

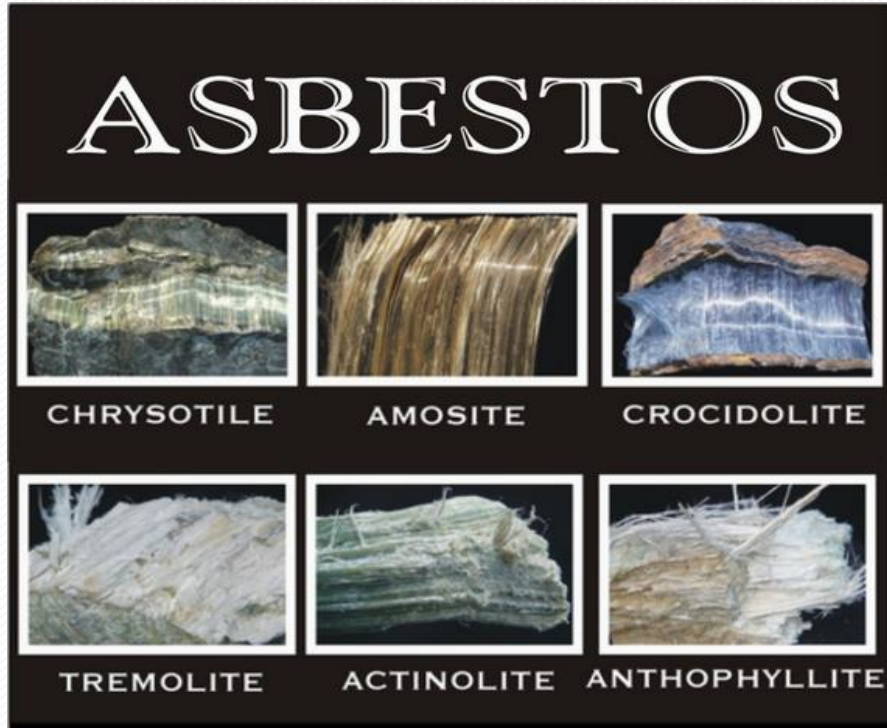
New Tools of Enforcement Asbestos

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*Monterey Bay Air
Resources District*

What...is Asbestos



- 6 Mineral types used in building materials

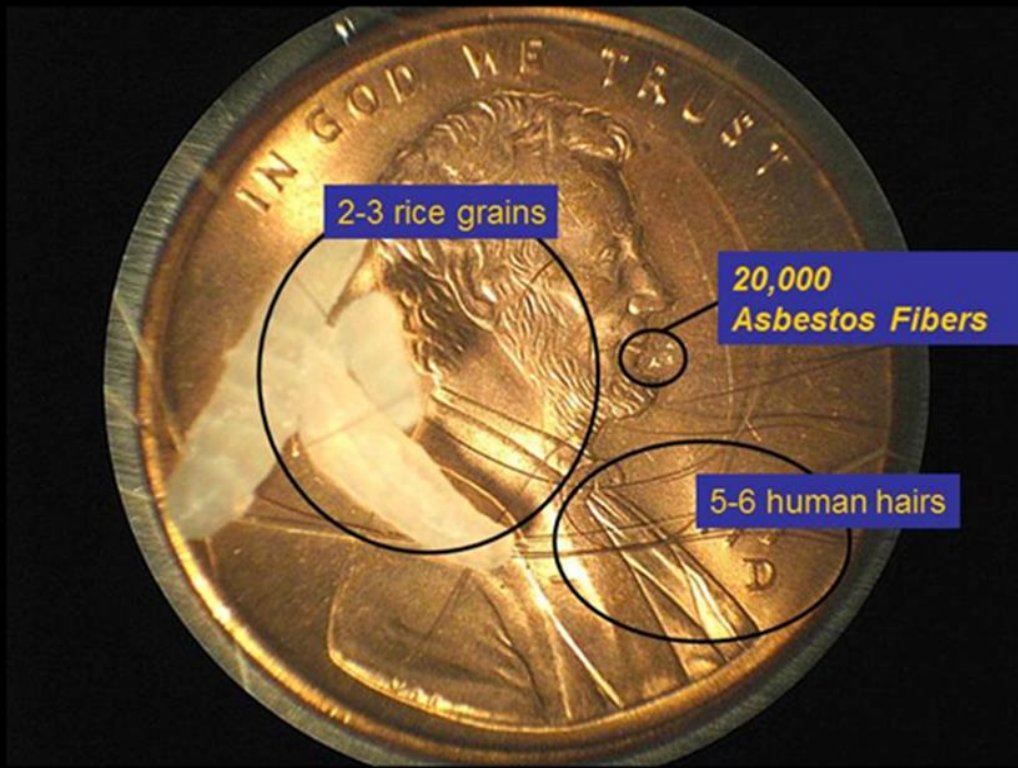


Serpentine Rock
California

Asbestos Facts

- Scientifically Proven Latent Carcinogen that is hazardous to human health.
- Asbestos “Legacy Materials” is still present in thousands of buildings and other structures throughout the United States.
- Asbestos can be naturally present in the Environment.
- **Asbestos is not going away**

How small is asbestos?









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To Shawn Boyle



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Asbestos
Daily update · September 24, 2019

NEWS

Asbestos in NYC is more common than you think
City & State
It has been discovered that the Metropolitan Transportation Authority pumped large amounts of **asbestos**-filled air into an East New York bus depot for ...
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RGR Abatement Shares Useful Information On Asbestos Removal
StreetInsider.com
RGR Abatements, based in Calgary, Alberta, has published a new blog entry discussing how **asbestos** may be removed safely, in accordance with ...
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Fort Dodge City Council prepares for asbestos removal job at Wahkonsa Annex
Fort Dodge Messenger

Enforcement Tools

- Thermo Scientific® MicroPHAZIR AS



Enforcement Tools

MicroPHAZIR AS “Nuts and Bolts”

- Uses a Tungsten bulb to that shines infrared light on suspect asbestos containing material and then measures the spectrum of reflective light
- Uses a long lasting lithium ion battery – good for 8 hours
- Device stores the data collected which can be downloaded for use

Enforcement Tools

Favorable

- Excellent screening tool during asbestos investigations and inspections
- Reduction in evidence sampling and sampling cost savings
- Relatively ease of use – “Point and Shoot” – can read through clear sampling bags in less than 10 seconds

Enforcement Tools

Unfavorable

- A 10 minute calibration cycle at start up
- Qualitative instrument – identifies if asbestos present/absent
- Only identifies the asbestos in the subject material with the greatest percentage content
- Cannot analyze through paint layers
- Hard to analyze dark materials that do not reflect light (example: mastics)

Enforcement Tools

Lessons Learned

- Some issues with “false positives” or hard time distinguishing when analyzing wallboard and heavy concentrated cellulose fiber materials.
- Recognized and reported non-regulated asbestiform minerals (Blueschist) as “chrysotile”



Photograph of linoleum backing scrapped mechanically by a Bobcat Tractor .

The top vinyl layer is removed, leaving the disturbed paper backing



- Photograph of various broken 9 by 9-inch and 12 by 12-inch floor tiles



Photograph of 9 by 9-inch floor tile disposed in a garbage can.









Photograph showing suspect serpentine NOA soil being excavated prior to analysis.

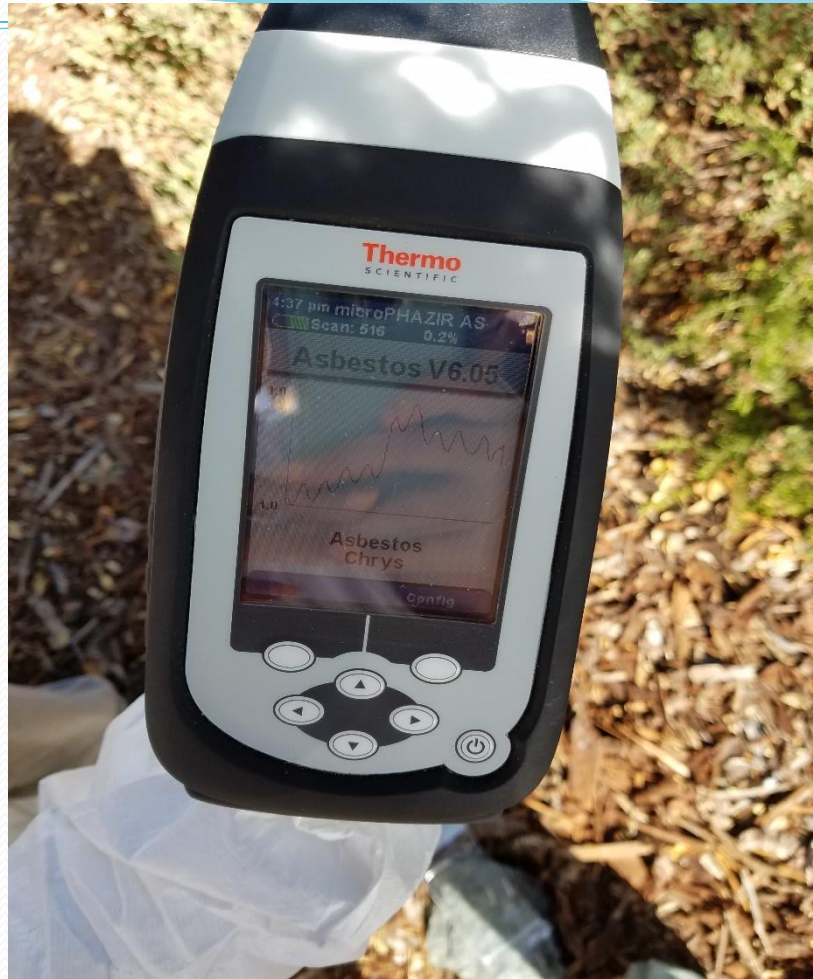


Use of the MicroPhazir indicated the presence of chrysotile in the soil.



Confirmation bulk samples later determined the presence of serpentine in the soil $>.25\%$.







In 2018, The US Geological Survey developed a portable, handheld spectrometer that detects asbestos fibers in vermiculite insulation in response to asbestos exposure connected to Libby amphibole vermiculite. An estimated 30 million homes in the US may have asbestos contaminated insulation from Libby's vermiculite mine.

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