

Minutes of the 01/20/04 Westside Board Meeting

President Stu Earnst opened the meeting at 7:30PM.

The treasurer's report was read.

Old business:

Stu delivered two new locks to the DNR office to replace the one on the Walker Valley gate.

Two metal signs will be placed at Walker Valley, one near the gate and another near the pit. The sign will be quarter inch steel plates so they should last a little while.

Bob Pattie reported that the copier had to be repaired. Hopefully it will serve us for another few years. Bob did mention that there was a new photocopying business near his home that he could use as a backup.

The response to getting the newsletter via e-mail has been slow, at moment only 22 of you are receiving the newsletter by e-mail.

New business:

Ed Levesque reported that bills of interest to rockhounds were submitted to the state legislature.

- House Bill 2349 submitted by representatives Ericksen and Hinkle, relates to issuing permits to allow recreational mining on DNR lands.
- Senate Bill 6149 submitted by senators Doumit and Morton, also relates to permits for recreational mining on DNR lands.
- It is doubtful that these bills will go anywhere since they are extremely low on the totem pole and it is an election year. It is encouraging for the hobby however that these bills were submitted for consideration.

Ed also announced that the Washington Prospectors show will be February 28 & 29th at the Evergreen Fairgrounds in Monroe.

Wagonmaster Report:

Ed Lehman distributed the preliminary field trip list for 2004. It's pretty sparse with only a few club's field trips listed.

The field trip to Peek a Boo Lake in early August will be exploratory in nature. The area to be prospected can only be reached by a strenuous but scenic 2 mile cross country hike. This prospecting trip is recommended only for those collectors who are in good physical condition. There are thunder eggs in the area and new areas will be explored for additional deposits. The closure of Forest Service roads may affect the field trip so check the website for current information.

Bob O'Brien will be back home on leave around 1/28/04. He expects to be home for about 10 to 14 days before returning to Iraq. He is supposed to be discharged around May.

Meeting Adjourned.

Submitted by
Glenn Morita

Tracing emeralds' origins could foil smugglers?

A technique that reveals where an emerald was mined could help the Colombian government in its efforts to regulate its lucrative emerald industry. It is hoped that this technique will help control the smuggling of the gems out of the country.

Emeralds are not generally considered "conflict" gemstones as is the case with diamonds, rubies, and sapphires. Such jewels fund the purchase of illegal weapons and terrorism, and no country that produces emeralds is under international sanctions on its exports. The emerald trade has been linked however, to the illegal drug trade and paramilitary groups in Colombia.

Since the Colombian emeralds have a reputation of being of high quality, they command prices at least twice that of similar emeralds mined elsewhere in the world. It is suspected that the Colombian drug barons buy foreign emeralds and sell them as Colombian as a means of laundering drug money.

In 2000, a method of identifying an emerald's origin was announced. This method required specialized equipment and vaporizing a tiny amount of the gem. Due the complexity and nondestructive nature of the test it was not popular with gem labs or dealers.

Infrared spectra

Now a new method had been announced by Alain Cheilletz, Philippe de Donato and Odile Barres at the National Polytechnic Institute of Lorraine (INPL). It is non-destructive and uses equipment that gem labs commonly use. An emerald's infrared spectra has routinely been used by dealers to check whether the gem has been treated to hide imperfections. Cheilletz claims that the spectra can also be used to

determine the stone's origin down to the mine it came from.

The new technique looks for lines in emerald spectra characteristic of "heavy" water, in which one of the hydrogen atoms of the water molecule has an extra neutron. The presence of different rare-earth elements also strain the water bonds, producing up to five additional bands in the pattern.

Samples from 46 emerald mines worldwide were found to have their spectra fall into five different groups that corresponded to geographical regions. Subtle differences within a group could be used to identify individual mines. The researchers have already used the method to show that a supposedly Colombian emerald for sale at a gem fair in Switzerland, was in fact from Afghanistan.

from New Scientist, online edition, 1/11/04

Tin, it's NOT JUST a CAN

Tin does not occur naturally as a metal, its primary mineral source is cassiterite. Pure tin is a silvery white metallic element, which is soft and malleable, meaning it is easily shaped by hammering. Pure tin has a relatively low melting point, which is easily attainable in a wood fire, and is therefore easy to melt and cast in a clay mold. Tin is stable in both water and air, meaning it does not oxidize or react easily. When pure tin is bent rapidly, it makes a peculiar squealing noise: this is called the "tin cry".

About one-fourth of the tin consumed annually is in "tin" cans. Since tin does not rust, it is applied in a thin layer to flat-rolled steel thus "tin plate". This is then formed into cans. It is also commonly used in bakeware and food storage containers. Another one-fourth of the tin consumed annually is in electronics, mainly in low melting point solders.

When mixed with other metals, it is a useful material for a wide range of engineering applications. Pewter (an alloy containing about 92% tin with small amounts of other metals added for strength) has long been known for its decorative appearance and ease of working as a craft metal.

Tin bronzes (alloys of copper with 5-20% tin) are renowned for their use in art castings and as bell metals.

Dental filling contain about 13% tin by weight together with silver and mercury. The smoke suppression properties of tin in the form of zinc stannates make it a desirable replacement for fire-retardant agents such as antimony trioxide. Window glass is produced using the Pilkington Process, which involves floating molten glass on molten tin to produce a flat pane surface. Tin salts can be sprayed onto glass to produce electrically conductive coatings. These salt treated panes can be used for panel lighting and for frost-free windows.

A number of materials can replace tin in its various applications. The food industry uses paper, plastic, glass, and aluminum foil. The world production and consumption of tin have not grown during the past 20 years due mainly to the substitution of tin by plastic in the manufacture of cans and other containers, such as tubes for toothpaste and ointments.

By Sandy Riekman - WGMS via The Petrified digest 11-12 2003