



Tantalum Mining Corporation of Canada Ltd.

Lithium Restart

February 2021

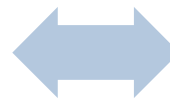
Our Mission

To transform rare metal resources today, into products that shape our tomorrow.



Vision

To be a **prosperous** mining, milling and chemical processing facility through the **development** of our **people**, our **resources** and our **community**.



Values

Safety and Well Being
Diversity
Flexibility
Learning and Innovation
Commitment
Hard Work

Tanco Background



TANCO: Canada's Premier Cesium, Lithium and Tantalum Producer



Tantalum Mining Corporation of Canada Ltd.

**Lithium Operation
Environmental
Impacts**

Summary of Works



- Tanco will resume Spodumene Milling/Mining Operation as described in File 1906.20 for License #973
- All regulatory requirements will be met prior to specified activities such as
 - Mines and Minerals Act – Mine Planning/Design
 - Environmental Act – Notice of Alterations submitted for all changes to Facility or Infrastructure outside of scope of License if applicable.
 - At this point in the refurbishment review, no major changes required to infrastructure outside of normal rebuild/repairs.
- A tentative start date for project has been defined as Q3 for 2021.
- Refurbishment works and preparation activities have commenced.

- **Further Mine Planning and Design being completed:**
 - Mining ore resource
 - Mining schedule
 - Mine plan including expected ore grade
 - Ground support Requirements
 - Geotechnical Assessment and Ground Control Management
 - Geological model—structure analysis
 - Geotechnical model and domain
 - Rock mass classification in tantalum mining areas: Rock Mass Rating (RMR) and Rock Tunneling Quality Index (Q)
 - Stability Analysis (i.e., empirical methods or numerical modeling)
 - Mining limitations
 - Ground control management plan (GCMP)—risk assessment and mitigation plan
 - Critical procedure—geotechnical aspects
 - Instrumentation, monitoring and visual inspection

Mining Capacity



- **Production Capacity**
 - 350 T/day
 - 330 Operating Days/Year

- **Mining Start**
 - Planned Mining Start Q2 2021
 - Target of 3000 MT/Month for first two quarters
 - Full production target of ~9500 MT/Month
 - Use of existing and new underground mobile equipment

- **Mining Method**
 - Room and Pillar

Existing Mining Infrastructure/Equipment Used



- **Existing Underground Infrastructures**
 - ✓ Existing all travel ways/accesses at current levels
 - ✓ Existing mine ventilation system
 - ✓ Existing mine dewatering system
 - ✓ Existing hoisting system
 - ✓ Existing instrumentation (i.e., seismic system)
 - ✓ Existing communication system
 - ✓ Existing environmental monitoring devices (such as CO, CO₂, and others)
- **Underground Equipment**
 - ✓ Existing Scoop trams
 - ✓ Existing Rock trucks
 - ✓ Existing lift machine for scaling
 - ✓ Others: rock breakers, etc.

Some refurbishment of equipment being completed.

Milling Capacity



- **Production Capacity**
 - 300 T/day
 - 300 Operating Days/Year

- **Mill Resumption**
 - ~6-9 months refurbishment time
 - Planned Milling Start Q3 2021
 - Utilize existing assets

Existing Milling/Surface Infrastructure Used



- **Existing Milling Infrastructures**
 - ✓ Existing ore crushing and liberation equipment
 - ✓ Flotation equipment
 - ✓ Existing communication system
 - ✓ Existing environmental monitoring devices (such as CO, CO₂, and others)
- **Surface Equipment**
 - ✓ Existing Tailings management infrastructure and facilities
 - ✓ Laboratory
 - ✓ Existing mobile equipment

Project Preparations



- **UG Preparation**
 - ✓ Scaling or small ground support along travelways/accesses to south mining areas at current level
 - ✓ Procurement of mobile equipment
 - ✓ Others: electric aspects (power, communication, instrumentation, etc.), ventilation, dewatering, service lines, etc.
- **Mill Preparation**
 - ✓ Repairing and refurbishment equipment
 - ✓ Potential upgrade of PLC component of system from existing system
 - ✓ Others (Dust Collector piping, crushing equipment, etc)
- **Surface Preparation**
 - ✓ Repairing and refurbishing equipment
 - ✓ Training and recruitment
 - ✓ Others (quality control, product handling/shipping, analysis)

Overall Environmental Impact



- **It is expected the impact to the environment based on refurbishment activities will be negligible**
 - Refurbishment schedule is short term – 6–9-month with the on-site activities February to October.
 - Majority of the refurbishment activities will be conducted indoors and on existing equipment
 - Site access and area is already fully developed
- **It is expected the impact to the environment based on continuous operation will be negligible**
 - Operational parameters of License #973 will remain in effect for continuous operation
 - Effluent and water quality will remain within MDMER (Metal and Diamond Mining Effluent Regulations) parameters and specific License #973 parameters.
 - Environmental monitoring, studies and assessments will remain in effect.

Pollutants Released Into Air



- **Refurbishment Period**

- Additional road dust will be generated from the increase in traffic. It is expected that this level of increase in total releases reported to NPRI will be negligible for the refurbishment activities.
- No additional fugitive and stack/point releases will take place during refurbishment period.
- Heavy equipment and power tools will generate noise in excess of background levels.

- **Continuous Operation**

- Additional road dust will be generated from the increase in traffic. It is expected that this level of increase will be similar to total releases reported to NPRI in 2012 calendar year.
- Additional Fugitive and stack/point releases will increase during continuous operation. It is expected this level of increase will be similar to total releases reported to NPRI in 2012 calendar year.
- Heavy equipment and power tools will generate noise in excess of background levels.

Pollutants Released Into Water

- **Refurbishment Period**

- There will be negligible impacts to effluents during the refurbishment period.
- Spill Potential exists during construction
 - Diesel Fuel, Gasoline, Grouts, Hydraulic Oils, etc.

- **Continuous Operation**

- An additional 250-300 MT/day of tailings will be sent to the Tailings Management Area. It is expected that there will be negligible impacts to receiving water.
 - Flocculants will be used to reduce suspended solids to acceptable levels prior to discharge as done previously
 - pH treatment will remain in effect where necessary to maintain in acceptable levels prior to discharge
 - Effluent treatment/filtration will remain in effect where necessary to maintain effluent parameters within acceptable levels prior to discharge
- Spill potential exists during continuous operation
 - Diesel Fuel, Gasoline, Grouts, Hydraulic Oils, etc.

Potential Pollutants Released to Land



- **Refurbishment Period**

- There will be negligible impacts to land during the refurbishment period.
- Spill Potential exists during construction
 - Diesel Fuel, Gasoline, Grouts, Hydraulic Oils, etc.
- A temporary increase in waste oil generation will take place during refurbishment.
 - Hazardous Waste Licenses and regulations remain in effect.

- **Continuous Operation**

- An additional 250-300 MT/day of tailings will be sent to the Tailings Management Area. This will not influence surrounding land outside of TMA boundaries.
- Spill potential exists during continuous operation
 - Diesel Fuel, Gasoline, Grouts, Hydraulic Oils, etc.
- There will be an increase in waste oils generated annually from the continuous operation.
 - Hazardous Waste Licenses and regulations remain in effect.

Potential Additional Impacts



- **Impact on Fishers**
 - It is expected that there will be no impact on aquatic resources in the area

- **Surface/Groundwater**
 - Onsite washroom and dry facilities are permitted and meet the additional demand from increased personnel.

- **Forestry and Vegetation**
 - It is expected that there will be no impact on forestry or vegetation in the area

- **Heritage Resources**
 - It is expected that there will be no impact on forestry or vegetation in the area

- **Wildlife**
 - It is expected that the impact on wildlife will be negligible

Impact on Traffic



- **Current Status**

- 15-20 cars/day (Currently higher due to COVID-19 Carpool Restrictions)
- 1-2 trucks per/day

- **Refurbishment Period**

- An increase of 5-10 cars/day
- An increase of 1-3 trucks/day

- **Continuous Operation**

- An increase of 15-20 cars/day
- An increase of 4-6 trucks/day

- **2011 NOA #19 Reference**

- 40-50 cars/day
- 5-6 trucks/day