



Rare Star Garnets : Mother-load of precious gems; new Idaho mine.

Lease Holder/Owner: John Ellison of Lewiston, Idaho.

Agent: Judy West of San Francisco, California.

High grade, gem quality garnet, including rare Star Garnets, are concentrated at Bechtel Butte, Idaho. Exceptional size and quality of stars from this new mine, is expected to produce tonnage of prime gemstones, **more valuable than Star Ruby**. Owner seeks to develop and market a unique, gem and jewelry opportunity.

Mining operations began in 2008 when BLM and Forest Service authorities allowed use of power equipment to excavate below the “weathered zone” for the first time. Results were spectacular and the Owner was encouraged to, and will dig a shaft in 2009 to begin to establish the extent of the two veins already identified, which are expected to extend thousands of feet.

Lease terms with Federal government:

80 acre lease at \$1/acre with 5 year renewable term, so long as the mine is “active”.

\$2.50/lb. royalties are paid only for “good” garnets (~10% to date). Paid for 200 pounds in 2008.

The Forest Service is soon closing the public digging operations at nearby Emerald Creek.

Location of Bechtel Butte and “MINT II B Mine”

The 80 acre track and acquired land claim, covers the bulk of Bechtel Butte, (4,600 ft elevation) straddling the county line of Shoshone and Latah Counties, in the St. Joe National Forest of Idaho. (46° 59’ 30” N; 116° 19’ 19” W) Accessible via National Forest Road 3478.

Geology and Mineralogy of Bechtel Butte Garnets

Deep pinkish-red, pyrope/almandine garnet in the Bechtel Butte / Emerald Creek area occurs in layers of soft mica schist, of the Pre-Cambrian Belt Supergroup. Regional metamorphism of the sedimentary package, by later tectonic activity, was enhanced by proximity of the Idaho Batholith at Bechtel Butte. Professional experts agree that this mine contains the “mother load” of the upper Wallace Fm., one of only two deposits of 6-ray Star Garnets in the world (the other in Sri Lanka), because it is located along the axis of a strong syncline, with the **finest material yet uncovered**.

The “star” quality, or “asterism” is from minute rods of oriented rutile (TiO₂) crystals, that form inclusions within the gemstone. Garnets are found as intact trapezohedron (24sided) crystals, in layers of soft, mica matrix. Recent crystals excavated below the weathered zone, exhibit “Stars” in clear, pinkish-red, color-saturated, facet grade, intact stones, like no where else in the world.

Industrial Garnet could be a secondary by-product

Western Garnet Company from Vancouver owns the nearby Emerald Creek garnet mine and has nearly depleted the 10 foot layer of small stones for industrial uses. They reportedly own thousands acres in India. According to USGS Mineral Commodity Summaries major end uses for garnet were water-jet cutting, 35%; abrasive blasting media, 30%; water filtration, 15%; and abrasive powders, 10%. A 2007 estimated value of crude garnet production (34,000 tons) was about \$4.23 million, while refined material sold or used had an estimated value of \$5.33 million.

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