



Notice of Work

Quarry - Construction Aggregate

Application ID:2123

APPLICANT COMPANY/ORGANIZATION CONTACT INFORMATION

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CANADA

TECHNICAL INFORMATION

APPLICATION INFORMATION

Type of notice of work: Quarry - Construction Aggregate
Is this a New Permit or an Amendment to an existing permit for this property? Amendment

MINE INFORMATION

Do you have an existing mine number? Yes
Mine Number: 0800407
Name of the Property: Bamberton Quarry
Tenure Numbers:
Crown Grant / District Lot numbers: DL 118, DL 73, DL 135, DL 183, DL 95, DL 127
Detailed directions to the site: The property is located 5 kilometres south of Mill Bay. To access the property from Mill Bay travel south on the Trans-Canada Highway, exit to the right onto Mill Bay Road, turn right on Trowsee Road to the site. The property is located 23 kilometres north of Langford. To access the property from Langford travel north on the Trans-Canada Highway, exit to the right onto Bamberton Road, turn right onto Trowsee Road to the site.
Geographic Coordinates of Mine: Latitude: 48.59070
Long: -123.52525
Maximum Annual Tonnage Extracted: 240,000

PROPOSED ACTIVITIES

Activities to be undertaken: Blasting
Sand and Gravel Quarry Operations
Settling Ponds

FIRST AID

Proposed First Aid equipment on site: Level 1 first aid kit located at site office
Level of First Aid Certificate held by attendant: Occupational First Aid Level 1 with Transportation Endorsement

DESCRIPTION OF WORK PROGRAM

see attached document

TIME OF PROPOSED ACTIVITIES

Proposed start and end date: Jul 01 2019 to Jun 01 2068

Please remember that you need to give 10 days notice to the Inspector of Mines of your intention to start work, and 7 days notice of your

ACCESS

Is access presently gated?	Yes
Key provided to the Inspector?	Yes

PRESENT STATE OF THE LAND

Present condition of the land:	<p>The Bamberton properties consist of 525 hectares which are situated within the Cowichan Valley Regional District on lands that included part of a cement plant that operated from 1912 to 1980. Recently, several of these properties surrounding and including the mine permit area were acquired by Malahat Investment Corporation (MICO) which is owned by the Malahat Nation except for one southern lot (DL 183) which was acquired by the Province of BC in the same transaction. The Trans-Canada Highway is located to the west and the Saanich Inlet to the east. Crown land and private land holdings can be found adjacent to the property boundary to the north, west and south.</p> <p>The existing mine permit area covers 39.2 hectares of which 11 hectares are disturbed from past industrial activities. An additional 1.6 hectares within the quarry footprint contain a reclaimed soil storage facility.</p>
Type of vegetation:	Second growth mixed coniferous, deciduous forest canopy over a sparsely covered forest floor. Trees include arbutus, cedar, spruce and fir.
Physiography:	The quarry exposure is positioned above the 6 metre contour line and extends to the 184 metre contour line on the east facing side of Mount Jeffrey which is characterized by steep slopes.
Current means of access:	From Trans Canada Highway to paved connector and existing industrial roads. Marine access is by docking facility located along the foreshore.
Old equipment or buildings:	Site office and scale, water pump house, rock wall.
Recreational trails/use:	none

ACCESS TO TENURE

Do you need to build a road, create stream crossings or other surface disturbance that will not be on your tenure?	No
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LAND OWNERSHIP

Application area in a community watershed:	No
Proposed activities on private land:	Yes
Notice served to all parties on private lands:	Yes
Legal description of land:	DL 118, DL 73, DL 135, DL 183, DL 95, DL 127, Malahat District
Any proposed activities on Crown land:	No
Activities in a park:	No

CULTURAL HERITAGE RESOURCES

Are you aware of any protected archaeological sites that may be affected by the proposed project?	No
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FIRST NATIONS ENGAGEMENT

Have you shared information and engaged with First Nations in the area of the proposed activity?	Yes
First Nations Engagement activities:	see record attached

Aware of cultural heritage resources in the area where the work is proposed:

No

BLASTING

Activities Where Blasting Will Take Place: Sand & Gravel / Quarry Operations

ONSITE STORAGE OF EXPLOSIVES

Proposing to store explosives on site: No

How will explosives get to the site: The blasting contractor with a valid certificate will be responsible for transporting and handling the explosives to and on site.

SETTLING PONDS

Waste water treatment facility description:

Some runoff should be anticipated from the cut slopes during the wet months of the year. We recommend that catchment ditches are installed near the toes of all rock cuts during operations. Water collected in ditches should be transported by means of gravity or pump to treatment ponds located at low points on the site. A detailed drainage and erosion and sediment control plan can be seen on the attached mine cut and drainage plan presented in Appendix B, following the text of this report. (18403 - Cut & Drainage Plan - R3 -2023-05-29.pdf)

ACTIVITIES

Pond Id	Width (m)	Length (m)	Depth (m)	Disturbed area (ha)	Merchantable timber volume (m ³)
Upper Pond	6.00	30.00	0.5	0.02	0.00
Water Source:	surface run off				
Construction Method:	Excavated				
Mid Pond	6.00	30.00	0.5	0.02	0.00
Water Source:	surface run off				
Construction Method:	excavated				
Lower Pond	6.00	30.00	0.5	0.02	0.00
Water Source: Construction	surface run off				
Method:	excavated				

Pond Id	Width (m)	Length (m)	Depth (m)	Disturbed area (ha)	Merchantable timber volume (m ³)
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Totals				0.06	0.00
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Disposal of fines from clean out: Very limited fines, cleanout is unlikely. If required fines will be placed in overburden stockpile.

Water from ponds will be:

Recycled:	Yes
Exfiltrated to Ground:	Yes
Discharged to Environment:	No

RECLAMATION PROGRAM

Reclamation and timing for this specific activity: The final phase of the quarry's water management plan will be developed to assist in transition to the drainage scheme for the site after final reclamation is completed. This includes constructing water courses and catchment/retention ponds in appropriate areas of the quarry for final use. Water courses and structures will be developed to be compatible with future land uses. The plan will be for long-term water quality to be maintained to an acceptable standard and contained solids in final pond overflows to not exceed 25 ppm. Where possible, drainages will be restored to their original condition. If not, drainages will be diverted into new watercourses which will sustain themselves without maintenance. The level of productivity of these watercourses will not be less than conditions that existed prior to mining.

Estimated cost of reclamation of activities described above: 0.00

SAND & GRAVEL / QUARRY OPERATIONS

SOIL CONSERVATION

Average depth of overburden (m): 2
Average depth of topsoil (m): 0.2

Measures to stabilize soil overburden stockpiles and control noxious weeds: Temporary topsoil and overburden stockpiles will be stabilized on level ground contoured and seeded with appropriate grass and will be routinely monitored for erosion and the appearance of noxious weeds. All excavated surface materials will be stored in suitable locations and protected from erosion.

LAND USE

Is the site within the Agricultural Land Reserve? No null

Local government has a Soil Removal Bylaw? Yes

Official Community Plan for the site is: Rural resource and industry.

Current land use zoning for the site is: Rural resource, light industry and heavy industry.

Proposed end land use is: Mixed residential, business, light industry and heavy industry

Estimate total minable reserves over the life of the mine: 23,000,000 tonnes

Estimate annual extraction from site: 479,000 tonnes/year

Activities

Activity	Disturbed Area (ha)	Merchantable timber volume (m³)
Excavation of Pit Run	26.6	0.00
Crushing	0.1	0.00
Mechanical Screening / Washing	0.1	0.00
Total	26.8	0.00

Is the work year round or only seasonal?

Year round

Brief description of operation, including proposed work schedule

Mining activities will take place approximately 300 days per year. Crushing, screening and pneumatic/hydraulic rock work, product sales and shipping will be conducted 7 days per week. The primary hours of work will be 7:00 am to 7:00 pm with 24 hour operation used when required.

RECLAMATION PROGRAM**Reclamation and timing for this specific activity:**

The end land use for the properties has been identified as mixed residential, commercial, light industry and heavy industry. Extraction and reclamation plans are being designed with the intent of accommodating and facilitating these types of future development.

Current mining has directly disturbed a total of 9.2 hectares of the property. The total planned disturbance for the quarry and crushing activities is 26.8 hectares. Progressive restoration activities will be incorporated in the overall mine plan that includes preparation of areas for future use, and the maintenance and monitoring of environmental management plans. Residual highwalls will be properly scaled and have appropriate catch benches installed and maintained.

Progressive reclamation will begin when the upper quarry area is complete and mining has begun at the middle and lower quarries areas.

The final high-wall reclamation will include the planting of fir trees along the inner edge of the catch benches where appropriate. Final ground level elevations will be graded towards (1 to 3% grade catchment ponds located at the edge of the final quarry floors. Full reclamation plan is attached in Appendix B (230517-Reclamation Plan-Bamberton Quarry_v1.3.pdf)

If backfilling of pits or pit slopes is proposed in the final configuration for reclamation, details of materials to be used and placement procedures:

Backfilling of pits or pit slopes will include previously stockpiled overburden and approved imported fill materials that is free of inappropriate debris, wood or toxic substances will be used as part of the reclamation program.

Will progressive reclamation be carried out?

Yes

Maximum unreclaimed disturbance at any given time:

18.7

Estimated cost of reclamation of activities described above:

\$40,000.00

GROUNDWATER PROTECTION**Average depth to the high groundwater table at the proposed excavation (m):**

12.19

Elevation of the groundwater table was determined from:

Test wells drilled for this purpose for further information please see:

Measures proposed to protect groundwater from potential impacts of the proposed mining activity:

Hydrogeological Assessment-Bamberton Quarry.pdf

Proposed base of quarry has taken into account the phreatic surface of the groundwater table and has been designed to avoid negative impacts. Pit floor will be routinely monitored for any significant water infiltration and sediment control procedures will be in-place at all times. A Hydrocarbon Management Plan (see attached 230517-Environmental Management Plan-Bamberton Quarry_v1.3.pdf) has been developed and implemented.

IMPACT MINIMIZATION

Shortest distance between proposed excavation to nearest residence (m): 125.00

Shortest distance between proposed excavation to nearest residential water source (m): 125.00

Measures to prevent inadvertent access of unauthorized persons to the mine site:

Access routes into the excavation areas will be gated or use other forms of barricades. Appropriate barriers will be used to control access into any danger areas and warning signs will be posted in unguarded areas. Existing measures plus natural topography make this a secure site.

Measures to minimize noise impacts of the operation:

Noise issues are commonly associated with blasting, and the operation of equipment and machinery during working activities. Noise mitigation measures for use in the operation include the following:

- Operating within defined work times,
- Maintaining berms and/or placement of gravel stockpiles in strategic locations to provide a barrier effect to the receiver locations,
- Orientation of the equipment to direct noise away from the receptor location,
- Locating noise sources at lower depths (bottom of excavation),
- Keeping equipment maintained for peak efficiency and overall reduction of noise,
- Operator awareness when operating equipment, and
- Night time substitution of back-up alarms with strobe warning lights.

Measures to minimize dust impacts of the operation:

The most significant source of dust to be controlled is from trucks traveling within the pit as well as dust from stockpiles and crushers. The dust control program for the site will include the following:

Regular application of dust suppressants (e.g. water sprinkling),
Drilling machinery will be equipped with dust collectors,
Use of vegetative coverings on overburden stockpiles and filled reclamation slopes, and
Watering and sweeping of access routes.

Measures to minimize visual impacts of the operation:

Existing vegetative barriers will be maintained. Progressive restoration will focus on more visible upper rock wall areas. A buffer of 30m will be left along the waterfront to provide a visual screen. Another buffer along the Upper Quarry has been left to provide a visual screen.

TIMBER CUTTING

Total merchantable timber volume (m³): 0.00

EQUIPMENT

Quantity	Type	Size/Capacity
3	Cat 773G	50 tonne
2	Deere 844L Loader	8.0 cu yard
2	988k Wheel Loader	12.0 cu yard
1	Cat 374 Excavator	4.3 cu yard
1	Cat D6T	5.7 cu meter
1	Jaw Crusher	400 t/hr
1	Cone Crusher	250 t/hr
1	Wash plant	125 t/hr

SUMMARY OF RECLAMATION

Activity	Total Affected Area (ha)	Estimated cost of reclamation (\$)
Sand and Gravel etc.	26.74	\$40,000.00
Settling Ponds	0.06	\$0.00

Subtotal:	26.8	\$40,000.00
Unreclaimed disturbance from previous year:	10.1	
Disturbance planned for reclamation this year	0	
Total	10.1	\$40,000.00

OTHER CONTACTS

Contact Info

Type of Contact: Senior Engineer

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Contact Info

Type of Contact: Site Operator

Company/Organization: Coast Mountain Resources Ltd.

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BC Incorporation Number: BC9896262

GST Registration Number: 822390175RT001

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MILL BAY BC V0R 2P4
CANADA

Contact Info

Type of Contact: Permittee

Company/Organization: Malahat Investment Corp.

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Contact Last Name: Bourdin

Contact Phone: (250) 743-3737

Contact Email: rene@malahatinvestment.ca

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MILL BAY BC V0R 2P4
CANADA

LOCATION

MAPS

Description	Filename
Location Plan	2315A Figure 1 - LOCATION PLAN.PDF
Land Title	2315A Figure 2 - LAND TITLE PLAN.PDF
Existing Surface Plan	2315A Figure 3 - EXISTING SURFACE PLAN.PDF
Final Quarry Design (Additional Visual Buffers)	2315A Figure 4 - FINAL QUARRY DESIGN.PDF
Proposed Permit Area Changes (2016 - 2022)	2315A Figure 5 - 2016-2022 PROPOSED PERMIT AREA CHANGES.pdf
Reduction of Proposed Permit Area (2019 - 2022)	2315A Figure 6 - REDUCTION OF PROPOSED PERMIT AREA.pdf
Pit Design Cross-Sections	18403 - Cut & Drainage Plan - R3 -2023-05-29.pdf

DOCUMENTS

Document Type	Description	Filename
Archaeological Chance Find Procedure	ACFP document (2019 Submission)	6 NOW 2019 BAMBERTON QUARRY ACFP R2 2023-07-07.pdf
Blasting Procedure	Blasting procedure document	7 CMR Drill and Blast Program R2 2022-05-05.pdf
Record of First Nations Engagement	Malahat Nation letter of support	8 MALAHAT NATION Letter of Support.pdf
Mine Emergency Response Plan	Emergency response plan	4 NOW 2019 Bamberton Quarry ER Plan R2 2023-07-05.pdf
Environmental	Environmental Management Plan	10 230517-Environmental Management Plan-Bamberton Quarry_v1.3.pdf
Other	Appointment letter Description	9 COAST MOUNTAIN Appointment Letter.pdf
Other	Notice of work plan (2019 Submission)	1 NOW 2019 BAMBERTON QUARRY NOW.pdf
Other	Geological report	11_Geological Report_2022-07-25.pdf
Other	Dust mitigation and monitoring	12 230502-Dust Mitigation and Monitoring-Bamberton Quarry_v1.1.pdf
Other	Erosion Sediment and Control Plan	18403 - Cut & Drainage Plan - R3 -2023-05-29.pdf
Other	Hydrogeological Assessment	14 Hydrogeological Assessment-Bamberton Quarry.pdf
Other	Mine Engineering Report Design Parameters	15 Mine Engineering Report.pdf
Reclamation Plan	Reclamation Plan	16 230517-Reclamation Plan-Bamberton Quarry_v1.3.pdf

Privacy Declaration

PRIVACY NOTE FOR THE COLLECTION, USE AND DISCLOSURE OF PERSONAL INFORMATION

Personal information is collected under the legal authority of section 26 (c) and 27 (1)(a)(i) of the *Freedom of Information and Protection of Privacy Act (the Act)*.

The collection, use, and disclosure of personal information is subject to the provisions of the Act. The personal information collected will be used to process your inquiry or application(s). It may also be shared when strictly necessary with partner agencies that are also subject to the provisions of the Act. The personal information supplied in the application package may be used for referrals or notifications as required. Personal information may be used for survey purposes.

For more information regarding the collection, use, and/or disclosure of your personal information, please contact FrontCounter BC at 1-877-855-3222 or at

FrontCounter BC Program Director
FrontCounter BC, Provincial Operation
441 Columbia Street
Kamloops, BC V2C 2T3

This check indicates that you have read and agree to the privacy declaration stated above.

REFERRAL INFORMATION

Some applications may be passed on to other agencies, ministries or other affected parties for referral or consultation purposes. A referral or notification is necessary when the approval of your application might affect someone else's rights or resources or those of the citizens of BC. An example of someone who could receive your application for referral purposes is a habitat officer who looks after the fish and wildlife in the area of your application. This does not apply to all applications and is done only when required.

Name: CRISTINA VALENTINUZZI P.Eng.
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Email: cvalentinuzzi@cmr2020.com

Mailing Address:

300 19923 80A AVE, LANGLEY BC
V2Y 0E2

I hereby grant permission for the public release of the information provided above. This information will be used to fulfill, if required, the referral and advertising requirements of my application.

IMPORTANT NOTICES

DECLARATION

By submitting this application form, I, declare that the information contained on this form is complete and accurate.

OFFICE

Office handling the application: Nanaimo

PROJECT INFORMATION

Authorization Request Type: Mines Notice of Work