SLEMA
January 2011
Environmental Update

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January 31, 2011

Outline

Mine Update

Inspection Update

Regulator Update

Stakeholders' Update

Reviews

SLEMA 2009-2010 Annual Report

Acronyms

EMP – Aquatic Effects Monitoring Program
RD – Acid Rock Drainage
FO – Fisheries and Oceans Canada
NR – Department of Environment and Natural Resources, GNWT
NWT – Government of the Northwest Territories
AC – India and Northern Affairs Canada
VLWB – Mackenzie Valley Land and Water Board
K – Processed Kimberlite
LEMA – Snap Lake Environmental Monitoring Agency
NP – Surveillance Network Program
DS – Total Dissolved Solids
EMP – Wildlife Effects Monitoring Program
TP – Water Treatment Plant
MP – Water Management Pond

1 Mine Update – December 201

roduction rate: 77.2% of its capacity (75,424 tonnes mberlite processed)

,240 m^3 of water withdrawn from Snap Lake

21,529 m^3 of treated water discharged into Snap Lak

6,897 tonnes of coarse reject and 56,536 m^3 of slime eposited in the North Pile

spills (3 reportable spills)

/ater sampled in 5 monitoring stations

- The monthly average for all parameters met compliance
  - except for Faecal Coliform of Member Bioreactor and Sewage Treatment Plan effluent

ngoing grubbing of the East Cell and permanent cam as completed and occupied

- The construction camp will be decommissioned during 201

112 High TSS sample in November 2010

Dated January 5, 2010

- Response to the Inspector regarding TSS exceedance in November (questioned on December 30, 2010)

Resulted from a high rate of transfer from the Water Management Pond (WMP) to the Water Treatment Plant (WTP)

Set a maximum of 500 m^3 per day for water transfer to prevent from reoccurring

De Beers Comments on Draft LUP

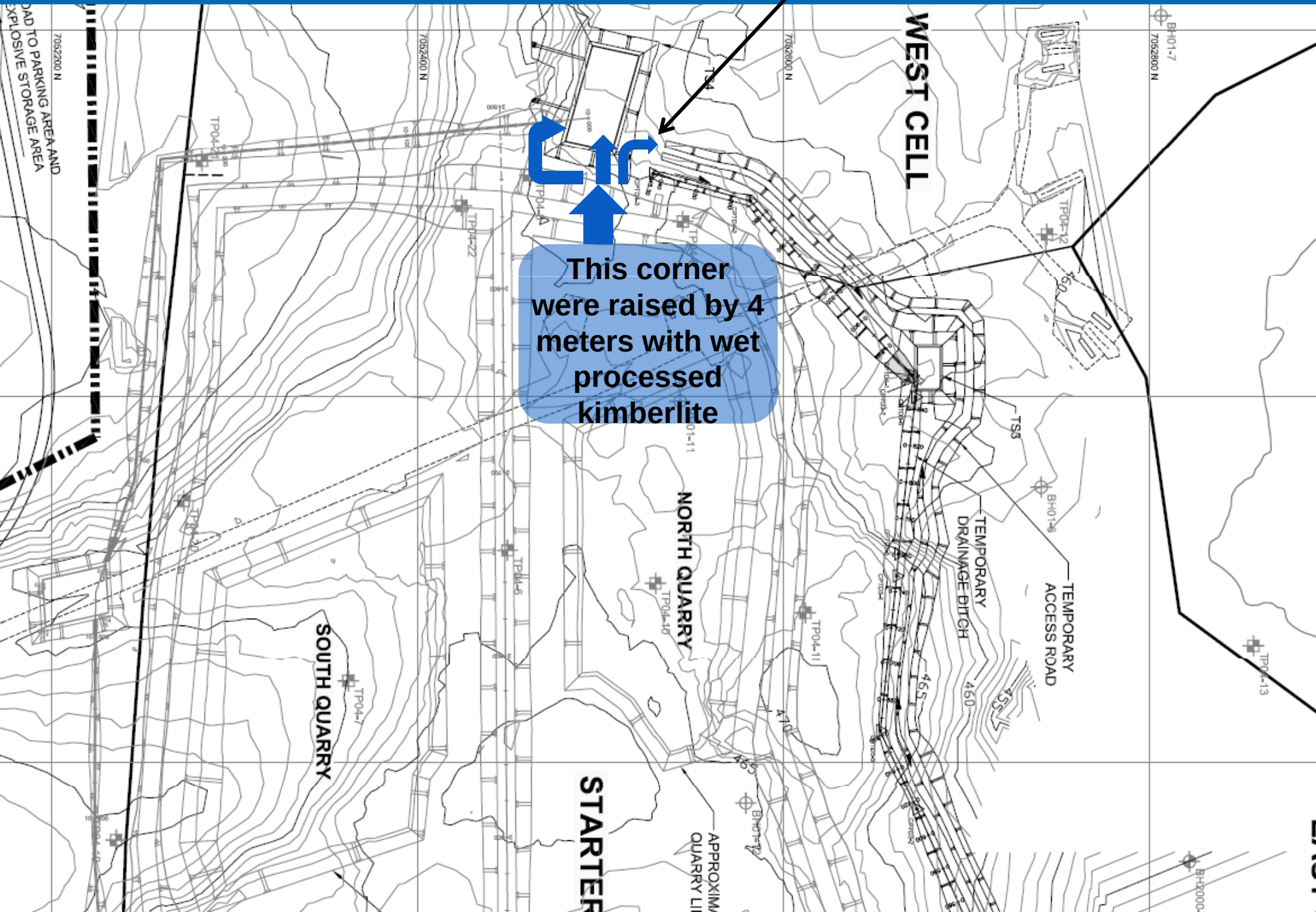
on	Draft LUP	De Beers Pos
	No sump within 100 meters of the ordinary high water mark	50 meters is appropr mitigate impacts of th undertaking
	Monthly progress report	Not necessary
	Annual reporting for Wildlife Effects Monitoring Program (WEMP)	Not necessary if no V included in the new L
	No vehicle operation within 100 meters of archaeological site	30 meters remain ap
	Security deposit - $18,963,547.00	$18,360,819.00
	Submit an updated spill contingency plan and	Submit the two upda

1.4 Spill #2010-458

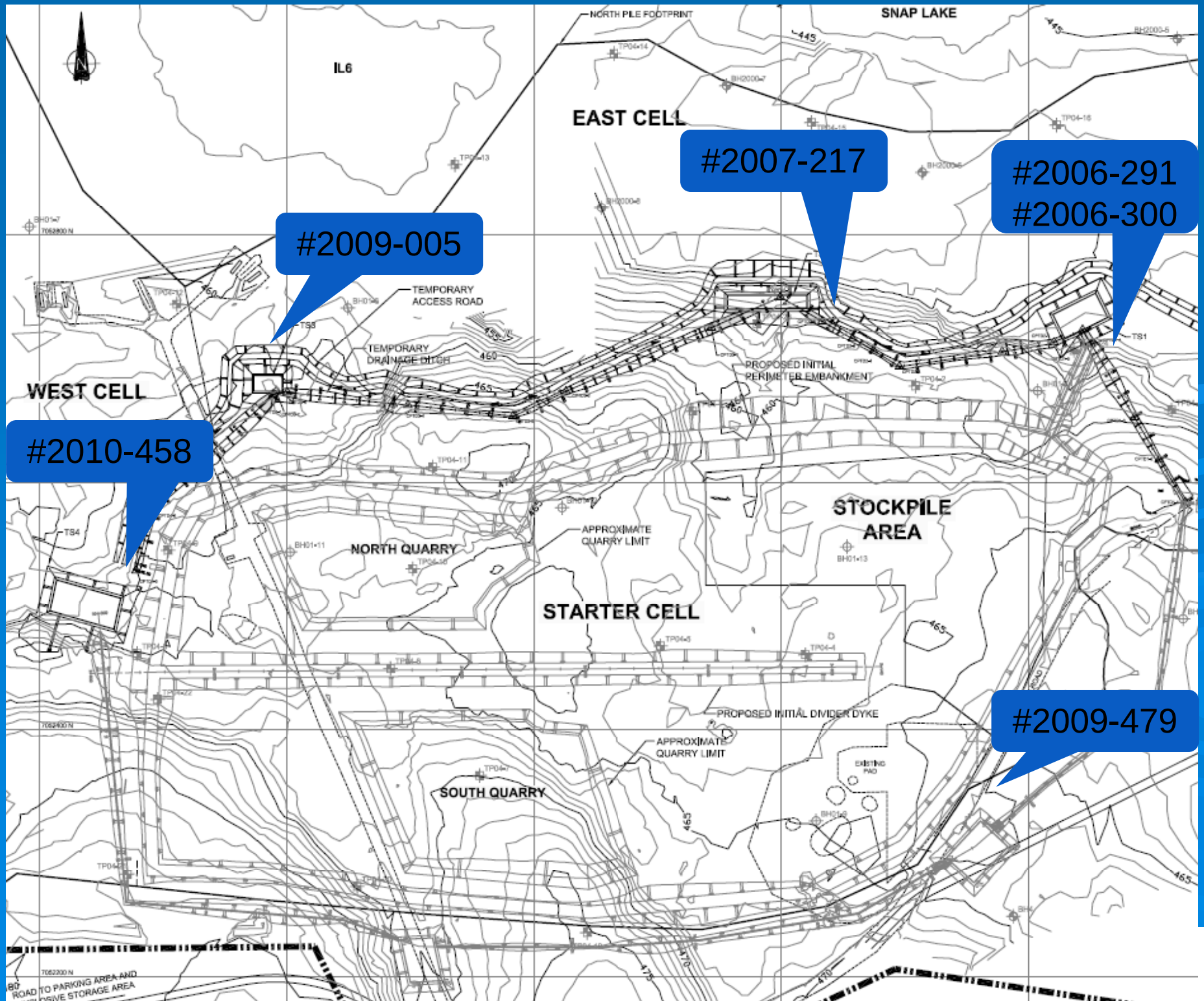
3 reportable spills in December 2010

- 2 sewage spills – #2010-459 and 475
- 1 process water spill - #2010-458
  - 110 m3 at Temporary Sump #4 (TS4) on Decemb 10
  - Follow-up report submitted on January 10, 2011

1.4 #2010-458 Spill Analysis



pills within Starter Cell Footp



nvironmental Analyst Comme

- The spill may be partly caused by design
  defect
  - Rerouting the access road may be a possibl
    longer term solution
- 6 spills within the North Pile (Starter Cell)
  ootprint since 2006
  - There may be chances of spills within the Ea
    Cell in the future
  - SLEMA should closely watch the constructio
    and operation of the East Cell

2. Inspection Update

NAC Inspector – Tracy Covey

Water Licence Inspection

- December 15, 2010

Land Use Permit Inspections

- December 15, 2010

2.1 Water Licence Inspection

nspected the construction of the permanent
ccommodation complex, meters, construction of Sum
, Diffuser, Dam 1, Nitrate storage

nvironmental risks were reaffirmed and to be address

- Shortcomings related to closure and reclamation
- Contamination around the historic AN pad
- The diffuser is not functioning as per design

ecyclable material was observed in the landfill. Mater
ot suitable for burning was observed in the burn pit

- Unusual occurrences and anomalous events
- Site wide notice gone out regarding proper waste management practices

Soil Contamination around the Histo AN pad

Until the investigation of the cause of high mmonia can be determined, the following orrective actions must be taken to prevent urther contamination of the local area”

- Contamination level must be determined
- Clean-up must be completed by August 31, 2011 if t pad is retained
- Minimize the head (water pressure) in the sump
- Take bi-weekly samples
- Contact the inspector if the ammonia level is over 40 mg/L

1.2 Shortcomings Related to Closu and Reclamation

Shortcomings identified in the INAC lette in April, July and October 2010) must be addressed in the forthcoming revised nterim Closure and Reclamation Plan an 2010 Reclamation Status Report

2.1.3 Diffuser Issue

Golders investigation determined that the diffuser was not dispersing flows as per design

- Recommended replacement of the diffuser
  - Scheduled to be completed by the end of summer 2011

oles in the line from the WTP to the diffuser end a
termittently releasing air/water trapped in the in li

Instrumentation for Slope Annealing Study

Bulk Nitrate Storage

.2 Land Use Permit Inspectio

- nspected Site Facilities, Waste Management, and Fuel Storage
- Minor environmental risks noted
  - Failure to separate plastic and recyclable waste from the waste stream
- Reaffirm the concerns to be rectified
  - Shortcomings of Closure and Reclamation Statu
  - 2009 Annual Report
  - Compliance about 2010 Winter Road
  - Update of Spill Contingency Plan

recyclable water bottles observed at promptly removed from the landfill

astic sheeting observed and prompt
removed from the burning pit

Bermed/lined Waste Management Area

ective use of secondary containment (nozzle overtop
p-drum) in the above-ground light vehicle fuelling stat

3. Regulator Update

MVLWB

- LUP MV2010D0053
- Adaptive Management Plan

3.1 MVLWB

- MVLWB requested comments and feedback on the dra terms and conditions of the new Land Use Permit pplication
  - Dated December 30, 2010
  - Due date for commenting is January 14, 2011
  - Extended to January 19, 2011
    - Requested by SLEMA on January 4
- MVLWB requested that De Beers provide an update of daptive Management Plan (AdMP) by May 1, 2011
  - Dated December 22, 2010
  - A full AdMP update is expected to coincide with the 2012 Water Licence renewal

4. Stakeholders' Update

eninu Ku'e First Nation (DKFN) requested 5 worki
ays for review of the Draft Land Use Permit on
anuary 10, 2011

KFN commented on January 14, 2011

Objections to the granting of this permit

- De Beers' failure to consult
  - "What De Beers has called 'engagement' with the DKFN community cannot be considered to be meaningful consultation and it has not addressed our concerns"
- De Beers' failure to negotiate an Impact Benefits Agreement w the DKFN
- The exchange of a 72.3 hectare lease for another contiguous the mine site without further environmental assessment

4. Stakeholders' Update (II)

- FO commented on the draft LUP on January 14
  - Condition 25 should specify *clean snow is to be used in construction of snow fills*
- NWT/ENR commented on the draft LUP on Janua 4
  - No comments or recommendations
- orthwest Territory Metis Nation (NTMN) comment n the draft LUP on January 14
  - *Any materials that are excavated should be put back int the same location, this is a general* statement for the wh operation, and leaving piles of materials are just not acceptable

4. Stakeholders' Update (III)

- NAC commented on the draft LUP on January 19
  - The majority of the permit conditions are mo applicable to mineral exploration activities rather than a major mining development
  - This LUP should be a stand alone document
  - Serious concern about whether INAC will be able to access the security posted under this LUP after the expiry date of the permit

4. Stakeholders' Update (IV)

NAC Inspector commented on the draft LUP on anuary 19

- Condition 10: Some sort of condition is needed which essentially directs De Beers to provide 48 hours notice prior to commencement of "any land use operation whic could cause foreseeable environmental impact(s)"
- Condition 53: Notification of a suspected historical or archaeological site or burial ground should be reported both the Inspector and MVLWB
- Condition 76 should be removed because the\Water Licence (not the LUP) is the appropriate instrument for implementing changes to the Interim Closure and

5. Reviews

Draft LUP Terms and Conditions

1 Draft LUP Terms and Conditions for MV2010D0053

- MVLWB requested comments and feedback on December 30, 2010
- Stricter LUP terms and conditions than those of current one (MV2001c0012)
  - Sumps and sites of adit and drill further away from water bodies
  - At least 1 meter of freeboard in all sumps
  - Annual submission of wildlife monitoring report
- The amount of security deposit is adjusted based on the up-to-date information

Environmental Analyst Comments

- No concerns with the draft Terms and Condition of MV2010D0053
- Typo errors identified
  - “condition 55 through 57” rather than “conditio
  - 53 through 55” in Item 58, 60, 61, and 62, an
  - “Permit” instead of “Licence” in Item 76

# of CLEMA 2009-2010 Annual Report

Finalized and approved in the Executive Meeting on January 19, 2011