



Anchorage

NEWS RELEASE

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FOR IMMEDIATE RELEASE

Edmonds

HART CROWSER INVESTIGATES ABANDONED MINE DANGERS

Seattle, WA (April 18, 2007)—Geologists from Hart Crowser are getting ready to head back into the mountains again, to where history and environmental science meet. Washington State has more than 400 abandoned metal mines scattered within its borders, mostly in the Cascades and the northeast quarter of the state. Many of the mines ceased operations over 50 years ago, leaving a legacy of rich history and potential environmental impacts. Mining helped drive settlement of the state and provided good jobs for generations; today, however, some of the abandoned mine sites leach metals into surface water, with devastating impact to fisheries resources. Metals contamination can come from piles of waste rock, mine processing waste (tailings), or directly from the underground workings.

Portland

The Washington State Department of Ecology has just awarded a third task order to Hart Crowser to locate and collect samples at some of these abandoned mines, to appraise their potential for environmental damage. The mines produced metals ranging from antimony and lead, to gold and silver, which means the inventory is as much about chemistry as it is about finding and hiking on forgotten trails.

Seattle

Many of these mines were last mapped in 1956, before the potential for environmental impacts were recognized. For this reason, Ecology asked Hart Crowser to visit dozens of sites, to develop recommendations on which sites need immediate cleanup, which need more detailed assessment, and which need no follow-up action.



One geologist, Pat Reed, reviewed mine records from the federal government, counties, and historical sources before heading into the field. "It's kind of humbling to see photos of what was going on at a location 100 years ago. The people in the photos were sometimes living in primitive conditions, enduring all kinds of terrible things, on the chance that they would strike it rich. Now the site is a forest of pine and fir trees, with chipmunks climbing around the remains of their cabins."

Some of the mine sites were relatively easy to locate. Property owners were generally very helpful and could escort the staff to the mines. However, one of the biggest challenges facing the staff was finding mines in remote areas of the national forests, sometimes on steep slopes with overgrown vegetation. Examining aerial photos proved useful, but sometimes having a keen eye for the unusual came in handy. Mike Swenson, project engineer, recalled that to find one site they drove for miles on an unpaved national forest road, hiked for half a mile, cut through a ravine, hiked along a creek, and finally saw something that "looked out of place," which turned out to be waste rock covered with forest duff and trees at the mine.

The staff used a GPS during the course of their work, and an old fashioned compass when dense trees blocked the satellite signals. Using a GPS antennae solved this problem for the most part, but as Abby Bazin, project engineer recounts, "It's not very practical to hike through the forest with an 18-foot antennae." Field staff photographed and evaluated the sites, and sampled the soil, surface water, and waste rock. Biologic records were also compiled to assess potential impact of contaminant released from the mine sites on threatened and endangered species.

The field engineers worked during hunting season last year as well as during freezing weather to get the first two phases of work completed on schedule. "We wore bright orange and got numb toes and fingers," says Swenson. "You do what you have to do." The staff saw plenty of deer last fall. On earlier abandoned mine projects, Hart Crowser geologists have frequently encountered bears, and occasionally a bobcat. Now as snow



melts in the mountains, the geologists are preparing to go back into the field to continue their work.

For more information about Ecology's Abandoned Mine Lands Initiative, go to http://www.ecy.wa.gov/programs/tcp/mines/Mines_hp.htm. Hart Crowser is a 105-person employee-owned environmental and engineering consulting firm headquartered in Seattle, with offices in Edmonds, Washington; Portland, Oregon; and Anchorage, Alaska. The firm specializes in environmental and geotechnical engineering, natural resources, and environmental remediation technologies. Corporate offices are located at 1910 Fairview Avenue East, Seattle, Washington 98102; telephone (206) 324-9530 and fax (206) 328-5581. Visit the firm's website at www.hartcrowser.com for more information.

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