

PROVINCE OF BRITISH COLUMBIA
MINISTRY OF ENERGY AND MINES

QUARRY PERMIT
APPROVING WORK SYSTEM AND RECLAMATION PROGRAM
(Issued pursuant to Section 10 of the *Mines Act* R.S.B.C. 1996, C.293)

Permit: **Q-8-24**

Mine No.: **0800407**

Issued to: **Malahat Investment Corporation**
116-967 Langford Parkway
Langford BC V9B0A5

for work located at the following property:

Bamberton Quarry

This approval and permit is subject to the appended conditions.

Issued this 29th day of March in the year 2011.
Amended this 3rd day of March in the year 2016.
Amended this 18th day of July in the year 2016.



Jim Dunkley, P.Geo
Inspector, Permitting

PREAMBLE

Notice of intention to commence work on a quarry, including a plan of the proposed work system and a program for the protection and reclamation of the surface of the land and watercourses affected by the work dated August 17, 2010, was filed with the Inspector of Mines on August 17, 2010. Notice of such filing was published in the Times Colonist October 29, 2010 to November 5, 2010, and in the Gazette on November 10, 2010.

This permit contains the requirements of the Ministry of Energy and Mines for reclamation. It is also compatible, to the extent possible, with the requirements of other provincial ministries for reclamation issues. The amount of security required by this permit, and the manner in which this security may be applied, will also reflect the requirements of those ministries. Nothing in this permit, however, limits the authority of other provincial ministries to set other conditions, or to act independently, under their respective permits and legislation.

Decisions made by staff of the Ministry of Energy and Mines will be made in consultation with other ministries.

CONDITIONS

The Chief Inspector of Mines (Chief Inspector) hereby approves the work plan and the program for protection and reclamation of the land surface and watercourses subject to compliance with the following conditions:

1. Reclamation Security

- (a) The owner, agent or manager (herein called the Permittee) shall maintain with the Minister of Finance securities in the amount of twenty five thousand dollars (\$25,000.00). 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.
- (b) The Permittee shall conform to all forest tenure requirements of the Ministry of Forest, Lands, and Natural Resources. 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.
- (c) The Permittee shall conform to all Ministry of the Environment approval, license and permit conditions, as well as requirements under the **Wildlife**

Act. Should the Permittee not conform to these conditions, then all or part of the security may be used to fulfill these requirements.

2. Land Use

The surface of the land and watercourses shall be reclaimed to the following land use: ***Comprehensive Development Zone***

3. Productivity

The level of land productivity to be achieved on reclaimed areas shall not be less than existed prior to mining on an average property basis unless the Permittee can provide evidence which demonstrates, to the satisfaction of the Chief Inspector, the impracticality of doing so.

4. Revegetation

Land shall be re-vegetated to a self-sustaining state using appropriate plant species.

5. Use of Suitable Growth Medium

(a) On all lands to be revegetated, the growth medium shall satisfy land use, productivity, and water quality objectives. Topsoil and overburden (to rooting depth) shall be removed from operational areas prior to any disturbance of the land and stockpiled separately on the property for use in reclamation programs, unless the Permittee can provide evidence which demonstrates, to the satisfaction of the Chief Inspector, that reclamation objectives can otherwise be achieved.

(b) No topsoil shall be removed from the property without the specific written permission of the Inspector of Mines.

6. Buffer Zones and Berms

Buffer zones and/or berms shall be established between the mine and the property boundary unless exempted in writing by the Inspector of Mines.

7. Treatment of Structures and Equipment

Prior to abandonment, and unless the Chief Inspector has made a ruling otherwise, such as heritage project consideration or industrial use,

- (a) all machinery, equipment and building superstructures shall be removed,
- (b) concrete foundations shall be covered and revegetated unless, because of demonstrated impracticality, they have been exempted by the Inspector, and
- (c) all scrap material shall be disposed of in a manner acceptable to the Inspector.

8. Watercourses

- (a) Watercourses shall be reclaimed to a condition that ensures
 - (1) long-term water quality is maintained to a standard acceptable to the Chief Inspector,
 - (2) drainage is restored either to original watercourses or to new watercourses which will sustain themselves without maintenance, and
 - (3) use and productivity objectives are achieved and the level of productivity shall not be less than existed prior to mining unless the Permittee can provide evidence which demonstrates, to the satisfaction of the Chief Inspector, the impracticality of doing so.
- (b) Water which flows from disturbed areas shall be collected and diverted into settling ponds.

9. Roads

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

- (b) Individual roads will be exempted from the requirement for total reclamation under condition 9(a) if either:
- (1) 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
 - (2) 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.

10. Disposal of Fuels and Toxic Chemicals

Fuels, chemicals or reagents which cannot be returned to the manufacturer/supplier are to be disposed of as directed by the Chief Inspector in compliance with municipal, regional, provincial and federal statutes.

11. Fuels and Lubricants

Fuels and Lubricants, if stored on the mine site, shall conform to the requirements of the Ministry of Environment **Field Guide to Fuel Handling, Transportation, and Storage**.

The Permittee shall develop and implement a hydrocarbon management plan that deals with fueling, operational servicing, spill prevention and clean-up for fuels and lubricants stored on the mine site. The plan shall account for the following:

- (a) Fuel and lubricants shall be delivered to site as needed to re-supply fuel and oil tanks on mobile and fixed equipment.
- (b) Impermeable, oil absorbent matting shall be used when refueling and servicing equipment.
- (c) While refueling the operator shall be in control of the refueling nozzle at all times.

- (d) If any Petroleum, hydrocarbon or other product (no matter how small) is spilled the contaminated soil/gravels shall be forthwith collected and removed for appropriate disposal.
- (e) Fuel or oil leaks on equipment shall be effectively repaired as soon as they are discovered or the equipment shall be removed from the site and not operated until repairs have been made.
- (f) An emergency spill containment and clean up kit shall be maintained at the site while it is in operation. The kit shall have the capacity to contain and clean up 100% of a spill from a failure of the largest volume of a fuel or lubricant tank or system plus 10%.

12. Archaeological Find

An Archaeological Chance Find Procedure (ACFP) for this site shall be developed within 3 months of the date of this permit:

- (a) A copy of the procedure shall be posted at the Mine Site, and all workmen shall be trained in the implementation of this procedure.
- (b) A copy of this procedure shall be filed with the Inspector.

In the event that an archaeological site is encountered during the course of the approved mining activities, the program shall be suspended or modified in such a manner so as to ensure that the site is not damaged, desecrated or otherwise altered and the occurrence shall be reported immediately to the Archaeological Branch of the Ministry Forests, Lands & Natural Resource Operations and, the Ministry of Energy & Mines (Inspector of Mines). Work shall not be resumed until authorized by the joint Ministries.

13. Site Access

The Mine Manager, or in their absence a Designate, shall allow Employees of other Provincial Ministries holding authorizations related to Compliance and Enforcement duties onto the mine site subject to the following conditions:

- (a) the Provincial Employee must present the appropriate Ministry identification; and
- (b) must clearly state that they are acting on behalf of an Inspector of Mines;

- (c) they must be given a site orientation as required by the Health & Safety, and Reclamation Code;
- (d) they must sign-in and sign-out as acknowledgement of being on site;
- (e) they must be accompanied at all times by the Mine Manager, or qualified person appointed by the Manager, and shall take all necessary measures to ensure the safety and well being of the individual(s); and this condition is not applicable to other Provincial Legislation.

14. Site Stability

- (a) The inspector shall be advised in writing at the earliest opportunity of any unforeseen conditions that could adversely affect the extraction of materials, site stability, erosion control or the reclamation of the site.
- (b) The stability of the slopes shall be maintained at all times and erosion shall be controlled at all times.
- (c) The discovery of any significant subsurface flows of water, seeps, substantial amounts of fine textured, soils, silts and clays, as well as significant adverse geological conditions shall be reported to the inspector as soon as possible and work shall cease until the inspector advises otherwise.

15. Site Security

All site access shall be secured with locking gates and signage provided indicating the mine name, operator' s name and emergency contact number as well as all necessary safety advisories. Gates shall be locked when the quarry is not in operation.

16. Temporary Shutdown

If this quarry ceases operation for a period longer than one year the Permittee shall either continue to carry out the conditions of the permit or apply for an amendment setting out a revised program for approval by the Chief Inspector.

17. Safety Provisions

All safety and other provisions of the **Mines Act** shall be complied with to the satisfaction of the Chief Inspector.

18. Monitoring

The Permittee shall undertake monitoring programs, as required by the Inspector of Mines, to demonstrate that reclamation objectives are being achieved.

19. Alterations to the Program

Substantial changes to the program must be submitted to the Inspector of Mines for approval.

20. Notice of Closure

Pursuant to Part 10.6.1 of the Health, Safety and Reclamation Code for Mines in British Columbia, a Notice of Completion of Work shall be filed with the Inspector of Mines not less than seven days prior to cessation of work.

21. Annual Report

Annual reports shall be submitted in a form and containing the information as and if required by the Inspector of Mines.

The Manager shall forward to the Inspector each year a copy of the submitted Health and Safety Assessment form.

SITE SPECIFIC CONDITIONS:

1. Annual production shall not exceed 240,000 tonnes per year.
2. This permit authorizes blasting, crushing, screening and washing activities.
3. Phased mining boundaries shall be clearly marked prior to mining activities taking place in that phase area.
4. The mine boundary shall be clearly marked at all areas where roads or other means of access cross the boundary. Barriers shall be placed where practicable

to separate mine areas from non-mine areas.

5. All surface water and runoff shall report to a sediment control structure prior to being discharged from site. Sediment load shall not exceed 25mg/l.
6. The manager shall forward to the inspector each year a copy of his submission to the Minister of Finance with respect to the Mine Health and Safety Fee.
7. Blasting activities shall not be undertaken during the Nesting Period of birds protected under section 34(b) of the Wildlife Act.
8. All blasts shall be electronically monitored and the records shall be maintained at the Mine Office and;
 - a. These records shall be made available to an Inspector on request.
 - b. Blast limits shall not exceed 120 Db on the "L" scale and 50mm/sec (2in/sec) PPV.
 - c. Residences within a radius of 1000 metres shall be provided with 24 hours notification of blasting. This notification will specify a 4 hour window within which the blast will occur.