STATE OF ALASKA

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF WATER

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FIELD INSPECTION REPORT HECLA GREENS CREEK MINING COMPANY

Inspection Date:	September 09, 2010, 7:30 AM to 12:30 PM.
Report Date:	September 23, 2010
Weather:	Light rain then fine
HGCMC Personnel:	Jennifer Saran, Environmental Affairs Manager Pete Condon, Geochemist
Tetra Tech:	Ron Rimelman, Gene Weglinski, Dave Cox, Henry Saver, Mark Williamson, Joe Fran, Susan Corser, Tim Reeves, Steve Negri, Mike Henderson, Brita Woeck, Henry Saver, Joe Frank
Agency Personnel:	Kenwyn George, ADEC, Tom Crafford, Steve McGroarty, Carrie Bohan, William Groom, ADNR; Kate Kanouse, Katie Eaton, ADF&G Habitat; Myra Gilliam, Sarah Samuelson, Chad Hood, Steve Paustian, Barbara Adams, Dave Barto, Karen Iwamota, USFS; Cindy Hartmann Moore, Linda Shaw, NMFS; Deborah Rudis, USFWS; Cindi Godsey, Lynne McWhorter, Phil North, EPA; Teri Camery CBJ



Pete Condon talks to agency personnel at Site 23

<u>Purpose of visit</u>: To show the EIS review team the present status of affairs at surface sites at Greens Creek and the area for the proposed tailings expansion.

Safety building: A new parking pad is under construction just up the road from Bruin Creek, opposite the safety building. Clean water is diverted to Bruin Creek, while contact water from the road and new parking pad goes to Pond C and is then sent to treatment at the tailings treatment plant and subsequent discharge to Hawk Inlet.

<u>Mill:</u> A concrete overlay to the road was partially complete, and there will be a high curb alongside this road to contain contaminants and act as a safety barrier. Completion of this concrete overlay to the portal will occur in 2011. A mill tour was provided.



Concrete overlay over the road at the mill site

Site 23: The site had material from the 1350 site piled on the containment area awaiting transport underground. This material is to be placed underground rather than in Site 23 because it already has some of its carbonate used up in neutralizing pyrite within the waste rock. It would create acid within site 23, which is to be avoided as much as is feasible before this material is encapsulated to keep oxygen from it. There is approximately 30,000 cy of material left at Site 1350 to be brought to Site 23 and placed underground. When material was first placed at site 23, it was thought that native rock underlay the site. However, subsequent investigation indicates it is quite likely the waste rock is placed on landslide material. An inclinometer located on Site 23 has indicated a 3mm/year movement of the waste rock pile. HGCMC will be further investigating the movement during the coming year with new inclinometers that were installed this summer, and will make a determination as to whether or not the material, or some of it, should be re-located to the tailings facility. Water quality predictions presently indicate the cadmium fresh water quality standard will not be met at closure for discharge from this site.



Site 1350 material on containment pad at site 23. Naturally occurring revegetation on the cap.

Site E:

Material was first placed at this site in 1988. There was 25'-30' of waste rock (270,000 cy) on top of cells filled with till. This material is being moved to the tailings facility for co-disposal with tails. So far 80,000 cy has been moved; 40,000 cy in 2009 and the same this year. It will be a 5-year project to move all the potentially acid generating material from this site. At the time of the site visit the site had been graded, compacted and closed for the winter. Since being placed at the site the material has oxidized to a depth of 5 feet; this is a brown colored material, while the unoxidised material is a grey color.



Site E contoured for runoff

Site E oxidized/unoxidized materials

Tailings site:

Tails were being placed in the NW corner of the site.



Tailings placement in NW

If tailings expansion to the south occurs, the pile would eventually rise to the level of the dip in the hills in the distance, from this viewpoint.

The group toured the water treatment plant and then was able to observe the proposed tailings expansion area from a vantage point to the south of Pond 7 that overlooks the Tributary Creek valley. Expansion options were discussed with approximate boundary lines pointed out.



Tailings expansion site – it will extend roughly to the far distant ridge of trees to the right of the picture.