

# What's Happening at Red Devil Mine?

## A Talking Circle for Interested Kuskokwim Communities

BLM

February 9, 2012

Alaska Forum on the Environment  
Dena'ina Center • Anchorage, Alaska

### WELCOME!

Thank you for joining us. Whether you're hearing about the Red Devil Mine environmental investigation for the first time or attended past community meetings, we're glad you're here.

### PURPOSE

Due to broad community interest along the Kuskokwim River, the BLM is hosting an interactive Talking Circle session to share information about the Red Devil Mine site and hear your thoughts about the investigation.

The purposes of this Talking Circle are:

- To discuss the status of the Red Devil Mine investigation and the sampling results available to date
- To seek your input about the best format for tribal consultations and community meetings
- To invite your comments, questions and concerns about the Red Devil Mine investigation and the BLM's tribal and community involvement efforts for this project

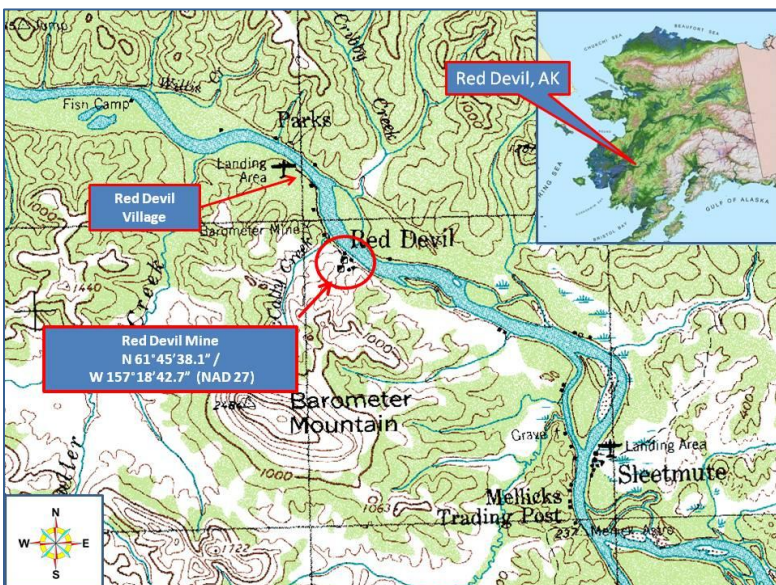


### BACKGROUND

Mercury ore was extracted from underground and processed into quicksilver from 1939 until 1971 at the Red Devil Mine, near the village of Red Devil on the Kuskokwim River. The BLM took over management of the mine property in 1981, approximately 10 years after the mine was

abandoned. Since that time, the BLM has conducted cleanup operations at the site and is currently working to identify remaining risks to human health and the environment.

The lands at Red Devil Mine are selected by The Kuskokwim Corporation (surface estate) and Calista Corporation (subsurface estate) as part of the Sleetmute Village Townsite selection under the Alaska Native Claims Settlement Act.

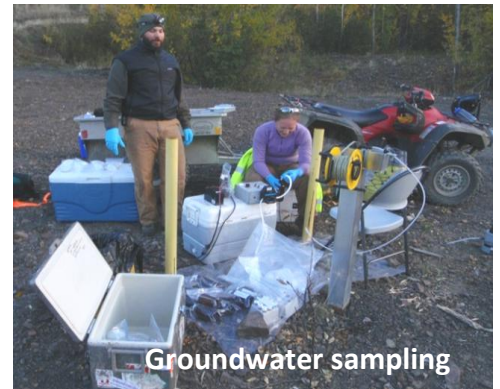


Anchorage Field Office



## REMEDIAL INVESTIGATION / FEASIBILITY STUDY

In 2009, the BLM began a *Remedial Investigation and Feasibility Study* of the mine site. The investigation uses a process defined under the Comprehensive Environmental Response, Compensation, and Liability Act, known as CERCLA. The BLM is conducting this investigation in coordination with the Alaska Department of Environmental Conservation, Alaska Department of Health and Social Services, U.S. Environmental Protection Agency, and Agency for Toxic Substances and Disease Registry of the U.S. Center for Disease Control.



The purpose of the Red Devil Mine investigation is to improve our understanding of the physical setting and the potential impacts of the mine tailings (the leftover material after ore is processed), analyze potential risks the mine may have on human health and the environment, and determine what can be done to address those risks.

Extensive field work, including hundreds of soil, water and sediment samples collected at or near the mine site, occurred in the summer and fall of 2010 and 2011. The metals of greatest concern are mercury, arsenic and antimony. The results will be compiled in a draft *Remedial Investigation* report that will be available for review in April 2012.



**Fish and Game biologist Brian Collyard and Mike Thalhauser of Kuskokwim Native Association tag lush in the Kuskokwim River.**

## FISH CONTAMINANT STUDY

The middle Kuskokwim River in Alaska runs through a highly mineralized region with mercury deposits. The potential for transfer of mercury to fish through erosion from mined and unmined areas along the Kuskokwim River has led to numerous contaminants studies in the region.

In 2010, the BLM collected samples from adult northern pike and other predatory species, including sheefish, lush (burbot), Dolly Varden and arctic grayling in the Kuskokwim River, the lower stretches of the George and Holitna rivers, and eight other tributaries, including Red Devil Creek. The samples were analyzed for 19 different metals, including mercury.

The 2010 fish tissue results showed mercury concentrations similar to those observed in an earlier study by the U.S. Fish and Wildlife Service on the lower Kuskokwim River in the Yukon Delta National Wildlife Refuge. That study prompted the Alaska Department of Health and Social Services (DHSS) to issue fish consumption guidance for the lower river. Based on the BLM study results, the DHSS issued similar guidance for the middle Kuskokwim in June 2011.

Both guidance documents recommend that women of childbearing age and young children limit their intake of certain fish species taken in the lower and middle section of the Kuskokwim River. The guidance documents can be found at <http://www.epi.alaska.gov/eh/fish>.





Fish tagging

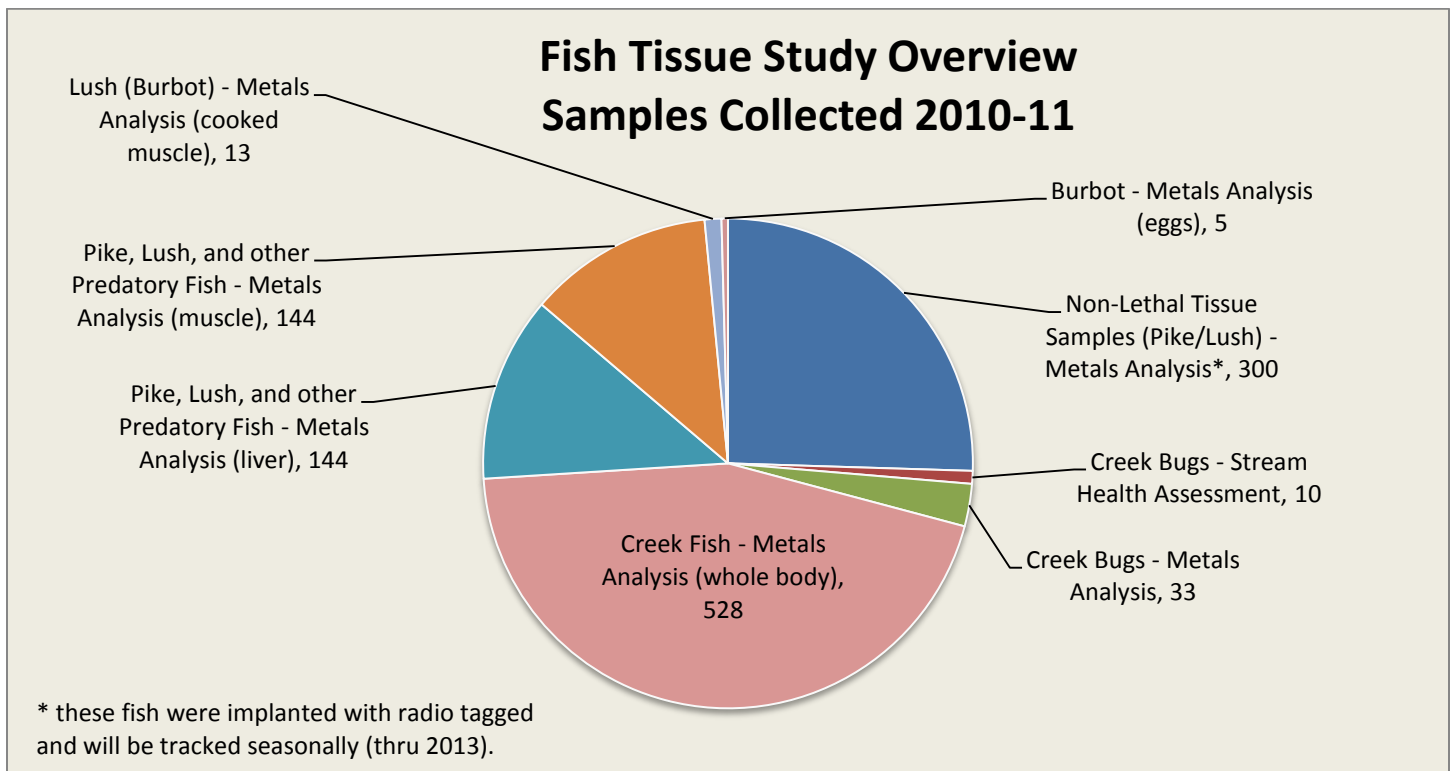
A report summarizing the 2010 data and analysis ([http://www.blm.gov/ak/st/en/prog/fisheries/rdm\\_fish.html](http://www.blm.gov/ak/st/en/prog/fisheries/rdm_fish.html)) confirms that fish species such as sculpin and juvenile Dolly Varden in Red Devil Creek have elevated levels of mercury compared to samples from these species collected in other Kuskokwim River tributaries.

The report also found elevated levels of mercury in long-lived predatory fish, such as northern pike and lush, throughout the study area. Northern pike from the George River had significantly greater mercury concentrations than northern pike from the Kuskokwim and Holitna rivers. This report also highlighted the

complexity of mercury chemistry within the aquatic food ecosystem, which includes fish species that seasonally migrate within the Kuskokwim and its tributaries.

In 2011, the BLM and the Alaska Department of Fish and Game initiated a two-year radio tracking project to better understand the movements of northern pike and lush in the middle Kuskokwim River. This effort involved tagging 300 fish from the George, Holitna and Kuskokwim rivers, and collecting fish tissue samples from several tributaries, including Red Devil Creek, for metals analysis. The data from this phase of the study will improve our understanding of the interaction between mercury sources and seasonal fish movement in the larger Kuskokwim basin. An updated report will be posted at the Web address above in March 2012.

Data from fish tissue sampling and radio tracking will provide information about basin-wide levels of mercury and other metals in pike, lush and other predatory fish. This data will also inform the *Feasibility Study* and alternatives for cleanup of the Red Devil Mine site.



## COMMUNITY INVOLVEMENT

Ongoing tribal and community involvement is an essential part of this investigation. The BLM's community involvement process is guided by *CERCLA Sec. 117 Public Participation and Executive Order 13175 – Consultation and Coordination with Indian Tribal Governments*.

Local community input has helped the BLM structure many of the studies and projects at the Red Devil Mine site. For example, the BLM tested both cooked and uncooked lush for methylmercury at the suggestion of local subsistence users.



The BLM will incorporate local and traditional knowledge and participation at every stage of this investigation, including when crafting cleanup alternatives for the *Feasibility Study* later this year.

### Past Community Involvement

The BLM began the community involvement process for the Red Devil Mine *Remedial Investigation and Feasibility Study* in early 2010. The BLM contacted federally recognized tribes, city governments and village corporations in the middle and lower Kuskokwim River area to schedule tribal consultations and community meetings. Numerous communities accepted the BLM's invitation to meet or consult.

The BLM met with 9 communities in 2010 and 16 communities in 2011. Most were joint meetings with tribes, cities, village corporations and interested community residents. The open format allows interested organizations and individuals to hear comments and concerns from others.



The BLM arranged an interagency site visit at Red Devil Mine in August 2011. The BLM and coordinating agencies were joined by tribal and community leaders from Sleetmute, Red Devil, Crooked Creek, Bethel and the Kuskokwim River Watershed Council. State Representative Alan Dick also participated.



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Upcoming Community Involvement

The BLM is currently scheduling tribal consultations and community meetings to discuss the draft *Remedial Investigation* report, scheduled for release in April 2012, the 2010 and 2011 field sampling results, and the results of the fish tissue study.

If your tribe or community would like to meet with the BLM, please contact Teresa McPherson at (907) 267-1420 or (800) 478-1263.

If you have suggestions about how the BLM can provide additional information helpful to your community about the Red Devil Mine investigation, give us a call or drop us an e-mail. We look forward to hearing from you!



Lower Kalskag



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# Project Timeline

**Tribal Consultations & Community Meetings**  
 Spring 2010

**Field Work and Fish Tissue Sampling**  
 Summer 2010

**Remedial Investigation Phase I Field Sampling**  
 September 2010

**Remedial Investigation Draft Work Plan**  
 February 2011

**Public Review of Draft Work Plan Tribal Consultations & Community Meetings**  
 Spring 2011

**Remedial Investigation Final Work Plan**  
 Summer 2011

**Fish Contaminant Study Report**  
 June 2011

**Remedial Investigation Phase II Field Sampling**  
 Summer 2011

**Draft Remedial Investigation Report**  
 April 2012

**Tribal Consultations & Community Meetings**  
 Spring 2012

**Final Remedial Investigation Report**  
 Fall 2012

**Feasibility Study**  
 November 2012

**Proposed Plan**  
 March 2013

**Tribal Consultations & Community Meetings**  
 March/April 2013