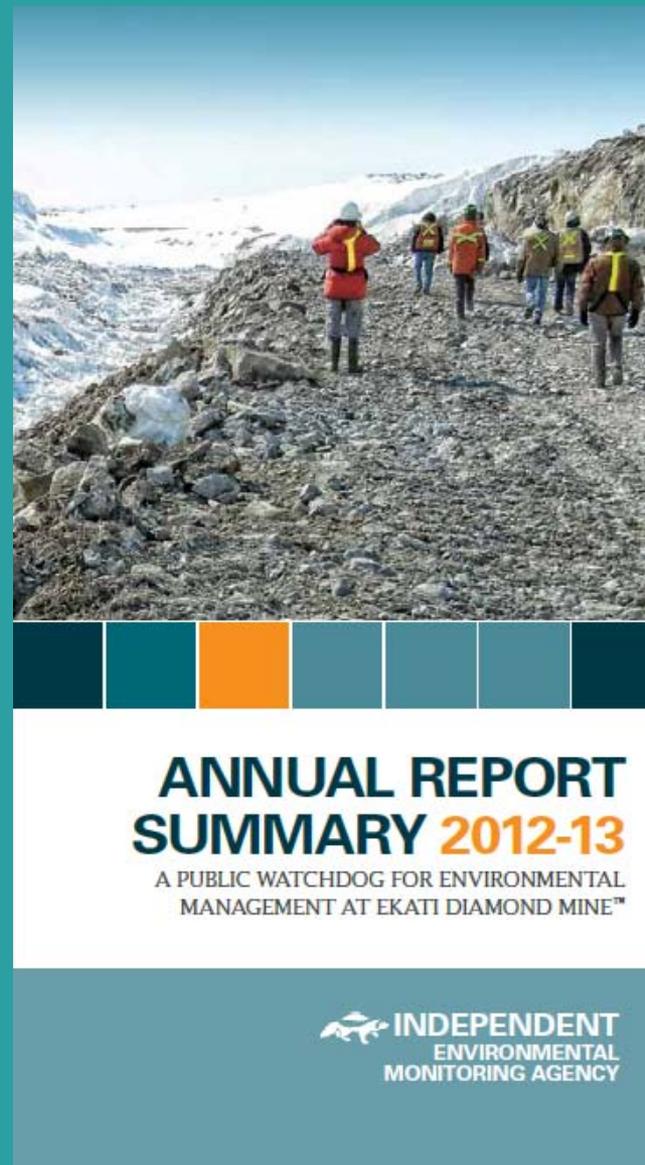
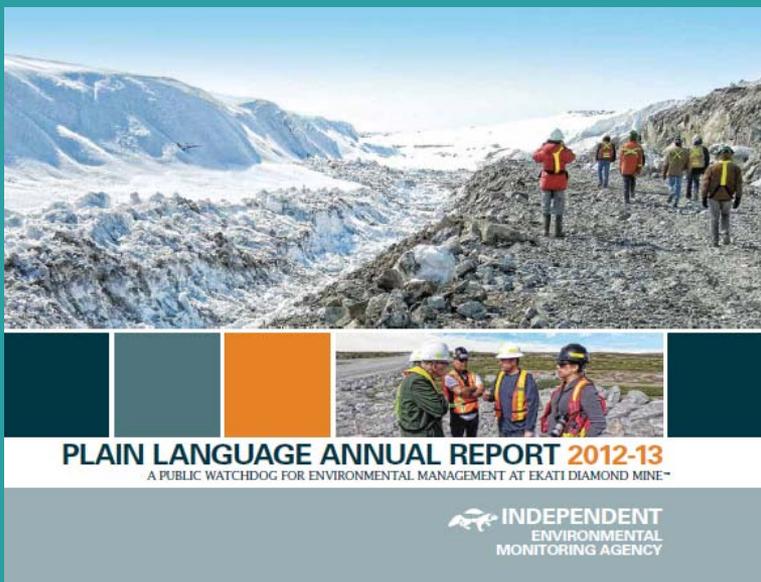


# Independent Environmental Monitoring Agency 2012-13 Annual Report Summary





# Outline

- Agency Activities 2012-13
- Wildlife
- Water and Fish
- Air Quality
- Traditional Knowledge
- Processed Kimberlite and Waste Rock Management
- Closure and Reclamation
- Regional Monitoring and Cumulative Effects
- Assessment of the Regulators
- Assessment of BHP Billiton
- Recent Agency Activities





# Agency Activities 2012-13

- 4 board meetings, site visits to Ekati, and AGM
- Implementation of Agency Communications Plan
- Agency visit to Whati
- Participated in Water Licence Renewal workshop and public hearing
- Meetings with signers of Environmental Agreement and Inter-Agency Coordinating Team





# Agency Activities 2012-13

- Participated in carnivore and caribou monitoring workshops
- Participated in meetings on the 2012 Environmental Impact Report
- Encouraged further progress on revising the financial security for Ekati





# Wildlife

- Agency reviewed 2012 WEMP report
- BHPB carried out a grizzly bear monitoring program and a remote camera program
- Aerial caribou surveys apparently done in 2012 but not reported
- Mine footprint: 3,214 ha (32 km<sup>2</sup>, size of Yellowknife)
- Wildlife deaths in 2012: 14 small animals (vehicle-related); 4 non-vehicle (included 2 caribou killed by wolves)





# Wildlife

- Agency pleased that BHPB carried out a grizzly bear monitoring program
  - Hair snagging posts around Lac de Gras in cooperation with Diavik in 2012, southern study area started summer 2013
  - Results just received, will be reported on in 2013 Agency Annual Report
- Need for monitoring guidelines for caribou and carnivores (grizzly bears, wolverines)
  - Behavioural surveys and camera observations conducted
  - No aerial survey program reported for caribou since 2009
  - Agency learned later that aerial surveys apparently began again in summer of 2012
- Still a need to investigate the causes of the zone of influence for caribou around Ekati



# Water and Fish

- Aquatic Effects Monitoring Program reviewed and further improvements made; some changes downstream of the mine
- Water Licence renewed with new limits based on site-specific objectives, requirement for nitrogen response plan
- Efficient licence renewal process run by WLWB





# Water and Fish

- Changing zooplankton communities have potential to affect fish health
- Improvements made to fish monitoring:
  - Slimy sculpin added; every 3 years
  - Trout not killed for sampling; analyze piece of muscle
  - EROD tested: biological reaction in fish livers to hydrocarbon or organochlorine exposure
- Some issues with fish sampling cause uncertainty over dioxins and furans contamination
- Evidence of possible hydrocarbon exposure in fish
- Selenium: elevated in muscle of trout and whitefish





# Air Quality

- 2011 Air Quality Report received in June 2012
- BHPB reported and Agency consultant found major problems with data collection for air quality monitoring
- New incinerator finally began working in January 2012, along with much improved waste practices
- Revised waste management plan should be circulated





# Traditional Knowledge

- BHPB held community engagement visits; Subjects water management during the spring melt, fish sampling, caribou and grizzly bear monitoring but no reports produced
- TK literature reviews prepared for company on wildlife barriers, use of TK in mine closure planning (reports not released to date)





# Processed Kimberlite and Waste Rock Management

- Beartooth pit approved for processed kimberlite storage, Agency recommends careful monitoring of Beartooth pit water
- Large portions of the Fox waste rock pile not freezing
- Follow-up work needed on hydrocarbons found in kimberlite rejects





# Closure and Reclamation

- BHPB submits its first Annual Progress Report on reclamation
- Delays in widening the Panda Diversions Channel and progressive reclamation at Old Camp
- Limited progressive reclamation; little reclamation research conducted in 2012-13 with some research delayed at least 1-2 years
- Delays in setting financial security with global amount now set by WLWB
- Work required to identify and set security under Environmental Agreement





# Regional Monitoring and Cumulative Effects

- GNWT project on cumulative effects in Bathurst herd summer range released and a workshop held but further work needed
- AANDC has not developed best practices for mitigation of impacts on caribou
- CIMP will focus on caribou, fish and water but relevance to Ekati not clear





# Assessment of the Regulators

- Regulators effective and work together.
- **DFO** staff helpful during water licence renewal. We look forward to stronger **EC** input.
- **AANDC** inspections are high quality but more resources needed for inspections and technical input.
- **GNWT-ENR** good advice on air quality. Hosted wildlife monitoring workshops. Should be better input on technical matters, especially in light of devolution.
- Agency pleased with **WLWB** water licence renewal process . Agency disappointed with financial security review.





# Assessment of BHP Billiton

- BHPB operates Ekati in environmentally sound way, with room for improvement.
- Agency had a good working relationship with BHPB.
- Leadership on grizzly bear monitoring but other changes should be communicated more clearly.
- Good preparation for water licence renewal.
- Aquatic effects monitoring and reporting made more effective.
- 2012 Environmental Impact Report much improved.
- Poor progress on reclamation research and progressive reclamation.





# Recent Agency Activities

- Agency reviewed Lynx project, found it could go to regulatory process but much better information needed.
- Agency reviewed Jay-Cardinal project, requested an Environmental Assessment with a focus on an evaluation of alternatives to reduce impacts
- Agency site visit in September 2013, staff site visit in June 2013
- Participated in financial security meetings in October and November 2013





# THANK YOU!



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