilities, diversion tunnels, an ore preparation complex, ore transport tunnels, a processing plant, a tailing management facility, and a transmission line.

#### **Coulter Creek Access Road**

- Controlled access to limit effects on fish and wildlife
- · 35 km addition to existing Eskay Creek Rd.
- Bridge over Unuk River.

#### **Processing Plant**

- · Located near the end of the ore transport tunnels.
- · Copper, gold and molybdenum are separated from the ore using a flotation process.
- Cyanide, used to extract more gold, is recovered and residual cyanide is subjected to two separate destruction methods.
- Copper, molybdenum and gold are trucked off-site for further processing.
- Ground ore with metals are removed, "tailing" is pumped to the tailing management facility.
- · Camp nearby to house employees

# **Tailing Management Facility**

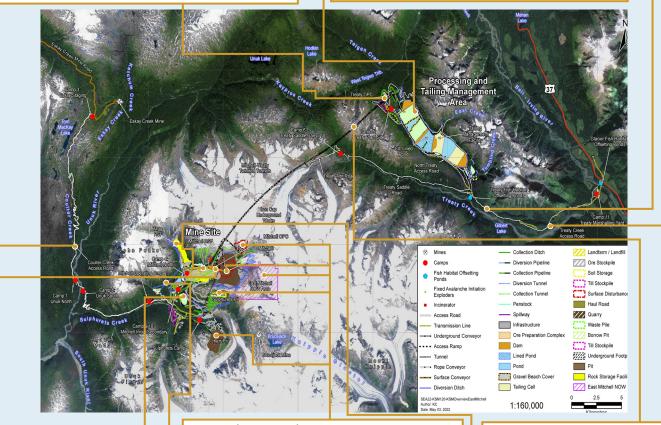
- Dams constructed with locally quarried rock and non-sulphide bearing tailing
- Sulphide bearing tailing submerged in a lined pond to ensure permanent saturation.
- Dams at either end have low permeability cores.
- · Seepage collection dams downstream of tailing dams.

#### **Treaty Creek Access Road**

- 33 km access road to Highway 37.
- · Controlled access limits effects on fish and wildlife.
- · Bridge over Bell-Irving River.

## **Transmission Line**

- Parallels Treaty Creek access road.
- · Provides link to provincial electricity grid power to KSM site.



## **Water Treatment Facilities**

- Dam on lower Mitchell Creek collects water from the Mitchell Pit and rock storage facilities.
- Drainage from facilities piped to the dam.
- · Water piped by gravity to a treatment plant.
- Turbine installed in the pipeline generates electricity.
- Camp nearby to house employees.

# Ore Preparation Complex

Ore is crushed and transported to the processing plant.

# **KSM Project Deposits**

KSM comprises five main deposits - Kerr, Sulphurets, Mitchell. East Mitchell and Iron Cap.

Sulphurets, Mitchell and East Mitchell deposits together contain proven and probable reserves of

- Gold: 47.3 million ounces Silver: 160 million ounces
- Copper: 7.3 billion pounds Molybdenum: 385 million

# **Diversion Tunnels**

- · Three tunnels divert water away from the mine site.
- Keep fresh water away from surface disturbances, maintaining water quality.
- Water discharging through tunnels is mostly directed through turbines to generate electricity to supplement power from the provincial grid.
- Will remain in operation after closure and will supply power to water treatment facilities

#### **Ore Transport**

- Required to access the processing plant and tailing management facility from mine site.
- Each tunnel will be 23 km long with an access about 7 km from the northern end.
- Cross connections between the tunnels provide an escape route and enable ventilation.
- Tunnels include a transportation corridor, diesel pipeline and transmission line.

## **Rock Storage Facilities**

- Stores non-ore rock removed to access ore.
- · Ditches and tunnels divert surface run-off.
- RSF drainage collected and treated.
- Covered with overburden and vegetated at closure.