



SLEMA
February 2011
Environmental Update

Zhong Liu
February 28, 2011

Outline

1. Mine Update
2. Inspection Update
3. Regulator Update
4. Stakeholders' Update
5. Reviews
6. News



Acronyms

- AEMP – Aquatic Effects Monitoring Program
- ARD – Acid Rock Drainage
- DFO – Fisheries and Oceans Canada
- EC – Environment Canada
- ENR – Department of Environment and Natural Resources, GNWT
- GNWT – Government of the Northwest Territories
- INAC – India and Northern Affairs Canada
- MVLWB – Mackenzie Valley Land and Water Board
- PK – Processed Kimberlite
- SLEMA – Snap Lake Environmental Monitoring Agency
- SNP – Surveillance Network Program
- TDS – Total Dissolved Solids
- WEMP – Wildlife Effects Monitoring Program
- WTP – Water Treatment Plant
- WMP – Water Management Pond



1.1 Mine Update – January 2011

- Production rate: 73.7 % of its capacity (71,939 tonnes of kimberlite processed)
- 2,307 m³ of water withdrawn from Snap Lake
- 606,966 m³ of treated water discharged into Snap Lake
- 68,112 tonnes of coarse reject and 57,293 m³ of slimes deposited in the North Pile
- 7 spills (0 reportable)
- Water sampled in 6 monitoring stations
 - The monthly average for all parameters met compliance
 - Toxicity tests of WTP effluent conducted in January 2011
- Construction of the winter road was initiated on January 6 with the road officially opening on January 28, 2011



1.2 Winter Road Start Up

- Notice to the Inspector on January 25, 2011
 - “The Snap Lake Spur Road portion of the winter road will commence Friday January 28, 2011”



1.3 Response to DKFN Comments on LUP

- Dated January 28, 2011
- “De Beers remains firm on the position that we will not be entering into any new Impact Benefit Agreement for the Snap Lake Mine”
- De Beers offers to assist the Deninu Kue First Nation with capacity funding for participation of the workshops and technical sessions being held in Yellowknife for the pre-application engagement of water licence renewal



1.4 De Beers Commitment to Sustainable Mineral Waste Management

- Issued in January 2011 by De Beers Chief Operating Officer, Chantal Lavoie
 - Locate, design, construct, operate, decommission and close facilities in a manner such that all structures are stable, and solids and water are managed within designated areas;
 - Facilities and practices conform to regulatory requirements, sound engineering practice, company standards, Mining Association of Canada's Guidelines, and commitments made to Communities of Interest;



De Beers Commitment to Sustainable Mineral Waste Management

- Assign accountabilities and provide sufficient resources at each mine;
- Implement and maintain effective management systems;
- Consult with Communities of Interest, taking into account their considerations relating to mineral waste management facilities; and
- Establish an on-going program of review and continual improvement to manage health, safety and environmental risks associated with mineral waste management containment facilities



1.5 Scheduled Pre-application Workshops

➤ De Beers is planning on holding two technical workshops on

- April 20, 2011
- May 4, 2011

To discuss Water Quality and Closure issues respectively prior to the application to renew Water Licence



1.6 Community Engagement Update

- Dated February 8, 2011
- Record table provided for De Beers engagement with the Deninu Kue First Nation regarding current Land Use Permit Application
 - From September 27, 2010 to February 8, 2011



1.7 Installation Surface Core Drilling Program

- Addressed to the Inspector
- Dated February 16, 2011
- De Beers is considering drilling to help delineate the dyke at Snap Lake Mine
 - Detailed description attached
 - “The drill is a closed system – any water used for drilling processes will be brought back to site and disposed of it appropriately. Depending on the solids content on the water it will be placed in the North Pile or else processed in the water treatment plant”
 - Mitigation measures planned



2. Inspection Update

- INAC Inspector – Tracy Covey
- Water Licence Inspection
 - January 12, 2011

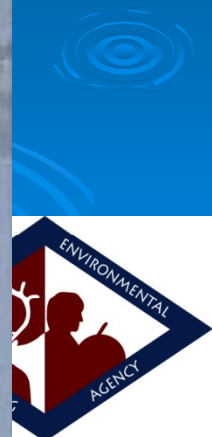


2.1 Water Licence Inspection

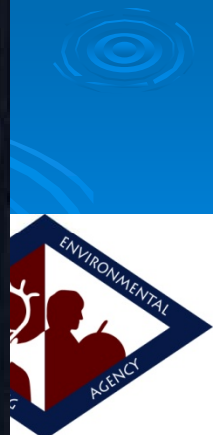
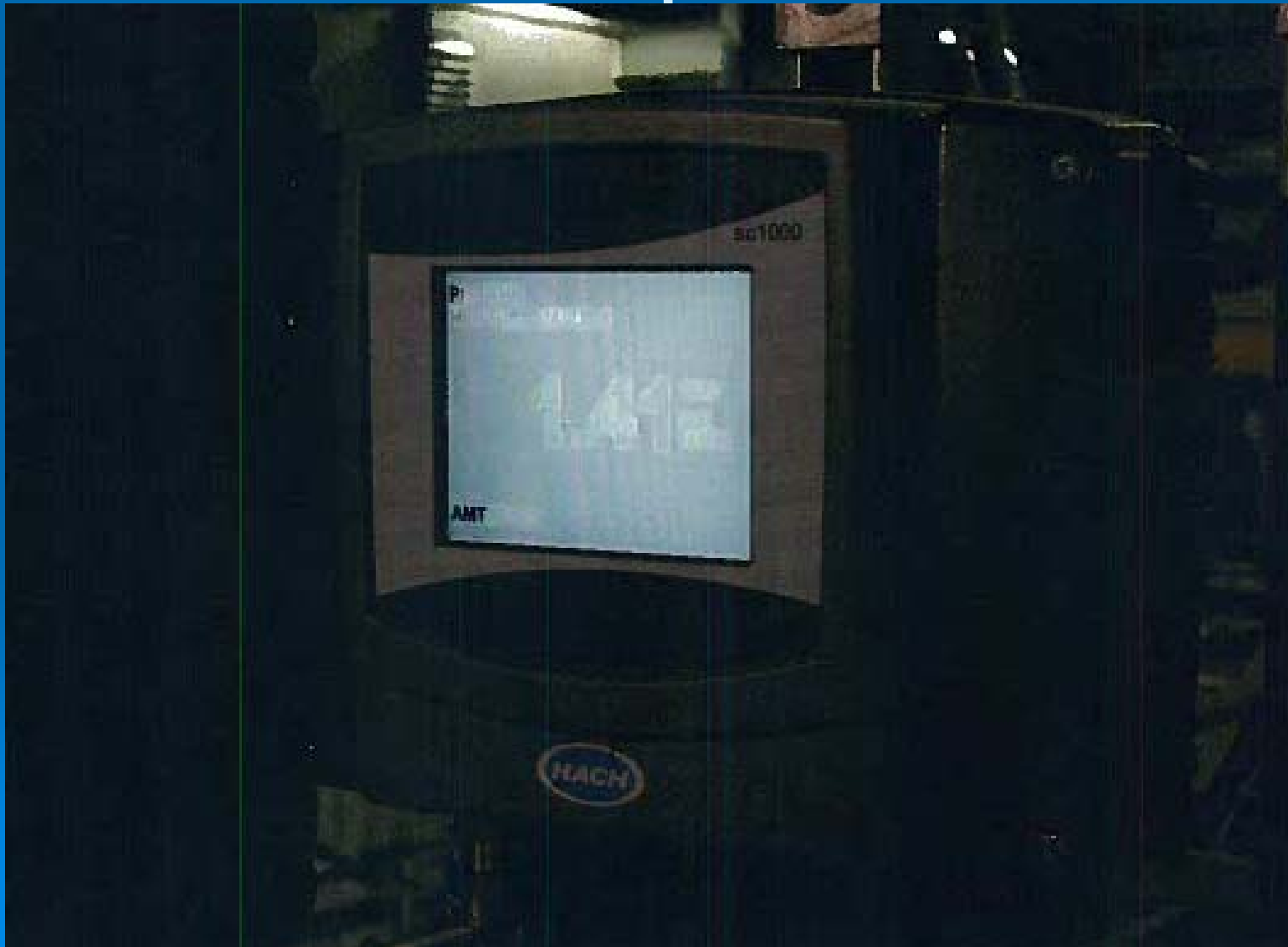
- Inspected fuel storage, water management, waste management, and Closure and Reclamation Plan
- Environmental risks were identified
 - The equipment and operational practices needed to transfer bulk nitrate materials from trucks into the storage facility are not yet in place
 - Other risks identified in previous inspections remains
 - Interim Closure and Reclamation Plan
 - Reclamation Status Report
 - Diffuser line
 - Elevated ammonia situation at the historic AN storage pad



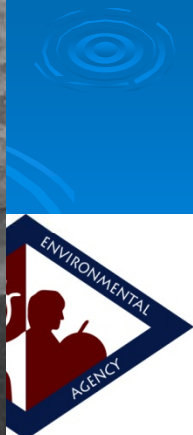
A significant volume of fuel remains stored on site.
No signs of containment issues at the fuel tank farm were evident at the time of the inspection



Reading of ammonia nitrogen within acceptable level



The equipment and operational practices needed to transfer bulk nitrate materials from trucks into the storage facility are not yet in place



3. Regulator Update

- MVLWB granted the Type A Land Use Permit MV2010D0053 on February 16, 2011
 - Period of 5 years commencing February 16, 2011 and expiring February 15, 2016
 - Conditions 60 through 62 regarding the posting of a security deposit - \$18,360,819.00
- MVLWB corrected several errors in the LUP MV2010D0053 on February 25, 2011
 - SLEMA pointed them out on February 25



4. Stakeholders' Update

- Environmental Agreement 2009 Annual Report Commented by INAC
- DKFN Response to De Beers Letter on January 28, 2011



4.1 Environmental Agreement 2009 Annual Report Commented by INAC

- Dated January 25, 2011
- Found the EAAR 2009 to be satisfactory with regard to the requirement of the Environmental Agreement
 - INAC encourages De Beers to work with SLEMA and the Parties to the Environmental Agreement to establish an annual due date for this report



Comments from the Water Resources Division of INAC

- There is discrepancy in the numbers of reports and programs listed in different parts of the annual report
- Every plan should be reviewed and submitted for approval every 5 years, at a minimum
- It would be helpful for the readers to group similarly themed plans/programs together (i.e. water, air, vegetation, wildlife, etc.)
- Public concerns in De Beers newsletter “Let’s Talk” were not reported in the annual report



4.2 DKFN Response to De Beers Letter on January 28, 2011

- Dated February 8, 2011
- Confirmed to attend the water licence workshops. “However, we would like to make it clear that we do not consider these workshops to be meaningful consultation in relation to our interest in the Snap Lake Diamond Mine”
- DKFN is concerned that “statements De Beers has made and continues to make misrepresent and mischaracterize the history and traditional way of life of the DKFN and its people”



5. Reviews

- Vegetation Monitoring Program 2009 Annual Report
 - Received in November 2010



5.1 Vegetation Monitoring in 2009

- The following monitoring activities were not required as part of Vegetation Monitoring Program as there was minimal additional surface disturbance
 - Area of Impact
 - Ecological Land Classification (ELC)
 - Reclamation Monitoring
- Next survey will take place in 2013



Dustfall Monitoring in 2009

- In 2009, dustfall was measured using an environmental standard. In the past, hygiene standard was used
- 14 samples exceeded the 158 mg/dm²/30d Alberta guideline for commercial and industrial properties, at stations near the Mine site
- The average total dustfall rate in 2009 was higher than observed in 2008 and 2007
- A comprehensive study will be conducted again in 2013 or earlier if De Beers observes significant dust accumulation and/or stressed vegetation in the interim



De Beers Position

- De Beers claimed that the exceedances could not solely be used to ascertain whether dustfall is affecting vegetation communities because the guideline criteria were developed in 1975 and there are not scientifically defensible relationships between the criteria and discernible effects on vegetation communities
- De Beers planned to 6 permanent plots during the 2010 Caribou Behaviour Study



Environmental Analyst Comments

- The trend of dustfall rate is up
- Literature review should be done for the relationships between the criteria and discernible effects on vegetation communities



6. News

- SLEMA Liaison Meeting
- Gahcho Kue Diamond Project



6.1 SLEMA Liaison Meeting

- February 9, 2011
- Staff from SLEMA, ENR and INAC
 - Review of the Environmental Agreement
 - Discussion on Water Licence Renewal



6.2 Gahcho Kue Diamond Project

- De Beers and Mountain Province Diamonds submitted to the Mackenzie Valley Environmental Impact Review Board (MVEIRB) the Environmental Impact Statement (EIS) for the proposed Gahcho Kue Mine in December 2010

