



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 *Mines Act* & *Health, Safety and Reclamation Code for Mines in British Columbia*. The *Mines Act* of British Columbia also authorises 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 Information Access and Records Services Branch at (250) 952-0514; fax (250) 952-0739 or write to: PO Box 9325 Stn Prov Gov't, Victoria, British Columbia, V8W 9N3.

Exploration is for: ☐ Sand and Gravel Resources☒ Construction Rock ResourcesApplication is for (check one): ☒ A new permit☐ Update or amendment of existing exploration permit

Permit # \_\_\_\_\_

Application is being made by:

☒ Owner (Private property)☐ Operator/Agent (Person or company making application on Crown land or on private property not owned by applicant)Name: ANDREW & ELISE KETCHE-mail Address: andrew@harpersrecycling.com

Company (if applicable): \_\_\_\_\_

Address: 3949 Hillbank RoadCity: DuncanBus. Phone: (250) 252-6753Province: BCPostal Code: V9L 6M1Fax: (250) 748-2051**LOCATION INFORMATION - Maps are mandatory under Schedule A**Property Name: 3949 Hillbank Road, Duncan, BCLegal Description of Property (and street address, if applicable): The West 1/2 of Section 16.Range 3, Shawnigan DistrictP100 009 470 361Access route from nearest town to property: Trans Canada Hwy to Koksilah Road  
left on Hillbank, left on Gibsons Rd, only driveway  
on Gibsons Rd.B.C. Geographic System Map Number(s) [i.e. TRIM 093L.006] or NTS Map Number(s) [i.e. NTS 093L/14E]: 92B.012.2.2Latitude: N 48° 42' 23.9"Longitude: W 123° 38' 30.0"

Office Use: Decimal Latitude: \_\_\_\_\_ Decimal Longitude: \_\_\_\_\_

**OWNERSHIP** (Complete only if land is not privately held by applicant.) Check appropriate box for land status and provide information requested.☐ Proposed exploration is on private land:

Name of property owner: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Bus. Phone: ( ) \_\_\_\_\_

Province: \_\_\_\_\_ Postal Code: \_\_\_\_\_ Fax: ( ) \_\_\_\_\_

Signature of owner agreeing to exploration program proposed in this application (or attach letter of authorization signed by owner): \_\_\_\_\_

Name: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Proposed exploration is on Crown land:

Assets and Lands Corporation (BCAL) file reference number: \_\_\_\_\_

License of Occupation or Investigative Permit number: \_\_\_\_\_

Expiry date of Licence or Permit (y/m/d): \_\_\_\_/\_\_\_\_/\_\_\_\_

**MANAGEMENT**The manager (*Mines Act* Sections 21 and 22) responsible for management and operation of this exploration program will be:Name: TRACY CARSON Bus. Phone: (250) 252-0732

**CULTURAL HERITAGE RESOURCES**

A cultural heritage resource is defined as "an object, a site or the location of a traditional societal practice that is of historical, cultural or archaeological significance to British Columbia, a community or an aboriginal people". B.C. law requires the conservation of these resources. It is the responsibility of the applicant to identify these resources.

Are you aware of any cultural heritage resources present on the property?

☐ Yes - (Note locations on maps under Schedule A)

☒ No - Should cultural heritage resources be encountered while undertaking exploration activities you are required to report them to: The Mining Operations office.

**Occupational First Aid**

First Aid supplies and communication at the mine site are required as per Parts 3.6.1 to 3.6.3 of the Code.

Describe the means of communication from the exploration site: Radio Phone

Location of nearest hospital: Gibbons Road, Duncan, BC

Travel time to hospital by ground: 25 min or, by air: 8 number of persons on site (includes contractors): 2

First Aid Equipment on Site: Level 3 Jump Kit

First Aid Certificate held by attendant (if required): Occupational First Aid Level 3  
William Remwell \*s.22

**EXPLORATION PROGRAM**

Komatsu PC200L Excavator and John Deere JD450 Dozer will be on site to begin clearing of material above ground and down to rock. There is minimal forested area within the excavation site and any trees would be used on site for fencing, firewood, etc. Soils and other material will be moved on site by T/A Dump Truck and distributed throughout the remaining property for driveway maintenance etc. The exploration for rock will continue bringing in a tank drill and blasting materials as necessary. At no time will any magazines be kept on site. The project will continue with the exploration for rock which will be hauled off site and sold for landscaping and contracting purposes.

**Exploration Activities to be Undertaken (Indicate schedules submitted with this application)**

☒ **Schedule A** - Maps & Sections (Compulsory)

☐ **Schedule B** - Reclamation Security (Compulsory)

☐ **Schedule C** - Grids, Camp Location, Helicopter Pads

☐ **Schedule D** - Mechanical Trenching/Test Pits

☒ **Schedule E** - Blasting

☐ **Schedule F** - Surface Drilling/Settling Ponds/Sump

☐ **Schedule G** - Exploration Access

☐ **Schedule H** - Application for Timber Cutting

Proposed start date (y/m/d): 2008 01 / 15

Proposed completion date (y/m/d): 2008 / 01 /

Every Permittee shall give written or verbal notice to the Inspector prior to commencement of approved exploration activities in each calendar year that the proposed program of approved activities is underway.

I, Andrew Ketch, hereby make application to undertake the mining activities described in this Notice, and in accordance with the Mines Act and the Health, Safety and Reclamation Code for Mines in British Columbia.

Applicant Signature: [Signature]

Date: Nov 8, 2005

**Applications will be returned if not accompanied by legible and suitable maps**

Appropriate maps are required to be submitted to allow for proper evaluation of the proposed exploration program by the Inspector.  
Please indicate which Schedule A maps are included with this application.

☐ **Schedule A1 (compulsory):** Location map (1:50,000 scale)

Indicate the location of the property with respect to local communities

☐ **Schedule A2 (compulsory):** Land Title map

The subject parcel and adjacent properties must be clearly identified and the following items detailed:

- identify current land uses on adjoining properties (i.e. forested, chicken farm, etc.)
- If applicable, locate the boundaries of Forest Land Reserves and Agricultural Land Reserves on the map.

☐ **Schedule A3 (compulsory):** Map of Proposed Work (1:20,000 scale or less)


TRIM map, Forest Cover map or adequate equivalent - Map should show topography, watercourses, existing access, a centre line of proposed new or upgraded access, the location of proposed exploration activities, known location of previous surface workings, and known locations of cultural heritage resource or protected heritage property.

☐ **Schedule A4:** Terrain/geology and Terrain Stability Map (1:20,000 scale)

Terrain map(s) are required for excavations on slopes greater than 50%, and/or for excavations in areas with a stability rating of Class IV or V; or if requested by the District Inspector.

Transfer applicable information from Schedule C through Schedule G as appropriate

Exploration Activity	Surface Disturbance (ha) 1 ha = 10,000 m <sup>2</sup>	Estimated Cost of Reclamation	
		Applicant	Inspector
<b>Schedule C:</b> Exploration Grid(s), Camp Locations, Helicopter Pads		\$	\$
<b>Schedule D:</b> Mechanical Trenching/Test Pits		\$	\$
<b>Schedule F:</b> Surface Drilling/Settling Ponds/Sumps	4 ha 200m x 200m	\$ 5,000.00	\$
<b>Schedule G:</b> Exploration Access Construction / Modification/Reclamation		\$	\$
<b>Totals</b>		\$	\$
<b>Add disturbance from previous years</b>	+	\$ +	\$ +
<b>Subtract disturbance reclaimed by applicant.</b>	-	\$ -	\$ -
<b>Balance of unreclaimed disturbance</b>	=	\$ =	\$ =

x   
Applicant Signature

Nov 7, 2005  
Date

## Aggregate Exploration: Grids, Camp Locations &amp; Helicopter Pads

**NOT APPLICABLE**

1. Mark the location(s) of camps, constructed helicopter landing pads and proposed exploration grid(s) on the Schedule A3 map(s) and complete the following:

☐ Length of Baseline: \_\_\_\_\_ m.      ☐ Geophysical (list type): \_\_\_\_\_  
☐ Line Spacing: \_\_\_\_\_ m.      \_\_\_\_\_  
☐ Total kilometres of line cut: \_\_\_\_\_ km.      ☐ Other: \_\_\_\_\_

2. Show the distance of activity from known streams, wetlands or lakes on the Schedule A3 map.
3. Complete applicable sections of the following table:

Exploration Activity	# of Sites	Disturbed Area (ha) (1 ha = 10,000 m <sup>2</sup> )	Timber Volume (m <sup>3</sup> )
Camp			
Constructed Helicopter Landing Pads			
Exploration Grids - if timber felling required			
<b>Totals</b>			

Reclamation Program: Describe proposed reclamation and timing of reclamation work \_\_\_\_\_

Estimated cost of reclamation of activities described above: \$ \_\_\_\_\_

Schedule D **NOT APPLICABLE**  
 Aggregate Exploration: Mechanical Trenching/Test Pits

1. Mark the location of proposed trenches/test pits on the Schedule A3 map(s).
2. List the equipment to be used in the trenching/test pit program: \_\_\_\_\_
3. Show the distance of activity from known streams, wetlands or lakes on the Schedule A3 map(s).
4. Complete applicable sections of the following table:

EXPLORATION ACTIVITY	Estimated Maximum Depth of Trenches/Pits	# of Sites	Disturbed Area (ha) 1 ha = 10,000 m <sup>2</sup>	Timber Volume (m <sup>3</sup> )
Trenches and Test Pits				
Stockpiles				
<b>Totals</b>				

Reclamation Program: Describe proposed reclamation and timing of reclamation work: \_\_\_\_\_

Estimated cost of reclamation of activities described above: \$ \_\_\_\_\_

Applicant Signature \_\_\_\_\_

Revised: 07/08/03

Date

Nov 7, 2005



## Aggregate Exploration: Blasting

1. Mark the location(s) of proposed blast sites and magazines on the Schedule A3 map(s). No magazines will be kept on site.
2. Has a B.C. Explosive Storage and Use Permit for mining purpose been issued?  
☐ Yes If yes, give current permit #: \_\_\_\_\_ Date of expiry: \_\_\_\_\_  
☒ No If needed, complete a permit application from the Mining Division regional office and attach it to this schedule.
3. Provide details of:  
 the type of explosive(s) to be used: Stick Powder, ANFO  
 detonation method: Remote Blasting Box
4. Name of Blaster and/or Blasting Company: William Kenneth Ramuell
- Blaster's Certificate #: s.22

## Schedule F

## Sand &amp; Gravel/Quarry Exploration: Surface Drilling/Settling Ponds/Sumps

1. Mark the location of proposed surface drilling/settling ponds/sumps on the Schedule A3 map(s).
2. List the equipment to be used in the drilling/sump construction program:  
Tank Drill  
Komatsu EX200 Excavator  
John Deere 450 DOZER
3. Show the distance of activity from known streams, wetlands or lakes on the Schedule A3 map(s). N/A
4. Complete the applicable sections of the following table:

Exploration Activity	Number of Sites	Disturbed Area (ha) 1 ha = 10,000 m <sup>2</sup>	Timber Volume (m <sup>3</sup> )
Drilling	1	4 ha	NIL
Settling ponds/sumps	-	-	-
Totals	1		NIL

5. Total number of drill holes: 1000
6. Total drilling: 6000 m

Reclamation Program: Describe proposed reclamation and timing of reclamation work:  
 s.22

The exploration and sale of rock will continue until the resource is exhausted or the area has been formed into the pond that the owner is trying to establish. It is the ultimate goal of the owners to create a water feature on their property. All areas around the pond will be graded and left in a suitable manner for easy access to the pond.

Estimated cost of reclamation of activities described above: \$ Minimal as a pond is the desired result.

\* [Signature]  
 Applicant Signature

Nov 7, 2005  
 Date

## Aggregate Exploration: Access/Construction/Modification/Reclamation

1. Mark the location(s) of proposed construction, modification and reclamation of exploration access on the Schedule A3 map(s).
2. List the equipment to be used in access construction/modification/reclamation: The existing driveway will be used for access so no equipment is needed to construct access. Any maintenance will be done by the Komatsu Excavator on site.
3. Show the distance(s) of activity from known streams, wetlands or lakes on the Schedule A3 map(s). N/A.
4. Complete the applicable sections of the following table: NOT APPLICABLE

Exploration Activity	Length (km)	Disturbed Area (ha) 1 ha = 10,000 m <sup>2</sup>	Timber Volume (m <sup>3</sup> )	Terrain stability classification (as required)
Exploration Trail Construction				
Excavated Trail Construction				
Excavated Trail Modification				
Temporary Access Road Construction				
Temporary Access Road Modification				
<b>Totals</b>				

**Reclamation Program:** Describe proposed reclamation and timing of reclamation work:

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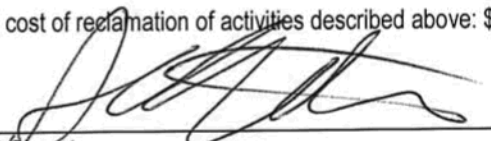
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Estimated cost of reclamation of activities described above: \$ \_\_\_\_\_

x   
Applicant Signature

Nov 7/05  
Date

## Aggregate Exploration: Application for Timber Cutting Authorization

Provide the following information for exploration activities where timber cutting is required. This information will be used by the Ministry of Forests to determine the appropriate cutting authorization. *No significant timber on excavation site.*

Exploration Activity	Number of Sites	Area (ha) 1 ha = 10,000 m <sup>2</sup>	Timber Volume (m <sup>3</sup> )	
			Applicant	For office use
<b>Schedule C:</b> Exploration Grids, Camp Locations, Helicopter Pads				
<b>Schedule D:</b> Mechanical Trenching/Test Pits				
<b>Schedule F:</b> Surface Drilling/Settling Ponds/Sumps				
<b>Schedule G:</b> Exploration Access Construction/Modification/Reclamation				
<b>Totals</b>				

Description of Timber	Area (ha)	Timber Volume (m <sup>3</sup> )	
By main species:			
By merchantable timber:			

## Utilization

Will timber be used on site?

☐ Yes☐ No

if no, indicate how timber will be disposed:

☐ Bucked and scattered☐ Decked for other timber tenure holders☐ As directed by cutting authorization

Applicant Signature

Date

Nov 7, 2005

Note: The Forest Practices Code of British Columbia regulates the cutting of Crown timber resources. The felling of Crown timber without appropriate authorization may lead to penalties.

## FOR MINISTRY OF FOREST USE ONLY

Is cruise required?

☐ No☐ Yes

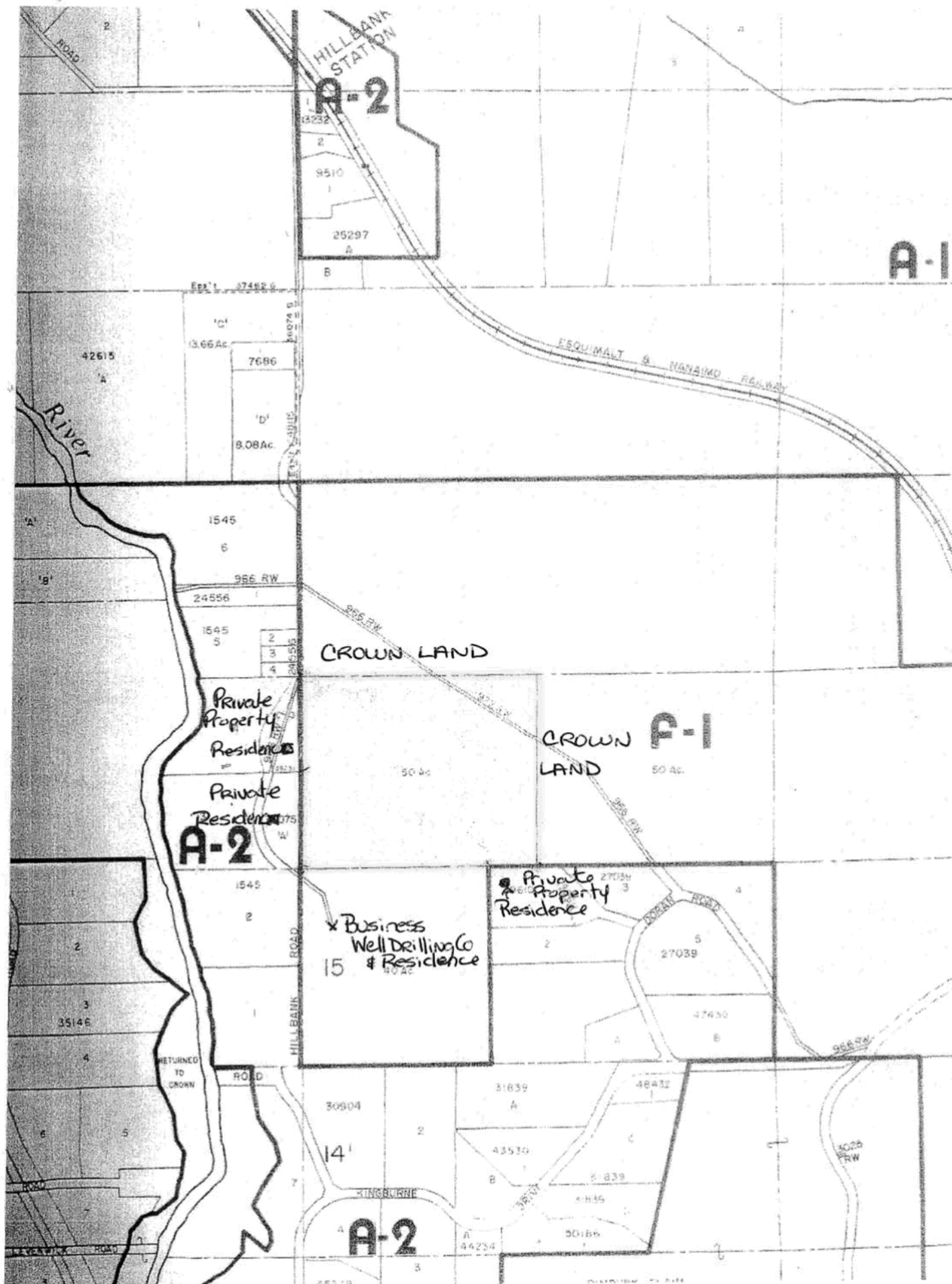
Volume Cruised \_\_\_\_\_ Date Cruised \_\_\_\_\_

If field inspection required, applicant/ministry to be involved:

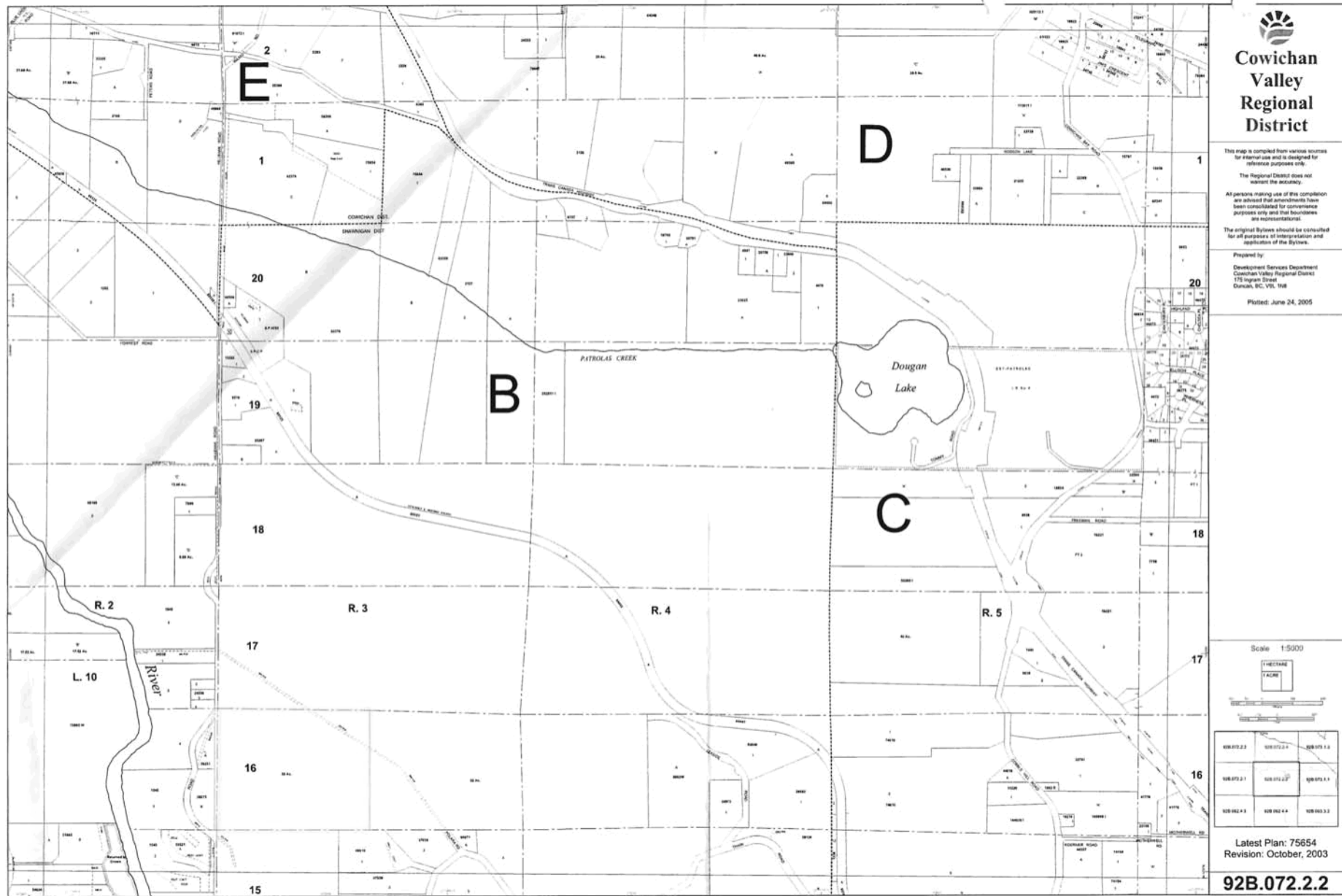
☐ Applicant☐ MEM☐ MOF☐ WLAP

Date of field inspection: \_\_\_\_\_ Free Use Permit # \_\_\_\_\_ or Licence to Cut # \_\_\_\_\_

Date issued: \_\_\_\_\_ Reviewed by: \_\_\_\_\_









Map created Wed Sep 21 14:05:36 PDT 2005

### Legend



**Scale: 1:12,000**

DO NOT USE FOR NAVIGATION

Map created Wed Sep 21 13:50:50 PDT 2005

# Legend



<ul style="list-style-type: none"> <li>Airphoto Centers (2004)</li> <li>Airphoto Operation Areas (2004)</li> <li>Flight Lines (2004)</li> <li>EBM - ElevationAnno (TRIM)</li> <li>EBM - CulturalAnno (TRIM)</li> <li>EBM - LandcoverAnno (TRIM)</li> <li>EBM - MiscAnno (TRIM)</li> <li>EBM - SurfaceAnno (TRIM)</li> <li>EBM - TransportationAnno (TRIM)</li> <li>EBM - WaterAnno (TRIM)</li> <li>EBM - Annotation (TRIM)</li> <li>EBM - Contours (TRIM)</li> <li>Contour - Index</li> <li>Contour - Index Indefinite</li> <li>Contour - Index Depression</li> <li>Contour - Index Depression Indefinite</li> <li>Contour - Intermediate</li> <li>Contour - Intermediate Indefinite</li> <li>Contour - Intermediate Depression</li> <li>Contour - Intermediate Depression Indefinite</li> <li>Area/ Exclusion</li> <li>Area/ Indefinite Contours</li> <li>EBM - Landform (TRIM)</li> <li>Cut</li> <li>EBM - Landmark (TRIM)</li> <li>Ski Lift</li> <li>Conveyor</li> <li>Dock - Ferry</li> <li>Fan</li> <li>Fence</li> <li>Line (Transmission) - Electrical - Primary</li> <li>Pipeline</li> <li>EBM - Landmark Misc (TRIM)</li> <li>Cut Line</li> <li>EBM - Transportation (TRIM)</li> <li>Ferry Route</li> <li>Road (Gravel Undivided) - 1 Lane</li> <li>Road (Gravel Undivided) - 2 Lanes</li> <li>Road (Gravel Undivided) - UIC - 1 Lane</li> <li>Road (Gravel Undivided) - UIC - 2 Lanes</li> <li>Road (Paved Divided) - Not Elevated - 1 Lane Each Way</li> <li>Road (Paved Divided) - Not Elevated - 2 Lanes Each Way</li> <li>Road (Paved Divided) - UIC - Not Elevated - 2 Lanes Each Way</li> <li>Road (Paved Undivided) - Not Elevated - 1 Lane</li> <li>Road (Paved Undivided) - Not Elevated - 2 Lanes</li> <li>Road (Paved Undivided) - UIC - Not Elevated - 4 Lanes</li> <li>Road (Unimproved)</li> <li>Cut (Roadway)</li> <li>Embankment/Fill (Roadway)</li> <li>Traffic</li> <li>Bridge - Foot</li> <li>Bridge - Trestle</li> <li>Tunnel</li> <li>Bridge</li> <li>Rail Line (Double Track)</li> <li>Rail Line (Multiple Track)</li> <li>Rail Line (Single Track)</li> <li>Rail Line - Abandoned Track</li> <li>Spur</li> <li>EBM - Water (TRIM)</li> <li>Canal</li> <li>Dam - Beaver</li> <li>Ditch</li> <li>Flood</li> <li>River/Stream - Delta</li> <li>River/Stream - Dry</li> <li>River/Stream - Indefinite</li> <li>Breakwall/Breakwater - Large</li> <li>Dike/Levee</li> <li>Sea Wall</li> <li>EBM - Buildings</li> </ul>	<p>Scale: 1:20,000</p> <p>DO NOT USE FOR NAVIGATION</p>
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Map created Wed Sep 21 13:50:50 PDT 2005

# Legend



- Airphoto Centre (2004)
- Airphoto Operation Area (2004)
- Flight Lines (2004)
- EBM - ElevationAnno (TRIM)
- EBM - CulturalAnno (TRIM)
- EBM - LandcoverAnno (TRIM)
- EBM - MapAnno (TRIM)
- EBM - SurfaceAnno (TRIM)
- EBM - TransportationAnno (TRIM)
- EBM - WaterAnno (TRIM)
- EBM - Annotation (TRIM)
- EBM - Contours (TRIM)
- Contour - Index
- Contour - Index Indefinite
- Contour - Index Depression
- Contour - Index Depression Indefinite
- Contour - Intermediate
- Contour - Intermediate Indefinite
- Contour - Intermediate Depression
- Contour - Intermediate Depression Indefinite
- Area/Exclosure
- Area/Indefinite Contours
- EBM - Landform (TRIM)
- Cut
- EBM - Landmark (TRIM)
- Ski Lift
- Conveyer
- Dock - Ferry
- Fence
- Line (Transmission) - Electrical - Primary
- Pipeline
- EBM - Landmark Misc (TRIM)
- Cut Line
- EBM - Transportation (TRIM)
- Ferry Route
- Road (Gravel Undivided) - 1 Lane
- Road (Gravel Undivided) - 2 Lanes
- Road (Gravel Undivided) - UIC - 1 Lane
- Road (Gravel Undivided) - UIC - 2 Lanes
- Road (Paved Divided) - Not Elevated - 1 Lane Each Way
- Road (Paved Divided) - Not Elevated - 2 Lanes Each Way
- Road (Paved Divided) - UIC - Not Elevated - 2 Lanes Each Way
- Road (Paved Undivided) - Not Elevated - 1 Lane
- Road (Paved Undivided) - Not Elevated - 2 Lanes
- Road (Paved Undivided) - UIC - Not Elevated - 4 Lanes
- Road (Paved Undivided) - UIC - Not Elevated - 4 Lanes
- Road (Unimproved)
- Cut (Roadway)
- Embankment/Fill (Roadway)
- Trestle
- Bridge - Foot
- Bridge - Trestle
- Tunnel
- Bridge
- Rail Line (Double Track)
- Rail Line (Multiple Track)
- Rail Line (Single Track)
- Rail Line - Abandoned Track
- Spur
- EBM - Water (TRIM)
- Canal
- Dam - Beaver
- Ditch
- Flume
- River/Stream - Detail
- River/Stream - Dry
- River/Stream - Intermittent
- Breakwell/Breakwater - Large
- Dyke/Levee
- Sea Wall
- EBM - Buildings

Scale: 1:20,000

DO NOT USE FOR NAVIGATION



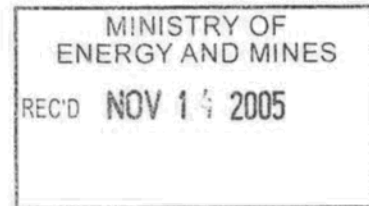
MINE # 1610315



Stone Pacific Contracting Ltd.  
P.O. Box 972  
Duncan, B.C.  
V9L 3Y2

November 7, 2005

British Columbia Ministry of Energy,  
Mines and Petroleum Resources  
PO Box 9320  
7 - 1675 Douglas Street  
Victoria, BC  
V8W 9N3



**Attention: Mr. Ian C.L. Webster**

Dear Mr. Webster:

Please find attached an "Aggregate Exploration: Notice of Work and Reclamation Program" application with regard to my property s.22 located at 3949 Hillbank Road, Duncan, BC. I would like to explore an area approximately 200m x 200m in hopes of finding marketable rock which can be utilized and sold through my company Stone Pacific Contracting Ltd. This particular parcel of land is currently zoned F-1 which I understand reflects the usage of such a quarry. The landscape of this area of my property is quite open and level with few trees and no known streams or wetlands. There has to my knowledge never been any cultural heritage resource located on site.

It is my desire to be able to utilize the existing rock on site to compliment Stone Pacific Contracting Ltd. We are often in need of such materials for construction and landscaping purposes. The end result of this exploration will also result in the forming of a pond for esthetic and leisure purposes. It is my hope that upon completion of this excavation the bottom of the pond would be completely lined in rock.

If there is any further documentation or information that you require please do not hesitate to contact Tracy Carson at 252-0732 or myself at 252-6753. Thanking you in advance for your attention to this matter.

Sincerely,

A handwritten signature in dark ink, appearing to read "Andrew Ketch". The signature is fluid and stylized, with a large, sweeping flourish at the end.

Andrew Ketch  
Stone Pacific Contracting Ltd.

Gibsons

~~Hillbank~~ Rd QUARRY

MINE # 1610315

Stone Pacific Contracting Ltd.  
P.O. Box 972  
Duncan, B.C.  
V9L 3Y2

DEC 5/05 - Spoke to Tracy on the phone. She indicated that she may apply for a Dev. Permit.

I told her that a better Mining Plan was required. I.W.

MINISTRY OF  
ENERGY AND MINES  
REC'D NOV 14 2005

May require settling ponds for pumping water into during mining.

DEC 14/05 - Ed Taje contacting Tracy for more information.

Ed visited P and saw them drilling.

Dec 22/05 - phoned Tracy to see how things doing. She said that drilling was occurred but no blasting.


ation: Notice of Work and Reclamation  
property located at 3949 Hillbank  
e an area approximately 200m x 200m in hopes  
tilized and sold through my company Stone  
parcel of land is currently zoned F-1 which I  
rry. The landscape of this area of my property

is quite open and level with few trees and no known streams or wetlands. There has to my knowledge never been any cultural heritage resource located on site.

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If there is any further documentation or information that you require please do not hesitate to contact Tracy Carson at 252-0732 or myself at 252-6753. Thanking you in advance for your attention to this matter.

Sincerely

  
Andrew Ketch  
Stone Pacific Contracting Ltd.

Office: (250) 748-2095 Fax: (250) 748-2051

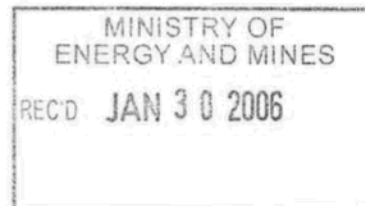
tracy@harpersrecycling.com



Stone Pacific Contracting Ltd.  
P.O. Box 972  
Duncan, B.C.  
V9L 3Y2

January 27, 2006

Ministry of Energy and Mines,  
Mining Division  
PO Box 9320 Stn Provincial Government  
Victoria, BC  
V8W 9N3



Attention: Ed Taje

Dear Sir:

**Re: Application for Mines Act Permit  
Stone Pacific Rock Quarry, Cobble Hill, BC**

Please find enclosed documentation for the above noted application. Included are:

- Signed copy of the Notice of Work (You have already received this)
- Schedule C for Blasting
- Location, Mine Plan and Cross Sectional Maps
- Project Overview Report
- Copies of referral notifications to MWLAP, MOT, and the Cowichan Valley Regional District which were sent out on this same date. It is intended that a copy of this documentation will be available for viewing at the Cowichan Valley Regional District in Duncan.
- Copies of Gazette and Newspaper notifications which will also be placed shortly. Copies of the actual published notices will be sent to you after publication.

Yours truly,

A handwritten signature in cursive script, appearing to read "Tracy Carson".

Tracy Carson  
Mine Manager



**Stone Pacific Contracting Ltd.  
Proposal for Development of a Rock Quarry  
Cobble Hill Area  
Project Overview Report  
To Accompany Application for Mines Act Permit  
January 2006**

**Introduction:**

Stone Pacific Contracting Ltd. wishes to develop a rock quarry to exploit a rock resource located on s.22. Testing of the rock has been done and indicates good quality material is present. The mine site will be designated the "Stone Pacific Quarry". This summary report presents an overview of this project as part of the Mines Act permitting application requirements of the Ministry of Energy and Mines (MEM).

**Land Tenure and Zoning:**

The rock quarry is to be located on the following lot: (Figure 1)

- *West ½ of Section 16, Range 3, Shawnigan District*

The proposed quarry will cover approximately 4 hectares.

The property is located within the Cowichan Valley Regional District Electoral Area B. The property is zoned F1 which allows for resource extraction and primary mineral processing. There is no OCP for this area.

**Access:**

Access to the pit will be from the Trans Canada Highway at the Koksilah Road intersection, West to Hillbank Road, South to Gibson Road and to the quarry site.

**Topography and Geology:**

The general property topography consists of low ridges with intermittent rock hummocks. The quarry elevation is situated at approximately 120 and 140 metres above sea level. The quarry site is variably covered with soil and overburden ranging between one or two metres thick.

**Vegetation and Timber:**

The area is generally covered with second growth, including fir, hemlock, pine, cedar and alder.

**Rock Reserves**

Rock reserves are estimated at 75,000 m<sup>3</sup> to 100,000 m<sup>3</sup> within the area of the proposed quarry outlines. Annual production is estimated at 15,000 m<sup>3</sup> to 20,000 m<sup>3</sup> per year with sufficient reserves for about 3 to 5 years depending on actual demand and the final configuration of the site.

**Mine Plan:**

The primary purpose of this quarry development is to create a small lake on the subject property. The company is able to utilize the rock in its business and therefore wishes to develop this lake in as part of their business. The mine plan envisioned for this site is very simple with essentially a single 10-meter deep cut over most of the excavation. The

eastern slope will extend a short distance up the eastern hillside and may require some benching during development. Wall slopes will be maintained at a maximum of 1.5H:1V slope (See attached Schematic Mine Plan and Cross-Sections).

A dozer and excavator will be utilized for site clearing and pit development. Rock will be drilled and blasted by certified blaster and excavated using a hydraulic excavator sitting at the surface elevation and excavating below this level to the reach of the excavator, a depth of approximately 10 metres. If crushing occurs it will utilize a portable crusher system which will be fed by loader or excavator. Rock will be moved to the crusher by truck and/or by loader.

Blasting will be conducted using normal Ministry of Mines and WCB safety procedures. Blasting will be on a semi regular basis throughout the year. It is expected to break approximately 4000 tonnes per blast or about 10 to 20 blasts per year. Drilling will be done using a tank drill drilling 2½" – 3" holes on a nominal 1½ - 2 metre by 1½ - 2 metre pattern. Explosives used will include ANFO or stick powder as required with Nonel detonators and boosters with non-electric instantaneous shock tubing initiation. Blasting methods, materials and detonation timing will be designed to minimize air shock and ground vibration impacts. Only qualified and licensed blasters will be used.

Rock products will be hauled via Gibson, Hillbank and Koksilah roads to the Trans Canada. The product will be delivered to markets in the local area.

The pit is expected to operate intermittently once established. When operating, hours of operation are planned to be 7:00am to 5:00pm Monday thru Saturday. No mining will occur on Sundays or Holidays although equipment maintenance may take place on these days.

#### **Visual, Dust, Noise and Safety Issues:**

The Quarry Site is, and will remain, invisible from any nearby location as it is screened by a large surrounding timberland including adjacent crown lands. The nearest residence is about 170 meters from this site and is the s.22

It is not expected this operation will produce much dust during dry spells as there will be water at the bottom of the excavation keeping most of excavated material damp.

Truck traffic on the local roads will average 10 trucks per day up to a maximum of 30 trucks per day on rare occasions.

Noise will be minimal as the only equipment operating will be one excavator and/or a loader, and highway dump trucks. A crushing-screening plant may be setup depending on demand for materials and if so will be operated on an intermittent basis. Crushing equipment noise is expected to be inaudible at any residences off the site. Blasting noise and vibration will also be minimal as a result of the blasting practices used and the minimal frequency of blasts (expected average of less than 2 blasts per month). This site is at least 500 meters from the nearest off property residence and therefore they will not likely hear the equipment operating and may or may not hear blasts. Because of this wide buffer it is not planned to warn any of the local residents of impending blasts unless deemed necessary by the Ministry of Energy and Mines. Blasting will normally be conducted between 8am and 4pm on week days only.

Road access to the site will be through a locked gate. Restricted access notification signs will be posted near the quarry as per MEM requirements.

**Hydrology, Protection of the Water Table and Management of Runoff:**

The nearest domestic water supply is approximately 170 meters from the quarry site. The nearest identified water course is a swampy area situated adjacent to the quarry site. Runoff water will be minimal as the quarry extends below the local surface and any rainfall will likely exfiltrate into the ground or remain in the quarry. Any runoff that might occur especially near the quarry entrance will be directed by ditching to a settling pond, located in an area adjacent to the north end of the quarry site. This will ensure no contaminated runoff leaves the site. The swampy area adjacent to the site will also capture any runoff that might occur. Regional drainage from the site is minimal and therefore any overflow from the site will have negligible impact on nearby drainages. It is planned to have a decant system from the pond on completion of the excavation.

No fuels, oils or explosives will be stored on the site so the risk from these materials reaching the water table is minimal. All equipment repair and maintenance will normally be done off site.

**Reclamation:**

There will be very little reclamation required as the completed site will be a small lake. Topsoil and overburden may be salvaged, and stockpiled for later use in reclamation or used for development of adjacent lands. s.22 and the land owner wishes to maintain their property in pristine condition. The ultimate goal of the owner is to create a water feature on their property. All areas around the lake will be graded and left in a suitable manner for easy access to the lake.

**Public Notification:**

Representatives of the Cowichan Valley Regional District, the Ministry of Water Land and Air Protection and the Ministry of Transportation and Highways are being advised of this project. Public notification of this project in the BC Gazette and a local newspaper, as per MEM requirements, is also being done.

**Conclusions:**

- This project is relatively benign with respect to environmental impact especially as the completed quarry is planned as a water feature for land enhancement.
- Visual, noise, dust or hydrological impacts will be minimal and where required will be mitigated using methods outlined.
- This quarry will create work for several employees of the Company as well as independent equipment owners and contractors.
- There is a demand for this material locally and the quarry will therefore provide a local aggregate supply.
- The quarry is ideally situated near access to the Trans Canada Highway thereby minimizing impact on residential areas due to truck traffic.

Per: 

Tracy Carson, Mine Manager



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 *Mines Act* & *Health, Safety and Reclamation Code for Mines in British Columbia*. The *Mines Act* of British Columbia also authorises 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 Information Access and Records Services Branch at (250) 952-0514; fax (250) 952-0739 or write to: PO Box 9325 Stn Prov Gov't, Victoria, British Columbia, V8W 9N3.

Application is for: ☐ Sand and Gravel Mine ☒ Rock Quarry

This application is for (check one):

☒ Development ☐ Amendment to existing permit Permit # \_\_\_\_\_

Application is being made by:

☒ Owner (Private property)  
☐ Operator/Agent (Person or company making application on Crown land or on private property not owned by applicant)Name Andrew Ketch E-mail Address: andrew@harperrecycling.comCompany (if applicable) Stone Pacific Contracting LtdAddress PO Box 972City Duncan Bus. Phone ( 250 ) 252-0732Province BC Postal Code V9L 3Y2 Fax ( 250 ) 748-2051**LOCATION INFORMATION - Maps are mandatory under Schedule A**Name of Mine (What will the operation be called when in production?): Stone Pacific QuarryLegal Description of Property: West 1/2, Section 16, range 3, Shawnigan DistrictStreet Address of Property, if applicable: 3949 Hillbank RoadAccess route from nearest town to property: West off the Trans Canada Highway at Koksilah Road to Hillbank Road and then via Gibson Road to quarry site.

B.C. Geographic System Map Sheet Number(s) [i.e. TRIM 093L.006] \_\_\_\_\_

Northing: \_\_\_\_\_ Easting: \_\_\_\_\_ UTM Zone: \_\_\_\_\_

or NTS Map Sheet Number(s) [i.e. NTS 093L/14E]: 92B.072.2.2Latitude: 48° 42.239 'N Longitude: 123° 38.300 'W**OWNERSHIP (Complete a, b or c if the land is not privately held by applicant)****a) Proposed mine is on private land:**Name of property owner Andrew & Elsie KetchAddress 3949 Hillbank RoadCity Duncan Bus. Phone ( 250 ) 252-6753Province BC Postal Code V9L 6M1 Fax (250 ) 748-2051

Signature of owner agreeing to the mining operation proposed in this application (or attach letter of authorization signed by owner):

Name: [Signature] Date: Jan 27, 2006**b) Proposed mine is on Crown land:**

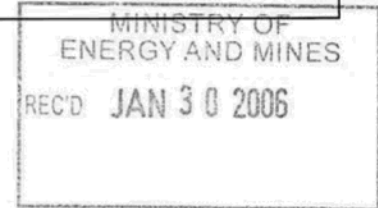
Assets and Lands Corporation (BCAL) file reference number: \_\_\_\_\_

License of Occupation/Lease number: \_\_\_\_\_ Expiry date of License/Lease (y/m/d): \_\_\_\_\_

**c) Proposed mine is a mineral quarry (as defined under the Mineral Tenure Act):**

What mineral is proposed to be mined? \_\_\_\_\_

Mineral Claim/Lease Tenure Number(s): \_\_\_\_\_

**MANAGEMENT**Correspondence regarding this application should be sent to: ☒ Owner or ☐ Operator/AgentThe mine manager (*Mines Act* Sections 21 and 22) responsible for management and operation of the mine will be:Name: Tracy Carson Bus. Phone: ( 250 ) 252-0732

**LAND USE**

**1) Cultural Heritage Resources** (*A cultural heritage resource is defined as "an object, a site or the location of a traditional societal practice that is of historical, cultural or archaeological significance to British Columbia, a community or an aboriginal people". B.C. law requires the conservation of these resources. It is the responsibility of the applicant to identify these resources.*)

Are you aware of any cultural heritage resources present on the property?

- ☐ Yes - please attach a plan for the conservation of cultural heritage resources on the property  
☒ No - if cultural heritage resources are discovered while mining, you are required to report them to the Mining Division.

**2) Soil Conservation**

Average depth of overburden (material, including topsoil, overlying sand, gravel and/or rock): \_\_\_\_\_ cm, or 0 – 1.0 m

Average depth of topsoil (Surface to maximum rooting depth of plants, plus 15 cm.): \_\_\_\_\_ cm, or Less than 0.5 m

Measures to stabilize soil/overburden stockpiles and control noxious weeds: Slope at 2:1,

Occasionally move or re-slope to control weeds

**Topsoil must be conserved for reclamation of the mine site.  
Removal of topsoil from the site requires written approval of the Inspector**

**3) End Land Use**

Is the site within the Agricultural Land Reserve?

- ☒ No ☐ Yes - authorization for soil removal from the Land Reserve Commission and Regional District must be obtained. Provide permit application number if available: \_\_\_\_\_

Is the site within the Forest Land Reserve?

- ☒ No ☐ Yes - authorization from the Land Reserve Commission must be obtained

Is the site within a Tree Farm License?

- ☒ No ☐ Yes - state the TFL number: \_\_\_\_\_

Name of TFL holder: \_\_\_\_\_

Does the local government have a Soil Removal Bylaw?

- ☒ No ☐ Yes - please be aware that a Soil Removal Permit may be required by the local government

Official Community Plan designation for the site is: No OCP Designation

Current land use zoning for the site is: F 1

Proposed end land use is: Recreational Lake

**4) Reclamation of Site** (*If space provided below is insufficient, please attach separate sheet describing proposed reclamation*)

Reclamation measures and schedule proposed to achieve end land use objectives as per part 10.7.4 and 10.7.5 of the Health Safety and Reclamation Code for Mines in British Columbia (hereafter referred to as the Code): \_\_\_\_\_

See attached Summary Report

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

See Summary Report



**MINE DEVELOPMENT PLAN (Maps are mandatory - please refer to Schedule A)**

Unless otherwise required by the Inspector, complete the following mine development plan and prepare development maps and cross sections based on a period of 5 years or less. Mines operating for longer than 5 years, may be required to file updated Notices of Work every 5 years over the life of the mine at the discretion of the District Inspector.

Proposed start date (y/m/d): 2006/03/01 Proposed finish date (y/m/d): 2010/12/31

The mining operation will generally be (check one) ☐ Continuous (operates throughout the year)  
☐ Seasonal, usually operates from \_\_\_\_\_ to \_\_\_\_\_  
☒ Intermittent (occasionally operates with extended periods of inactivity)

Estimate total mineable reserves over the life of the mine: \_\_\_\_\_ tonnes, or 150,000+/- m<sup>3</sup>

Estimated annual extraction from site: \_\_\_\_\_ tonnes/yr, or up to 30,000 m<sup>3</sup>/yr

Application must be made to the Environmental Assessment Office if estimated extraction for sand/gravel production is 500,000 tonnes/yr. or 1,000,000 tonnes over 4 years; or if estimated extraction is 250,000 tonnes/yr. for quarried product.  
Mineral quarries producing more than 1000 tonnes per year per claim require a mining lease.

**Description of Work (Check appropriate boxes):**

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Excavation of Pit Run | <input type="checkbox"/> Washing - please complete Schedule B                                     |
| <input checked="" type="checkbox"/> Crushing              | <input checked="" type="checkbox"/> Blasting - please complete Schedule C                         |
| <input checked="" type="checkbox"/> Mechanical Screening  | <input type="checkbox"/> Timber Clearing * - estimate volume of timber: <u>Nil</u> m <sup>3</sup> |

\* Timber Clearing on Crown Land requires a Free Use Permit or License to Cut from the Ministry of Forests

Provide a brief description of operation, including proposed work schedule (i.e. hours, days of usual operation): \_\_\_\_\_

See attached Summary Report

**Equipment List:** (Please attach separate list if space provided below is insufficient)

Type of Machine	Make/Model	Size/Capacity	# on Site
<i>Dozer</i>			<i>1</i>
<i>Loader</i>			<i>1</i>
<i>Excavator</i>			<i>1</i>
<i>Tank Drill</i>			<i>1</i>
<i>Crushing &amp; Screening Plant</i>			<i>1 as Req'd</i>
<i>Tandem Highway Gravel Trucks</i>			<i>As Req'd</i>

**Surface Disturbance** - Information provided must be documented in development maps submitted under Schedule A

(Note that 10,000 m<sup>2</sup> = 1 hectare)

Existing Disturbance (Work areas, unreclaimed areas, access roads, etc.) \_\_\_\_\_ m<sup>2</sup>, or \_\_\_\_\_ hectares

Proposed Mining Disturbance (New work areas, settling ponds, access roads, buildings, etc. to be developed within the time frame of this Notice of Work) \_\_\_\_\_ m<sup>2</sup>, or 4 hectares

Total Disturbed Area (Existing + Proposed Disturbance) \_\_\_\_\_ m<sup>2</sup>, or 4 hectares

Will any portion of this disturbance be reclaimed within the time frame of this Notice of Work?

☐ No ☒ Yes - state size of area to be reclaimed: See Report m<sup>2</sup>, or \_\_\_\_\_ hectares

Estimated Cost of Reclamation: Applicant \$ 5,000

Mining Division \$ \_\_\_\_\_



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Are settling ponds or other structures proposed to control sedimentation in surface run off?

☐ No      ☒ Yes - please complete Schedule B

What is the average depth to the high groundwater table at the proposed excavation? 3 to 5 m

Elevation of the groundwater table was determined from (check applicable boxes):

☐ Existing area wells      ☐ Test wells drilled for this purpose  
☐ Test pits      ☒ Other (describe) Visual Observation

Describe measures proposed to protect groundwater quantity and quality from potential impacts of the proposed mining activity (i.e. fuel management program, buffer above water table, etc.): see attached summary description
*Note that excavations below the groundwater table may require special approval from the Inspector*

Will fuel/lubricants be stored on site?      ☒ No      ☐ Yes

If yes, handling, transportation and storage must adhere to B.C. Environment standards as detailed in "Summary of Environmental Standards and Guidelines for Fuel Handling, Transportation and Storage, 2<sup>nd</sup> edition"

Shortest distance between proposed excavation to nearest residence: 170 m, or \_\_\_\_\_ km

Shortest distance between proposed excavation to nearest residential water source: 170 m, or \_\_\_\_\_ km

Describe measures proposed to prevent inadvertent access of unauthorized persons on the mine site (i.e. fencing, vegetative barriers, berms, etc.): see attached Summary Report

Are measures proposed to minimize noise impacts of the operation? (i.e. equipment selection, restrictions on hours of operation, See see attached Summary Report)

Are measures proposed to minimize visual impacts of the proposed operation? (i.e. vegetative barriers, berms, green belts, etc.)  
☒ No      ☐ Yes - Please describe: see attached Summary Report


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**OCCUPATIONAL FIRST AID**
*First Aid Supplies and communication at the mine site are required as per Parts 3.6.1 to 3.6.3 of the Code.*

Describe the means of communication from the mine site: Cell Phone & Radio Phone

Location of nearest hospital: Gibbons Road Duncan

Travel time to hospital: 25 min      Estimated number of employees on site (includes contractors): 3

Describe First Aid Level and supplies Level 3 Jump Kit, Occupational First Aid Level 3, William Ramwell s.22


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I, Andrew Ketch, hereby make application to undertake the mining activities described in this Notice, and in accordance with the *Mines Act* and the Health, Safety and Reclamation Code for Mines in British Columbia.

Applicant Signature 

Date January 27, 2006

Schedule C  
Blasting

Mark the location of all proposed blast sites on the appropriate map(s) under Schedule A. If any structure, water well(s), or roadways are located within 300 m of proposed blast sites, these items must be located on the map(s).

Shortest distance between blasting operations to nearest residence/structure 170 m, or \_\_\_\_\_ km

Shortest distance between blasting operations to nearest water well 170 m, or \_\_\_\_\_ km

Are any public use areas (i.e. picnic/ camping areas, hiking trails etc.) located within 1 km. of the blasting area?

☒ No ☐ Yes - distance from recreation area to blasting operations is: \_\_\_\_\_ m

Will blasting be contracted out? ☐ No ☒ Yes

Name of Blaster/Company: William Keneth Ramuel

Blaster's Certificate # \_\_\_\_\_ s.22 \_\_\_\_\_

**Blaster must hold a valid BC Blasting Certificate as per Part 8.2.1 of the Code**

Will explosives be stored on site? ☒ No ☐ Yes

If yes, has a B.C. Explosives Storage and Use Permit for Mining Purpose been issued?

☐ No - Complete a permit application from the Mines Branch Regional Office and attach it to this schedule.

☐ Yes - Provide current permit # \_\_\_\_\_ Date of expiry (y/m/d): \_\_\_\_\_

Provide details of (attach separate page(s) if space is insufficient):

- size and type of explosive(s) to be used: \_\_\_\_\_
- detonation method: \_\_\_\_\_
- type of explosives magazine: \_\_\_\_\_
- blasting procedure (public notification, on site safeguards, timing, etc.): \_\_\_\_\_

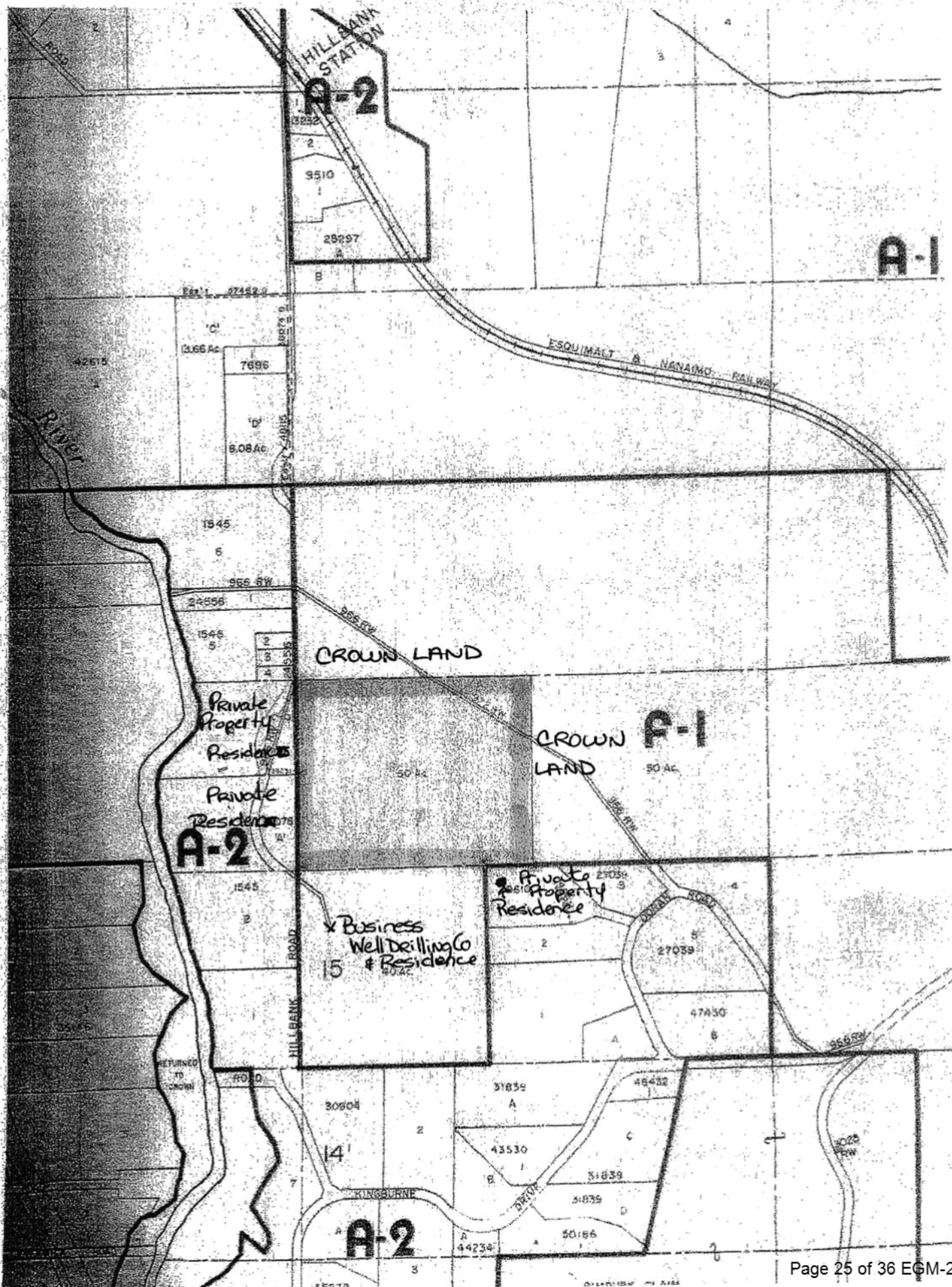
Type and size of explosives and detonation method will be standard quarry procedures with ANFO or stick powder as required, nonel detonators with non electric detonation (non-electric instantaneous shock tubing initiation) and normal warning procedures. Details to be supplied to Mines Inspector prior to start of mining. Holes will be drilled using a tank drill, drilling 2 1/2 - 3" diameter holes on a nominal 1.5m - 2m x 1.5m - 2m pattern to 10 meters depth.

If blasting is proposed within 1 km of any residence, structure, well or public use area, the District Inspector may request further information regarding fly rock control and/or seismic impacts.

The District Inspector may request that a Workers' Compensation Board Blaster's Log be kept

Applicant Signature: \_\_\_\_\_

Date: Jan 27, 2004





## Legend



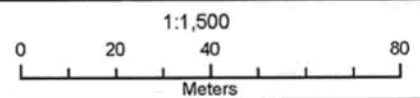
QUARRY



Poles

INDEX\_CONTOUR

INTERMEDIATE\_CONTOUR



STONE PACIFIC CONTRACTING LTD.

Stone Pacific  
Quarry Site

Mapping:



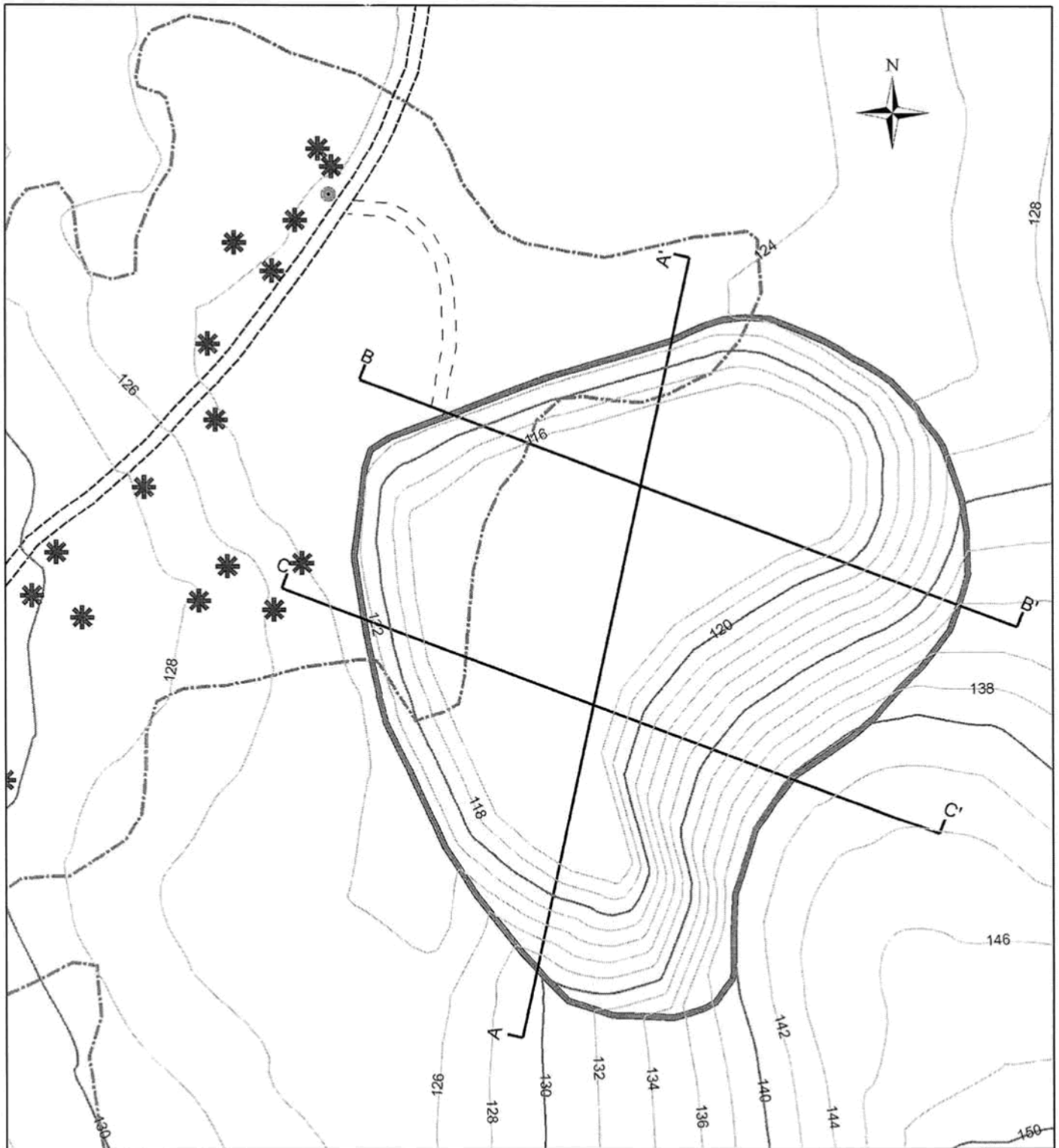
Prepared For:

Stone Pacific

Fig.

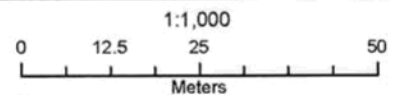
1





### Legend

- |  |        |  |                      |
|--|--------|--|----------------------|
|  | QUARRY |  | ROAD_GRAVEL          |
|  | Trees  |  | TIMBERLINE           |
|  | Poles  |  | PROFILES             |
|  |        |  | INDEX_CONTOUR        |
|  |        |  | INTERMEDIATE_CONTOUR |



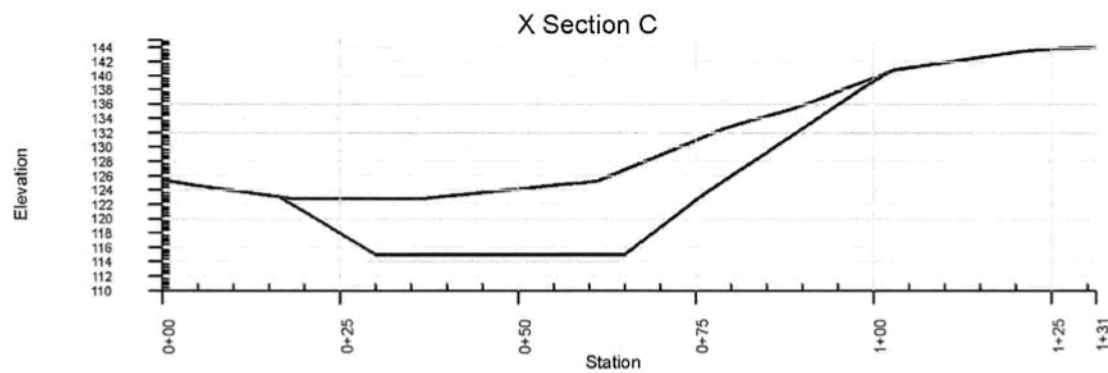
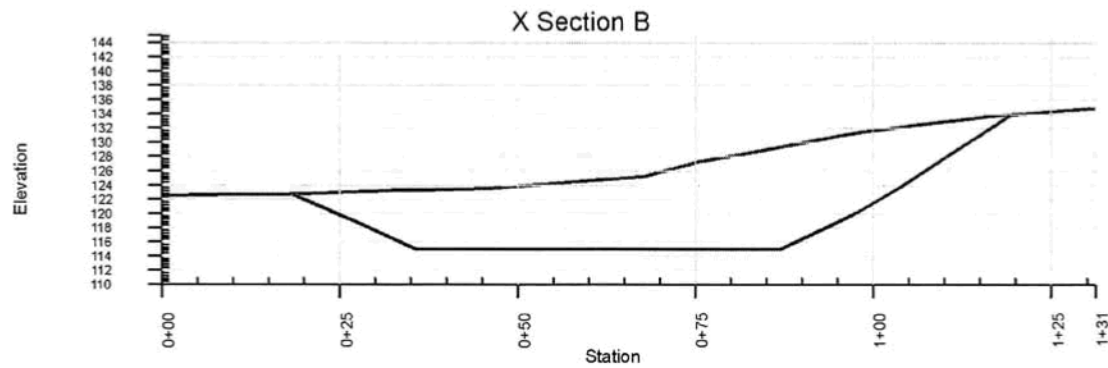
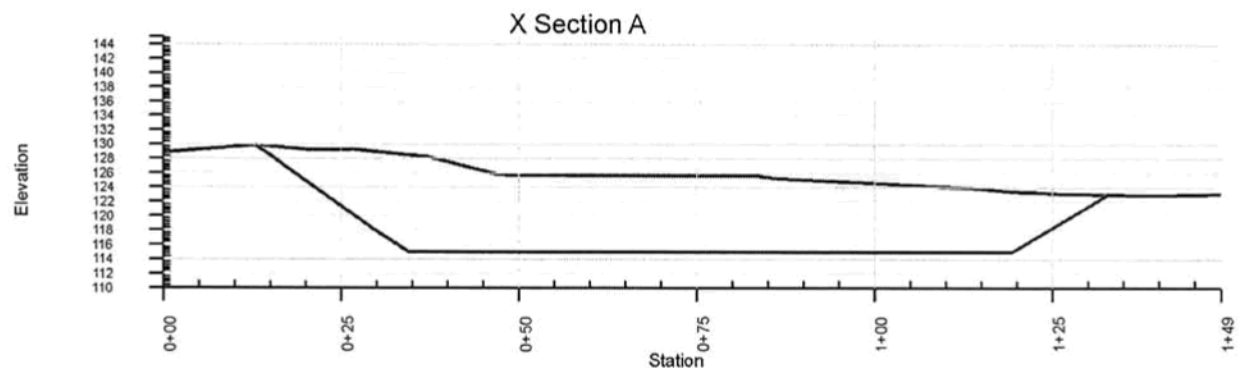
**STONE PACIFIC CONTRACTING LTD.**

**Stone Pacific  
Quarry Site**

Mapping:  
GLOBAL GEOMATICS LTD.

Prepared For:  
Stone Pacific

Fig.  
2



1:1,000

— Original Surface  
— Cut

Vertical Scale: 1 to 1  
Horizontal Scale: 1 to 1

**STONE PACIFIC CONTRACTING LTD.**

**Stone Pacific  
X Sections  
Quarry Site**

Mapping:

GLOBAL GEOMATICS LTD.

Prepared For:

Stone Pacific

Fig.

3



PROVINCE OF BRITISH COLUMBIA  
MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES

**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-8-096**

Mine No.: **161031527**

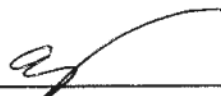
Issued to: **Stone Pacific Contracting Ltd**  
**PO Box 972**  
**Duncan, British Columbia V9L 3Y2**

for work located at the following property:

West ½, Section 16, Range 3, Shawnigan District  
**Gibsons road Quarry**

This approval and permit is subject to the appended conditions.

Issued this 1st day of November in the year 2006.

  
\_\_\_\_\_  
R. Berdusco, P. Eng.  
Acting Chief Inspector of Mines

## 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 23, 2006 was filed with the District Inspector on January 3, 2006. Notice of such filing was published in The Cowichan Valley Citizen, February 6, 2006, and the Gazette February 2, 2006.

This permit contains the requirements of the Ministry of Energy, Mines and Petroleum Resources 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, Mines and Petroleum Resources 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 five thousand dollars (\$5,000). 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 Forests. 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 Environment approval, licence 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: **Residential land use, pond.**

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 District Inspector.

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 District Inspector.

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. 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.

12. Safety Provisions

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

13. Monitoring

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

14. Alterations to the Program

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

15. 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 District Inspector not less than seven days prior to cessation of work.

16. Annual Report

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

17. 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.

18. Mining operations shall be in accordance with the Submitted Mine Plan dated January 30, 2006, and the supporting Hydrological Report provided By Golder Associates dated September 22, 2006

19. Property boundaries shall be marked and maintained and pit boundaries shall be marked and maintained. All persons working on the property will be instructed as to the meanings of the markings.



20. Suitable warning signs, indicating the potential hazards to the public shall be posted at the property boundary. All vehicle access roads shall be gated, and kept locked when the quarry is not in operation.

21. All blasts shall be electronically monitored and records of the monitoring shall be maintained in the mine office.

- The attached blast log shall be maintained at the site office in accordance with the attached instructions, and shall be made available to an inspector on request.
- Loading of blast holes when using ANFO shall be controlled to prevent spillage, and any spillage shall be cleaned and not allowed to accumulate on the Pit Floor.

22. Blast limits are established at 50 millimetres per second peak particle velocity and 120 decibels on the L scale, at the intersection of Doran Road and Gibson's Road.

- The manager shall have the blast design prepared by a qualified person and a copy of the design shall be maintained at the Mine Office.
- The blast design shall also conform to the requirements of the Golder Hydrological report regarding the minimizing of back break.
- Where the potential for fly rock beyond the property boundary exists the Manager shall ensure blast mats or other suitable covering is used.
- All surface delays shall be covered in sand to minimize noise.
- A suitable safe work procedure shall be developed for the clearing of Gibson's road prior to any blast.

23. Residents within a 1 Kilometer radius of the blast site shall be given notice of blasting 24 hours in advance. Blasting shall be limited to a 1.5 hour window following the required notice.

- The Manager shall place a sign at the entrance to the Quarry indicating that a blast is scheduled, in addition to
- The code of signals used for warning
- and if electric detonators are used requiring all radios be turned off.
- Should conditions beyond the control of the Manager prevent blasting within the prescribed window the Inspector may permit the detonation of the round should it be in the interests of public safety. The Inspector shall specify the conditions under which the round can be detonated.

24. Hours of work are limited to Monday to Friday between the hours of 7:30 Am and 5 Pm. There will be no work on Saturdays, Sunday's or statutory Holidays. Light maintenance is permitted on Saturdays, Sunday's or Holidays. Movement of equipment on or off site is permitted on Saturdays, Sunday's or Holidays.

- Nothing in this condition limits the operator from carrying out such work as may be necessary to save life, relieve human suffering, or to mitigate and environmental emergency, outside side of permitted hours of work.
- Should an authority having jurisdiction declare an emergency, such that product from this quarry is required, the hours of work provisions of this permit will not apply for the duration of the emergency.

25: The operator shall establish monitoring wells, and a water quality and quantity monitoring program. This Program shall be in accordance with the terms of monitoring as laid out in the Golder Hydrological report.

- Copies of the results of the Monitoring program shall be forwarded to the District Inspector without delay.
- The shallow well referred to the Golder report shall be replaced with monitoring at one shallow well on Doran road. Should the owner of such well not wish to participate, then monitoring will be as specified in the Golder report.

26: The Manager shall establish a procedure for use of Gibson's Road that will ensure emergency vehicles have unrestricted use of the Road during response to any emergency.

- Trucking schedules shall be arranged so as not to conflict with Elementary school bus pick-ups and drop off.

27. The Manager shall implement a **suitable** means of communications with area residents to maintain a two way dialogue expressing concerns and or developments.

28: The Manager shall be aware that other Legislation may apply to other components of this operation.