# **Prospecting Tips**

- 1. Most nephrite deposits form lenses that follow contacts between ultramafic and metasedimentary rocks.
- 2. Backtracking boulders that were dispersed down-ice or downslope may help pinpoint in situ deposits.
- 3. Weathered boulders have a rough, buff, brown, gray or white rind, which conceals the nephrite core.
- 4. Because nephrite is relatively hard, a hammer blow to a boulder leaves little or no mark.
- 5. Rodingites, rocks rich in calc-silicate minerals formed by alteration of mafic rocks near serpentized ultramafics, may indicate geological conditions favourable for nephrite.



The 17 ton "Magnificent Boulder" is unearthed in the Dease Lake area.



The largest producer of jade in B.C. is Cassiar Jade Contracting Ltd.

## Where to Buy Bulk Jade for Carving

www.cassiarjadecontracting.com www.jademine.com

## **Selected References**

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#### MINFILE database:

www.empr.gov.bc.ca/Mining/Geoscience/MINFILE

Jade occurrences in BC:

www.empr.gov.bc.ca/Mining/Geoscience/MINFILE/Jade

### **For More Information**

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# Jade in British Columbia Information Circular 2012-3

"B.C.'s Provincial Gemstone"





Ministry of Energy and Mines



## What is Jade?

Jade is a commercial term for green, white, black, or vellow-brown jadeite and nephrite. Jadeitite is a rock that consists of the mineral jadeite (a sodium-rich, high pressure pyroxene), whereas nephrite consists of amphibole minerals (tremolite-actinolite) in which prismatic to needle-like crystals are arranged in randomly oriented bundles. All of the known jade deposits in B.C. are nephrite.

Cry and Dease

Area

nchi Lake

Lake Area

ennings River

# Geology and Origin

Nephrite is documented at over fifty sites in British Columbia's MINFILE database. It is an alteration product of ultramafic (high magnesium and iron, relatively low silica content) rock that is commonly called sepentinite. This alteration reflects the action of heated fluids transferring elements between ultramafic and metadsedimentary or felsic igneous rocks.

Nephrite is found in the Cache Creek, Bridge River, and Slide Mountain geological terranes, • which are largely of oceanic affinity. Regional faults in these terranes may indicate where ultramafic rocks are exposed.

In outcrop, nephrite typically forms lenses near contacts between ultramafic and metasedimentary or igneous rocks. Loose nephrite in boulder fields, talus, and placers also form commercial deposits.

Formed under very high pressures and modest temperatures, blueschist or eclogite-grade metamorphic rocks may point to a jadeite-forming environment. Such rocks are found in the Bridge River, Pinchi Lake, Dease Lake, and Jennings River areas.

Jade occurrences are documented in the B.C. Geological Survey Branch's MINFILE database, which is available on the Ministry's website at: www.empr.gov.bc.ca/Mining/Geoscience/MINFILE/Jade





Cry and Dease Lake Area





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