



Permit Number: MX-1-763

Mine No: 1650484

Authorization No.: 18-1650484-1025

Permittee: KSM Mining ULC
Suite 400 - 106 Front Street East
Toronto ON M5A 1E1

Business Phone: (416) 367-9292
Fax: (416) 367-2711

Name of Property: KSM (PTMA)

Reclamation security amount: \$150,000 (as per Condition E.1a)

For exploration/construction activities within the work area illustrated on attached maps, overlapping the following mineral tenures:

See Attached Map

As described in the Notice of Work and Reclamation dated: March 25, 2011; and
in the "KSM Project Mines Act and Environmental Management Act Permit Application for Limited Site Construction" dated May 28, 2013 and letter dated July 31, 2018 requesting change in company name.

Approval Completion Date: March 31, 2020

Approved work:

Camp: Use of existing camp on Teigen Creek and unnamed tributary

Helicopter pads: 40 pads

Seismic Refraction: 45 line kms

Surface Drilling: 90 helicopter supported sites

Blasting Explosives Storage and Use Permit BC-1097

Approved work:

(pursuant to concurrent permitting application with Environmental Assessment Certificate # M14-01):

Camps: Camp 5 (Treaty Plant); Camp 6 (Treaty Saddle); Camp 11 (Treaty Marshalling Area)

Access Roads: To include clearing, grubbing, soil salvage, log landings, and road construction aggregate borrow areas - totaling 53km:

Access Roads associated with Camps 5, 6, 11;

Access Roads: Water Supply Well Access Road; North Treaty lower road; South Teigen Roads ST11, ST11a, ST12a, ST12b, ST13, ST13a; Northeast Diversion Access Road, Southwest Diversion Access Road

Laydown Areas: To include clearing, grubbing, soil salvage: Treaty Construction Laydown Area

Tunnel Development: Up to and including the first cross-cut of the MTT Tunnels at Treaty OPC; up to and including the first cross-cut of the MTT Tunnels at the Saddle Portal

Pads: Treaty OPC Pad; Temporary Water Treatment Area #8 Muck Pads (2), Saddle Portal Temporary Water Treatment Area #4 Muck Pads (2)

Explosives Storage Area: PTMA Explosives Magazine Storage Area; Saddle Explosives Magazine Storage Area

Water Treatment Earthworks: Temporary Water Treatment Areas #4, #8

Till and Soils Storage Stockpiles: North Cell Till Stockpile, North Cell Soil Storage Area

The information on this form and any supporting documents are subject to the Freedom of Information and Protection of Privacy Act. The information requested on this form is collected and used for the purpose of administering the Mineral Exploration and Reclamation Permit. The Mines Act of British Columbia also authorizes the collection of the requested information on this form. The completed form is routinely available to the public. Questions about how the Freedom of Information and Protection of Privacy Act applies to the information collected on this form can be directed to the Mines Branch, phone (250)952-0492, fax (250)952-0491 or write to: PO Box 9320, Stn Prov Govt, Victoria, British Columbia, V8W 9N3.

**Mineral & Coal Exploration
Activities & Reclamation Permit continued...**

Landfarm/Landfill: Treaty Landfarm/Landfill Area

(continued)

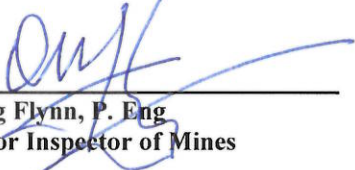
Surface Diversion Ditches: Surface Diversion Ditches

Timber cutting: Ministry of Forests, Lands and Natural Resource Operations to issue an Occupant License to Cut
Under OLTC #L49658 and OLTC #L49612

Approved area of new Disturbance: ~ 227 ha

Date of Issuance: May 13, 2008

Date of Amendment: October 25, 2018



Doug Flynn, P. Eng
Senior Inspector of Mines

Permit Conditions

A. General

1. Compliance with *Mines Act* and Code

(a) All work shall be in compliance with all sections and parts of the *Mines Act* and the Health, Safety and Reclamation Code for Mines in B.C. (Code), and the owner, agent or manager (Permittee) shall obey all orders issued by the Chief Inspector or his delegate.

(b) Best management practices, outlined in the Handbook for Coal and Mineral Exploration in BC, are to be utilized in conjunction with direction provided by the Code.

2. Departure from Approval

The Permittee shall notify the Chief Inspector of Mines (Chief Inspector) in writing of any intention to depart from the approved Application and this *Mines Act* permit (MX-1-763) to any substantial degree, and shall not proceed to implement the proposed changes without the written authorization of the Chief Inspector.

3. Permit

This Permit is not transferable or assignable.

4. Appointment of Mine Manager

If a Mine Manager has not been appointed prior to issuance of this permit, written notification of this appointment and contact information for the manager must be provided by the owner on or before notification of start of activities, pursuant to Section 21 of the *Mines Act*.

5. First Nation Reporting Requirements

Unless otherwise requested, the Permittee shall make available all material reports and plans relevant to this permit, including annual monitoring reports and material changes to the approved Reclamation Plan to the Nisga'a Nation (Nisga'a Lisims Government), the Tahltan Nation (through the Tahltan Heritage Resources and Environmental Assessment Team (THREAT)), Skii km Lax Ha, and the Gitanyow Nation.

B. Health and Safety

1. Mine Emergency Response Plans (MERP)

(a) The Permittee shall implement their Mine Emergency Response Plan (MERP) as submitted to the Chief Inspector June 3, 2013. The MERP shall be kept up to date and be made available at the mine site at all times. The MERP shall reference relevant policies and establish proactive procedures to provide direction for management, mine site employees and contractors.

(b) The Permittee shall ensure that mine site employees and contractors are knowledgeable and accountable for fulfilling the actions of the MERP.

2. Explosive Management Plan

Prior to any blasting activity, the Permittee shall develop and submit an Explosive Management Plan to the Northwest Regional Health and Safety Inspector for review and approval.

3. Traffic Control Plan

The Permittee shall develop and submit a mine Traffic Control Procedure to the Northwest Regional Health and Safety Inspector for review and approval prior to operations. The plan shall include a map showing road corridors on site, speed limits and access limits and any other information the inspector requests.

4. Geohazard/Active Avalanche Management Plan

The Permittee shall develop a site wide Geohazard Management Plan/Active Avalanche Management Plan that includes, but is not limited to, those work areas identified as having a high or very high "unmitigated geohazard Risk" as identified in Table 2-1 of Appendix 9-B (for those areas relevant to the Phase I permit Application. The plan shall identify hazards, provide monitoring methods, include any required mitigation strategies or infrastructure, and identify restricted access areas. Prior to construction, detailed designs shall be provided to the Chief Inspector and Northwest Regional Office for all significant risk reduction infrastructure.

C. Mine Site Activities

1. Mine Site Roads

(a) All mine roads shall be designed and constructed according to current engineering standards and in accordance with the Health, Safety and Reclamation Code.

(b) The Permittee shall ensure all cut and fills in excess of 10 m height are designed by a Qualified Professional geotechnical engineer who shall conduct sufficient field reviews to ensure the road is constructed in general conformance with the design. Verification of field reviews shall be filed on-site and shall be provided to any Mines Inspector upon request.

(c) Where necessary to ensure geotechnical stability, the footprint of fill slopes shall be stripped of organics and topsoil and/or have the fill toe keyed to original ground. Fill slopes in excess of 10 m height and exceeding a gradient of 15 degrees shall be inspected by a qualified professional geotechnical engineer prior to fill placement.

(d) Site plans and general arrangement drawings shall be prepared by a Qualified Professional engineer for all bridges and multi plate culverts. Drawings shall include design loadings foundation design details, road and stream grades, bridge lengths or culvert size, design flow and design high water and clearance. Plans and drawings shall be filed on-site and shall be provided to any Mines Inspector upon request.

(e) When construction is complete, as-built drawings shall be prepared for all bridges and multi plate culverts. Plans and drawings shall be filed on-site and shall be provided to any Mines Inspector upon request.

(f) Detailed engineer drawings shall be completed for any road segments crossing known slide path or areas with a "high" or "very high" geohazard risk. The design shall consider site drainage, cut and fill slope stability and the potential impact of the road segment on the landslide. Designs for these drawings shall be submitted to the Northwest Regional Health and Safety inspector at least 30 days prior to construction.

(g) Mine site roads which are no longer required for mining purposes, shall be deactivated and reclaimed in accordance with the recommendations of a Qualified Professional engineer. The reclaimed road shall satisfy long term slope stability requirements for the end land use.

2. Seepage Control Ponds

(a) Design and Construction

(i) Detailed design for seepage control ponds classified as major impoundments (as defined by the Code) shall be submitted to the Chief Inspector for review prior to construction. All major impoundments shall be designed in accordance with the criteria provided in the Canadian Dam Association (CDA) Dam Safety Guidelines as per part 10.1.5 of the Code.

(ii) Any dams or impoundments not classified as a major dam under the Code shall meet the design requirements of the BC Dam Safety Regulations including the requirement for OMS manuals, Emergency Preparedness and dam safety reviews as outlined in the regulations. As-builts and annual dam safety reports for these structures shall be provided to the Chief Inspector.

(iii) Organic soils and loose/soft unsuitable mineral soils shall be removed from the dam foundation area.

(iv) A spillway shall be constructed to safely convey the design flood flow.

(b) Monitoring

(i) Regular visual monitoring of the ponds dam crest, dam slopes and spillway shall be undertaken.

(ii) An Operation, Maintenance and Surveillance manual consistent with Part 10.5.2 of the Code shall be submitted to the Chief Inspector prior to operation of a major dam or major impoundment including any associated water diversion structures. The OMS shall include instrumentation, inspection schedule, monitoring procedures and associated response trigger levels.

(iii) The Permittee shall ensure that ponds are constructed under the supervision of a Qualified Professional engineer to confirm site conditions and design assumptions.

(c) Reporting

An As-built report prepared by a Qualified Professional engineer must be submitted to Chief Inspector certifying that all major impoundments, water management facilities and dams were designed and constructed in accordance to part 10.1.5 of the Code prior to their operation.

3. Till and Soils Stockpiles

(a) Design and Construction

All stockpiles shall be constructed with side slopes of 2H: 1 V or less as required to maintain stability and to minimize erosion.

(b) Monitoring

Regular visual inspection of the stockpile crests and slopes shall be undertaken to ensure stability and erosion control are maintained.

4. Aggregate Pit Development

Prior to any development of an Aggregate Pit, a Mine Plan (pursuant to part 10.1.4 (3) of the Code) must be prepared by a Qualified Professional and submitted for review and approval by the Chief Inspector and the Northwest Regional Office.

5. Rock Quarry Development

(a) No quarry production is approved under this permit

(b) Approved activities in the Sulphurets area is limited to road development, site preparation, soil salvage, and water management structures.

6. MTT Tunnel Development and Portal Establishment

(a) Prior to any Portal or Tunnel development, a detailed Mine Plan report (pursuant to part 10.1.4 (3) of the Code) must be prepared by a Qualified Professional Engineer and include detailed drawings, stabilization measures and testing for review and approval by the Chief Inspector and the Northwest Regional Office.

(b) The Permittee shall conduct a detailed rock slope risk assessment for each portal area and any recommended rock slope mitigation measures shall be included in the site wide Geohazard Management Plan.

(c) An appropriate ground Control management Plan shall be prepared, implemented and shall address support requirements for all expected ground conditions and opening sizes. The plans shall be kept on site and be made available to any Mines Inspector upon request.

7. Camps

All camps are to be constructed under the guidance of Chapter 13 of the *Handbook for Mineral and Coal Exploration in British Columbia*.

8. Laydown areas and Pads

(a) All laydown areas and infrastructure pads shall be located in areas free of geohazards.

(b) All topsoil and vegetation shall be stripped from the footprint of all proposed pads to the maximum extent, and to the minimum degree necessary to ensure stable slopes and to accommodate reclamation requirements.

(c) The Permittee shall obtain and test undisturbed samples of the lacustrine clay soils located in the Mitchell Valley. This testing shall be conducted prior to pad construction in the affected area.

9. Landfarm/Landfill

Prior to the construction and establishment of a Landfarm and/or Landfill, authorization must be received from the Ministry of Environment.

10. Water Treatment Plants

(a) All water treatment plant facilities are to be located in areas free of geohazards.

(b) Construction and operation of temporary water treatment plant #6 is approved. Construction and operation of all other water treatment plant facilities require the approval of the Ministry of Environment and the Ministry of Energy and Mines.

D. Protection of Land and Watercourses

1. Environmental Management System (EMS)

(a) Prior to commencing construction activities, the Permittee shall implement their Environmental Management System (EMS) and plans as submitted to the Chief Inspector and Northwest Regional Office.

(b) The EMS and plans shall be kept up to date, and be made available at the mine site at all times. The EMS and plans shall reference relevant policies and establish proactive procedures and standard operating procedures to provide direction for management, mine site employees and contractors.

(c) The Permittee shall ensure that all mine site employees and contractors are knowledgeable and accountable to act consistently with the requirements of the EMS and plans.

2. Environmental Site Manager

(a) The Permittee shall ensure that an environmental site manager or their designate is on site at the commencement, and for the duration of the construction phases. The environmental site manager shall be a Qualified Professional and shall be identified in writing to the Chief Inspector and Northwest Regional Office.

(b) The environmental site manager shall have the authority to implement remedial actions as may be necessary to ensure maintenance of environmental standards and permit requirements. If suspension of activities occurs due to environmental concerns, the Permittee or environmental site manager shall immediately notify the Chief Inspector, Northwest Regional Office, and appropriate personnel with the Ministry of Environment.

3. Metal Leaching (ML) and Acid Rock Drainage (ARD)

(a) General

(i) Concurrent with proposed activities, the Permittee shall characterize excavated materials produced and surfaces exposed, to determine ML/ARD generating potential, validate pre-mining predictions, guide material management decisions, confirm effectiveness of waste handling procedures, and determine the need for mitigation and contingency measures that ensure environmental protection.

(ii) Unless otherwise approved, all plans for the prediction, and if necessary, the prevention, mitigation and management of metal leaching and acid rock drainage shall be prepared in accordance with the *Guidelines for Metal Leaching and Acid Rock Drainage at Mine sites in British Columbia*.

(b) Facility Specific ML/ARD Management Plan and Standard Operating Procedures

(i) Prior to the excavation of bedrock for specific mine site facilities, including roads, laydowns, pads (including water treatment muck pads, explosives magazine, Mitchell truck shop pad, crusher pad, MTT portal pad, Mitchell OPC pad and TSS pond) and MTT portal excavation, the

Permittee shall submit a detailed, site specific ML/ARD Management Plan and Standard Operating Procedures (SOP).

(ii) The ML/ARD Management Plan and SOPs shall include facility specific detailed geochemical classification criteria, sampling procedures, analytical requirements (including laboratory turn-around times), management plans, disposal locations, follow-up monitoring procedures, contingency plans, and reporting procedures. The plan shall also document the roles and responsibilities of qualified personnel needed to implement the program.

(iii) The ML/ARD plan shall include testing procedures and monitoring programs for metal leaching of stockpiled colluvial materials.

(iv) The ML/ARD plan shall be prepared by a Qualified Professional with expertise in ML/ARD prediction and prevention and shall be submitted to the Chief Inspector for review and approval.

(c) Construction Material Handling Mitigation and Monitoring

(i) No PAG or metal leaching materials shall be used for construction of roads and laydown areas, unless the Permittee can demonstrate that runoff is contained and treated, such that water quality is protected.

(ii) Prior to their use, representative samples of borrow materials used for road construction and laydown areas shall be tested and confirmed to have no potential to generate significant ML/ARD.

(d) MTT Portals

(i) PAG material shall not be excavated or placed on the Mitchell MTT portal pad until the temporary water treatment plant is in place and is able to effectively treat water.

(ii) Colluvium borrow shall not be used to construct the Mitchell MTT portal pad, Mitchell OPC pad or muck pads for temporary water treatment plants, unless colluvium borrow is tested and confirmed to have no potential to generate significant ML/ARD.

(iii) No PAG or metal leaching materials shall be excavated or placed in the Saddle or Treaty MTT portal areas, until the temporary water treatment plants #4 and #8 facilities are approved by the Ministry of Environment and are operating and able to effectively treat water.

(e) Materials Inventory

The Permittee shall maintain an inventory of materials stored in the various areas of the Mine Site including information on waste source, composition, quantity of material, disposal location, and date of placement.

(f) On Site Laboratory and Confirmation Testing

(i) The on-site laboratory shall be operational prior to excavation of bedrock, or if the on-site laboratory is not up and running, external laboratories shall be utilized for geochemical analyses.

(ii) The Permittee shall undertake an assessment of NP analysis conducted at the on-site and off-site laboratories to evaluate the accuracy of analyses and effectiveness for PAG/non-PAG segregation and handling. This evaluation shall be undertaken by a Qualified Professional.

(iii) Until the on-site laboratory is proven to be providing reliable results and is achieving acceptable levels of precision and accuracy, all samples shall be re-analyzed at an off-site laboratory facility. Once on-site laboratory performance is demonstrated, off-site analysis can be decreased to levels that provide QA/QC.

(iv) Prior to the use of the on-site laboratory, analytical methods shall be outlined in a Standard Operations and Procedures Manual and shall be submitted to the Chief Inspector.

(g) ML/ARD Reporting and Ongoing Research

(i) Results of the ML/ARD analytical testwork (including raw data, sample descriptions, QA/QC and deposition inventory), shall be reported in the Annual Reclamation Report.

4. Water Management

(a) The Permittee shall, when required to do so by other agencies, obtain permits and licenses for water diversion and discharge.

(b) The Permittee shall ensure all contact water discharging from the Mitchell Treaty Tunnels and excavated rock is collected and treated in the temporary water treatment plant, where necessary.

5. Surface Water and Ground Water Quality Monitoring

(a) The Permittee shall monitor and track changes to surface and groundwater quality, and identify and monitor seepages (if any). The program shall be capable of providing early warning about the onset of acid rock drainage or an increase in contaminant loading.

(b) Detection limits shall be sufficient to enable comparisons to the ambient water quality criteria as defined in the applicable Environmental Management Act effluent permit.

(c) An effective QA/QC program for the surface water, groundwater and seepage monitoring program shall be implemented.

(d) Monitoring results of water quality and water quantity, including interpretation of the results, shall be kept up to date in a dedicated database available for review by an inspector and reported in the Annual Reclamation Report.

6. Sediment and Erosion Control

(a) Prior to construction, the Permittee shall develop and submit a Construction Sediment and Erosion Control Plan for review and approval by the Chief Inspector and the Northwest Regional office. This plan shall be kept on site and be made available to any Mines Inspector upon request.

(b) Sediment control and water management structures shall be constructed and operational prior to soil disturbance; this includes preconstruction grubbing activities.

(c) All Erosion and Sediment Control Plans shall include appropriate effectiveness monitoring programs that specify the roles and responsibilities, locations of regular monitoring and inspection, contingency plans, and reporting details. The monitoring frequency and action plans shall reflect an adaptive and risk-based management approach, identifying site-specific event-based triggers. Any significant releases of sediment or sediment-laden water to the receiving environment shall be appropriately characterized, to identify sediment loading and extent, and reported immediately to the Regional Inspector.

(d) Implementation and adaptation of the Erosion and Sediment Control Plan for construction shall be overseen by a Qualified Professional with applicable experience. Construction progress reports, which include information on site conditions and monitoring results, shall be submitted to the Chief Inspector bi-weekly.

(e) The Permittee shall initiate progressive reclamation where possible to control erosion around the Mine Site.

7. Soil Salvage and Storage

(a) Prior to construction, an updated Surficial Geology and Soil Management and Monitoring Plan shall be developed and submitted to the Chief Inspector for review as part of the EMS. This updated document should include a procedure for determining the ML/ARD of all soil materials especially soils that may be considered for reclamation.

(b) The Permittee shall implement their Soil Management and Monitoring Plan and develop Standard Operating Procedures (SOP) that are sufficiently detailed, to include confirmation testing, segregation and handling, and disposal strategies. The Plan and SOPs shall be kept current and maintained on site and be made available to a Mines Inspector upon request.

(c) The Permittee shall salvage and stockpile topsoil, overburden, and organic material, to the extent practical, for use in reclamation.

(d) A Qualified Professional shall monitor and direct sampling, soil salvage, and stockpiling activities on-site.

(e) The Permittee shall protect stockpiles from erosion, degradation, and contamination through re-vegetation and/or other practices, and monitor the effectiveness of these practices. Details of the practices conducted and monitoring results shall be documented and reported in the Annual Reclamation Report.

(f) Soil stockpiles shall be located in areas that minimize handling requirements during site preparation and mine operations, provide adequate accessibility for reclamation activities, and optimize sediment control options.

(g) Stockpiles shall be clearly marked to ensure that they are protected during construction and mine operations.

(h) An inventory of salvaged and stockpiled soil, including the locations, origins, and quantities of material, shall be documented and reported in the Annual Reclamation Report. The soil accounting shall compare stockpiled materials with reclamation requirements in order to identify potential shortfalls.

(i) The Permittee shall provide a soils monitoring program as part of the Reclamation Plan, which specifies the sampling parameters and performance criteria, which will be used to evaluate the success of soils reclamation.

(j) Stockpiled soil suitable for use in reclamation that is recoverable shall not be used as fill.

8. Vegetation Management

(a) The Permittee shall implement Standard Operating Procedures (SOP) that are sufficiently detailed and include procedures for identifying, monitoring, and managing invasive plant species, collection of native seed and plant material, and protecting rare and harvestable plants. The SOPs shall be kept current and maintained on site and be made available to a Mines Inspector upon request.

(b) The Permittee shall limit disturbance to vegetation to those areas approved in the permit application.

(c) The Permittee shall provide a vegetation monitoring program as part of the Reclamation Plan, which specifies the sampling parameters and performance criteria, which will be used to evaluate the success of re-vegetation.

(d) The Permittee shall manage and control weeds that establish on the site and shall take reasonable efforts to ensure that weeds do not move from the site to adjacent areas. The control of weeds shall consider using non-toxic means for weed control when possible. Seed mixes, plant materials, and mulches used for any purpose, such as reclamation and erosion control, shall be certified weed free to the extent practicable.

(e) The Permittee shall undertake test work to determine the viability of re-vegetation with native plant species, including culturally important species where practicable, with the results provided in the Annual Reclamation Report.

(f) Woody debris including stumps, roots, limbs and rotting logs that is generated during clearing and grubbing operations shall be stockpiled in suitable locations for subsequent use in the reclamation program. Woody debris may be chipped or burned for disposal only if it can be shown that the quantity of woody debris is excessive or the wood needs to be burned because of insect hazards.

9. Wildlife Protection

(a) The Permittee shall implement the KSM Standard Operating Procedures for Clearing and Construction of Batch 1 Activities at the start of construction to reduce and mitigate impacts to wildlife.

(b) The Permittee shall, where practicable, avoid wildlife sensitive periods during construction activities, as per the KSM Standard Operating Procedures for Clearing and Construction of Batch 1 Activities.

(c) The Permittee shall implement a policy of no fishing and hunting for all employees and contractors on the Mine Site and all Access Roads.

(d) It is recommended that the Permittee shall comply with General Wildlife Measures for all Ungulate Winter Ranges and Wildlife Habitat Areas designated under the Government Action Regulation of the *Forest and Range Practices Act*.

10. Archaeological Resources

(a) Archaeological and heritage sites that were identified during field archaeological studies shall be avoided where possible during construction activity. If disturbance of archaeological and/or heritage sites is unavoidable, a permit must be authorized by the Archaeology Branch of the Ministry of Forests, Lands, and Natural Resource Operations.

(b) If unanticipated archaeological materials or cultural features are encountered during construction or related activities, the Permittee shall cease work in the immediate area, use the KSM Archaeology Standards and Chance Find Plan, and contact the Archaeology Branch. This work shall be done in a manner that respects the cultural heritage policies of the Treaty Nations and First Nations.

E. Reclamation and Closure Program

1. Reclamation Security

(a) The Permittee shall cause to be deposited with the Minister of Finance, security in the amount of \$5,228,000, bringing the total security to \$5,328,000. The Permittee shall deposit the security in accordance with the following installment schedule. The security will be held by the Minister of Finance for the proper performance of the approved program and all the conditions of this permit in a manner satisfactory to the Chief Inspector.

	Total \$	Cumulative \$
Security held under MX-1-763 as of 09/2014	100,000	100,000
Within 30 days of authorization of this permit	50,000	150,000
Within 30 days of the start of construction	2,589,000	2,739,000
Within 1 year of the start of construction	2,589,000	5,328,000

(b) The Permittee shall conform to all Ministry of Environment approvals and permit conditions included under the *Environmental Management Act*, Contaminated Sites and Hazardous Waste regulations. Should the Permittee not conform to these conditions then all or part of the security may be used to fulfill these requirements.

(c) The Permittee shall conform to all Ministry of Forests, Lands and Natural Resource Operations approvals, licenses, forest tenures and special use permit conditions included under the *Wildlife Act*, *Land Act*, *Forest and Range Practices Act* and *Water Act*. Should the Permittee not conform to these requirements then all or part of the security may be used to cover the costs of these requirements.

(d) Over the life of the mine the security will be adjusted to cover all the costs associated with carrying out all the conditions of this permit. Upon application by the Permittee, the amount of security in condition E1(a) may be reduced if initial mining or development work will create less disturbance and liability, or to reflect reduced liability due to reclamation work completed.

2. Annual Reclamation Report

By March 31st of each year, starting in 2015, an Annual Reclamation Report shall be submitted in a form containing the information required by the Chief Inspector. The Annual Reclamation Report shall document the current status of the mine plan, reclamation obligations, outstanding liability and associated costs to complete the reclamation and closure activities in accordance with the approved Reclamation Plan, and all monitoring (including ML/ARD, water quality and quantity, vegetation, wildlife, and reclamation), and relevant and material ongoing maintenance activities.

3. Land Use

(a) The land surface shall be reclaimed with a view generally to reestablishing pre-mining capability and productivity conditions to the following end land use objectives: wildlife habitat. Restoration of land capability shall guide the operational reclamation program.

(b) Aggregate borrow and gravel pits belonging to the mine development and operations shall be reclaimed to the approved end land use when they are no longer required.

4. Re-vegetation

Re-vegetation programs shall be designed to restore wildlife habitat and traditional aboriginal uses where practicable. Re-vegetation practices shall be conducted to provide appropriate species and densities that are similar to naturally occurring eco-sites at similar elevations, aspects, and climatic conditions. Details of the proposed re-vegetation programs, including species and densities prescribed for specific areas, shall be included in the Reclamation Plan.

5. Growth Medium

(a) Surface preparation of replaced reclamation medium shall occur in a manner that achieves end land use objectives and erosion control.

(b) Soil replacement operations shall be monitored to ensure the minimum depths are achieved and soil suitability is maintained during application activities, with the results presented in the Annual Reclamation Report.

(c) Unless cover designs recommend otherwise, all areas to be reclaimed shall be de-compacted to the minimum depth required to address the severity of compaction prior to placement of soil and or vegetation, in a manner intended to achieve end land use objectives and erosion control. Research shall be conducted to assess methodologies, with the results presented in the Annual Reclamation Report.

6. Erosion Control

The Permittee shall ensure that erosion potential is minimized to the extent practicable through landform configuration, appropriate surface preparation, development of maintenance-free vegetation covers, and self-sustaining drainage control features and watercourses.

7. Watercourses

Watercourses shown to be directly affected by mine operations and closure activities shall be reclaimed to a condition that ensures;

(a) long-term water quality is maintained to a standard acceptable to the Chief Inspector and the Ministry of Environment,

(b) drainage is restored either to original watercourses or to new watercourses that will sustain themselves without maintenance, and

(c) the level of productive capacity shall not be less than approved in the reclamation plan.

8. Seepage Collection and Recycle Ponds

All seepage collection and recycle ponds shall be reclaimed to the approved land use once no longer required.

9. Mine Roads

(a) All mine roads shall be reclaimed in accordance with land use objectives unless permanent access is required to be maintained.

(b) Individual mine roads may be exempted from the requirement for total reclamation under condition 9(a) if either:

(i) the Permittee can demonstrate that an agency of the Crown has explicitly accepted responsibility for the operation, maintenance and ultimate deactivation and abandonment of the road, or

(ii) the Permittee can demonstrate that another private party has explicitly agreed to accept responsibility for the operation, maintenance and ultimate deactivation and abandonment of the road and has, in this regard, agreed to comply with all the terms and conditions, including bonding provisions, of this reclamation permit, and to comply with all other relevant provincial government (and federal government) regulatory requirements.

(c) All access roads shall be effectively blocked to prevent inadvertent vehicular access to surface areas of the mine that may be dangerous.

10. Treaty Transmission Line

(a) The power line from Highway 37 to the mine property shall be reclaimed in accordance with land use objectives unless this structure is required to be maintained.

(b) The power line may be exempted from the requirement for total reclamation under condition 9(a) if either:

(i) the Permittee can demonstrate that an agency of the Crown has explicitly accepted responsibility for the operation, maintenance and ultimate deactivation and abandonment of the power lines, or

(ii) the Permittee can demonstrate that another private party has explicitly agreed to accept responsibility for the operation, maintenance and ultimate deactivation and abandonment of the power line and poles and has, in this regard, agreed to comply with all the terms and conditions,

including bonding provisions, of this reclamation permit, and to comply with all other relevant provincial government (and federal government) regulatory requirements.

11. Structures and Equipment

Prior to abandonment, and unless the Chief Inspector has made a ruling with respect to heritage project status or industrial use:

(a) all machinery, equipment and building superstructures shall be removed. Unless the Permittee can demonstrate that another private party has explicitly agreed to accept responsibility for its operation and maintenance.

(b) all concrete foundations shall be removed or covered and re-vegetated unless, because of demonstrated impracticality, they have been exempted by the Chief Inspector, and

(c) all scrap material shall be disposed of in a manner acceptable to the Chief Inspector.

12. Temporary Shutdown

(a) If the mine ceases operation, the Permittee shall:

(i) continue to carry out the conditions of the permit, and

(ii) carry out a program of site monitoring and maintenance including implementation of the EMS and individual plans where relevant.

(b) If the mine ceases operation for a period longer than one year, the Permittee shall apply for an amendment setting out a revised program for approval by the Chief Inspector.

13. Closure Management Manual

Six months prior to planned closure, or within one month after an unplanned closure, the Permittee shall submit a Closure Management Manual which describes and documents key aspects of the operational surveillance and monitoring requirements used to track important changes that could affect long-term mitigation performance, monitoring and maintenance requirements. This document shall be a living document with updates submitted to this Ministry whenever material changes occur.

14. Responsibility to Reclaim

Any reclamation that remains outstanding for the Kerr-Sulphurets-Mitchell Mine Site property under the terms and conditions of Reclamation Permit MX-1-763 at the time of issuance of this permit, shall become the responsibility of the Permittee under the terms and conditions of this permit.

15. Five Year Mine Plan and Reclamation Plan

Concurrent with a Batch 2 approval application, and every 5 years thereafter, the Permittee shall submit an updated Mine Plan and Reclamation Plan, providing the current status of the mine plan(s) and reclamation obligations, a compilation and interpretation of all monitoring including ML/ARD prediction, water quality, closure and maintenance activities, any changes to the reclamation program that affect long term mitigation, reclamation research program, contingency plans, schedule for completion of reclamation works, and a breakdown of outstanding liabilities and associated costs.

16. Closure Plan

Six months prior to final closure, the Permittee shall submit a Closure Plan describing closure objectives and criteria for each mine component, provide the current status of the mine plan and reclamation obligations, a compilation and interpretation of all monitoring including ML/ARD prediction, water quality, closure and maintenance activities, any changes to the reclamation program that affect long-term mitigation, reclamation research program, contingency plans, schedule for completion of reclamation works, and a breakdown of outstanding liabilities and associated costs.



Mine #: 1650484
KSM (PTMA)
MX-1-763



Permit Area
Associated Tenures

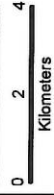
Base Data

- freeway; arterial; highway
- Mineral Tenures
- Lakes / Rivers
- Streams
- Pacific Ocean
- Glacier
- Icefield
- 100m Contours
- 20m Contours

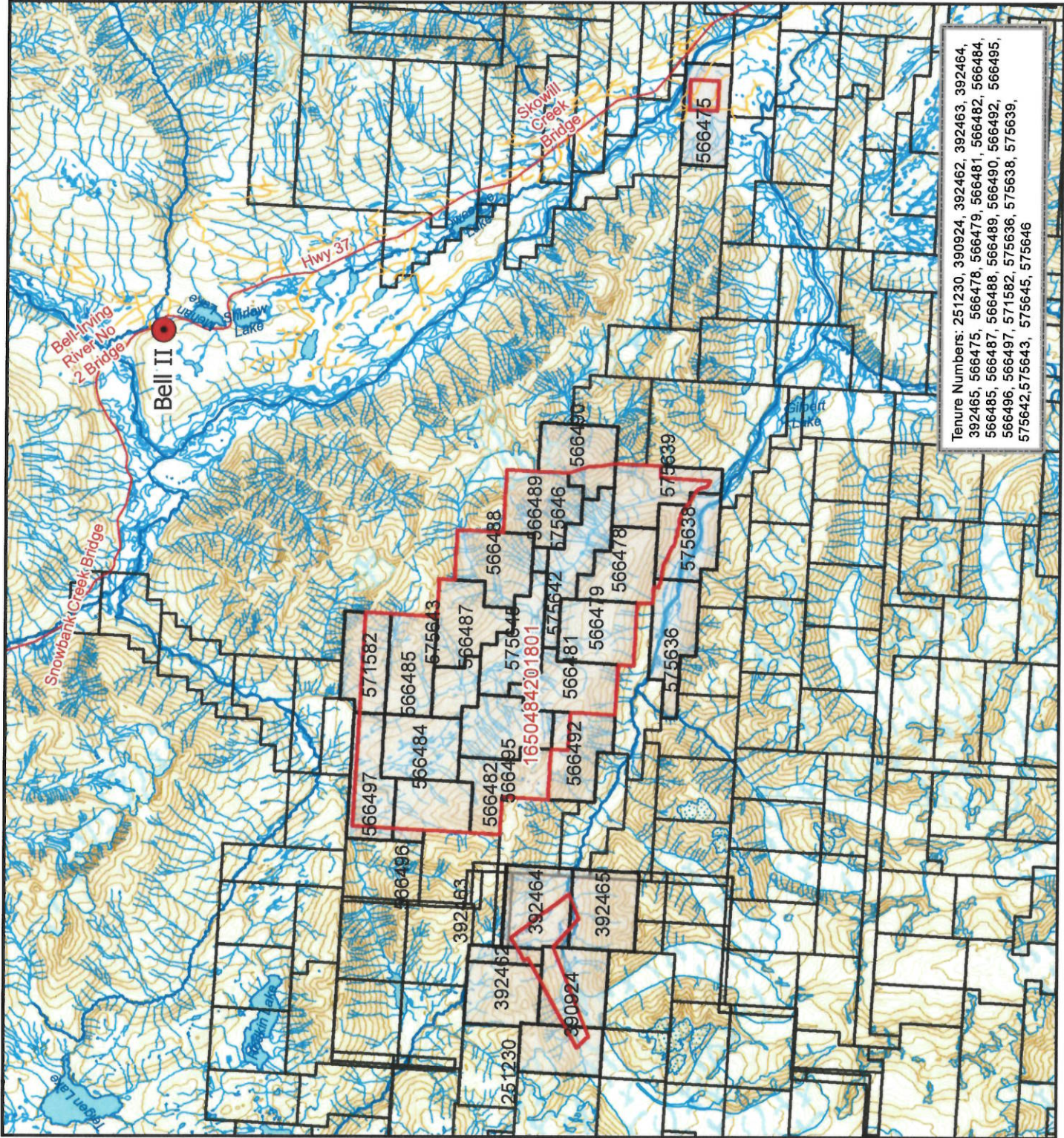
Base Data: BC Geographic Warehouse

1:170,000

1 cm = 1,700 meters



Date: Oct. 2016
Author: charden
MEMPR: Skeena



Tenure Numbers: 251230, 390924, 392462, 392463, 392464, 392465, 566475, 566478, 566479, 566481, 566482, 566484, 566485, 566487, 566488, 566489, 566490, 566492, 566495, 566496, 566497, 571582, 575636, 575638, 575639, 575642, 575643, 575645, 575646