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19 November 2010

Dear Doug,

DDMI Environmental Agreement Annual Report - 2009

Please find attached a copy of Diavik Diamond Mines Inc. (DDMI) annual Environmental Agreement report for the 2009 monitoring year. The report summarizes monitoring activities and report submissions that were completed during 2009, and includes an executive summary that is translated in to Dogrib, Chipewyan and Innuinaqtun.

DDMI apologizes for the late submission of this report and recognizes that this fails to meet the modified submission date outlined in the Environmental Agreement. DDMI would like to assure the Environmental Monitoring Advisory Board (EMAB), regulators and communities that this delay in report submission was largely due to a departmental re-organization that occurred within the Diavik Environment department, in addition to delays in receiving the translated materials. It is not expected that this type of delay would occur again in the future. While DDMI did inform EMAB of the delay, DDMI failed to submit a formal request for extension to the Minister of Indian and Northern Affairs Canada.

EMAB had previously recommended that DDMI amend the impact predictions in the Aquatic Effects Monitoring Program section to be more specific to those outlined in the Environmental Effects Report, rather than paraphrased to summarize the predictions. DDMI considered this recommendation for the 2009 report, but feels that the paraphrased impact predictions are better suited to the purpose and target audience of the Environmental Agreement Annual Report. However, DDMI has requested that further discussion on this matter be incorporated in to the December 2010 Board meeting in order to confirm the preferred approach for the 2010 annual report.

Should you have any questions, please feel free to contact the undersigned at 867.766.6610 (colleen.english@riotinto.com).

Yours sincerely,



Colleen English
Superintendent, Sustainable Development,
Communities & External Relations

cc. Teresa Joudrie, Director, Renewable Resources and Environment, INAC

Health, Safety and Environment Department

Diavik Diamond Mine

2009 Environmental Agreement Annual Report

19 November 2010

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Executive Summary

Diavik writes this report every year to give an update to the communities and to the parties of the Environmental Agreement (the Agreement). Article 12 of the Agreement states that the report must be written, and it outlines what must be included. Each year Diavik also meets with the people in the communities around the mine, to talk about this report and what it says. In late 2009 and early 2010, Diavik met with communities to discuss general environmental performance, which included information about the 2008 Environmental Agreement Annual Report.

Diavik and the Environmental Monitoring Advisory Board (EMAB)

The Environmental Agreement is a document that was written and signed on March 8th, 2000. It is made up of several parts which talk about the responsibilities of Diavik, Aboriginal governments, and the federal and territorial governments. More importantly, it is an agreement between everyone regarding what Diavik must do while operating the mine so that the environment is protected. It also says that an advisory board needed to be formed - this is why EMAB was created and is separate from Diavik or the other groups that signed the Agreement.

EMAB, as a Board, is made up of one representative from each of the parties that are part of the Agreement. There are also some issues that reach across boundaries (such as water quality and wildlife) and because the Environmental Agreement recognizes this, the Government of Nunavut has a representative that sits on EMAB. The parties that are part of the Agreement are listed in Table 1.

Table 1: Members of the Environmental Agreement

Tlicho Government	Yellowknives Dene First Nation
Government of Canada	Kitikmeot Inuit Association
North Slave Metis Alliance	Lutsel K'e Dene First Nation
Government of the Northwest Territories	Diavik Diamond Mines

EMAB has several duties - some of them include reviewing Diavik's environmental plans, reports and programs and making recommendations in many different areas related to the environment, Aboriginal parties and community participation, traditional knowledge, and other topics. The Board works with Aboriginal parties and communities so that they can give Diavik advice about environmental monitoring and programs.

Part 12 of the Agreement says that Diavik must write an annual report about what has happened at the mine related to the environment, and so every year, Diavik prepares this Environmental Agreement Annual Report. This report has summaries from environmental reports that Diavik prepares for various monitoring programs. There are also sections on activities at Diavik, public concerns, a comparison of environmental effects to what was

predicted, new ideas that Diavik is looking into, and a summary of inspections at Diavik by the INAC Inspector.

The Diavik Diamond Mine and the Environment

Diavik Diamond Mine is built on East Island, a small island near the east end of Lac de Gras. The diamonds at Diavik are found in kimberlite (a dark-colored rock) pipes, just off the shores of East Island in Lac de Gras. Lac de Gras is a 60 kilometer long lake and is about 300 kilometers northeast of Yellowknife. The lake typically freezes up in October, and thaws in early July. It empties into the Coppermine River.

In the area around the Diavik site there are grizzly bears, wolves, wolverines, foxes, arctic hares, arctic ground squirrels, red-backed voles, brown lemmings, rock ptarmigan and other birds. The Bathurst caribou herd travels through this area during the spring and fall migration, although large numbers of caribou do not typically go onto East Island.

Large dikes are built in the lake, and the water inside them was drained so the diamonds beneath that part of the lake can be mined. The first dike (A154) was completed in 2002 and mining started in 2003. Construction of the second dike (A418) was started in the summer of 2005, completed in 2006 and mining began there in 2007. The dikes are numbered to match the names of the kimberlite pipes inside them. A third kimberlite pipe called A21 is also located in Lac de Gras next to East Island. Diavik constructed an underground tunnel to the A21 kimberlite in 2006, but no mining has been done there. In 2008 Diavik decided to put the A21 project on hold.

2009 was the seventh year that Diavik was in operation. Right now, Diavik is using open pit mining to recover diamonds. This means that rock and kimberlite are being removed from the surface. Since 2007, Diavik has also been preparing for underground mining. Starting in 2010, this means that kimberlite below the open pits will be mined through tunnels underneath the ground. Eventually, Diavik will complete the open pits and will only mine kimberlite from underground. Kimberlite that is removed from the pits and eventually from the underground too, is taken to the processing plant in large trucks, where it is crushed and the diamonds are separated using x-rays.

Diavik is like a small community - there is a main camp with accommodations, dining rooms, offices, water and sewage treatment plants, a waste facility, maintenance shops, a power plant and an airstrip. A 350 kilometer ice road is built every winter so that supplies can be brought to Diavik and other mines and camps in the region. Fuel, cement, building materials, trucks, equipment, camp supplies, and other items are brought up every year on the winter road. During the rest of the year, supplies are brought to Diavik by air.

Environmental Management

Diavik has an Environmental Management System, also called EMS, to help monitor and improve environmental performance. The EMS system at Diavik is certified to a standard called ISO 14001, which is recognized around the world. Activities at the mine (building the dikes, hauling rock, running a power plant, even flying in and out of the mine) have impacts on the environment, and the EMS helps to minimize these impacts.

The EMS system includes procedures for operations, environmental plans and programs like the ones listed later in this report, and tools like communication plans and environmental records that must be kept. It is simply an organized way ensure 'continual improvement' - this is what an EMS is built on. Results from monitoring, projects and research are reviewed by Diavik employees, communities and regulators, to check how well the programs are working. These results are then used to look for ways to improve how things are done in the future. There is a table at the end of this report (Table A2, Appendix A) that shows many parts of the environment that Diavik manages. These include waste, water, hazardous materials, wildlife, dust, and greenhouse gas emissions.

In order to keep the certification to the ISO 14001 standard, Diavik's EMS has to be audited regularly. In January 2010 Diavik had what is called a maintenance audit. The maintenance audit is conducted by external auditors and is used to verify that Diavik is complying with the ISO 14001 standard. External audits are when third party experts (people that have nothing to do with Diavik) check the EMS system. The January 2010 audit found that the Diavik EMS meets the ISO 14001 standard and allowed Diavik to keep its certification.

Adaptive Management

The Agreement indicates that Diavik's environmental management plans and programs shall be part of adaptive environmental management where applicable by including detailed adaptive environmental mitigation measures.

There are currently no specific guidelines related to adaptive management for the mining industry in the north, however, Diavik's management plans and programs do follow a structure of continuous improvement through a cycle of planning, measuring/monitoring and making adjustments based on the results received, which is the overall premise of adaptive management.

As discussed above, Diavik's EMS is based on a cycle of continuous improvement. The cycle of planning, doing, checking, and acting on results is the core of the EMS and aligns with adaptive management. Some examples of adaptive management at Diavik include:

- Several changes made to dust sample locations based on results received from sampling;
- Special Effects Studies that are initiated when effects are measured during the Aquatic Effects Monitoring program (discussed later in this report); and
- Changes to the way some wildlife monitoring programs are completed based on results from previous years of monitoring results;

Diavik submitted an Adaptive Management Plan for its Aquatic Effects Monitoring Program (AEMP) to the Wek'èezhii Land and Water Board (WLWB) in 2007. In 2008 the WLWB decided to defer further review of the plan until a guidance document can be developed to clarify the WLWB's expectations of what an adaptive management plan should include and to simplify future plan development and review.

Monitoring Programs

The main part of this report has details on Diavik's plans and programs that are used to check how healthy the environment is in the area around the mine. Below is a short summary of results from 2009 monitoring that Diavik did in each area.

Wildlife

Under the Environmental Agreement, Diavik conducts a wildlife monitoring program, as outlined in its Wildlife Monitoring and Management Plan (WMMP). This program was created to collect information about habitat, birds and animals in the area to see if they are affected by the mine. Results are often compared to Environmental Assessment predictions. Here are some notes about 2009.

- During 2009, the area of vegetation and habitat lost due to the mine was 0.12 square kilometers. This was within the predicted amount from the Environmental Assessment;
- The habitat loss for caribou was within the expected amount in 2009, and no caribou mortalities or injuries occurred due to mining activities;
- Caribou aerial surveys were changed in 2009 to cover a larger area of the Slave Geologic Province, as well as the footprint of both EKATI and Diavik mines. Transect spacing was increased to 8 km and surveys were conducted from July to approximately October (surveys end in the fall once caribou are no longer observed). 14 surveys were conducted and a total of 8849 caribou were observed. The largest group was 550 animals. The zone of influence from mining activities appears to be between 14 and 28 km from the mine;
- Caribou behavioural observations/scans (ground-based) were conducted a total of 110 times in 2009, covering distances from 2 km to 30 km from mine infrastructure. Road and rock pile surveys were conducted, and 2 herding events occurred to escort caribou away from areas of development at Diavik;
- In 2009, grizzly bear habitat lost was also within the predicted amount, and no bears were killed, injured, or relocated during the year. Bears were reported on East Island to Environment staff 23 times in 2009, with one family of 3 bears living at the mine site from 6 July to 21 August. Habitat plot surveys were not conducted in 2009;
- Wolverines were present on East Island in 2009. Diavik continued wolverine tracks surveys in the snow in 2009 and plan to conduct the same snow track survey in 2010, as well as the regional wolverine DNA program conducted in cooperation with the GNWT and BHP-Billiton. There were no mine-related wolverine mortalities in 2009;
- During 2009, two out of six peregrine falcon nests were productive (had chicks present) within the study area. No raptors were observed nesting on the high wall of the open pits in 2009. No peregrine falcons died because of mine operation in 2009;

- There was no more shallow or deep water areas developed in 2009, therefore the total area of water habitat loss is still within the predicted amount. Waterfowl were seen at the East Island shallow bays and the waterfowl are still using the wetlands that have been changed by the mine on the Island.
- Waste inspections continued to be done every other day during the year 2009. Food and food packaging were found during 11% of inspections at the Waste Transfer Area and 9% of the time at inert landfill. This was an improvement over previous years. Environment staff continues to educate workers on the importance of segregating wastes properly.

In addition to continuing on-going monitoring programs, Diavik has also been participating in a joint review process of the diamond mine wildlife monitoring programs. This process continued throughout 2009 and included a fall workshop with representatives from the three diamond mines (Diavik, EKATI and Snap Lake), each of the Monitoring Agencies (EMAB, IEMA and SLEMA), the Government of the Northwest Territories (GNWT) department of Environment and Natural Resources (ENR), Environment Canada, the Wekeezhii Renewable Resources Board (WRRB) and the communities.

Air Quality

Environment department staff continued to monitor dust around the mine site in 2009, like in other years. Snow surveys are done every spring. The sampling for this part of the program includes melting the snow to test water chemistry and the amount of dust. Dust particles are also collected and checked to see if there are patterns in the amount and location of dust near the mine.

As it was predicted, dust deposits are greater closer to the mine operations and lessen further away from the mine. The rate of dust being deposited was affected by activities in the area, as well as by wind direction.

Overall depositional rates of dust measured since 2001 (including 2009) have exceeded those predicted from the modelling in the Environmental Effects Report (1998). The predictions were based on ambient air quality criteria at the time and did not take into account construction periods which increased during the 2005 monitoring season and continued through 2006 to 2008, the periods in which the highest rates were generally measured. Dust deposition during 2009 decreased when compared to the previous year and is likely associated with the production shutdown that occurred for six months during the summer. Dust monitoring will continue in 2010.

Snow water chemistry analyses (measurements of chemicals in the water from melted snow) indicate that the concentrations of regulated parameters (the chemicals in the Water License that Diavik must keep below set levels) measured in 2009 were mostly below the maximum allowable concentration outlined in the Water License, with the exception of zinc in one sample at location SS2-2, located northeast of the A154 dike.

Diavik sprays water on roads around the mine site during the dry summer months to reduce the amount of dust generated by the mine. Diavik constructed a new crusher that was completed in 2009; it is an enclosed crusher with a dust control system that will reduce the amount of dust that will settle on the ground from crushing.

In 2008, Diavik began working with air quality experts to conduct air quality modelling for the mine site. Modelling uses specific information like weather data, dust data, the amount of diesel used and the types of equipment used at the mine to estimate air emissions. Modelling was completed during the Environmental Assessment for the Diavik project before mining began. Diavik realizes that some important things have changed since the Environmental Assessment (for example, much more construction has been ongoing than was originally expected) and therefore, new modelling is being completed to review air quality again. While the re-modelling efforts have been delayed, air quality modelling will be completed in 2010.

Each year, Diavik calculates the quantity of greenhouse gases it generates and reports this to regulators. Greenhouse gases are produced many different ways. At Diavik, the use of diesel (for equipment, power generation and heat) is the main source of greenhouse gases.

Aquatic Effects

Diavik continued to do the Aquatic Effects Monitoring Program (AEMP) in 2009. This was the seventh year of aquatic effects monitoring, and it is required for Diavik's water license. 2009 was the third year since the AEMP was changed to include three separate open water sampling events (July, August, and September) as well as the ice covered session conducted in April and early May.

Data gathered from the AEMP has identified effects on Lac de Gras related to mine activities. Small changes in water chemistry, sediment chemistry and benthic invertebrates (small animals that live in the lake sediment) have been measured. In general, these changes are more noticeable near the mine (near-field sampling locations) than at further distances from the mine (far-field sampling locations). With assistance and support from the Department of Fisheries and Oceans (DFO), Diavik conducted some sediment sampling at various areas in Lac de Gras to follow up on slightly elevated mercury levels noted during previous slimy sculpin studies. Additionally, DDMI organized the fish palatability study for Lac de Gras this past year and submitted these same fish (lake trout) for mercury analysis at an independent, external lab. Overall, participants in the palatability study found the fish to be acceptable and mercury levels in all fish sampled were below Health Canada consumption guidelines. Diavik will continue aquatic effects monitoring in the future and plans to do further study of metals in fish tissue in 2010.

Reports Written by Diavik

During 2009 and early 2010, Diavik sent many reports and operating plans to regulators such as the Wek'èezhii Land and Water Board, the Department of Fisheries and Oceans, Indian and Northern Affairs Canada and Environment and Natural Resources. The main part of this report gives a summary of each of these other reports and plans.

Ammonia Management

In May 2003, Diavik notified EMAB and regulators about concerns with ammonia levels in water (ammonia is one of the chemicals regulated in the Water License) being pumped from the mine pit resulting from the use of explosives. Although measured ammonia concentrations were well below levels known to cause environmental effects, they were higher than predicted. The higher than predicted levels were important because the effluent quality limit for ammonia (how much ammonia Diavik is allowed to have in the water that is pumped into Lac de Gras after it is treated in the Water Treatment Plant) in the water license was based mostly on these original predictions. Measured levels showed that these limits could not be achieved.

Diavik's new water license approved by the WLWB allowed for slightly higher ammonia discharge levels as of November 1, 2007, but the level was lowered again on January 1, 2008, and will remain at this level for the duration of the water license which is to October 31, 2015. Diavik met the ammonia discharge criteria throughout 2009.

To manage ammonia, Diavik has an Ammonia Management Plan. This plan includes various things Diavik does related to the use of explosives and how Diavik manages water in order to minimize the amount of ammonia in water entering Lac de Gras.

Operations Activities

During 2009, Diavik produced only 5.6 million carats of diamonds, compared to about 9.2 million in 2008. In part this was due to the temporary shut down that occurred at the mine from 14 July to 24 August 2009. This shutdown was planned in response to weakening market conditions due to the global economic downturn, and meant that only essential services at the mine continued to operate. Overall it is expected that Diavik production will continue to decrease over the years.

In early 2009, essential equipment, supplies and fuel for the annual re-supply were brought to site on the winter road which was open from February 1 to March 29.

Regular sampling was done for Diavik's water license requirements and samples were also collected for the Dust Monitoring Program during the year. Wolverine track surveys were completed in the spring of 2009, but were cancelled in winter due to poor tracking conditions and inclement weather. As in other years, aerial surveys and ground observations were done for caribou in the area from spring to fall. Sampling for the Aquatic Effects Monitoring Program was done in spring (one sampling event) and summer (three sampling events). Observations were made of waterfowl around the mine from May to October, and researchers returned to continue studying re-vegetation at the mine site. The Community-Based Monitoring Camp was held in early August 2009. Participants were involved with fish palatability data collection and provided input on closure options relating to wildlife movement at and near the mine.

Declines (tunnels) continued to be built during the year so that crews could work underground at the A154 and A418 kimberlite pipes. Although Diavik has decided to pursue underground mining at A154 and A418, exploration and mining activities at a third kimberlite pipe, A21, has been put on hold.

Public Concerns

Diavik received communication from the Environmental Monitoring Advisory Board during the year and a summary of this communication (as well as Diavik's responses) can be found in the main part of this report.

A complete list of community visit details is provided in Section 19 of this report. Diavik did not receive communication directly from the public related to environmental issues in 2009.

Technology

During 2009, Diavik continued investigating new technology to use at the mine site. Using wind as a source of energy was something that continued to be looked into, as it had been each year since 2004. A weather tower, installed in 2007 continues to gather wind and temperature information for this study.

A study began in 2008 to measure ammonia reduction in the North Inlet that is caused by biological organisms (small bugs in the water that consume ammonia and convert it to other compounds). This study will wrap up in 2010 and, depending on the findings, Diavik may use the results of this study to investigate ways to increase ammonia reduction using biological organisms.

Diavik was unable to install new incinerators in 2009 as had been planned. Further engineering design is required before the new incinerators can be constructed.

Lastly, Diavik began researching an alternative mining method for the A21 kimberlite pipe beneath Lac de Gras. The approach, what has been referred to as 'wet' mining, would involve a sediment control structure made of rock with a liner in the middle which would be built out in to Lac de Gras, similar to the dikes around the A154 and A418 pits. However, instead of draining the water out of the area behind the rock structure, the water would remain in place. Then, a crane with a large cutter head would be mounted on a barge. The cutter would be lower through the water, on to the kimberlite pipe, and then cut away the kimberlite. The kimberlite would then be drawn up a pipe to the surface and the water would be removed from the kimberlite once back on the surface. This method would have a lot less disturbance to the land than an open pit.

Environmental Monitoring Compared to Predictions

Near the end of this report, there is a section called the Rolling Effects Summary. This part of the report talks about how the environmental monitoring compares to the predictions that were made for things like wildlife, vegetation, climate, fish and water. It looks at results from 2009 and past years compared to the original predictions.

Dust deposition at the mine each year has been measured at a higher rate than was predicted during the Environmental Assessment. It is, however, important to note that the original predictions did not take into account construction activities such as the advanced schedule to build and mine the A418 dike or the type and amount of infrastructure required to support the type of underground development. These activities have been ongoing for the last couple of years, but were not calculated in the dust deposition estimates during the EA. As noted last year, dust levels are expected to decrease in the coming years as these types of activities decrease. Diavik began reviewing dust deposition predictions again in 2008 as air quality modelling is being redone. The modelling is expected to be completed in 2010.

In general, environmental monitoring has shown that impacts from Diavik have been below other Environmental Assessment predictions.

Compliance

In 2009, Diavik was in compliance with land leases and the water license. There was one incident where seepage (water that leaks from structures) with slightly elevated zinc and pH values reached Lac de Gras for a short period of time. Additionally, some untreated water (500 m³) was discharged in to Lac de Gras due to an error in valve set up and pumping efforts from the A418 pit through the North Inlet Water Treatment Plant (NIWTP).

An Inspector from Indian and Northern Affairs Canada (INAC) visited Diavik to do inspections eight (8) times in 2009. Details of these inspections are also provided in the Summary of Compliance section of this report.

Environmental Monitoring

Table A1 in Appendix A at the end of this report contains a summary of the different kinds of environmental monitoring that was done at Diavik in 2009, as well as a short outline of activities and results. This table includes details about:

- Dust and Weather monitoring;
- Quantity and quality of water;
- Aquatic effects;
- Wildlife and wildlife habitat (vegetation);
- Fisheries; and
- Several university studies that are being done.

Diavik Diamond Mine Location Map/Diavik-kon Pinikutikhanik Oyagaktakveanik Humeniga Nunaoyak



List of Acronyms (abbreviations found in this report)

AEMP	Aquatic Effects Monitoring Program
ARD	Acid Rock Drainage
ALDP	Aboriginal Leadership Development Program
CCME	Canadian Council of Ministers of the Environment
DIAND	Department of Indian Affairs and Northern Development
DDMI	Diavik Diamond Mines Inc.
EA	Environmental Agreement or Environmental Assessment
EAAR	Environmental Agreement Annual Report
EMAB	Environmental Monitoring Advisory Board
EMS	Environmental Management System
ENR	Environment and Natural Resources
GNWT	Government of the Northwest Territories
GPR	Ground Penetrating Radar
HU	Habitat Unit
INAC	Indian and Northern Affairs Canada
ISO	International Standards Organization
ICRP	Interim Closure and Reclamation Plan
MVLWB	Mackenzie Valley Land and Water Board
NIWTP	North Inlet Water Treatment Plant
NTU	Nephelometric Turbidity Units (measurement of water turbidity)
OLDSSF	On-Land Dredge Sediment Storage Facility
OPCP	Operational Phase Contingency Plan
PK	Processed Kimberlite
PKC	Processed Kimberlite Containment
PVP	Permanent Vegetation Plot
QA/QC	Quality Assurance/Quality Control
SNP	Surveillance Network Program
SOP	Standard Operating Procedure
TSS	Total Suspended Solids
USEPA	United States Environmental Protection Agency
WHMIS	Workplace Hazardous Materials Information System
WLWB	Wek'èezhii Land and Water Board
WTA	Waste Transfer Area
ZOI	Zone of Influence

Translations of the Executive Summary

The next 30 pages include the translations of the Executive Summary into Innuinaqtun, Dogrib and Chipewyan, as per the Environmental Agreement Article XII, Section 12.1, Item c, xiii.

Executive Summary – Diavik Wegodı

Diavik ıhè xo tat'è edegho nıhtı'è gehtsı t'á k'eta eyıts'q amèè xè Environmental Agreement Ndè Hoidı Naàwo whehtsı ıle xè godo h'ot'e. Nıhtı'è 12, Naàwo atı'è wetı'a dı hadı, nıhtı'è hohıe ha h'ot'e, eyıts'q ayı wexè dek'eèhtı'è ha sù dek'eèhtı'è h'ot'e. Xo tat'è Diavik k'eta d'one xè eıegeèhdı t'á nıhtı'è k'è ayı dek'eèhtı'è ghq eıexè gogeèdo. 2009 xo welq eyıts'q 2010, Diavik k'eta eıegeadı t'á edaàni ndè hogııhdı t'á eghàlagııda ghq gogııde, 2008 Environmental Agreement Annual Report wegodı sù ghq gogııde.

Diavik eyıts'q Ndè Hoidı Gha Dehkwe Dq (EMAB)

Ndè Hoidı Gha Eıexè Yatı Ts'eh'q naàwo atı'è eyıts'q deızi dek'è negıı'q March 8th, 2000 k'è. Nıhtı'è k'è Diavik, D'one gha k'ade, eyıts'q Ndèts'q k'aowo dè eyıts'q edzane k'è gots'q ndèts'q k'aowo edaàni eghàlageèda ha sù dek'eèhtı'è. Eıexè yatı ts'eh'q eyıt'á Diavik wetı'a s'ombak'è etıe gots'q ndè hogııhdı t'á eghàlageèda ha h'ot'e. Eyıts'q ndè hoidı gha eıexè dehkwe d'q sù hohıe ha h'ot'e gedı – eyıt'á EMAB hòlı sù Diavik eyıts'q d'one naàwo eıexè gehtsı ıle wets'q whatsq dehkwe h'ot'e.

EMAB, eıexè dehkwe d'q hòlı sù yatı ts'eh'q naàwo hòlı t'á k'eta gots'q d'q ıhè wheda h'ot'e. T'ası wehda wehoidı sù t'ı nawhet'ı xèıdı (tı eyıts'q tıch'adı) eyıts'q Environmental Agreement wetı'a wek'èhodzq eyıt'á Nunavut gots'q ndèts'q k'aowo gha d'q ıhè EMAB k'è wheda h'ot'e. Amèè wexè yatı hòlı sù dzq dek'eèhtı'è.

Table 1: Amèè Dq Ndè hoidı gha eıexè yatı geèh'q

Tııchq Government	Yellowknives Dene First Nation
Government of Canada	Kitikmeot Inuit Association
North Slave Metis Alliance	Lutsel K'e Dene First Nation
Government of the Northwest Territories	Diavik Diamond Mines

EMAB wenıhtı'èkq gots'q – Diavik ndè xè edaàni edexè sıgogeèh'ı, ayı k'è eghàlageèda sù nıhtı'è k'è wegodı hohıe eyıts'q ndè, d'one sqı, k'eta, d'one naàwo ası haàni k'è yatı geèhtsı sù weghàgeèda h'ot'e. Eıexè dehkwe d'q, d'one sqı eyıts'q k'eta eıexè eghàlageèda t'á Diavik edaàni ndè hoidı xè eghàlaeda hagedı ha h'ot'e.

Nıhtı'è 12, naàwo atı'è wetı'a dı hadı, Diavik ıhè xo tat'è s'ombak'è ndè k'è edagodza ghq godı nıhtı'è gehtsı ha h'ot'e, eyıt'á xo tat'è Diavik nıhtı'è Environmental Agreement Annual Report ehtsı h'ot'e. Dı nıhtı'è k'è Diavik ndè k'è t'ası hazq kà'a hogııhdı sù dek'eèhtı'è h'ot'e. Eyıts'q dıdzq Diavik edagot'ı, d'one t'ası ghq nanıgeède, hotı dı haàni ndè xèıdı ha hodı ıle sù, ası hotı haàni ndè xeèhdq gha wek'aeta ha, Diavik t'ası ıadı t'á eghàlageèda hageèta eyıts'q INAC gha s'ombak'è gok'aehta d'q Diavik k'aehtq wegodı sù dek'eèhtı'è.

Diavik Diamond Sombak'è eyits'ò Ndè

Diavik Diamond sombak'è, East Island k'è hòlì, ndì nechalea k'è Ek'atì welò k'àbatsò ts'òne. Diavik gots'ò kimberlite kwè yì diamond kwè gùla, taba East Island, Ek'atì k'è. Ek'atì tì whehtò sù 60 kilometer hàhdò hót'e eyits'ò Yellowknife gots'ò 300 kilometer hatò etsì hót'e. October Edzòdžezaà k'è nìdè tì etì eyits'ò July k'è nìdè tò nayì. Ek'atì, Coppermine River gots'ò nìlì hót'e.

Diavik gomòò sahcho, dìga, nògha, nògè, hozì k'è gots'ò gahcho, hozì k'è gots'ò dlò, dlì, k'àba eyits'ò chja kà?a. Bathurst gots'ò ekwò edak'ò eyits'ò hat'ò nìdè eyì nai?a, haàniko ekwò lò East Island at'ì laànì le.

Tè nì dikes kwì nawhe?a agùla t'à, tè edì diamond kwè haze gha tì hait'ò ageèh?ì. Dakweì kwì (A 154) nawhe?a agùla ìle sù 2002 k'è weghò nògùt'e eyits'ò 2003 k'è kwè kaze gha xèhoìwo. Wek'e kwì (A 418) ìmbè 2005 k'è wexè hoìwo, 2006 k'è weghò nògùt'e eyits'ò 2007 k'è kwè kaze gha xèhoìwo. Kwì hazò wìzì dek'eèht'è ghaa edì gots'ò kimberlite kwè nè sù wek'èhodzò. Kimberlite kwe tai A21 hayeh sù t'à Ek'atì k'è whe?ò, East Island gàà. Diavik ndè got'á sombak'è gots'ò go?a agùla A2a kimberlite kwè gha 2006 k'è, haàniko ìlaa kimberlite kwè hagùla le. 2008 k'è Diavik dì hagedì, A21 k'è sàwa gots'ò wek'è laa hohìe ha le gedì.

2009 k'è lòhdì xo Diavik xè sombak'è et'è adza. Dìdžè Diavik ndè goka gots'ò diamond kwè hagele. Ndè goka gots'ò kwè eyits'ò diamond kwè gùhchì. 2007 k'è gots'ò Diavik ndè got'á eghàlageèda gha edexè sigogèh?ì hót'e. 2010 xè hoìwo dè kimberlite kwè ndè got'á whela sù ndè got'á wets'ò goò?a agele t'à haze ha. Ìdaa nìdè, Diavik ndè goka eghàlageèda ghò noget'e ha eyits'ò ndè got'á gots'ò kimberlite kwè hagele ha. Kimberlite kwè ndè goka gots'ò eyits'ò ndè got'á gots'ò haze sù satsò behchìcho t'à kwè sì?ì kò gots'ò ageèh?ì sù kwè nàgèede ha eyits'ò diamond kwè gha x-ray t'à wenìht'è ìchì ha hót'e.

Diavik, kòta nechalea laànì gò?ò - laa k'è nats'ede gha t'asì hazò whela, nats'eètekò, sets'ezekò, nìht'èkò hazò kà?a, tì eyits'ò tichì sì?ì kò, t'asìchì ełat'ò kò, satsò sì?ì kò, satsò et'è kò eyits'ò nìht'èt'ak'è sù gò?ò. Xo tāt'e 350 kilometer hatò etsì tò k'è tìlì hohìe t'à Diavik eyits'ò sombak'è hazò ts'ò t'asì hazò kà?a k'èze hót'e. Tìè, cement, kò gòht'ò, satsò behchì, satsò t'à eghàlats'eèda hazò kà?a eyits'ò t'asì hazò wet'á sombak'è et'è ha sù tò k'è tìlì t'à t'asì sombak'è gots'ò k'èze hót'e. Eyits'ò ìmbè k'è nìdè nìht'èt'á t'à t'asì sombak'è gots'ò k'èze hót'e.

Ndè Hots'ìihdì T'á Eghàlats'eèda

Diavik, Environmental Management System Ndè hots'ìihdì t'á edexè sigots'eèh?ì, EMS naàwo hayeh gùto, wet'á nezì t'asì hoidì eyits'ò wet'á de?ò ndè nezì sìts'ìhwhò at'ì. EMS naàwo t'á Diavik eghàlageèda sù nìht'è gàà eghàlageèda ISO 14001 hayeh sù hazò nè k'è wek'èhodzò hót'e. Sombak'è laa t'á nàgode (kwì hohìe, kwè kèze, satsò et'è, nìht'èt'á sombak'è gots'ò k'ede) t'asì haànì hazò t'á ndè xèidì t'á, EMS naàwo ghaa sù ndè xèidì ha le gha edehots'ìihdì gha nezì.

EMS nìht'è gha t'asì hazò et'è sù wehoidì, edaànì ndè xè eghàlats'eèda gha edexè sigots'eèh?ì eyits'ò t'asì hazò kà?a wehoidì eyits'ò t'asì ghò ełexè gots'edo eyits'ò ndè wenìht'è hazò wek'èhodì ha hót'e. Haànì edexè gots'eh?ò dè, ats'ò de?ò nezò agode ha dì le – EMS naàwo haànì eghàlageèda hót'e. Haànì t'asì hoidì, haànì t'asì k'è eghàlats'eèda eyits'ò haànì t'asì wegodì nats'ìts'eèle t'á, Diavik gha eghàlaede dò, kòta gots'ò dòne eyits'ò naàwo ghàà eghàlaede dò, hazò ełexè t'asì

hogīhdi t' à eghàlageèda. T'asi hazo wegodi nats'igeèle sù weghàlageèda t' à idaà nidè edaàni dezo nezi agele ha hageèta hoto'e. Di n̄ht' è welo (Table A2, Appendix A) t'asi hazo ndè ts'ohk' è Diavik wek' è eghàlageèda sù dek' èht' è hoto'e. T'asich' i, ti, naedī t' à eghàlageèda, tìch' adì, eht' è eyits' o lo eyits' o lozà yat' à gots' o at' i haàni hazo kà?a k' è eghàlageèda sù wehoidi hoto'e.

N̄ht' è gitò ha giwo de ISO 14001 n̄ht' è ghàà eghàlageèda ha hoto'e, eyit' à xo tat' è Diavik wen̄ht' è k' aeta ha hoto'e. January 2010 k' è Diavik t'asi etè sets' īhwho gha wek' aeto ile. External auditors t' à t'asi sets' īhwho gha wek' aeto. External auditors gedi sù do Diavik eghàlaeda le eyit' à gon̄ht' è k' aeta ha di le, haàni do agīhdi. January 2010 Diavik wen̄ht' è k' aeto kò, EMS naàwo k' è eghàlageèda t' à ISO14001 n̄ht' è gīchi.

Ndè Ładi Weghàlats' eèda

Naàwo at' è di hadi, Diavik ndè hots' īhdi t' à eghàlats' eèda gha edexè sigots' ele eyits' o ayi k' è eghàlats' eèda haàni hazo adaptive environmental management naàwo at' è sù edaàni ndè ładi weghàlats' eèda wen̄ht' è hazo wexè dek' èht' è ha hoto'e.

Didze edzane k' è sombak' è yagola gha, adaptive environment management naàwo at' è le laani, haàniko Diavik t'asi hogīhdi gha edexè sigogeèh?i eyits' o t'asi hazo k' è eghàlageèda sù, edaàni adle gha edexè s̄nihogè?a, t'asi gīhdza/wehoidi eyits' o n̄ht' è wegodi ghàà t'asi ładi ageèh?i, eyi sù adaptive magagement hoto'e.

Hats' edì ghàà, Diavik wets' o EMS ghàà eghàlageèda t' à ats' o dezo nezi weghàlageèda gha hogeèhdza hoto'e. Ats' o edexè sigots' eèh?i, t'asi hats' eèh?i, t'asi k' ats' eèhta eyits' o wegodi ghàà weghàlats' eèda, eyi sù EMS eyits' o adaptive management hoto'e. T'asi wehda Diavik ładi weghàlageèda sù:

Wehoidi ghàà, edì eyits' o edaàni eht' è ichi k' è gola ile sù ładi whela agīla;

Special Effects Studies dezo t'asi hats' eèta xè hoiwi ha, ti eyits' o h̄wè k' aeta ha xè hoiwi ha nehoiwo dè (wegodi dek' èht' è); eyits' o

Edaàni tìch' adì wehoidi t' à eghàlageèda sù ładi ageèle ha, in̄e edl̄at̄o xo gots' o wehoidi wegodi ghàà ładi ageèle ha hoto'e;

Diavik, Adaptive Management Plan, Aquatic Effects Monitoring Program (AEMP) gha n̄ht' è s̄gīla t' à wek' èzh̄i Land eyits' o Water Board (WLWB) ts' o agīla ile 2007 k' è. 2008 k' è WLWB sù ayi wek' è eghàlageèda ha le gedi, weggha weghàà eghàlats' eèda naàwo hoh̄e gots' o, eyit' ak̄o dè zo WLWB ayi edaàni ładi weghàlageèda ha sù hazo wexè n̄ht' è k' è dek' èht' è ha.

T'asi Wehoidi K' è Eghàlageèda

Di n̄ht' è k' è Diavik edaàni edexè sigogeèh?i eyits' o t'asi k' è eghàlageèda sù wegodi ghàà as̄i sombak' è gomoo xè hoti hozo sù wek' èhodzo hoto'e. 2009 k' è Diavik t'asi hazo wehoidi sù wegodi nats'igeèla sù dek' èht' è.

Tìch'adi

Ndè hoidi naàwo atf'è wetf'a, Diavik tìch'adi hoidi k'è eghàlageèda t'à tìch'adi edì nàdè, chja eyits'ò tìch'adi eyi ndè k'è at'ì sù edaàni wexèedi gha wegodi nats'ìgeèle. Wegodi ghàà ndè k'è edagòht'e ha sù wek'èhodzò hq't'e. Dzò 2009 k'è gots'ò godi atf'è hq't'e.

2009 k'è, ndè eyits'ò it'ò wedè adza sòmbak'è gòzò ts'ìh?ò sù 0.12 square kilometers hajhcho. Dakwetò ndè k'aetò kò, haàni ha sòni gedì ìle.

2009 ekwò gha ndè edajhcho wexèidi ha sòni ts'eèdi ìle, ndè hajhcho xèehdi, eyits'ò ekwò ełajwo haàni le dè t'asadza ts'eèz'ì le, sòmbak'è gòzò t'à;

Ekwò, nìht'èt'a t'à naita sù ładi agìla 2009 k'è, dezò ndè necha Slave Geologic Province ts'ò nìza wek'aeta gha, eyits'ò ałak'à sòmbak'è gomòò EKATI eyits'ò Diavik. Ełets'ò wegè edajhcho ìle sù 8 km etsì hajhcho ts'ò agìla eyits'ò ekwò nagìhta July gots'ò October gots'ò (hat'ò ekwò nats'ìhta ghò nots'eèt'è ekwò ts'e?ì le agot'ì dè). 14 eht'a ekwò nats'ìhta t'à 8849 ekwò hatò nats'ìhta. Ekwò netò ełexè k'èdè gha nìdè ekwò 550 ts'a?ì. Sòmbak'è gòzò t'à ndè edajhcho xèehdi sù, 14 eyits'ò 28 km etsì sòmbak'è gomòò ndè hajhcho xèehdi hq't'e;

Ekwò edat'ì k'èhoza gha ekwò hots'ìhdi (ndè k'è) k'è eghàlats'ìda, 110 eht'a 2009 k'è, 2 km gots'ò 30 km ets'ì sòmbak'è gomòò ndè hajhcho k'è eghàlats'ìda. Tìlì k'è eyits'ò kwè ełat'ò k'è sù ekwò nats'ìhta, eyits'ò nàke eht'a ekwò nats'eèhza, Diavik eghàlagiide ts'ò nìwà le agedza t'à;

2009 k'è sahcho eyi nàdè le ade ha sòni gedì ìle sù wexèht'e, eyits'ò sahcho ełats'ìhwho le, t'asadza, haàni le dè t'asì gots'ò ats'ìla le eyi xo k'è. Sahcho, East Island k'è ge?ì t'à 23 eht'a Ndè Xè Eghàlaeda Dò ts'ò gogìide 2009 k'è, sah 3 deza xè sòmbak'è gots'ò nìwa le nagìdè July 6 gots'ò August 21 gots'ò. Edì nagede nagìhta le 2009 k'è;

2009 East Island k'è noghà gòlì ìle. Diavik ìaa zah k'è noghà kè nagìhta 2009 k'è, eyits'ò 2010 nìdè k'achì zah k'è noghà kè nagìhta eyits'ò regional wolverine DNA noghà weghà k'aeta sù GNWT eyits'ò BHP-Billiton wek'è eghàlageèda sù, eyi sù t'à noghà hots'ìhdi ha ts'ìwò. Sòmbak'è gòzò t'à noghà ełajwo le 2009 k'è;

2009 k'è peregrine falcon det'òcho wet'oh ek'ètai gòlì ìle ts'ò, nàke ts'ò wezaa gòlì ndè hots'ìhdi k'èzì. Raptors det'òcho wet'oh while kwèka nì kwè kàgeèle k'è 2009 k'è. Peregrine falcon det'òcho ełajwo le sòmbak'è gòzò t'à 2009 k'è;

Tì k'ets'eèt'ò k'è eghàlats'ìda le 2009 k'è eyit'à, tì eyits'ò tabà t'asì hazò nàdè sù edajhcho wexèidi ha sòni gedì ìle sù hajhcho wexèehdi hq't'e. Det'ò chja hazò kàza wegoòht'ì East Island tabà eyits'ò ìaa det'ò chja hazò kàza ts'oh sòmbak'è gàà we?ò ts'ò aget'ì;

T'asich'ì edaàni wek'èhodì gha wek'aeta nàk'e dze tat'è 2009 k'è. T'asì ts'eède eyits'ò wetò gìla t'à 11% sù t'asich'ì k'eze k'è gìla eyits'ò 9% t'à ndè k'è kwèwà ełat'ò k'è. İdi xo nahk'è nezì. Ndè xè eghàlaede dò eghàlaede dò hoghàgeèhtò, edaàni t'à t'asichì hazò kàza gòlì sù ehkw'ì wedè ats'eèh?ì sù wet'a?à hq't'e.

Ajłı t'ası hots'ııhdı xè, Diavik wexè eyıts'q diamond gha sɔmbak'è hazq goòla xè tıch'adı hoidı laa k'è eghàlageèda sù, ełexè edaàni t'ası hoidı weghoqeèda ha. Eyı haàni ełexè eghàlageèda 2009 gots'q eyıts'q hat'q nıdè ełexè eghàlageèda gha ełexè nıgedè ha, diamond sɔmbak'è gots'q dɔ ıle (Diavik, EKATI eyıts'q Snap Lake), Ndè Hoidı Nıhtł'èkò (EMAB, IEMA eyıts'q SLEMA), Edzane k'è gots'q ndèts'q k'aowo (GNWT) department of Environment and Natural Resources (ENR), Environment Canada, the Wek'eezhıı Renewable Resources Board (WRRB) eyıts'q kòta.

Nıhts'ı Edaàni

Ndè xè eghàlaede dɔ ajłı ehtł'è hogııhdı ha sɔmbak'è gomòq 2009 k'è, ıdıı xo laàni. Zah k'aeta edak'q tat'è. Zah ıchı sù nayıı ageèh?ı t'à wetı wenaedi edànaehtso gha wek'aeta eyıts'q ehtł'è wetah edatłq gha wek'aeta. Ehtł'è hazq ıchı sù wek'aeta, edaàni ehtł'è edatłq edı gots'q at'ı gha wek'aeta, ası sɔmbak'è gots'q at'ı gha wek'aeta.

Haàni ha sɔni ts'eèdi ıle, wexèeht'è, de?q ehtł'è gòı sɔmbak'è gogaà eyıts'q sɔmbak'è gots'q nıwa t'à k'a?ı ehtł'è gòı. Ehtł'è edatłq k'èhts'ıh sù ndè k'è edàgot'ı ghàà eyıts'q nıhts'ıh edı k'èhts'ıh ghàà ehtł'è edatłq nàtl'ı sù wek'èhodzq hɔt'e.

Hazq t'à nıdè, ehtł'è edatłq nıhtł'ı ts'ııhdza 2001 k'è gots'q (2009 xè), Environmental Effects Report (1998) k'è ehtł'è edatłq nàtl'ı ha sɔni ts'eèdi ıle sù wete gots'q adza. Ekiye kò nıhts'ıh zq wehoidı ıle eyıts'q sɔmbak'è kò hohle wedè ats'ııla, kò hohle ekiye 2005 k'è ehtł'è de?q adza eyıts'q 2006 gots'q 2008 gots'q, ehtł'è de?q łq gòı ts'ııhdza. Ehtł'è edatłq nıhtł'ı 2009 k'è k'a?ı adza ıneq xo nahk'è. Ehtł'è hoidı ajłı ha 2010 k'è.

Zah ıchı sù nayıı t'à wetı tah naedi edanaetso sù wek'aeta t'à wek'èhodzq hɔt'e, tı t'à eghàlageèda t'à tı tah t'ası edanaetso ha ıle gha eghàlageèda t'à Water License Tı T'à Eghàlageèda Gha Nıhtł'è gıchı hɔt'e, tı tah t'ası edanaetso ha ıle sù wek'a?ı, haàni kò SS2-2 eyı zınc satsq nàtso eyıts'q northeast A154 kwı eyı haàni.

Diavik tıli k'è tı ageèh?ı sɔmbak'è gomòq ımbè k'è k'a?ı ehtł'è daedi gha. Diavik kwè naede satsq wego gehtsı 2009 k'è; kwè naede satsq wego ehtł'è ıhchı wek'è whe?q t'à, kwè nageède dè k'a?ı ehtł'è natł'ı ha.

2008 k'è, Diavik nıhts'ıh xè eghàlaede dɔ xè sɔmbak'è gomòq edaàni nıhts'ı wehoidı gha wek'è eghàlageèda xèhoıwo. Mòht'a edagòht'e ghàà, ehtł'è edatł'q k'èhts'ıh ghàà, sɔmbak'è tlıh edatłq k'èhk'q eyıts'q satsq behchıcho edahot'ı t'à eghàlageèda sù wegodi nats'ıts'eèle ghàà mòht'a nıhts'ıh edaàni sù wek'èhodzq. Diavik, Environmental Assessment gha nıhtł'è edexè sıgııla kò, edaàni nıhts'ıh wehoidı gha nıhtł'è sıgııla ıle, sɔmbak'è wets'qdahatq kwe. Diavik yeneqèdi hɔt'e t'ası wehda ładı adza, Environmental Assessment nıhtł'è edegha hats'ııla gots'q (de?q whaà sɔmbak'è hohle k'è eghàlagııda) eyıts'q eyıt'à edaàni nıhts'ıh hoidı naàwo wego t'à eghàlats'eèda ha sù weghàts'eèda ha ts'ııwq. Eyı sınageèle ts'q nats'à?ı, eyı naàwo sù 2010 dè wet'à hot'ı ade ha.

Xo tat'è, Diavik tlıh k'èhk'q t'à łòzà edatł'q ehts'ı sù hazq gııhdza t'à dek'eèhtł'è ageèh?ı, eyı nıhtł'è sù naàwo ghàà eghàlaede dɔ ts'q ageèh?ı. Tlıhtsı łòzà łq kà?a hohle sù hazq yat'a gots'q at'ı hɔt'e. Diavik eyı, tlıh (satsq behchı gha, satsq etł'è gha eyıts'q gòkò gha) zq t'à eghàlats'eèda t'à łòzà łq hohle sù yat'a ts'q at'ı hɔt'e.

Tè T'ası Wehoidı

Diavik İıaa Aquatic Effects Monitoring Program (AEMP) Tè t'ası hazq nàdè wexèıdı sù wehoidı t'à wegodı ìchì 2009 k'è. Dı xo k'è łqhdı xo gots'q t'ası hazq wehoidı k'è eghàlats'eèda adza, t'ası hazq nàdè sù wehoidı wenıht'è wedè Diavik tı t'à eghàlats'eèda gha nıht'è gııchì ha dı hq't'e. 2009 k'è, tai xo t'ası hots'ııhdı t'akq AEMP İadı agııla t'à, tı k'èè tai wek'aeta ha gola agııla gots'q tı k'aeta (July, August, eyıts'q September) eyıts'q xo k'è nıdè to sù k'aeta April eyıts'q May k'e.

AEMP wet'ıa t'ası hazq wehoidı wegodı nats'ıts'eèla ghàà, Lac de Gras sqmbak'è gòq t'ası wehda İadı adza sù wek'èhodzq. Tı tah naedı edanaehtso yazea İadı adza, eht'è tı İadı adza, tehtsakw'qa eht'è tı tah nàdè sù İadı adza sù hazq ts'ııhdza. Sqmbak'è gòq gots'q nıwa lea t'ası tah t'ası İadı wegoht'ı (nıwa le-tı k'aeta k'èè) eyıts'q sqmbak'è gòq gots'q nıwa nıdè İadı laanı le (nıwa-tı k'aeta k'èè). Department of Fishers eyıts'q Oceans (DFO), Diavik ts'agııdı t'à, t'ası eht'è tı k'ageèhtq Lac de Gras tı k'è, mercury satsq tı tah edanaehtso ha İle yazea weq gots'q İdoo adza sù wek'èhodzq adza slimy sculpin İwè nechalea k'aetq kò eyıt'á ełexè t'ası eht'è tı k'ageèhtq eyıts'q. Eyıts'q, DDMI wet'ıa Lac de Gras gots'q İwè k'aeta dı xo k'è, eyıts'q eyı İwè (İwèzq) mercury satsq edanaehtso wets'qelı wek'èhodzq gha, wek'aeta gha İdaa agııla. Eyıt'á dıne hazq İwè k'ageèhtq sù İwè nezı eyıts'q İekq gedı eyıts'q mercury satsq edanaehtso wets'qelı sù, Health Canada wet'ıa naàwo whela sù edatq ts'eèdı ha dı le gedı sù, wek'aet'ı t'ası İwè asanile gedı. Diavik aıı t'ası nàdè wehoidı k'è eghàlageèda ha eyıts'q İdaa nıdè deq İwe tah satsq hazq kàqa kageèta ha gııwq, 2010 k'è nıdè.

Diavik Wet'ıa Nıht'è At'è

2009 k'è eyıts'q 2010 k'è, Diavik nıht'è İq whetsı eyıts'q edaanı t'ası hazq et'è gha nıht'è haanı hazq, naàwo ghàà eghàlaede dq ts'q agııla, Wek'èezhıı Land eyıts'q Water Board, the Department of Fisheries eyıts'q Natural Resources. Dı nıht'è at'è sù, nıht'è hazq hólı İle ghàà hólı hq't'e eyıts'q İdaa nıdè edaanı t'ası k'è eghàlageèda ha gııwq sù hazq dek'eèht'è hq't'e.

Naedı Ammonia Wehoidı T'à Eghàlageèda

May 2003 k'è, Diavik, EMAB eyıts'q naàwo ghàà eghàlaede dq ts'q goıde, naedı ammonia tı tah gólı, kwıcho t'ası kwè nàgeèhk'è t'ası (naedı ammonia Water License wet'ıa wehoidı hq't'e) naedı ammonia edanaehtso dè ndè xèıdı eyı gha wek'aet'ı haanı kò, İdaa nıdè edanaehtso ha sqnı ts'eèdı İle weq gots'q adza. Deq İq dek'eèht'è t'ası, naedı ammonia Diavik wet'ıa tı tah edanaehtso ha sù wek'aet'ı ade ha, tı nıht'è gha İdaa nıdè dı haanı ha sqnı ts'eèdı hq't'e. Ts'ııhdza ghàà edatq ha İle sù haanı ha dı.

Naedı ammonia wet'ası eghàlats'eèda gha, Diavik naedı Ammonia edaanı wet'ası eghàlats'eèda ghàà eghàlageèda. Diavik edaanı kwıcho naek'e t'ası eghàlageèda eyıts'q naedı ammonia Lac de Gras tı tah ade ha le gha t'ası hazq kàqa t'ası wehoidı hq't'e.

Edaani Sombak'è Et'è

2009 k'è, Diavik 5.6 million diamond kwè hagiila, inee 9.2 million ile 2008 k'è. Idiì xo sawa gots'ò sombak'è ts'odaeto ile, July 14 gots'ò August 24 gots'ò 2009 k'è. Sombak'è ts'odaeto hazo nee k'è somba k'a?i k'et'ò adza t'à, sombak'è t'asi wehda wet'a?à laani zo et'è agiila ile. Idaa nide, Diavik k'a?i kwè k'ageèe ade ha hq'e.

2009 k'è, satsò wet'a?à, wet'à eghalats'eèda gha t'asi eyits'ò t'eh haani xo t'li t'à February 1 gots'ò March 29 gots'ò t'asi sombak'è niza.

Sawa ti k'aeta, Diavik wets'ò water license gha, eyits'ò eht'è Dust Monitoring Program hoidi gha eht'è ichi, eyi xo k'è. Noghà kè naita k'è eghalagida edak'ò 2009 k'è, haaniko xo k'è moht'a hozi le t'à wede agiila. Idiì xo laani, n'ht'è't'a t'à ekwò naita eyits'ò ndè k'è ekwò edaani k'ehogeèza gha wehoidi edak'ò gots'ò hat'ò gots'ò wek'è eghalagida. Eyits'ò t'è t'asi k'aeta Aquatic Effects Monitoring Program edak'ò (t'asi i'è k'aeta) eyits'ò imbè dè (t'asi tai k'aeta) wek'è eghalageèda. Det'ò hazo kà?a ts'ee?i sombak'è gomò? May gots'ò October gots'ò, eyits'ò t'asi haeta do, edaani i'ò naeshe ghò hoghàdegeèto gha sombak'è negedè. Kòta gots'ò do xè t'asi hoidi Community-Based Monitoring Camp hòli August 2009 k'è. Do xè h'wè k'aeto xè wegodi ichi eyits'ò sombak'è wets'odaeto dè, sombak'è gaa t'ich'adi at'ì sù edaani wehoidi ghò e'èxè gots'òdo.

Ndè got'á gots'ò t'li hòli eyi xo k'è do eghalageèda gha A154 eyits'ò A418 kimberlite kwè n'za ts'ò t'li hòli. Diavik ndè got'á A154 eyits'ò A418 k'è eghalageèda gha nehogit'ò, haaniko kimberlite kwè tai, A21 t'à wek'è eghalageèda ha le gedi.

Dò T'asi Ghò Nanigede

Environmental Monitoring Advisory Board, Diavik ts'ò gogide, di xo k'è, eyi wegodi, Diavik gots'ò edadi sù di n'ht'è k'è dek'eèht'è hq'e.

Naàwo Kà?a

2009 k'è, Diavik naàwo wego t'à sombak'è eghalageèda gha t'asi hageèta. N'hts'ih t'à t'asi et'è è hageèta, xo tat'è 2004 gots'ò wenaàwo hageèta. N'hts'ih gha satsò n'za agiila 2007 k'è, wet'à n'hts'ih eyits'ò mohta edagòht'è wehoidi t'à wegodi ichi.

2008 k'è t'asi hats'eèta laa i'è wexèhoiwo ile, eyi naedi ammonia k'a?i adza, North Inlet eyi sù gòò nechalea t'è nàdè sù naedi ammonia ede t'à wehoidi. Eyì wehoidi ghò noget'e ha 2010 k'è eyits'ò eyi wegodi ghàà, asì Diavik naedi ammonia de?ò nide k'a?i ageèle ha, asì gòò t'à ammonia k'a?i ageèle ha hageèta ha tahko.

Diavik, satsò wet'à t'asich'ì k'èhk'ò n'za ha ile 2009 k'è, haaniko hagoòdza le. Satsò edaani et'è hoh'è ha sù wek'èhodzo dè, satsò hoh'è ha.

Eyits'q, Diavik ładı kwè hagele hageèta A21 kimberlite kwè, Lac de Gras wetł'a nı?a gha. Te tah kwè hats'eèle ha nıdè ehtł'èti wemò? kwè nawhe?a ha, tanı daht'qa wetł'a whech'ı Lac de Gras ts'q hohłe ha, kwı A154 eyits'q A418 laànı hohłe ha. Kwè nawhe?a wets'ıht'a tu whehtq sù tu hageèhtł'ı ha le, tu aıłı whehtq ha. Satsq wet'á kwè naet'a elacho k'è whe?q t'á tu yì edı kimberlite kwè nı?a sù kwè nát'á kwè hale ha. Kimberlite kwè satsqwe t'á ıdo naeze ha sù wets'q tu ıchı ha. Haànı kwè haze nıdè, ndè necha xèıdı le.

Ndè Hoidı Ghàà ıdaa Edagode Ha Wek'èhodzq

Dı nıhtł'è atł'è welq, godı Rolling Effects Summary haeyeh dek'eèhtł'è hqt'e. Edaànı ndè hoidı t'á ıdaa edagqht'e ha sù wek'èhodzq, t'ası tıch'adı, ıt'q, mqht'a dagqht'e, ıwè eyits'q tu haànı xè. Wegodı hazq 2009 gots'q eyits'q ıne? xo gots'q hazq weghàgeèda t'á ıdaa edagode ha sqnı gedı hqt'e.

Ehtł'è edatłq sqmbak'è xo tat'è nátł'ı ızà sù edatłq ha sqnı gedı ıle wenak'è łq, Environmental Assessment gha nıhtł'è sigııla kò. Haànıkò t'ası ıle wenats'edı ha hqt'e, ıdaa nıdè dı hagode ha sqnı ts'eèdı ıle haànıkò edawha gots'q sqmbak'è hohłe ha eyits'q A418 gha kwı hòłı eyits'q ndè gotł'a tıı hòłı t'á ehtł'è edatłq gòłı ha sqnı ts'edı ıle wexèeht'e le. T'ası haànı k'è eghàlagııda haànıkò ehtł'è edatłq ha sqnı hageèdı le EA xè nıhtł'è sigııla kò. ıdı xo hats'eèdı ıle, ehtł'è edatłq nátł'ı sù ıdaa nıdè k'a?ı ade ha. Diavik edaànı ehtł'è nátł'ı ghàgııda 2008 k'è, wet'á ehtł'è hoidı sınagııla kò. Eyı wet'á eghàlageèda gha hohłe sù 2010 k'è nıdè weghonqet'e ha.

Hazq t'á nıdè, ndè hoidı wegħo ghàà Diavik sqmbak'è gò?q t'á ndè edaànı xèıdı ha sqnı ts'eèdı ıle wek'a?ı, Environmental Assessment gha nıhtł'è sıt's'ııla kò.

Naàwo Ghàà Eghàlats'eèda

2009 k'è, Diavik ndè nıhtł'è eyits'q tu nıhtł'è ghàà eghàlagııda le. Tı haewı sù yazea satsq zinc eyits'q pH tu nàtso laànı sù Lac de Gras ts'q detł'ı whalea gots'q. Eyits'q tu sıdıla le (500m³ haıhda) tu dahats'eède eyits'q tu eht'o ekw'ıle agııla t'á A418 gots'q North Inlet Water Treatment Plant (NIWTP) gots'q adza.

Indian and Northern Affairs Canada (INAC) gha sqmbak'è k'aehta dq, Diavik ek'edı eht'a ekq nahtłá 2009 k'è. Wegodı hazq, Summary of Compliance wetł'a dek'eèhtł'è hqt'e.

Ndè Hoidı

Table A1, Appendix A k'è dı nıhtł'è welq k'è, Diavik 2009 k'è t'ası hazq kà?a wehoidı sù wegodı dek'eèhtł'è, edaànı wek'è eghàlagııda eyits'q wegodı ıchı sù dek'eèhtł'è hqt'e.

Ehtł'è eyits'q Mqht'a Edagqht'e wehoidı;

Tı edatłq eyits'q tu edaànı wehoidı;

Tè t'ası nàdè wexèıdı gha wehoidı;

Tıch'adı eyits'q tıch'adı edı at'ı wehoidı;

ıwè eyits'q

Aolapkaeyin Naetomik Okaohen

Diavik-kon titigakpaktun umiga unipkamik ukeotoagaagan okaotiyagani kanogilivaleaniganik honalikaa nunalikhun ilaoyonulo Avatilikinikun Agikatigegutaoyumi (Agikatigegun). Nakatani 12 Agikatigegunmi okaktok unipkak titigageakakman, okaohikakhonilo honanik iloanetageakaktonik. Ukeotoagaagalo Diavik-kon katimakatikakpaktun inuknik nunalikni haneanetonik oyagaktakveom, okaohigivlogilo ukoa unipkaan. Nuguliktologo 2009 ukeok atolihalikmalo 2010, Diavik-kon katimakatikaktun nunalikhnik okaohikakhotik hunaniklikaa avataoyok kanogilivaleanigagun, ilakakhonilo 2008-mi Avatilikinikun Agikatigegutim Ukeotoagaagan Unipkamik.

Diavik unalo Avataoyomik Amigiyyin Ihomakhakheoktin Katimayin (EMAB-kon)

Avatilikinikun Agikatigegun makpigaak titigakhimayok saenikhimavlonilo March 8-mi 2000-mi. Malguknik pikaktok okaohikhnik Havaaginik Diavik-kon, Nunakakaktolo gavamaenin, kanatamilo ukeoktantomilo kavamaenin. Unaloak, agikatigegun kitunilikaa kanok Diavik-kon piyakhienik oyagakheoktilogin una avataoyok monagiyaoyagani. Okaktoklo ihomakhakheoktin katimayin hatkigeakakmata – talvuna Avataoyomik Amigiyyin Ihomakhakheoktin Katimayin hatkikhimavun iligukhonilo Diavik-konin ahenilo ilagenin saenikhihimayunin Agikatigegutaoyomik.

Avataoyomik Amigiyyin Ihomakhakheoktin Katimayin (EMAB-kon) inukaktok ataohikhmik kivgaktoktimik atuni ilaoyunin Agikatigegutaoyomi. Pikaktoklo ihomagiyayoyonik aktoknikaktonik ahenun kikligiyayoyonik nunanik (imavaloen imagiknigink angutikhaniklo) Avatilikinikun Agikatigegutaoyok ilitakhikman umiga, Kavaman Nunavumi kivgaktoktikaktun Avataoyomik Amigiyyin Ihomakhakheoktin Katimayini. Ilaoyun Agikatigegutaoyomi titigakhimayun Naonaepkonmi 1

Naonaepkon 1: Ilaoyun Avatilikinikun Agikatigegutaoyomi

Tlicho Kavaman	Yalonaemi Itkilgit
Kavaman Kanatami	Kitikmeoni Inoen Katimayin
Tunungani Itkilgit Kavlonavyaen	Lutsel K'e-mi Itkilgit
Kavaman Nunateami	Diavik-kon Pinikotikhanik Oyagakheoktin

Avataoyomik Amigiyyin Ihomakhakheoktin Katimayin (EMAB-kon)
havaakhakaktun – ilagin ihivgeokgeagani Diavik-kon avatilikinikun

opalogaeyaotaenik, unipkaaginiklo havaaginiklo atulikoevlotiklo amigaetoni piyotaoyonik avataoyomik, Nunakakaktunik ilaoyonik nunalelo ilaoniginik, igilgaalo kaoyimayaenik, aheniklo. Katimayin havakatikaktun Nunakakaktunik ilaoyonik nunalikniklo ihomakhakheotikhaenik Diavik-kon piyagani avataoyomik amigiyotunik havaaniklo.

Ilaga 12 Agikatigegunmi okakhimakman ukoa Diavikon titigageakakmata ukeotoagaagan unipkagiyamiknik kanogilivaleanigagun oyagakheokvikmi avatigiyani, talvuna ukeotoagaagan, Diavikon ihoakhaevaktun umiga Avatilikinikun Agikatigegutaoyumik Ukeotoagaagan Unipkamik. Una unipkaak naenakhogin okaohikaktok avalikinikun unipkaanik Diavikon ihoakhakpagaen aalatkeni amigiyutinun havaani. Ilagilo havaagin Diavik-koni, kitululikaa ihomalutaen, ilitokhaotin avataoyumik aktokniginun nalaotaktaoyun, nutalo ihomagiyaaen Diavik-kon takugiyaaen, naetomiklo okaohen ihivgeokhiyuheni Diavik-mi ukunanga Inulikiyin Kavamatokani ihivgeokhiyim.

Diavik-kon Pinikotikhanik Oyagakheokvea Avataoyoklo

Diavik-kon Pinikotikhanik Oyagakheokvean inikaktok East Island-mi, mikak kigiktak haneani kivalikheani Lac de Gras-mi. Pinikotikhan Diavik-koni nalvaktahimayun oyagaktaani kknagiktuni, hinata haneani East Island ilagani Lac de Gras-mi. Lac de Gras 60-kilametamik takinikaktok tahik kanitoani 3-hanat kilametaoyun tunungani kivalikheani Yalonaem. Tahik hikuvaktok October-mi, mahakpakhonilo July atoligaagan. Kuktok Kugluktum Kugaanun.

Nunani haneani Diavik-kon inigiyani akhakaktok, amakoniklo, kalvikniklo, tigiganeaniklo, okalniklo, hikhiniklo, tigeaniklo, avinganiklo, akilginiklo aheniklo tikmiyanik. Kigaom tukteon talvunakpaktun upingami ukeokhamilo aolaligagamik, amigaetpalagitugaloen tuktun East Island-gukpaktun.

Agiyunik avatileokhimayun tatimi, imaeyaktaovlotiklo ukoa pinikotikhan nunam iloani oyagaktaagiyayogani tatim. Hivulik avatileogun (A154) inikhimayok 2002-mi oyagakheolikhoktiklo 2003-mi. Hanavaleahimayun avatikhamik tukleanik (A418) aoyami 2005-mi, inikhimavlonilo 2006-mi oyagakheolikhoktiklo 2007-mi. Avataoyun napaliktoktaoyun ayikeligeagani oyagaktaakhanik nunamin. Pigahoan oyagaktaakhak A21 inikaktok Lac de Gras-mi haneani East Island. Diavik-kon hitileokhimayun A21-mi oyagaktakhani 2006-mi, kiheani oyagaktakhimagitun talvani. 2008-mi Diavik-kon una A21 havaak atogoekhimalaktaan.

2009-mi saevagiyun ukeok Diavik-kon havalikmata. Taya, Diavik-kon kaganin nunam anmukpaleavlotik oyagakheoktun pinikotikhanik. Oyakan ahivaktiktaovaleayun nunam kaganin. 2007-min, Diavik-kon opalogaeyakhimaktun iloanukpaleayamikni oyagaktaklotik. Atulikman 2010, oyagaktakhan atiknikmin oyagaktakveoneaktun hitileoklotik nunam iloanin. Pinikotikaktun ahivagaoneaktun A-min nunam iloanilo, oyakikivikmun

akyaktaovaktun akhalutikyoanun, hikuptiktaoyagani pinikotilo ahivaktaovaktun atokhutik iksolegutinun.

Diavik-kon mikiyotun nunaliktun iliktuk – iglukakviloak inoen hiniktakvenik, nigiveniklo, titigakveniklo, imaknik anaguniklo halumaktigutikakven, ikagukviklo, hanavelo, alguyaktutinulo ignikutikakvik milviklo tikmiyanin. 350-kilamitamik hikukun apkotileokpaktun ukeotoagaagan ihoakotin akyaktaoyagani Diavik-mun ahenulo oyagakheokviknun iglukakveoyunulo nunani. Okhokyoan, kihuktigakhalo, iglukpeogutikhalo, akhalutilo, pikotilo, ihoakotikhalo ahelo hunalikka akyaktaovaktun ukeotoagaagan ukeomi apkotikun. Alagani ukeom ihoakotin akyaktaovaktun Diavik-mun tikmeakun.

Avataoyumik Monagiyutin

Diavik-kon Avataoyumik Monagiyutinik Atokpaktun, amigiyagani ihoakhivaaligeaganilo avataoyumik kanogilivaleanigagun. Avataoyumik Monagiyutin Diavik-mi maligoakaktun atugeakaktonik ima ISO 14001-mik, ilitagiyaohimayunik hilakyoami. Hulilugagutin oyagakheokvikmi (avatileoknigin, akyageaganilo oyagaktaanik, alguyaktutinulo ignikutaen, tikmikpatalo talvuga aheanulo oyagaktakveom) aktoknikakmata avataoyumun, Avataoyumiklo Monagiyutin ilagayutaokmata aktoknigagun.

Avataoyumik Monagiyutin ilakaktun kanok aolanikhagun, avalikinikulo opalogaeyaotinihavaaniklo uvani unipkami itunik, ihoakotilo tuhaomayutinun opalogaeyaotinihavaaniklo unipkaan ilipkamayaoyukhan. Nakuyok 'ihoakhihimaageagani' – una Avataoyumik Monagiyun piyotikaktok. Kanogilivaleanigin amigiyutinun, havaanik ilitokhaeyutiniklo ihivgeoktaovaktun Diavik-koni havaktinin, nunalikinilo, maligoalaektinilo, naonaegeagani aolanigin havaan. Ukoa atoktaovaktun kanok ihoakhivaaligutikhanun hivunikhami. Naonaepkotikaktok uma tunoani unipkaam (Naonaepkun A2, Ilageagun A-lo) takukhaovlotik avataoyumik Diavik-kon monagiyaenik. Ilakaktun ikagunik, imakmiklo, aneagutaolaktoniklo pikotinih, angutikhaniklo, puyualokniklo, ignikotinilo puyoenik.

Pihimaenageagani atugeakaktok ISO 14001 ayikotaenik atoktun, Diavik-kon Avataoyumik Monagiyutin ilitokhaktayageakaktun kagugugaekpan. January-mi 2010-mi Diavik-kon kanoginigagun ilitokhaktayohimayun. Kanoginigagun ilitokhaon ahenin inuknin naonanegutaokmatalo Diavik-kon maligoateakmaga ISO 14001-mik ayikotaenik atoktun. Ahenin ilitokhaeyin ahenin ayogitun (inoen piyotikakgitun Diavik-konik) naenaeyaeyun Avataoyumik Monagiyutinik. January-mi 2010-mi, ilitokhaekmata Diavik-kon Avataoyumik Monagiyutaen nalaomakmata ISO 14001-mi ayikotaenik atoktun talvuna Diavik-kon ilipkamavaan atugeakaktatik.

Ihoakhaenageagani Monagiyutin

Agikatigegutaoyok okakman Diavik-kon avataoyumik monaginigagun opalogaeyaotin havaalo ilagineakaen ihoakhaenageagani avataoyumik monagiyutinik atulaknikan ilakaklonilo okateakhimayunik ihoakhaenageagani avataoyumik ihoakhaeyutikhanik.

Taya pikaginman maligoagakhanik tugaagayunik ihoakhaenageagani monagiyutinik oyagakheektini ukeektaktumi, kiheani, Diavik-kon monagiyutinun opalogaeyaotaen havaagilo maligoakmata ihoakhivaleayagani opalogaeyaetin, ilitokhaenikulo amigiyutinulo aheagukpaleaginakhotik ilitokhaetagagamik piyageakaligagan, piyotaoloakman ihoakhaenageagani monagiyutini.

Okaotaoyumi kulikni, Diavik-kon Avataoyumik Monagiyuhén piyotikaktok ihoakhivaleayutinik. Opalogaeyaknikun, atoklogolo, naonaeyaklogolo upiyotikaklotiko kaoyimaliktamigun ilagiloakta Avataoyumik Monagiyutin nalaomakmalo ihoakhaenageagani monagiyutinik. Ilagin ihoakhaenageagani monagiyutin Diavik-koni ukoa:

- Malguk aalagukhimayuk poyunik ilitokhaeven atokhogin kaoyimaliktamiknik ilitokhaenikun;
- Ayikotakagitonik Aktokniginun Iilitokhaotin upiyotaoyun ukoa aktoknigin naonaeyaktaotilogin Imakmeotan Aktoktaoniginun Amigiyutinun havaak (okaotaoyun ilagani uma unipkaam); unalo
- Aalaguknigin ilagin angutikhanik amigiyutin havaan iniktigutaenik atokhogin kaoyimaliktatik hivoani ukeoni amigiyutinun kanogilinigagun;

Diavik-kon tunihimayun Ihoakhaenageagani Monagiyutinun Opalogaeyaonmik Imakmeotanik Aktoknigagun Amigiyutini havaami Wek'èezhii-mi Nunalikiyin Imalikiyilo Katimayenun 2007-mi. 2008-mi Wek'èezhii-mi Nunalikiyin Imalikiyilo Katimayin kiguvageakhimayaan ilitokhaenik opalogaeyaonmik una maligoagakhak ihoakhilgaktinago naonaeteageagani Wek'èezhii-mi Nunalikiyin Imalikiyilo Katimayin nahogiyenik hunaokmaga ihoakhaenageagani monagiyuhikhak opalogaeyaon ilakageakakmaga naonaetkiyaoligeaganilo hivunikhami opalogaeyaotin pivaleanigagun ilitokhaotilo.

Amigiyutinun Havaan

Ilaloaga uma unipkaam okateakhimayok Diavik-kon opalogaeyaotaenik havaaginiklo naonaeyaotaokmata kanoginigagun avataoyum oyagakheokvikmi. Havuma ataani naetomik okaoheoyun kanoginigagun 2009-mi amigiyutinik Diavik-kon havaagiyaenik atuni iliguktoni.

Angutikhan

Ilagani Avatilikinikun Agikatigegunmi, Diavik-kon Angutikhanik Monagoyutiniik havaakaktok. Una katitigutaoyok hivonikhiyutikhanik nunagiyaenik, tikmiyaniklo, hugaavalokniklo nunani aktoktaokmaga oyagakheoknikmin naonaeyaktaovaktun. Kanogilinigin naonaeyagaovaktun Avatilikinikun nalaotaktaoyunik. Hama ilagin 2009-mi okaoheoyun.

- Atoktilogo 2009, naoteakakniga nunagiyaoyulo ipgaktaoyun oyagaktalikmata ima 0.12 square kilometres-mik. Una kanitoanetok nalaotakhimayaeni Avatoayumik Ilitokhaknigagun;
- Nunagiyaenik tuktun kanitoanetok ihomagiyaenik agitilaaganik 2009-mi, tuktuniklo tokoyokakhimagitok oyagakheoktin havaaginin;
- Tuktun tikmeakun kititiyutin aalagukmata 2009-mi agitkiyamik nunamik naonaeyaeveoyagani ilagani Slave Geologic Province-mi, ukoalo inigyaen EKATI-kon Diavik-kolo oyagaktakven. Avatiknogaknigin agikligeakhimayun 8 kilometresamik kititivlotiklo July-min October-mun (kititihoeoktin ukeakhami tuktun takukhaohoeokmata). 14-nik kitititiktakhimaliktun ataotimulo 8849-lo tuktun takoyaohimayun. Amigaenikhan ataotimeoyun 550-guyun tuktun. Nunan aktoktaoyun oyagakheoktinin 14-nik kilometresamik 28-miklo kilometresamik ogahiknigin oyagaktakvikmin;
- Tuktun kanogileoguhenik kungeaktaovaktun (nunamin) 110-nik kungeakiktakhimaliktun 2009-mi, 2-kilamitamin 30-kilamitamun ogahiktigiyumik oyagaktakvikmi igukavikmin. Apkotin heogaktaalo ilitokhaktaohimayun, malgoektokhutiklo ugugihimayun tuktunik oyagaktakvikminn Diavik-mi;
- 2009-mi, akhaen nunaeknigin kanitoanetok nalaotaktaenin, tokuyokagitonilo, aniktokagitoklo ahinulunen nutaoyokagitok ukeomi. Akhaen takoyaohimayun East Island-mi Avatilikiyinin havaktinin 23-nik takutkiktokakhimayok 2009-mi, pigahulo akhaokatigen nunakakhimayun oyagaktakvikmi July 6-min 21-mun August-mi. Nunagiyaenik naonaeyaegitun 2009-mi;
- Kalven takukhaovaktun East Island-mi 2009-mi. Diavik-kon kalven tomaenik ilitokhaevaktun apunmi 2009-mi taemaeleovagumayun 2010-mi, kanitoanilo kalven aoginik ilitokhaeneakmiyun havakatigiligin Nunateam Kavamaen, BHP-kolo Oyagakheoktin. Oyagakheoknikmin tokoyukagitok kalviknik 2009-mi;

- Atoktilogo 2009, malguk siksini kilgaven ubloen manikakhimayun (tingoakakhimayuk) nunami ilitokhakveoyumi. Nikaenaktoyuktunik tikmiyanik takohimagitun imnani oyagaktakveom 2009-mi. Kigaviknik tokoyukagitok oyagakheoknikmin 2009-mi;
- Ikalgunik itinakniklunen imakakniginik pihimagitun 2009-mi, talvuna tamaeta imavaloen kitpaveoyun aheonigin kanitoanetun nalaotaktaeni agitilaginun. Tikmiyan kakuyaovaktun East Island-mi ikalgoeni kagikhoen tikmiyalo atokhimakmata natiknanik aalagukhimayaenik oyagakheoknikmin Kitiktami;
- Ikakoen ihivgeoktaovaktun malguk upluk naatkaganik 2009-mi. Nikin pugilo naniyaohimayun 11%-mik ihivgeokhiyuhenin Ikagunik Ohilikhiveni 9%-miklo ihivgeokhiyuhenin ikagukvikmi. Una ihoatkiyaoliktok taemanin ukeonin. Avatilikiyin havaktin ayukiktoehimakpaktun havkatnik ikaguvaloen ahivaktikhotin nikin ahenilo ataotimuktikhogin.

Ilagiyalo atoenakniganik amigiyutin havaan, Diavik-kon ilaohimayun ikayoktigitoni ilitokhaeyutini pinikotikhanik oyagaktakvikmi angutikhanik amigiyutini havaani. Una aolaenaktok 2009-mi ukeakhamilo katimahimayun ayoekhavlotik kivgaktoktelo pigahunin pinikotikhanik oyagakheoktinin ilaoyokakhimayok (Diavik, EKATI unalo Snap Lake), atunilo Amigiyutinik Havakveoyun (EMAB, IEMA unalo SLEMA), Kavamalo Nunateami havakveoyok Avatilikiyin Nunameotalikiyilo, Avatilikiyilo Kanatami, ukoalo Wekeezhii Agutikhalikiyin Katimayin nunalelo.

Hilaenaom Kanoginiga

Avatilikiyini havaktin amigenaktaen poyukakniga haneani oyagaktakveom 2009-mi, taemataok aheni ukeoni. Aputin ihivgeoktaovaktun upingatoagaagan. Iilitokhaevaktun aoktoktitugo apun imagiknigalo naonaeyakhogo heogakakmaga. Poyuvaloen katitiktavaktun naonaeyakhogilo kanoginiginik amigaenikatalunen hutkoteanilo poyoen inmagaa oyagakheokveom kanitoani.

Nalaotaktaeni, heogavaloen agitkiyan haneani oyagaktakveom ikinikhaovlotiklo ogahiktoani oyagaktakveom. Hoegakaknigin aktoknikaktok havaaginin haneani nunan, anukivlo humigakniganin.

Tamaeni heogakakniginik ilitokhaemata 2001-min (uvanilo 2009-mi) avatkohimaliktun nalaotaktaenin kanoginikhagun Avataoyok Aktoknigagun Unipkami (1998-mi). Nalaotagutin piyotikaktun hilaenaom kanoginiganik taemani ihomagiyakaginmatalo hanavalealigamik amigaekpaleaginakman atoktilogo 2005-mi amigiveoyumi taemaeginakhonilo 2006-min 2008-mun, aginikhaohimayun tahapkonani ukeoni. Heogakakniga 2009-mi mikhivaleahimayok hivoani ukeonin piyotikaguknakhiyok taemakhimatilogin siksini tatkihheotini aoyami. Heogakakniga amigiyahimakneaktaan 2010-mi.

Apunmin imavaloen kanoginigin ilitokhknigagun (kanogaalok halomaelgukakmagaa imeokhimayumik apunmin) imagiknigin naonaekman (halomaelgun Imakmik Atogeagani Laeseoyomi Diavik-kon mikitkiyaenik naonaegekhimayun piyageakakmata) ilitokhakhimayun 2009-mi mikitkiyaoyun aginikhanin pikoyaenik imagigeoknigagun okakhimayuni Imakmik Atogeagani Laeseoyumi, ataohiklo zinc-kakman pihimayok SS2-2-min, tunungani kivalikheani A154-guyum avatileokhimayum.

Diavik-kon kuvigaevaktun imakmik apkotinun oyagaktakvikmi aoyami nuna panikpalaagagan poyukpalagitagani oyagaktaknikun. Diavik-kon hanahimayun nutamik hikuptigutimik inikhimavlonilo 2009-mi; matokaktok hikuptigun poyokpalagitaganilo ihoakhateakhimavloni hilatanun heogak navigitagani.

2008-mi, Diavik-kon havakatigilikhimayaen hilaenak halomaenageagani ayoetonik naonaeyaeyukhaniklo hilaenaom halomaniganik oyagaktakvikmi. Ilitokhaotin piyotikaktun hivunikhuyutikhanik hilaenak kanoginiganik, heogavaloelo kanoginigagun, kanogaaloklo atokniganik okhokyoanik kanoginigagulo ignikotituktun oyagaktakvikmi poyukniginik hilaenaikmun. Kanoginikhagun inikhimayok Avatilikinikun Ilitokhaktolikman Diavik-mi havaakhak oyagakheoligeaktinagin. Diavik-kon kaoyiyun ilagin atoknikaktun aalagukhimalikmata Avatilikinikun Ilitokhaelgaktilogin (ukoa, hanahimaginakmata hivoani ihomagigitamiknik) taemaenman, nutan kanogilinihaen iniktiktaovaleakmata ihivgeogeagani hilaenaom kanoginigagun. Kanogilivaleanikhaenun naonaeyaotin kiguvageakhimakmata, hilaenaom kanoginiga inikneaktok 2010-mi.

Ukeotoagaagan, Diavik-kon kititivaktun ignikotikliknin puyuknigin hilaenakmun okaohigivlogilo maligoagakhalikiyinin. Puyoen humilikaa kaevaktun. Diavik-mi, atoknigin okhokyoan,(akhalutinin, algukatutinun ignikotinigin ignikviknilo) ukoa puyukloakpaktun hilaenakmun.

Imakmeotani Aktoknigin

Diavik-kon Imakmeotani Atokniganik Amigiyutinun havaakaenaktun 2009-mi. Una saevagiyaan ukeok imakmeotani aktoknigagun amigiyutaoyok, atogeakakmalo Diavik-kon imakmik atokneaktilogin laesigiyan. 2009-mi pigahoan Imakmeotani Aktokniganik Amigiyutin aalagukhimalikman ilageakgutaokmata pigahun imaoyun ilitokhaktavikhaen (July-mi, August-milo, September-milo) hikukaktilogolo April-mi atulihalikalalo May.

Naonaepkotin pihimayun Imakmeotani Atokniganik Amigiyutinigin okakhimayok aktokniginik Lac de Gras-mi oyagakheoknikmin. Mikiyun aalaguknigin imaom kanoginiganik, heogakniganiklo kumaguvalokniklo (mikiyun umayunoen tatin natkanetun) naonaeyakhimayun. Tamaeni, ukoa aalaguknigin takukhaoloaktun kanitoani oyagakheokveom (kanitoani ilitokhaeven) ugahikniganin oyagakheokvikmin (ugahiktoanin ilitokhaeven). Ikayoktaovlotik Ikalulikiyin

Takyomeotalikiyini, Diavik-kon ihivgeokhihimayun aalatkenin nunanin Lac de Gras-mi kigoagun havivalokaliktilogin kanayoen ilitokhaktolgakmata. Ilagalo, Ikalulikiyini Takyomeotalikiyini ihoakhaekmata ikaloen kanoginiginik Lac de Gras-mi atokhimayumi ukeomi okakhotiklo ukoa ikaleon (ihun) havivalokalikmaga naonaeyaehimayun iliguktimi, aheanin naonaeyaeyinin. Tamaeni, ilaoyun kanogilivaleaniginun ikaloen namateaknigaktaokmata havivalokaknigin Aneaktaelinikun Kanatami nikaoneaknikata maligoagakhani. Diavik-kon imakmeotani aktokniginik amigenakneakun hivunikhami opalogaeyakhotiklo ilitokhaehimageamikni ikaloen nikaenik 2010-mi.

Unipkaan Titigakhimayaen Diavik-kon

Atoktilogo 2009, atulihalikmalo 2010, Diavik-kon toyutikaktun amigaetonik unipkaanik aolanigiyamigulo opalogaeyaotigiyamiknik maligoagakhaleoktinun ukunatun Wek'èezhii-mi Nunalikiyini Imalikiyini Katimayenun, Ikalolikiyini Takyomeotani, Inulikiyini Kavamatokani Avatilikiyini Nunameotani. Okaotolaktun uvan unipaami naenakhogin atuni unipkaan opalogaeyaotilo pihimayun.

Ammonia-kakmaga Monagiyutin

May-mi 2003-mi, Diavik-kon okaotiyaen EMAB-kon maligoagakhaleoktilo ihomalutaoyunik ammonia-kanigagun imaoyuni (ammonia halomaelguvalok maligoagakhani itok Imaknik Atokneaknika Laeseoyumi) papiktaoyunik oyagaktakvikmin taetaetpuk atoknigagun kagaktaotini. Kitinigin ammonia-kaknigin mikitkiyaogaloakhotik avataoyomik aktoknikhanin, agitkiyaokmata nalaotaktaenin. Aginikhan nalaotaktaoyunin atoknikaktun imaknik ammonia-kakniga (kanogaalok Diavik-kon pikalakmata imaoyuni papiktaoyunik Lac de Gras-mun imagikhitktaolgaktilogin Imagikhitkvikmi) imaknik atoknigagun laeseoyumi piyutikakmata nalaotaktaolgaktuni. Naonaeyaktaoyun kanoginigin kaoyiyutaokmata kiklikhaen tikitaolimagingmata.

Diavik-kon nutak imaknik atugeagani laeseoyok agikhimayan WLW-Katimayin agitkiyanik ammonia-kaniganik papilakmata November 1-min 2007-mi, kiheani mikhiliktaokman January 1-mi 2008-mi, taemaeginakneakhotiklo atokhimakneaktologo imaknik atoknigagun laeseoyok uvuga October 31-mun 2015-mi. Diavik-kon atokhimakmata ammonia-kaknikhagun papiktaoyun atokhimaktologo 2009 ukeok.

Monagiyagani ammonia-kakniga, Diavik-kon pikaktun Ammonia-mik Monagiyutinik Opalogaeyaonmik. Una opalogaeyaon ilakaktok aalatkenik Diavik-kon havaaginik piyotini kagaktaotin atoknigagun kanoklo Diavik-kon monagiyuheagun imaknik mikinikhaoyagani ammonia kukpaleayok Lac de Gras-mun.

Aolanikun Hulilugagutaen

Atoktilogo 2009, Diavik-kon pihimayun 5.6 milean carats-nik pinikotikhanik, aepagani 9.2-mileanmik pihimakmata 2008-mi. Una taemaetpuk taemakhimalakmata July 13-min August 24-mun 2009-mi. Una taemakhimalageamikni ihoakhakhimakman akiklivaleatilogin hilakyoami manikhakheogutin, talvuna aolayutiloan oyagaktakvikm ikumahimayun. Nahugiyun Diavik-kon havaagin mikhivaleaginakneakun atoktukhani ukeoni.

Atolihalikman 2009, ihageagiyaoyun pikotin, ihoakotilo okhokyoalo ukeotoagaagan akyaktaovaktonik ukeomi apkotikun akmakman February 1-min March 29-mun akyaktaovaktun.

Kagugugaagan ilitokhaevaktun Diavik-kon imaknik atoknigagun laesigiyanit atogeakaktonik ilitokhagakhaniklo katitigivaktun Heokanik Amigiyutinik Havaami atoktilogo ukeok. Kalven tumaenik ilitokhaehimayun inikhotiklo upingami 2009-mi, kiheani atogoekhimayun ukeokmi tupyakhiyagani ayoknakhivakman hilalukpakhonilo. Ahenilo ukeoni, tikmeakun kititivaktun nunaenakmilo kungeakhogin tuktun haneani oyagaktakveom upingamin ukeakhamun. Iilitokhaevaktun Imakmeotanic Aknoknigagun Amigiyutinik upingami pihimayun (ataohekhotik) aoyamilo (pigaheoktokhutik). Kungeaktaovaktun tikmiyan haneani oyagaktakveom May-min October-mun, ilitokhaeyilo utikhimayun ilitokhageagani naotiktoktaohimayunik nunanik oyagaktakvikmi. Nunaliknin Amigiyutinun Manikeakvea pihimayok atulihaliktilogo August 2009-mi. Ilaoyun ikaloknik naonaeyaeyin katitigivlotik okakhotiklo taemakata atoktakhamiknik angutikhan aolaniginun haneani oyagaktakveom.

Anmukpaleayutin (hitin) hanayaohimaktun ukeomi havaktun havageagani iloani nunam A154-mi A418-milo oyagaktaakhani. Diavik-kon oyagaktagumaenagamik nunam iloanin A154-mi A418-milo, nalvakheoknik oyagakheoktilo havaagin pigahoani oyagaktakvikhami, A21-mi, unikhimalaktok.

Kitulikaa Ihomalutaen

Diavik-kon tohaktitaokmata Avatilikinikun Amigiyotinik Ihomakhakheoktinin Katimayinin ukeomi naetomiklo okaohenik (Diavik-kolo keoyutaenik) naniyaolaktun ilagani uma unipkaam.

Inikhimayok titigak nunalen polaktaohimayun ilaoyun ilagani 19 uma unipkami. Diavik-kon tohaginmata nanminik kitunilikaa avatilikinikun ihomagiyayoynik 2009-mi.

Nutan Atokpaleanigin

Atoktilogo 2009, Diavik-kon ilitokhaeginaktun nutanik atoktukhanik oyagakheokvikmi. Atoklogo anugi aolakutikhani naonaeyaktaoginaktok,

ukeotoagaagan 2004-min. Hilamik napakti, napakhimayok 2007-mi katitigenaktok anukim unakniganiklo hila atoktukhanik uvani ilitokhaonmi.

Ilitokhaelikmata 2008-mi naonaeyageagani ammonia-kaniganik mikhivaaligeagani Tunungani kagikhokmi taemaeniga pihimayok umayonoanin (mikiyonin kumakonin imakmi nigivaktonik ammonia-mik aalagukpakhotilo kanoginiginik). Una iniktiktaohimayok 2010-mi, nalohoegumiklo, Diavik-kon atokneagunakhuyun kaoyimaliktamiknik talvuna agilivaaligeagani ammonia mikhivaleayutikhaenik atoklogin umayunoen.

Diavik-kon ileogaeginmata nutanik ikolatiyutikhanik 2009-mi opalogaekhimagaloakmata. Kanoginikhaanik hanayin ihoakhaeyageakaktun nutan ikolatiyutikhan hanayaogeaktinagin.

Kigulikmik, Diavik-kon ilitokhaeyun aheanik oyagakheokgutikageamiknik A21-mi oyagaktakvikhami Lac de Gras-mi. Pitkohik, okaotaoyok 'kinipaloni' oyagaktamik, ilakakneagaloakman heokanik katitikvikhamik oyakanik kitkanilo pukaklogo hanayaolonilo Lac de Gras-mi, ayikotaenik avatiloehimayun haneani A154-mi A418-milo oyagaktakvikni. Kiheani, imaeyagitkaloaklogo oyakan ilaonin, imakaenakneaktok. Ikutakyaok agiyomik potugutikaktok iliyaoneakman kalimun umiyandin. Ikutak anmuktitaoneakman imakmi, oyagaktakhanun natkani, ahivaelotiklo oyagaktaakhanik. Oyagaktan kunmun tukhoakun kaganun imaeyaktaolotiklo oyagaktaan kaganuktaohimaligumik. Una nunanik atoknikakpalalimagitok anmun oyagaktaktun aheanin.

Avataoyumik Amigiyutin Naonaeyaklogin Nalaotaginun

Nuguneani uma unipkaam, ilakaktok okaotaoyomik Kiguligeknigin Aktoknigagun Okaohen. Umani unipkami okaohimaktun avataoyumik amigiyutinik naonaeyakniginiklo nalaotaktaohimayunik ukunani angutikhanik, naoteavalokniklo, hilaenakmiklo, ikalokniklo imakniklo. Naonaeyaon 2009-min atokhimayunilo ukeonin ilitokhakniginik hivoani nalaotaktaoyunin.

Heogakakniga oyagaktakvikmi ukeotoagaagan ilitokhakniga agitkiyaoyok nalaotaktaoyunin Avataoyok Ilitokhaktaotilogo. Kiheani, kaoyimayageakaktok hivoani nalaotagutini ihomagiyakaginmata hanayun havaaginik ukoa hananagikniganik oyagakheokvikham A418-mi avatiliktaoyumi kanogitunigilo amigaenigiklo iglukpaen atugeakaktun ilaonun nunan oyagaktakneaktilogin. Ukoa havaagiyaoginakmata malgukni ukeokni, kiheani naonaeyaktaohimaginmata heogakaknikhaen Avataoyok Ilitokhaktaotilogo. Aepagani okaotaoyun, heogakaknigin kanogalok mikhineaknahugikmagin atoktukhani ukeoni taemaetun havan ikiklivaleneaktilogin. Diavik-kon ihivgeokhilikmata heogakakniginik nalaotakhotik 2008-mi hila kanoginiga naonaeyaktaoginaktilogo. Inikneaknahugiyu havumiga 2010-mi.

Tamaeni, avataoyomik amigiyutini naonaekman ukoa aktoknigin Diavik-konin mikitkiyaokmata ahenin Avataoyok Ilitokhknigagun nalaotagutinin.

Maligoateakmagaa

2009-mi, Diavik-kon maligoateakmata nunanik atukavutunik imakniklo atoknigagun laeseoyumik. Ataohehhotik kuknigin (imavaloen kuktun pikotinin) zinc-kaktonik pH-miko agitkiyaovyaktun kuktun Lac de Gras-mun hivovalagitomik. Ilalo, halomaetun imavaloen (500 m³) kuktitaohimayun Lac de Gras-mun ihoetugaloakman kuvivea tukhoam papaotilo A418-mi oyagaktakvikmi uvuna Tunungani Kagikhum Imagikhitigeagani Ihoakotaoyumin.

Ihivgeokhiyin Inulikiyinin Kavamatokani Kantami polakhmayok Diavik-mik ihivgeokhiyaktokhoni 8-nik taekogakhimayok 2009-mi. Kanoginigin ihivgeokhikmata okaotaoyun Naenakhimayuni Unipkani Maligoateakgamaa piyotaoyunik uvan unipkami.

Avataoyumik Amigiyutin

Naonaepkun A1 Oegoani A ihoani uma unipkaam okaohikaktun naetomik aalatkenik avataoyomik amigiyutunik Diavik-mi 2009-mi, naetomiklo okaohen havaagunik kanogilivaleanigagulo. Naonaepkun pikaktok ukuniga:

- Haogavaluknik Hilamiklo amigiyutunik;
- Kanogaalok imagiknigalo imavaloen;
- Imakmeotunik aktokniginik;
- Angutikhan nunagiyaelo (naohimaktolo nunami);
- Ikalolikiyutilo; unalo
- Malguk ilihakpaalikvikmin ilitokhaeyutin havaagiyaoyunik.

K'aldé Nedhé Délthi Bets'i Zereht'is

Zediri ghayé t'alt'u Diavik zereht'is delt'is zeyi háyurila chu Environmental Agreement (the Agreement) húlye chu gha t'at'e sí dène xél náyaltu zat'e. Zeyi Agreement yé yatú thela Article 12 sí yé yatú thela gháre zeyi zereht'is delt'is xáza, zeyi yatú gháre t'at'u yereht'is, delt'is yé yatú níle yegháre yíle xáza. Ghayé t'alt'ú Diavik tsamba k'é náre háyurila dáhála sí dène xél náyaltu zat'e, zeyi zereht'is xalé beyé t'ahadí sí gha. Yuní 2009 zeyi 2010 tth'ezaze kú, háyurila nízú dène xél nádáyaltu zeyi ní beghálada sí gha-u xél tth'i beghathén 2008 Environmental Agreement Annual Report t'ats'edí sí gha náyaltu.

Diavik chu Environmental Monitoring Advisory Board (EMAB) húlye.

Zeyi Environmental Agreement zereht'is delt'is-u tth'i denezí bek'é nílya hulé zat'e Níts'i Cho Za 2000 kú. Zeyi beyé yatú thela t'a gha náyaltu sí zeyi Diavik-u, Dène government-u tth'i Federal chu Territorial government t'at'ú hubet'azí xáza sí gha t'e. T'a zazi bet'oréza sí zeyi agreement t'a harelyu yegha zelk'oreza t'a xa yeheltzi ní sí zeyi Diavik tsamba k'é zeghálana gháre ní sédhir ch'a yalmi xáza. Zeyi gháre tth'i Advisory Board k'e dène yak'edéltth'i xa bedínálti sni t'a – zeyi EMAB húnídhër, zeyi Diavik chu t'a bezí yek'érit'is sí zeyi beghathén zasts'edí zat'e.

Zeyi EMAB Board sí zlaghe representatives húlye yek'e theda sí t'a parties húlye bezí zereht'is k'e níla sí zarat'e. Há'te húlí nayé zasie gha nánahadé zat'e, zeyi sí t'ok'e ní k'e t'ul dóhót' sí (tú t'at'e sí-u, ch'adí-u xat'i sí) xat'i zasie gha xél tth'i zeyi ní gha zereht'is xáhi ní zeyi gháre t'a zeyi Zedéná bets'i Government of Nunavut ts'i zlaghe zeyi EMAB k'e theda xa nílti. Zeyi t'a Agreement gharjidel sí zereht'is k'e Table 1 húlye k'e thela zat'e.

Table 1: Zeyi t'a Environment Agreement k'e Délth'i sí

<u>Lichághé Government</u>	<u>Beghúldesche Dène First Nation</u>
<u>Government of Canada</u>	<u>Kitikmeot Inuit Association</u>
<u>North Slave Metis Alliance</u>	<u>Lútsél K'é Dèné First Nation</u>
<u>Government of the Northwest Territories</u>	<u>Diavik Diamond Mines</u>

Zeyi EMAB t'at'ú la hubets'i sí – zeyi naye t'a la sí zeyi Diavik hubets'i t'at'u ní ghálahena xa hedí sí-u, zereht'is heghá-u, tth'i hubets'i programs tth'i ní gha-u, t'a bezí níla-u, háyurila dáhála t'at'ú bexél xáza-u, dène ch'aníe xél zeghálada-u tth'i zasie gha núdhër dé zeyi tth'i xa yatú hehza xa thela zat'e. Zeyi t'a Board k'e déltth'i t'a xél zeghádálana sí zeyi Dène hárelza bezí níla sí-u tth'i háyurila dáhála Diavik yurekér xa zedire ní badí sí xa programs t'at'u súghá-u beghálada lí sí xa.

Ƴeyi Agreement yé yatı thela Part 12 húlye sí ɓadí-u Ƴeyi Diavik ghayé ɓált'ú Ƴereht'ís det'ís xáɓa Ƴeyi tsamba k'é xálɓa ní ghá t'anáhadhër sí ghá hat'e t'á ghayé ɓált'ú Diavik Ƴeyi ní ghá Ƴereht'ís Environment Agreement Annual Report húlye détl'ís ɓat'e. Ƴeyi Ƴereht'ís det'ís sí Ƴeyi ní hadı monitoring program húlye hubets'ı ɓelk'éch'a ní ghá Ƴereht'ís dáxıghá ts'ı yatı gháré yerıt'ís ɓat'e. Ƴeyi beyé yatı thela sí Ƴeyi Diavik t'a náhadhër sí xél ɓat'e, harelyú dëne t'a ɓasıe ghá nánıde sí ghá-u, ní t'atthe t'at'e nı sí-u, dú t'at'e-u, yunedhé t'at'e xa hunıdhën nı sí-u, ɓedırı Diavik ɓasıe godhé k'anı yurédzay ts'ën tth'ı yeghá nánıde ɓat'e, tth'ı INAC Inspector t'at'u ɓak'oneftá ghá tth'ı yatı xalı xél ɓıla ɓat'e.

Diavik bets'ı Tsamba K'e chu Nı Ta't'ú Xáɓa chu

Ƴeyi Diavik bets'ı Tsamba K'e t'ohót'ı nıt'a sí Ƴeyër tthıs nuaze k'e, Ƴeyi nuaze Lac de Gras ts'ı tthıs ts'ën háɓa Ƴeyër ɓat'e. Ƴeyër Diavik tthe diamonds húɓa sí Ƴeyi kimberlite (tthe dëldzen láhat'ı) pipe húlye yé ɓat'e, Ƴeyër Lac de Gras ts'ı tthıs ts'ën háɓa nuaze ɓabághhe húɓa ɓat'e. Lac de Gras tu theɓa sí ɓelk'etoná dechën ɓıɓnëth ɓat'e Ƴeyër Beghúldesche ts'ı yutthé toná dechën ɓanıthha ts'ën ɓat'e. Ƴeyi tu theɓa sí ɓıɓts'us K'atı Za dé hetën-u tth'ı Ƴeghës Za húnıdhër dé nalɓı ɓat'e. Ƴeyi Copper River húlye beyé-a ts'ën nılı ɓat'e.

Ƴeyër Tsamba K'é begá t'at'ı ch'adıe dólı sí saschogh-u, nunıyé-u, nághai-u, naghıdhé-u, gah chogh-u, dlıe-u, dluné lárát'e-u, k'asba-u tth'ı Ƴeyıle ɓelk'éch'a ɓıyësáze dólı. Ƴeyi Bathurst ɓetthën húlye łúké chu xayt'ás chu dé Ƴeyër ɓanáre nolt'ai ɓıt'e húlı Ƴeyi tthıs nuaze ts'ën húıt'ëth ɓetthën łá kózı ɓat'ı cho ɓıle.

Ƴeyi tu theɓa benáre ɓél lát'ı dıkes húlye t'á bedárelyya-u beyé tu theká sí beyé hádél xat'ú t'a Ƴeyi bet'ághe tthe diamonds húlı sí beghálada-u beghá nahıt'e. Ƴeyi t'atthe ɓél (A152) xalı t'o beghá nahıt'e sí 2002 kú, Ƴeyër ts'ı tsamba ghá náts'ede húnıdhër yunı 2003. Ƴeyi bek'eni ɓél (A418) beghálada húnıdhër sine 2005 Ƴeyër ts'ı 2006 beghá nahıt'e t'á 2007 Ƴeyër tth'ı beghálada húnıdhër. Ƴeyi ɓél bezi huts'ı sí Ƴeyi kimberlite pipe beyé húlı t'orólye sí bezi t'á yúzi ɓat'e. Tth'ı bek'eni tthe kimberlite pipe A21 húlye húlı ɓat'e Ƴeyër Tthıs Nuaze begá Lac de Gras háɓa bek'e. Diavik Ƴeyër A21 kimberlite húlye húlı ts'ën níá yághe núnıɓa hełtsı yunı 2006 kú, hat'e húlı begháláda ɓat'e ɓıle. Diavik yunı 2008 kú Ƴeyi A21 la sí dú xa beghálodáıle hedı. 2009 kú núdhër-u Diavik harelyú t'á ɓıɓısdı xayé ɓeghádálahená. Dı sí Diavik Ƴeyi tthe diamonds híłchu dé Ƴeyër ní háyurıla open pit mıning húlye ts'ı híłchu ɓat'e. Ƴat'e t'á Ƴeyi tthe chu kimberlite chu híłchu dé ní dághe ts'ı yelɓı ɓat'e. 2007 ts'ı Diavik níá yághe ɓeghálada xa ts'edáy sehúde ɓat'e. 2010 dé ní yághe ts'ën yéunıɓa-u ní yághe Ƴeyër t'a kimberlite húlı sí beghálada húnıdhır xat'e. Nades ts'ën hadhër dé, Diavik Ƴeyi ní háyurıla daghe ɓeghalahená yeghá narıt'e dé níá yághe húı ts'ı kimberlite híłchu xat'e. Ƴeyi kimberlite ní háyurıla ts'ı híłchu sı-u tth'ı-u nades ts'ën hadhër dé ní yaghe ts'ı tthe híłchu sí tth'ı tlesbeschënë yé t'a beghálada ts'ën ɓelánalyı xat'e, Ƴeyër t'a náłt'és-u x-ray t'á Ƴeyi tthe diamonds bets'ı híłchu xat'e.

Diavik sí zate háyurılazáze lat'e zat'e – zeyër náts'ede k'é xáza sí nats'etıs k'é xáza-u, shets'elyı küé-u, zereht'ıs ghálada küé-u, tu ch'élé hadı küé-u, tu ch'élé zádıl k'é-u, zasıe sureldhën ghálada küé-u, zıdı kón ghálada küé tth'ı dzeret'áy k'e xáza. Tónóná ts'én solóná dechën zanıltha xaye tlıú xalé zat'e bek'e Diavik chu zeyıle tsamba k'é dáhála ts'én zasıe zelánalyı xa. Xaye talt'u zeyı xaye tlıú bek'e t'a zelánalyı sí tlës döghé lát'ı-u, thay cement-u, bet'á ye xalé xa zasıe-u, tlës beschëné-u, bet'á zasıe gháladá-u, nats'edé xa zasıe-u, tth'ı beghadhën zeyıle zasıe zelánalyı zat'e. Xaye zıle dé ts'eret'áye t'á Diavik ts'én zasıe zelánalyı zat'e.

Nı Xáza T'at'ú Beghálada

Diavik zeyı Environmental Management System, EMS tth'ı yehúshe zat'e, bet'á zeyı t'at'ú ní xáza badı sí záze húzı zálye xa. Zeyı Diavik bets'ı EMS t'a gháre zasıe xa húltá sí zeyı ISO 14001 húlye sı zereht'ıs nedhé zet'áılchúth zat'e, zeyı sí harelyı néne bek'orejá zat'e. Zeyër tsamba k'é t'anáhadhër (zél t'á zedárelye-u, tthe zelánalyı-u, zedı kón zet'él-u, ts'eret'áy nanedıl-u) bet'á ní bets'én náhadhër zat'e, zeyı t'á EMS begháre zek'ázı xáza zat'e.

Zeyı EMS t'at'u hálza sí zeyı t'at'ú zeghálada xa sı-u, ní xa tth'ı ts'étáy surıldhën-u, tth'ı zeyıle beghathën zeyı k'ızı zereht'ıs hega zedırı xél nílye xat'e, tth'ı t'at'ú zelts'én dáyats'eltı ts'étáy surıldhën-u tth'ı ní gha t'ohót'e sı gha zereht'ıs k'áhanı xáza. Ts'étáy sezıt'ée t'á xáza xát'ú dé zızı húzı ts'én t'at'e xát'ée xa – zedırı dat'ú t'a EMS xálza zat'e. Zeyı zeghálada badı ts'ı zéné-u tth'ı zasıe k'oneta zeyı t'á dayenezı sı zeyı Diavik xa zeghádalaná-u, háyurıla dáhála-u, t'á begháre zeghádálada sı-u zedenı t'a zeyı programs dólı beghálada t'at'e sı xa nezı zat'e. Zedırı gháre yunedhé xáza t'at'ú zızı nezı zeghálada lí sı net'ı xat'e. Zedırı zereht'ıs xél zeyıle zereht'ıs xalı thela (Table A2, Appendix A) zeyı sí t'at'ú Diavik harelyı ts'én ní xél zeghálana t'abúrelzı sı gha zat'e. T'a gha ts'edı sı zeyı zasıe ch'élé hóneni-u, zasıe bech'ónejër sı-u, ch'adíe-u, tthay ts'eréth'ay-u tth'ı tlës léreë t'a hunıdhıl sı tth'ı. Zeyı ISO 14001 zereht'ıs begháılchúth sı gháre yek'élnı hurélzı dé, Diavik bets'ı EMS xaye t'álnelt'u zaté net'ı xáza. 2010 kú ghayé zeyı t'ayúche sı maintenance audit húlye sı hálya. Zeyı maintenance audit hálzı sı yuzéne ts'ı dëne hát'ı zasıe dánelzı zeyı hát'ı t'a yenezı xa bet'á hát'ı zat'e, zeyı gháre Diavik zeyı ISO 14001 zereht'ıs zegháılchúth sı gháre yelzı dé xa. Zeyı yuzéne ts'ı dëne zasıe dánelzı third party expert húlye (dëne Diavik benle sı) zeyı t'a EMS t'at'ú hálza sı yenezı zat'e. Zelets'ets'úsdzı Za 2010 kú Diavik bets'ı EMS bek'ónétá gháre zeyı ISO 14001 zereht'ıs begháılchúth gháre hálza t'á bets'ı zereht'ıs nedhé beghalchúth nı yek'élnı halya.

ʔasíe ʔedʔ bedzeldʔ ts'én ʔeghálada

ʔeyí Agreement yé yatí thela sí ʔadí-u ʔeyí Diavík bets'í ní xél t'at'ú yeghálada xa ts'étáy suríldhën chu bets'í programs dóli sí ʔeyí ní bedzeldʔ ts'én ʔeghálada xa yatí thela xél yíle xa kú tth'í ʔeyíle beghádhën yatí thela ní ʔedʔ ʔáne bedzeldʔ sí k'áʔu xa ts'én xa yatí thela xel tth'í yíle xáʔa.

Dʔ t'at'e sí ʔeyí ʔasíe ʔedʔ bedzeldʔ ts'én ʔeghálada xa ʔadíʔ níne xa xat'í yatí begháré xáʔa xa hʔl ʔat'eíle, xat'e húlí Diavík t'at'ú ts'étáy suríldhën xálʔa chú bets'í programs dóli gháre ʔeghádálahená dé t'at'ú súghá-u hʔʔú ts'én ts'étáy sehút'e xálʔa-u, hunélʔ/yalní-u tth'í ʔasíe ʔesóhót'e dé seýíle ʔeyí hát'u ʔasíe ʔedʔ bedzeldʔ ts'én ʔeghálana xa yatí hełts'í t'á.

ʔedíre k'aní t'ahadí sí, Diavík bets'í EMS t'at'ú xálʔa sí hʔʔú ts'én háʔa xa xat'ú hálʔa ʔat'e. ʔeyí t'at'ú ts'étáy sehút'e-u, xáyíle-u, yalní sí ʔeyí EMS ts'íʔéné ʔat'e xél tth'í ʔeyí ʔasíe ʔedʔ bedzeldʔ ts'én ʔeghálada sí dagháre tth'í ʔat'e. ʔeyër Diavík k'é ʔasíe ʔedʔ bedzeldʔ ts'én ʔeghálada t'a ts'edí sí:

- ʔeyí tthay ts'éretthey bek'oneta beghánilya gháre t'ohót'í ts'éretth'áy bek'oneta xa sí ʔedʔ ts'én ʔalye xa.
- ʔeyí ʔasíe k'oneta Special Effects Studies húlye t'a ts'íʔéné búnídhër tehyághe ʔasíe k'oneta Aquatic Effects Monitoring program húlye t'á (ʔedírí ʔereht'ís yé ʔaʔu beghá náyatí xat'e; tth'í
- Ch'adíe t'at'ú badí nı xa programs nı sí ʔedʔ ts'én beghálada ʔájá kú ʔeyí yuní ghayé dóhódher t'anahodhër ʔlé nı sí gháre ʔálya ʔat'e;

Yuní 2007 kú Diavík bets'í Adaptive Management Plan húlye sí ʔeyí te yághe ʔasíe hadí Aquatic Effects Monitoring Program (AEMP) húlye sí Wekèezhì Water Board (WLWB) húlye t'áya ʔat'e. Yuní 2008 kú ʔeyí WLWB ʔadí-u ʔaʔu nut'í hedí ʔeyí begháre ʔeghálada ʔereht'ís hołé hát'ú dé ʔeyí WLWB t'at'ú ʔeyí ʔasíe ʔedʔ bedzeldʔ beghálada t'ane xa yenıtthën ní sí xa xat'ú ts'étáy sede dé sí yunedhé xáʔa t'at'ú xálé-u tth'í nánét'í sí búrenı ts'én ʔálye xa.

ʔasíe hadí ghálada

ʔedírí ʔereht'ís ʔate t'á ghá náyatí sí ʔeyí Diavík t'at'ú ts'étáy seʔ'e chú bets'í programs chú t'áhát'í ʔeyí ní ʔeyër tsamba k'é ʔanáre t'at'e sí xa net'í ʔat'e. Dʔ ʔedíre ʔereht'ís t'ájá sí ghá ʔeret'ís yuní 2009 kú Diavík harelyú ʔanáre yalní ts'í ʔéné t'ájá sí gháre yíla ʔat'e.

Ch'adie

Ƴeyi Environmental Agreement begharé, Diavik ní hálni xa Wildlife Monitoring Program húlye ghálaná Ƴat'e. Ƴediri la t'a t'á búnidhër ní sí bet'á t'ohót'i ch'adie náday ghá-u, Ƴasíe tu k'e nanedíl tth'i ch'adie tsamba k'é náré náde t'arát'e sí ghá. Ƴeyi Environmental Assessment gharé t'at'e xa hunidhën nı sí hájá. Yuní 2009 t'ájá nı sí ghá dụ já beghá yatı thela.

- 2009 kú, Ƴasíe ní k'e dánishe Ƴeyër tsamba k'é náré k'ázı 0.12 square kilometers Ƴájá. Environmental Assessment t'ane xa yenıdhën nı sí hájá.
- Ƴetthën néne beghá Ƴek'ázı Ƴájá sí, yuní 2009 t'apıya xa hunidhën nı sí hájá xél tth' tsamba k'é háza húlı Ƴetthën bets'én Ƴezóhót'eıle;
- Yuní 2009 kú t'at'u dzeret'áy tsı Ƴetthën netı sí Ƴedı nalyá Ƴat'e hat'ú dé kozı Slave Geologic Province k'eyághे dezarılyá netı xa, tth'i t'a EKATI chu Diavik chu ní t'á het'i sí tth'i. Nı t'arılkoth detthél sí 8 km ts'én Ƴalıdha xél tth'i t'ó ní húldzáy sí Ƴeghës Za tsı Ƴıtsus k'atı Za ts'én (xayt'as Ƴetthën húle Ƴájá dé ní húldzáy beghá nahıt'e Ƴat'e. Harelyı t'á 14 ts'én Ƴetthën xa ní húldzáy gharé harelyı t'á 8849 Ƴetthën hetı. T'a dezanılt'e Ƴetthën Ƴela dzérelt'ay hetı xa dé 550 neıt'e. T'abúrelı xa-u Ƴeyër tsamba k'é xáza beghálada t'á Ƴetthën yech'azı t'anıtha ts'érelt'ay sí 14 dechën tsı 28 dechën ts'én Ƴatı;
- Ƴetthën ní k'e t'arátı sí xa netı-u/bek'ónét'a (ní-tsı) Ƴeyı t'anılt'e xályá sí Ƴelónona ts'én lóna k'énedhé xályá yunı 2009 kú, Ƴeyër tsamba k'é xáza tsı t'anıtha ts'én netı sí 2 dechën tsı 30 dechën ts'én. Ƴeyër t'a tılu chu tthe Ƴek'edalye chu bedı t'á Ƴeyër ná Ƴetthën yenaré Ƴatı Ƴeyër Diavik Ƴeghádálada náré Ƴatı ch'a yuzéné bech'azı Ƴatı Ƴalyá.
- 2009 kú, sascho t'ohót'i náday yech'azı Ƴatı Ƴájá sí tonıya xa hunidhën nı sí Ƴájá, xél tth'i sas leghádhër húlıııle-u, Ƴek'áıle-u tth'i Ƴedıdelıle húlıııle kú gháyé. Ƴeyère Tthıs Nú k'e sas hetı t'á Ƴeyı Environmental xél Ƴeghádálaná 23 k'énedhé háts'edı yunı 2009 kú, xél Ƴılaghe sas beskéne taghe húlı Ƴeyër tsamba k'e náıde Ƴegés Za 6 tsı Dıznadháze Za 21 núltá ts'én. 2009 kú harelyı t'ohótı setthı náday nı sí netı ııle.
- 2009 kú Ƴeyër Tthıs Nú k'e nághai húlı k'é. Yunı 2009 kú Diavik yath k'e nághai ke káhánetá t'a yeheı nı xát'éé tth'i Ƴeyı k'ızı 2010 dé xáyıhıle xa, xél tthı nághai betsı DNA xél Ƴeghálada xa húnıdhır xa Ƴeyı GNWT chu BHP-Bıllıton chu Ƴela. Ƴeyër tsamba k'é xáza t'á nághai Ƴesájá húlı ııle yunı 2009 kú;
- 2009 kú, harelyı t'á Ƴek'eta tthatsél t'oghe dathela (nake t'oghe yé bıyözaze húlı) t'ohótı k'eyágh hunetı sí. Ƴeyër ní daghe tsamba k'é ghálada k'eyághе

zasíe t'áne bet'oghe het'í húlíle yuní 2009 kú. Tsamba k'é ghálada t'á tthasél legháidhër húlíle yuní 2009 kú;

- Tu tanıtháíle chu tanıtttháá chu húlí zájáíle yuní 2009 kú, hát'e t'á tu dólí harelyú t'á t'anílt'e húle záne xa hunıdhën nı sí zalı xát'e. Zasíe tu k'e nanedíl sí het'í zeyër Tthıs Nú hat'as t'ábágh t'a tanıttthíle k'e tth'ı zalı zasíe tu k'e nanedíl tuzaze dáthela t'arat'ı sí zeyı nı k'e tsamba k'é t'á zedı zájá húlí.
- Zasíe ch'ële záuinedı náke dzıné t'ált'ú badı sí xat'e harelyú xayé gháre hálya yuní 2009 kú. Zasíe beghá shéts'edı chu beghá shéts'edı ts'ı zereht'ıs ch'élé chu húlzá zeyı t'ó 11% bek'óneta zeyër Waste Transfer Area húlye zanáre tth'ı 9% zeyër zasíe berehíle zónedı k'é. Yunı xayé zázı k'adhı lát'e. Zeyı Environmental xa zeghádálaná sí t'at'ı t'á zeghádála zasíe záuhenenı sí ghá hadóyóneltën.

Bexél tth'ı t'at'ı zasíe hadı xa programs ghádálahená t'at'é sí xat'éé, tth'ı beghádhën Diavık zeyıle dëne xél zasíe zak'ék'ëre nanet'ı déltthı zeyı tsamba k'é xa ch'adıe badı xa program t'at'ı begháladaná xa sí. 2009 xayé t'at'ı beghálada ní sí xat'éé zeyı kú xaytázı dëne xél náyatı xa workshop hełtsı-u harelyú t'á dënexél deltthı xa bek'ayáıtı sí zeyı taghe tsamba k'é (Diavık, EKATI tth'ı Snap Lake) dáthela-u, t'á Monitoring Agencies dılı (EMAB, IEMA tth'ı SLEMA), zedızı ts'ı Government (GNWT) bets'ı departments zech'ër K'élnı (ENR), Environment of Canada-u, Wekeezhı Renewable Resrouces Board (WRRB) tth'ı háyurıla dáhála sí tth'ı.

Nıłts'ı yayı T'at'e

Yunı ghayé dóhodhër k'ızı 2009 kú zeyër tsamba k'é xázá náre thaye dzéretth'ay t'at'e xa Environment department t'at'ı yalı sí xat'éé zat'e. Xaye t'anéltu łuk'é dé yath net'ı. Zedıri beghálada sí bets'ı yath hılchu sí nalxı-u betúé t'at'e sí xa net'ı-u tth'ı thay dzéretth'áy beta húlı dé xa net'ı. Beta thay húlı dé zeyı tth'ı hılchu begháre tsamba k'é náre t'anílt'é-u tth'ı t'at'ı dzéretth'áy xa net'ı.

T'at'e xa bunıdhën ní sí xat'e zeyı tsamba k'é gá thay dzéretth'ay dé sezánılt'e-u bech'azı dé dek'ázı. T'anílt'e thay nátl'ır sí zeyër zanáre zeghádálada t'á'u tth'ı nıłts'ı t'at'ı ts'ën ts'érets'ı chu t'át'e.

Yunı (1998) zeyı Environmental Effects Report zereht'ıs xalı gháre xa dé zeyı thay nátl'ır harelyú zela búldzáy zat'e yunı 2001 ts'ı (2009 chu) kú zeyı zedezanılt'e zájá. Zeyı t'at'e xa hunıdhën t'a gháre zatsedı sí zeyı dëne náre nıłtsı yayı t'at'e xa snı sí yatı hálı húlı yunı 2005 ts'ı 2008 ts'ën ní hadı la húnanıdhır sí dagháre zeghádálada hunıdhër ts'ı z'éné zedezanılt'e zájá zeyı húltaíle, zeyër kú dé zezánılt'e zat'e búldzáy gháre. Yunı ghayé dóhodhër gháre xa dé 2009 kú thay nátl'ır zedek'ázı zat'e zeyı kú dzıné zek'éta Za xa bedáırıtá xél tth'ı. Zeyı tthay dzéretth'ay badı sí xat'éé xat'e 2010 ts'ën.

Yath túé beyé zasíe hulí net'í (yath túé beyé zasíe hulí buldzáy) sí zesóhórilya k'éyaghe ts'í zats'edi zat'e sí (beyé zasíe t'anílt'e tu yé hulí sí zeyí tu xa zerehtl'ís gháre xa dé t'anílt'e xa sní sí k'ázu ts'én yek'élní xáza) zeyí búldzáy hulé yuní 2009 kú sí zeyí Water License gháre xa dé halá dek'ázi zasíe beta húlí, xat'e húlí zlaghe zasíe net'í beyé zinc beta hulí zeyër SS2-2 dazítthís ts'én haža A154 zél ts'í.

Dzíné huréya za dé Diavík t'lu k'e tu yek'ezałi sí zeyí tsamba k'e zeghádálada ts'izéné beta thay dzéréth'ay dek'ázi xa. Yuní 2009 zedırı bet'á tthe náłts'ës k'enuziža beghá nõhót'e; zeyí bet'á tthe náłts'ës bedárla zat'e xél tth'í thay dzéréth'ay badı xa hulí xat'u dé tthe náłdëth t'á thay náłt'ır dek'ázi xa.

Yuní 2008 kú, Diavík t'á nıłtsı zasíe nedhé k'ádórelža d'ılı xél zeghálana hunıdhër t'at'u bek'ızı nıłtsı yayı beghálada xa. Zeyí zasíe k'ızı zeghálada yet'á het'ı sí yegháre bet'as t'ohót'e xa sí-u, thay dzéréth'ay ghá-u, t'anílt'é lës t'áhat'ıı-u, t'at'ı bet'á zasíe ghálada t'áhat'ı bets'ı zéné lës lëre nelé sí zeyër tsamba k'e t'a zeyí hat'ı hanı náłtsı zat'e. Zeyër tsamba k'é núhút'a the zeyí Environmental Assessment sehúla zat'e. Diavík yenerení zeyí Environmental Assessment hunıdhër ts'ı zasíe la zedı zájá (t'a ts'edi, naye la nıhulya zału beghádálada, xat'e xa hunıdhënıle n) zeyí t'á bek'ızı zeghálada xa beghá nõhót'e zeyı nıłtsı yayı t'at'ú beghálada nat'ı xa.

Xaye t'anelt'u, Diavík hubet'á lës lëre t'á hunıdhıl t'anílt'e hereın sí hulta-u t'á begháre xáza sí hálnı. Zeyí lës lër hunıdhıl sí harelyı ts'izéné zat'e. Zeyër Diavík, lës dél'k'ën sí (zasíe bet'á zeghálada xa-u, zıdı kon hełtsı huneldhël xa) zeyí t'a zat'e bet'a lës lëre hunıdhıl yenerení zat'e.

Tehyághe t'at'e

Diavik yuní 2009, zaḥí tehyághe badi Aquatic Effects Monitoring Program (AEMP) ghálaná. Jediri dū zḥáisdí xayé tehyághe t'at'e badi sí zeyi Diavik bets'í tu xa zereht'ís xa zedinálti zat'e. 2009 dé dū taghe xayé zeyi AEMP zedū zaḥya sí, dū taghe zek'éch'a zasíe nált's'í xat'e net'í xa (Zegës Za, Dzinedháze Za, tth'í Łudalye Za) xél tth'í zaḥu tēn thezaḥí halye xa Łitthēl Za ts'í Degai Marí Za ts'én.

Zeyi AEMP haní zeghárıla gháre zeyēr Lac de Gras tsamba k'e ghálada ts'ıžéné zate t'ajá sí yek'órelıya. Zeduzáze zájá zeyi tu yé zasíe dólı-u, teht'aghe zasíe dáthedzáy-u, tth'ı teguáze (guáze teht'ághe nárádé) búldzáy gháre. Jediri zedú núhúdhır sí zeyēr tsamba k'é ga bek'órıjaıle (zanáre zak'onéłta k'eyághe) bech'azı dé dek'áz (zanáre dezánıłtha zak'onéłta k'eyághe) zeyi Department of Fisheries and Oceans yets'ını t'á Diavik teht'aghe ts'ı zasíe net'ı xa náyełtsı zeyēr Lac de Gras mercury hılı yudághe zájáze zeyi łutthēn bek'ónét'a zılé gháre. Xél tth'ı, yunı xayé DDMI zeyēr Lac de Gras hıe t'olnı k'onełta, zeyi załaghe hıe (hıezané) zeyıle ts'ēn lab mercury hılı dé xa net'ı. Harelyú łuetthén ta mercury hılı xa dé zeyi Health Canada begháre shéts'elyı gháre xa dé zadek'ázı hılı. Diavik yunedhé háza zaḥı t'at'ú tehyághe t'at'e xa yalnı sí hát'e tth'ı zaḥı hıe yé satsane hılı dé xa yak'onełta xat'e 2009 dé.

Diavik zereht'ıs dıht'ıs

2009 k'égháre chu 2010 chu, ku Diavik zereht'ıs dáhalı chu t'at'u zeghálahená xa sí-u dēneba nádáyela, zeyi t'á lát'ı sí Wekēezhıı Land and Water Board, Department of Fisheries and Oceans, Indian and Northern Affairs Canada and Environment and Natural Resources. Jedıre zereht'ıtıs xáḥı harelyú zereht'ıs dáhalı zeghárılyat'á det'ıs zat'e.

Náidı Shıne ghádálana

Degai Marı Za 2003 kú, Diavik zeyi náidı shıne tu yé (náidı shıne bet'á hat'ı Water License bedaregháre zat'e) t'anıłt'e hılı sí ghá nánıdhēr t'á EMAB chu, t'á daregháre ghálana sı hálnı zeyi ník'erılyá ts'ı tu hátıl zeyi bet'á zasíe zek'enıłk'ıth bet'á hat'ı ts'ınéne zat'e. Zeyi t'anıłt'e náidı shıne hılı sí zadı xanıłte t'á ní ts'édhır xaıle hılı, t'á níłt'e xa hunıdhēn nı sí zánıłt'e. Zeyi t'anıłt'e xa hunıdhēn nı sı bet'óreza zat'e zeyi t'á t'á sí náidı shıne t'anıłt'e xát'ır (zeyi Diavik t'anıłt'e xa dúele hets'edi gháre náidı shıne tu xél Lac de Gras yénil zeyēr Water Treatment selyá t'ághe dé) xa dé zeyi t'atthé-u t'anáhádhēr xa hunıdhén nı sí gháre tu xa zereht'ıs bet'alchuth.

Ƴeyi WLWB bedaregharé Diavik bets'ı tu xa zereht'ıs godhé gháre xa dé náídı shné dezánılt'e Ƴanıł xa dúélé Ƴeyune Dzıne Za 1, 2007 ts'ı, hat'e hılı Ƴelets'elst'ús Za 1, 2007 kú tth'ı dek'ázı xa nalyá, Ƴeyi t'anıłtthá tu xa zereht'ıs bets'ı lası ts'én hát'e xa t'o belaghe sı Ƴeyune Dzıne Za 31, 2015 kú dé. Diavik 2009 t'at'u náídı shne Ƴanıł sı háyıla.

Náídı shne xél ghálada xa dé, Diavik bets'ı Ammonia Management Plan hılı Ƴat'e. Ƴedırı harelyú rek'ech'a Ƴasıe setthı Diavik yeghálada ghá núdhër dé bet'a Ƴasıe rek'enılk'eth t'at'ı t'a, Diavik tu halnı dezánılt'e tu xél náídı shne Lac de Gras yedıl ch'a.

T'anahádhër XáƳa sı

2009 kú, Diavik 5.6 million Ƴáıłdath diamond hılchú, yunı 2008 9.2 million Ƴáıłdath chu xa dé. Ƴeyi Ƴájá sı kú tsamba k'é tháıle ts'én bedárita hıle Ƴegës Za ts'ı Degái Mar DzınƳáze Ze ts'én. Ƴedırı bedárita sı harelyú néné ts'én tsamba xale xa húrenıle Ƴájá ts'ıƳéné tsamba hełtsıle t'a, Ƴeyi t'a Ƴat'e t'a tsamba k'e la bet'óreza Ƴıhı bedahárelya. Yunedhé hadhër dé Diavik k'azú hálƳa xat'e hunıdhën.

Yunı 2009 kú, náts'ede ts'én xaye Ƴalt'ú bet'a Ƴasıe ghálada-u, Ƴasıe bedı náłtı sı-u tth'ı lës xat'ı Ƴasıe Ƴelánaıya xay Ƴılı k'e Ƴeyi sı Sa Nedúı Za ts'ı Nıłts'ı Cho Za 29 núłta ts'én.

Diavik bets'ı tu zererht'ıs xa Ƴasıe net'ı xa náłtsı tth'ı Dust Monitoring Program xa tth'ı Ƴasıe net'ı xa náłtsı yeyı kú xayé. Łuk'é 2009 Ƴeyi nágaı beke k'é xa bek'oneta sı beghá nohót'e, xat'e hılı xaye núdhër-u beghádaıle beke k'é hanúnıle t'a xél tth'ı bıtas hajër t'a. Yunı xayé dóhódhër k'ızı, dzeret'áy ts'ı-u tth'ı nı tsı Ƴetthen badı hálya kozı náre łuk'e ts'ı xayt'ás ts'én. Aquatic Effects Program xa Ƴasıe net'ı xa náłtsı łuk'e chu (Ƴıłá hályá) dzıne chu (taghe k'énedhé). Ƴeyër tsamba k'é náre Ƴasıe tu k'e nanedıl sı badı Ƴıle Degái Marı Za ts'ı Bek'e T'ancháy Nátl'ır Za ts'én, tth'ı t'a Ƴasıe k'ádónelta sı nıdel-u tsamba k'é náre hádaúneshé k'ádóneta henonıldhër. Ƴeyı Community-Based Monitoring Camp hálya Dzınedháze Za kú. Łue nadáts'ethı xa dene nálya bet'a hanı náłtsı-u tth'ı ch'adıe t'samba k'e gá-u tth'ı yenáre dát'ı gha-u t'at'u Ƴedáretı sı t'adáyıdhën sı ghá tth'ı.

Ƴılu ní yághe ƳaunıƳa (nı yaghe ƳaunıƳa) xale kú xayé gháre xat'u dé dene ní yaghe Ƴeghádálaná xa Ƴayër A154 chú, A418 kımberlıte pıpe sı ghá. Diavik Ƴalı Ƴeyër ní yághe A154 chú, A418, tth'ı Ƴasıe k'oneta-u, kımberlıte pıpe beghálada xa nulı, Ƴeyı A21 dı xa beghádaıle.

Harelyú t'a Ƴasıe Ghá Nánıde

Environmental Monitoring Advisory Board Ƴeyı Diavik ku xayé t'ayehlı sı ghá yeyı Ƴela nılya sı (Diavik yebazı t'adı sı tth'ı) Ƴedıre zereht'ıs belaghe xél thela Ƴat'e.

Harelyú háyurıla dene ta nahedıl Ƴıle sı Ƴedıre zereht'ıs Section 19 yé thela Ƴat'e. Yunı 2009 kú Háyurıla dene t'adáyıdhën sı Diavik beghá yatı nılyaıle Ƴeyı ní gha núdhër dé.

ʔasíe godhé dále

2009 kú, Diavík t'at'ú ʔasíe godhé dále t'at'í-u yet'a tsamba k'é ʔeghálana ʔa ʔek'ónelta. ʔeyí nítstí t'á ʔedí kón ʔełstí-u yet'at'í ʔa ʔeyí ʔłághe ʔasíe ʔałı yeghā nánıdhēr ʔat'e, 2004 kú ts'ı xayé t'ánełt'u. ʔeyí bet'á bıt'as t'qhót'e badı ʔa kuę hálı yunı 2007 kú ʔeyı bet'a nıtst'ı chu t'orıłtt'hěl chu ghā hanıdı bek'óneta dé ʔa.

Yunı 2008 kú Náıdı sınıé t'atnıłt'e ʔa bek'onéta kozı das t'ázı dólı sí búldzáy ʔeyı teguʔaze ts'ıʔéné sí (teguʔaze dánechıle náıdı sını heldél ts'ıʔéne ʔeyılé ʔasíe yeldél ʔat'ı) ʔedırı ʔasíe koneta 2010 kú beghā nohót'e tth'ı, ʔeyı t'at'e lazı gháre, Diavík ʔeyı t'ajá ghā bek'oreja sí yet'át'ı ʔa ʔasíe konelta dé ʔeyı sát'u t'á ʔeyı náıdı sınıe dek'ázı ʔa ʔeyı teghuʔaze gháre.

Diavík yunı 2009 kú bet'á ʔasíe k'erekā nıhıʔá ʔaʔā nı húlı hájáiıle. Bet'á ʔasíe k'erek'a nıhıt'a tthe t'ā yeghā ʔasíe k'ádórelya nedhé dalı yeheghálahena húldı ʔaıye ʔa.

Kú dı nade ʔa dé, Diavík t'a húnıłdhēr sí ʔeyı t'at'u yełı ʔedı ts'én beghálada ʔa ʔeyēr Lac de Gras beyaghe A21 kimberlite pıpe huı s ghā. T'at'u ʔaıye ʔa sí, tu t'áhat'ı ʔat'e ʔeyı 'wet mıning' húıye, ʔeyı sí teht'aghé tthe nııye-u bet'áre lat'ı ʔaıé ʔeyēr Lac de Gras, ʔeyı ʔél A154 chu A418 chu ní k'erııya benáre lát'ı. Hat'e húlı, tu ʔeye the hálı ts'ı ʔadılııle-u ʔeyēr hek'ájı ʔat'e. ʔeyēr dé, satsané crane ʔasíe nat'ath bek'e theʔā hat'ı ts'ıkár k'e nıt'a ʔa. ʔeyı satsané ʔasíe nat'ath sí ʔeyēr tu t'āghe nıt'ı ʔa, kimberlite pıpe k'e, ʔeyēr kimberlite bech'azı hıt'áth ʔa. ʔeyı kimberlite pıpe ye k'edaghe ts'én nıt'ı ʔa ʔeyēr t'āghe dé ʔedek'ázı ní ts'édhır ʔa ʔeyı ní k'erııya lát'e ʔaııle.

T'ahıt'e ʔa Hunıdhén Nı Haldnı ʔełéłt'e Dé ʔa Yenıłzı

ʔedıre ʔereht'ıs belāghe, ʔeyēre Rolling Effects Summary bek'e réht'ıs ʔat'e. ʔedıre ʔereht'ıs t'a ghā náıyaltı sí ʔeyı ní halnı ghádalana t'ahıt'e ʔa hunıdhén ní sı ʔełéłt'e dé ʔa yełtı ʔeyı t'ā ghā sí ch'adıe-u, ʔasíe dánıyé-u, ní-u, hıe-u, tu tth'ı. T'a k'áneta sí ʔeyı yunadhé t'ahıt'e ʔa hunıdhén nı sı yunı 2009 t'ajá sí chu tth'ı yunı xayé dáhúdhēr sí net'ı.

ʔeyı t'ó Environmental Assessment ʔaıya ní kú ʔeyı tsamba k'e xayé t'ánełt'u thay dzétth'ay t'anıłte náłt'ır sí deʔánıłde buldzáy dé. Hat'e ʔat'e, hat'e húlı, tthé-u t'ane ʔa hunıdhén nı sí kú ʔeyı nıhıt'a ʔa ʔeghádálada ghā nıhıdhénııle t'ó tsamba k'é nıhıt'a ʔa ʔél A418 tó tth'ı t'at'ı-ı, t'anıłt'e bet'á ʔeghálada ʔá bedınáłtı ní yágháge húnıdhēr ʔa dé. Dı ʔesóghánıłt'e yunı xayé dóhódhēr ʔeghádálada ʔat'e, kú hat'e húlı ʔeyı thay dzéretth'ay náłt'ır t'ó EA yek'onełtā nı sí bexél hultáiıle, yunedhé ʔaʔā ʔázı ʔeghádálada ts'ıʔéné ʔázı bet'á thay dzéretth'ay ʔat'e. Yunı 2008 kú Diavík ʔeyı thay dzéretth'ay t'ane ʔa halnı ʔajá ʔél tth'ı nıtst'ı yayı begháre ʔeghálada senalye gháre. ʔedıre begháre ʔeghálada t'ó beghā nohót'e ʔa hunıdhén sí 2010 kú dé.

ʔate t'at'e sí, ʔeye ní badı beghálada gháre buret'ı ʔeyı Diavík háʔā sí ts'ıʔéné háłā k'ázı ʔat'e ʔeyı Environmental Assessment t'ane ʔa hunıdhén sí dé.

ʔek'óhót'e

Yuní 2009 kú, Diavik ʔeyí ní chu tu chu xa ʔereht'ís hutón sí yek'át'e. ʔedírí ʔłaghe ʔesánáhádher ʔeyí tu xáılı ʔájá (ʔeyër núhut'a ts'í tu xáılı) beyé hanúnile húlı zinc chu pH húlye chu ʔeyër sóghónılthá ts'én ʔeyër Lac de Gras yé ʔájá. Begatthén tth'ı, tu suríthıle (500 m³) Lac de Gras yét'ır ʔeyí ʔeltth'ılu valve ʔek'élyá xél tth'ı bet'á tu háldeth ʔeyër A418 k'érílyá ts'ı North Inlet Water Treatment Plant (NIWTP) ts'én.

Yuní 2009 kú, Indian and Northern Affairs Canada (INAC) ts'ı Inspector húlye ʔek'édı k'énedhé Diavik ts'én nátheyá. ʔeyí Inspector bets'ı ʔereht'ís t'ájá sí ghá ʔedírı ʔereht'ís xél thelá ʔat'e ʔeyí Summary of Compliance húlye ʔat'e.

Nı Badı

Yuní 2009 kú Diavik ʔek'éch'a nı hadı ghá ʔereht'ís dáhalı ʔereht'ís xél thelá sí Appendix A beyé Table 1 húlye, xél tth'ı t'anáhádher-u, t'ájá sí ghá ʔereht'ís ʔat'e. ʔedıre ʔereht'ís xél ʔate beghá hanı thelá sı:

- Thay dzérétth'ay chu bet'as t'óhót'e badı.
- Tu t'at'e chu t'anılt'e chu?
- Tehyaghe t'óhót'e?
- Ch'adíe chu t'áhót'ı náday (ʔasıe dánıshe)?
- Łue? chu
- University ʔasıs k'adónetá háyıla.

Excerpts from the Environmental Agreement

12.1 ANNUAL REPORT

- a) DDMI shall prepare and submit an annual report (the “Annual Report”) to the Parties, the Government of Nunavut, and the Advisory Board on March 31*, (or on such other date as prescribed by the Minister from time to time), for each calendar year during the term of this Agreement, commencing March 31, 2001.

* - effective in 2003, the submission date was revised to annually on June 30

- b) Each Annual Report shall include the results of Environmental Monitoring Programs, and a rolling summary and analysis of environmental effects data over the life of the Project to illustrate any trends. The actual performance of the Project shall be compared to the results predicted in the environmental assessment and the CSR and an evaluation provided as to how DDMI's adaptive environmental management has performed to the date of each Annual Report.
- c) Each Annual Report shall include, but not be limited to, the following:
 - i. a comprehensive summary of all supporting information, data and results from the Environmental Monitoring Programs and all studies and research;
 - ii. a comprehensive summary of all compliance reports required by the Regulatory Instruments;
 - iii. a comprehensive summary of operational activities during the preceding year;
 - iv. actions taken or planned to address effects or compliance problems which are set out in the Annual Report;
 - v. a comprehensive summary of operational activities for the next year;
 - vi. lists and abstracts of all Environmental Plans and Programs;
 - vii. verification of accuracy of environmental assessments;
 - viii. determination of effectiveness of mitigative measures;
 - ix. a comprehensive summary of all adaptive management measures taken;
 - x. a comprehensive summary of public concerns and responses to public concerns;
 - xi. a comprehensive summary of the new technologies investigated;

- xii. the Minister's comments, including any Minister's Report, on the previous Annual Report; and
 - xiii. a plain English executive summary and translations into Dogrib, Chipewyan, and Innuinaqtun using appropriate media.
- d) In order to prepare each Annual Report and with a view to both ensuring that an opportunity is provided for early disclosure and discussion of problems and that each Annual Report meets with the requirements of this Agreement, DDMI shall Consult with the Minister and the Advisory Board as DDMI compiles the information and data to be included in such Annual Report.
 - e) Within forty-five (45) days of the receipt of the Annual Report, any Party or the Advisory Board may advise the Minister whether such Annual Report is satisfactory or unsatisfactory.
 - f) Within ninety (90) days of the receipt by the Minister of the Annual Report, the Minister shall advise DDMI whether such Annual Report is satisfactory or whether the Minister has determined that such Annual Report is deficient. In the event that the Minister has determined the Annual Report to be deficient, the Minister shall provide DDMI with a Minister's Report.
 - g) In relation to matters substantially within the jurisdiction of the GNWT, the Minister shall provide DDMI with a Minister's Report pursuant to Article 12.1(f) when the Minister receives advice from the GNWT that the Annual Report is unsatisfactory and the GNWT's advice shall be included in the Minister's Report.
 - h) Within sixty (60) days of the receipt by DDMI of a Minister's Report, DDMI shall reply to the Minister's Report and provide the Minister with a revised Annual Report or an addendum which addresses satisfactorily the deficiencies described in the Minister's Report.
 - i) The Minister may provide DDMI with an extension of time where DDMI is bona fide delayed in completing an Annual Report or providing a reply to a Minister's Report.

14.1 (e) DDMI in consultation with the Advisory Board shall make each Annual report available to the public and shall arrange for public meetings to review and discuss each Annual Report.

Section 12 and 14.1(e) of the Environmental Agreement (Plain Language Provided by EMAB)

12.1 Annual Report

- a) Diavik will create an annual report and pass it on to the Parties, the Government of Nunavut, and EMAB on March 31**. If the Minister of DIAND OKs it, the date can be changed. The annual report has to come out each year of this agreement, starting March 31, 2001.

** - effective in 2003, the submission date was revised to annually on June 30.

- b) Each Annual Report will include:

- The results of Environmental Monitoring Programs;
- A summary that adds in data of each year and an analysis of environmental effects data over the life of the Project - to show patterns over the years;
- How the Project is actually affecting the environment will be compared to the results predicted in the Environmental Assessment and the Comprehensive Study Report; and
- A review of how Diavik's adaptive environmental management has been working so far.

- c) Each Annual Report will also include:

- A full summary of all supporting information, data and results from the Environmental Monitoring Programs, plus all studies and research related to these;
- A full summary of all reports on how Diavik has followed all rules and regulations in the Regulatory Instruments;
- A full summary of mining activities during the year up to the annual report;
- The ways Diavik is fixing any environmental effects or problems following rules and regulations;
- A full summary of mining activities for the next year;
- Lists and summaries of all Environmental Plans and Programs;
- A check that environmental assessments are correct;

- A report on how well steps to lessen effects are working;
 - A full summary of all adaptive management steps taken;
 - A full summary of public concerns and responses to public concerns;
 - A full summary of the new technologies Diavik has looked into;
 - The Minister's comments on the Annual Report from the year before, including any Minister's Report; and
 - A plain English executive summary and translations into Dogrib, Chipewyan, and Innuinaqtun.
- d) Diavik will consult with the Minister and EMAB as Diavik puts together the information and data to be included in the Annual Report. This is so that there is the chance to find out and discuss problems as early as possible. This will also make sure that each Annual Report does what the Environmental Agreement requires.
- e) Any Party or EMAB may let the Minister know if the annual report is satisfactory or not. They have forty-five (45) days after receiving the Annual Report to do this.
- f) The Minister of DIAND has 90 days after receiving the report to let Diavik know if it is satisfactory or not. If the Minister decides that the report needs to be fixed, the Minister will give Diavik a Minister's Report.
- g) For the parts that involve the GNWT, the GNWT will let the DIAND Minister know if they think the report needs to be fixed. The Minister will include that information in his Minister's Report.
- h) Diavik has 60 days to answer to the Minister's report, and revise the Annual Report or add to the parts that need fixing.
- i) The Minister can give Diavik more time for the Annual Report or to fix the Annual Report if there's a good reason.

14.1 (e) Diavik should consult with EMAB, make the report available to the public, and then arrange public meetings to review and discuss each Annual Report.

Introduction

Diavik and the Environmental Agreement

The Diavik Diamond Mine is an unincorporated joint venture between Diavik Diamond Mines Inc. (60%) and Harry Winston Diamond Mines Ltd. (40%). Both are Canadian companies with headquarters in Yellowknife, Northwest Territories, Canada. Diavik Diamond Mines Inc. is a wholly-owned subsidiary of Rio Tinto plc of London, England and Harry Winston Diamond Mines is a wholly-owned subsidiary of Harry Winston Diamond Corporation of Toronto, Canada.

The Diavik Diamond Mine has been operating since 2003, and protecting the environment around the mine continues to be a high priority along with health & safety and sustainable development. Back before the mine began operating, in March of 2000, the Environmental Agreement was signed by several Parties. This agreement was written and agreed to with the intention of ensuring that Diavik minimizes the environmental impacts caused by mining for diamonds in the remote location at Lac de Gras, NWT.

The Agreement contains several clauses, called Articles, that outline the responsibilities of Diavik, Aboriginal governments, and the federal and territorial governments. The agreement outlines Diavik's environmental protection commitments, it talks about security requirements to make sure that Diavik reclaims or cleans up the area around the mine at the end, and it says that Diavik must be open and clear about plans and activities when dealing with the communities that are affected by the mine's operations.

The Environmental Monitoring Advisory Board (EMAB) was created as a result of the Environmental Agreement. EMAB is a board that is separate from Diavik and the other Parties that signed the Agreement. One representative from each of the parties that signed the Environmental Agreement sits on the Board. The purpose of the Board is to work with the communities near the mine site, and to give Diavik input, feedback and advice on environmental matters. EMAB also watches and evaluates Diavik's activities that relate to the environment - recommending changes when the Board feels it is appropriate.

The Environmental Agreement defines the 'Environment' as the components of the Earth, and includes:

- (a) Land, water and air, including all layers of the atmosphere;**
- (b) All organic and inorganic matter and living organisms; and**
- (c) The interacting natural systems that include those components.**

One of the sections of the Environmental Agreement (Article 12) states that Diavik must write this Environmental Agreement Annual Report each year, to give an update to EMAB and the communities - and it outlines the parts of the report that must be included. Part 14.1(e) of the Agreement also states that Diavik must (after consulting with EMAB) make the report public and also hold public meetings each year to discuss the Annual Report. This report gives an update on operations, environmental plans and programs, submissions, public concerns, new

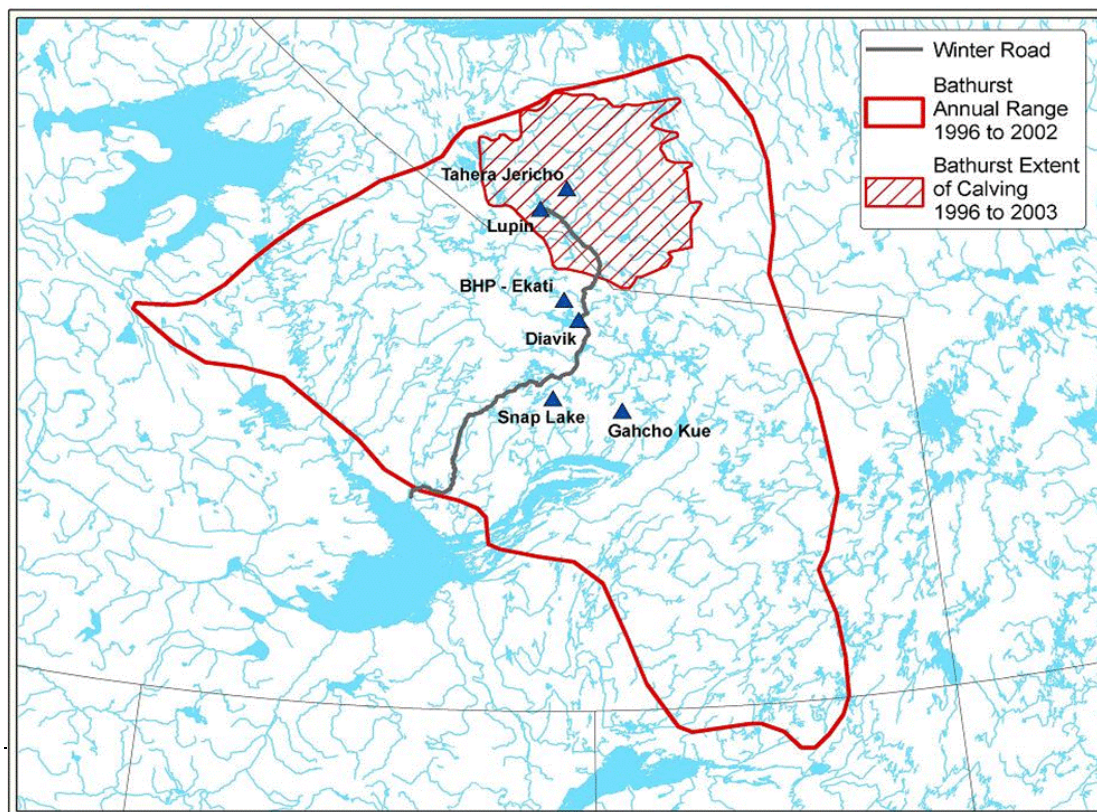
technologies that Diavik is investigating, compliance with the water license and land lease, monitoring activities and sampling results that are important to the communities and EMAB. This report has, in summary form, all the sections required by the Environmental Agreement. Diavik provides community updates during the year, which cover topics such as monitoring programs and water license updates.

Regional Environment – Lac de Gras and East Island

Diavik is located on an island called East Island near the east end of Lac de Gras. Lac de Gras is a large lake that is approximately 300 kilometers northeast of Yellowknife in the Northwest Territories. The lake is roughly 60 kilometers long and drains into the Coppermine River all the way north to the Arctic Ocean. Diavik gets diamonds from kimberlite pipes (dark coloured rock) located in Lac de Gras, next to East Island. Two kimberlite pipes called A154 and A418 are currently being mined and a third kimberlite pipe called A21 has been considered for mining by Diavik, but is currently on hold.

Since Lac de Gras is located in such a northerly environment, the climate affects how well plants and animals (fish, bugs, and vegetation) grow in the lake. Everything tends to grow a little slower because of ice being on the lake for most of the year, less daylight, low natural concentrations of nutrients, and colder water. Despite these conditions, many fish such as lake trout, cisco, round whitefish, arctic grayling, burbot, longnose sucker and slimy sculpin make their home in the lake.

Although there are many mammal and bird species in the region, only a few species live on East Island all year round. These include wolverine, fox, arctic hare, arctic ground squirrel, red-backed vole, brown lemmings and rock ptarmigan. During spring and fall, some caribou from the Bathurst herd migrate through the area. This map shows the range of the herd and where Diavik is located.



Caribou sometimes cross the ice of Lac de Gras during their northern migration. Many bird species stop at the island during spring and fall migrations, and many species of waterfowl, shorebirds and songbirds nest on East Island during the summer. Grizzly bears, wolves and wolverines have large home ranges and also visit East Island occasionally.

In the region where Diavik is located, there isn't a large amount of snow or rain during the year and the climate is cool. Snow makes up the larger part of what does fall for precipitation. The table below shows the average monthly temperatures at the mine site during 2009.

Table 2: Average Monthly Temperature at Diavik in 2009

Month	Temperature (°C)
January	-26.8
February	-26.8
March	-27.8
April	-12.6
May	-8.4
June	6.3
July	11.1
August	10.1
September	6.3
October	-7.5
November	-15.7
December	-24.3

2009 Year in Review

Rough diamond production for Diavik in 2009 was 5.6 million carats; down from 9.2 million carats in 2008. In part this was due to the temporary shut down that occurred at the mine from 14 July to 24 August 2009. This shutdown was planned in response to weakening market conditions due to the global economic downturn, and meant that only essential services at the mine continued to operate. Overall it is expected that Diavik production will continue to decrease over the years.

Several projects at Diavik were ongoing through the 2009 calendar year and some will continue in 2010. Construction projects included:

- Power House #2 (a new power plant being built to support additional power requirements for dewatering the underground mine) – first phase complete in September 2009;

- New Crusher and Paste Plant (these are being constructed because rock and cement 'paste' are required for underground mining) – crusher complete, paste plant fire clean up complete & resumed construction activities;
- Expansion of the North Inlet Water Treatment Plant (the water treatment plant is being expanded to be able to treat more water because Diavik will need to pump more water from the underground mine as development continues) – complete in September 2009;
- Underground Mine Dry (accommodations and offices to support the future underground mine);
- 9105 Pump Station (area in the underground mine where water reports to for pumping to the north inlet on the surface) – construction completed in September 2009;
- North Inlet to Process Plant pipeline (recycles water from the north inlet, prior to treatment and release to Lac de Gras, for use in the process plant and reduces the amount of raw water from Lac de Gras needed to process the kimberlite);
- Pond 7 Dam (pond required as an additional storage area downstream of the PKC) – construction completed in September 2009;
- Fresh Air Raise Construction (the Fresh Air Raise is part of the underground mine and it is where heat, fresh air and fuel are sent from the surface to the underground tunnels); and
- Processed Kimberlite Containment Facility (PKC) Dam Raises (the PKC is where Diavik stores kimberlite after the diamonds have been removed. Dams are used to hold the kimberlite within the pond area and, as the facility fills up, the dams are raised to make room for more kimberlite).

Open pit mining in the A154 and A418 pits and further advancement of the underground mine for the A154, A418 kimberlite pipes were all ongoing through 2009, with the exception of 6 weeks production during the summer shutdown.

Very few issues with seepage occurred during the summer and fall of 2009. Those events that happened are discussed in detail in the 2009 seepage report and in relevant sections of this report.

The first quarter of the year had cold temperatures to support the winter road. All the essential equipment, supplies and fuel for the annual re-supply were brought to site on the winter road which was open from February 1 to March 22.

The first round of sampling for the Aquatic Effects Monitoring Program (AEMP) was completed in April and early May 2009. Dust gauge collection (part of the Dust Deposition Monitoring Program) was completed in March, July, September (2009) and January (2010). The Snow Core Survey, which is also part of the Dust Deposition Monitoring Program was

completed in May 2009. Several of the Diavik wildlife monitoring programs also started in the second quarter of 2009, including wolverine track surveys (April), caribou surveys (July through October), raptor surveys (June) and waterfowl monitoring (May through September). Diavik also completed construction of containment Pond 7, southwest of the PKC.

On May 10, water from a pond filled with A418 pit water was pumped to the North Inlet by hooking it up to the future A418 dewatering line. This line enters the NIWTP and discharges to a wastewater well. The well has a valve which must be open to ensure water flows to the North Inlet. This was the first time the line was used and the operator was not aware that the valve for the well was closed. As a result, when the wastewater well filled, the overflow was directed to the clear (treated) water well, which discharges through the NIWTP diffuser to Lac de Gras. A total of approximately 500 cubic meters (m³) of water was sent to the lake.

Re-vegetation research field work was completed from June to September, and was the last year of the current 5-year study. July 25 was the first day of open water on Lac de Gras. AEMP sampling was completed from July to October (three open-water sampling events).

Freeze-up on Lac de Gras occurred during the third week of October. DDMI submitted an updated Water Management Plan to the Wek'èezhii Land and Water Board in December.

Rock Management

During the year, as rock was excavated from the A154 and A418 pits, it was separated into three types based on percent total sulphur: Type I - clean rock (<0.04%), Type II (0.04-0.08%), and Type III (>0.08%). Some rock, including the small amount that is mined from underground, is classified by type using a visual identification method. Rock Management is discussed in detail in Section 4 of this report.

Water Use

As in past years of operations, fresh water was taken from Lac de Gras for many uses including:

- Domestic uses in the accommodations complexes;
- For use at construction areas and maintenance shops;
- Kimberlite processing in the Process Plant (water is needed during the process of removing diamonds from the kimberlite rock);
- Dust control around the mine site (lake water is put on roads during the dry summer months to minimize dust); and
- Drilling (drills at Diavik are used for exploration and for rock blasting and some of these drills need water in order to drill through the rock).

2009 Fresh Water Use at Diavik:

Domestic Water: 65,781 m³
Process Plant: 1,217,185 m³
Dust Control: 55,722 m³
Drills: 2,579 m³

1 m³ = 1,000 Litres

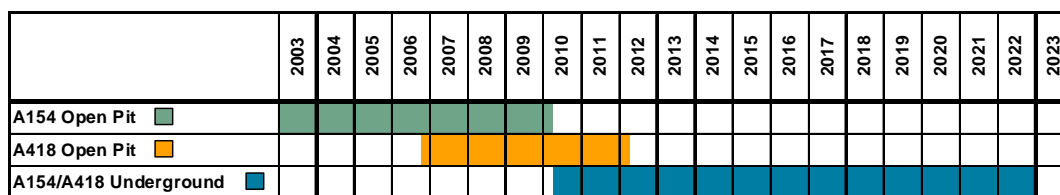
Water used in the Process Plant comes from two sources. Fresh water from Lac de Gras is used and Diavik also recycles water from the PKC. By recycling water, Diavik minimizes the amount of fresh water it takes from Lac de Gras. Diavik's water license limits the amount of water that can be taken from Lac de Gras for the mine. In the fall of 2008, Diavik submitted a request to the WLWB for a temporary increase in the amount of water that can be taken from Lac de Gras because there wasn't enough recycled water in the PKC to get through the 2008-2009 winter. The limit was increased from 1.28 million cubic metres to 1.75 million cubic metres for 2008 and 2009. Diavik used a total of 1,344,901 cubic meters of water from Lac de Gras in 2009. The increased water use by Diavik did not impact Lac de Gras water levels. Even so, in an interest in further reducing the amount of water used from Lac de Gras, Diavik constructed a pipeline that runs from the north inlet (where water from the open pits and underground is pumped and stored before treatment) to the process plant, which will reduce the amount of water used from Lac de Gras.

Environmental Management System

Diavik's Environmental Management System (EMS) was audited in January 2010. Audits are done every year by an independent organization, to check if the system still meets the internationally-recognized ISO 14001:2004 standard. The EMS was first certified in 2004. The EMS and the ISO 14001:2004 standard are based on the idea of continual improvement, and this theme is the foundation for Diavik's environmental objectives, targets, plans, programs and procedures. Based on the January 2010 audit, DDMI kept their certification under the ISO standard.

Mine Plan

The figure below shows a time line of the Diavik's mine plan, which shows mining activities planned for the next several years.



Notes:

- A21 kimerite feasibility is being assessed considering alternate mining methods
- Mining schedule as of March 2010 - subject to change due to market conditions, further resource evaluation, continued mine planning, etc.

Aboriginal Development Program

Diavik completed its fifth year of the Aboriginal Development Program (ADP) successfully graduating 7 Aboriginal employees for a total of 49 graduates from the program since 2005. As well, 3 more employees have enrolled for 2010, which will mean a total of more than 50 graduates by the end of next year.

Through a partnership with SAIT Polytechnic, ADP graduates receive credit for coursework towards an Applied Management Development Certificate or higher education. This highlights

Diavik's commitment to prepare its Aboriginal workforce for a more prominent role in all aspects of sustainable leadership in the company and beyond.

2008 Environmental Agreement Annual Report

DDMI submitted a draft of the 2008 Environmental Agreement Annual Report to EMAB in early June 2009 for review and comment. Comments on the draft were received from EMAB and from INAC on June 24, 2009. The final report was submitted to the parties of the Agreement on June 30, 2009.

In October and November 2009, Diavik received comments from the Indian and Northern Affairs Canada (INAC) Minister regarding last year's (2008) Environmental Agreement Annual Report. The Environmental Agreement states that the Minister must comment on whether the report is satisfactory or not. The Minister indicated that INAC is satisfied with the 2008 report, and that INAC's comments on the draft report were incorporated in the final.

2009 Diavik Diamond Mine Satellite Photo



Environmental Plans and Programs and 2009 Submissions

This section contains an outline of each of the various plans and programs that Diavik follows, related to the environment. For each plan/program, an outline is provided explaining what the program is being done for and how it is completed. Many of these programs are the same from one year to the next. For each program, the documents that are submitted to regulators are listed. Some of these documents were submitted and approved a few years ago, but they still applied to 2009 operations.

1. Aquatic Effects Monitoring Program

Diavik conducts environmental monitoring programs under the terms and conditions of the Water License (W2007L2-0003) and the Fisheries Authorization issued by the Department of Fisheries and Oceans Canada (DFO). The Aquatic Effects Monitoring Program (AEMP) is the primary program specified in the Water License for monitoring the aquatic environment of Lac de Gras.

The AEMP is designed to measure changes in Lac de Gras. Every year Diavik collects samples of lake water, sediment, benthics (the bugs that live in the sediment on the bottom of the lake) and plankton (small plants and animals that float in the water) from 37 locations in Lac de Gras. These samples are analyzed at laboratories for many different things to see how the lake is changing compared to the time before the mine was here. Data from other monitoring programs like Dust Deposition Monitoring and the Surveillance Network Program (East Island-based monitoring which is conducted through the year by Diavik) are included in the AEMP.

Aquatic Effects Monitoring Program Sample Locations



Samples are collected 4 times each year – once through the ice and three times during the open water season from July to October. The sampling stations in Lac de Gras are located near the mine (where effects would first be expected to be measured) and far away from the mine (where effects would take much longer to measure). This way changes in the lake caused by the mine can be measured over time (temporal) and can be measured near the mine site and further away (spatial).

During the Environmental Assessment that was completed before the mine was built, it was predicted that the mine would cause some effects on the lake. The purpose of the AEMP is to see if those predictions were correct and to make sure the effects don't harm the fish in Lac de Gras. Effects are categorized as being low-level, moderate-level or high-level. When certain effects are measured that were not predicted, Diavik conducts Special Effects Studies

as part of the AEMP. Special Effects Studies are conducted to focus on specific areas based on data and results from the AEMP.

1.1 Design Document (v1.0) Submitted to WLWB December 2007

The AEMP was revised in 2007 based on direction from the WLWB. This document contains the final AEMP design specifications and the design basis (it says what Diavik will do to complete the AEMP and how it will be done).

The goal of the revised AEMP is to address potential mine-related effects to the aquatic ecosystem of Lac de Gras in a scientifically defensible and cost-effective manner. As stated in Part K (6) of the first Water License (N7L2-1645 issued 2000, amended 2004), the purpose of the revised AEMP is “to determine the short and long-term effects in the aquatic environment resulting from the project, test impact predictions, measure the performance of operations and evaluate the effectiveness of impact mitigation.” To this end, the scope of the revised program has been broadened from the original AEMP to include data and results from the following five monitoring programs: effluent; dust and snow; seepage and runoff; special effects studies (e.g., dikes); and traditional knowledge monitoring activities.

The AEMP includes monitoring of 37 locations on Lac de Gras during three periods: 1 during ice cover and three open water sampling events. Information is gathered on water chemistry, sediment chemistry, benthic invertebrates (small animals that live in the lake sediment), plankton (tiny plants and animals that live in the water) and fish health.

1.2 Limnology Report, Submitted to WLWB November 2007

Limnology is the study of lakes’ biology, chemistry and physical and geological properties. This report contains a comprehensive description of the limnology of Lac de Gras and is part of the AEMP.

The Limnology Report (AEMP Section 2.0) was requested by WLWB on October 18, 2007 and pursuant to Part K. Item 2 of the Water License. Diavik submitted the Limnology Report in November 2007. A revised Limnology Report was submitted by Diavik to the WLWB on May 2, 2008 following a review and comment period. The revised report was approved by the WLWB on May 9, 2008.

1.3 2009 AEMP Annual Report

2009 was the third year of monitoring since the AEMP design was revised in 2007. The 2009 AEMP Annual Report was submitted to the WLWB on March 31, 2010.

The Aquatic Effects Monitoring Program was successfully completed during 2009.

Key findings of the AEMP are discussed in the Rolling Effects Summary section of this report, and therefore are not repeated here. The reader should refer the Rolling Effects Summary section, under the *2009 Observations* heading for details related to the 2009 AEMP.

1.4 Other AEMP Submissions

In addition to the AEMP Annual Report, Diavik has submitted the following documents as part of the AEMP:

- AEMP Adaptive Management Plan, August 2007 – This plan has been submitted to the WLWB for review. Based on comments received by the WLWB, it was clear that there are inconsistencies in what different parties think the content of this plan should include. The WLWB will be developing an adaptive management guidance document to provide clarity.
- AEMP Quality Assurance Project Plan (QAPP), last revised in May 2008 – This plan outlines the quality assurance and quality control procedures intended to support the collection of scientifically defensible and relevant data during the AEMP.

1.5 AEMP Modifications Discussions

In January 2008, Diavik met with the WLWB, EMAB, community representatives and various government agencies to discuss the AEMP. The purpose of the meetings were to discuss changes to the AEMP proposed by Diavik due to difficulties encountered completing the program in 2007. 2007 was the first year of a new (revised) AEMP.

Following the discussions, the proposed changes were reviewed and commented on by the parties. The WLWB decided that the modifications would not be approved and that the scope of the AEMP would remain unchanged until at least 3-years of monitoring are complete under the new AEMP. Additionally, the WLWB decided that since Diavik were unable to complete all of the sampling during the 2007 AEMP, that would not count as the first of three years of monitoring (i.e. 2008 will be counted as year 1).

During 2009, the possibility of studying sediment cores in Lac de Gras was discussed between DDMI and DFO. The reason for this study was to determine if increasing primary productivity (development of small organisms (fish food) in the water, due to additional nutrients or higher temperatures) was resulting in increased scavenging (uptake) of mercury from the lake. This could be what was contributing to the possible elevated mercury content noted in slimy sculpin during the 2007 AEMP. While the slimy sculpin sampling program was originally scheduled to be conducted as part of the AEMP during the summer of 2009, it was agreed in April 2009 to postpone the slimy sculpin study to 2010 in favour of obtaining sediment cores from Lac de Gras for analysis by DFO.

2. Ammonia Management Plan (v3.0) Submitted to WLWB April 2008

Ammonia is a compound that exists naturally, but is also present in some man-made products like fertilizer and explosives. Ammonia is a nutrient that can promote the growth of certain plants and organisms in a lake, but like any other compound, it can also be unhealthy for some organisms if levels are too high. Ammonia is present in water at Diavik from the explosives that are used in the open pits and in the underground mine. Diavik's Water License sets limits for how much ammonia is allowed in water that is



treated and put back into Lac de Gras. Diavik has an Ammonia Management Plan that details the ways Diavik will work to minimize the amount of ammonia in water at the mine site.

As part of the mediation agreement that resulted from Diavik's application to amend their water license, Diavik agreed to prepare and implement the Ammonia Management Plan. The Plan has background information on ammonia management, Environmental Assessment predictions, site conditions, an overview of ammonia and aquatic effects, and ammonia management options. It also covers Diavik's recommendation for the water license discharge limits for ammonia, how ammonia management performance will be evaluated, and specific details of ammonia management techniques.

The two specific objectives of the Ammonia Management Plan, as outlined in the plan, include:

1. To ensure that explosives are used and water is managed in such a way that ammonia losses do not result in a change to the trophic status (the amount of nutrients that are available to plants, fish and bugs that live in the water) of Lac de Gras or adverse environmental effects.
2. To continually work towards achieving the lowest practical ammonia levels in the mine waters and final effluent discharge.

The plan was also used to assist in setting water discharge limits.

The Wek'èezhìi Land and Water Board arranged for an expert review of all information, with the intention of providing direction to Diavik after the review was completed.

The latest version of the Ammonia Management Plan was submitted to the WLWB in April 2008 and was approved that same month. Diavik reviewed the plan for 2009, however, no updates were required.

3. Closure and Reclamation

Closure and Reclamation planning refers to the things Diavik will do to close the mine site in a way that is safe for people and the environment. Even though Diavik will still be operating for many more years, it is important to plan closure early on so that Diavik, governments, regulators and communities can discuss how it can best be done. Another reason to plan closure early on is because some parts of the mine site will be progressively closed, which means that Diavik will be doing things related to closure in these areas long before the mine closes. An example of progressive closure is how Diavik is placing rock inside the dikes to build shoals so that location will already be prepared as new fish habitat when the dikes are breached and the lake returns to this area.

3.1 Interim Closure and Reclamation Plan (v3), Submitted to WLWB in November 2009

This plan was still under review by the WLWB at the time this report was prepared.

As part of Diavik's water license renewal process, an Interim Closure and Reclamation Plan (ICRP) was submitted to the WLWB for review. The plan was revised from its previous version and was written to meet the format provided by the WLWB. This was the third update of this plan, with the original being submitted in 2001 and an update in 2006. As part of the updated closure plan, closure goals (overall vision for what the organization would like to achieve), objectives (steps the organization needs to take to achieve the goals – specific and measurable) and criteria (a standard against which success is measured) were provided. Sections of the ICRP are:

- A short project history and summary of permit and authorization requirements relating to closure and reclamation;
- Background to closure and reclamation planning at the Diavik Diamond Mine;
- Closure and reclamation standards and objectives;
- A description of baseline environmental conditions at the mine site;
- A description of the mine and associated facilities;
- Permanent closure and reclamation requirements and plans;
- Identification of areas and plans for progressive reclamation;
- Temporary or interim closure measures for areas of the mine;
- Schedule of activities leading to permanent closure; and,
- A description of the expected after-closure environment and land use.

The Interim Closure and Reclamation Plan is a full report which considers engineering design, research and planning for the closure of all the major components of the mine including: re-vegetation, fish habitat restoration/rehabilitation and monitoring, open pits, underground, dikes, dams, rock piles, the Processed Kimberlite Containment Facility, ponds, the North Inlet, buildings, fuel tanks and other infrastructure. Included is a thorough description of closure ideas for each area of the mine, as well as plans to move forward with these designs. However, because it is an interim plan, it does not include final closure designs or details on specific after-closure monitoring programs. These will be developed in future versions of the plan.

3.2 Interim Closure and Reclamation Plan Review Process

In 2009, a series of workshops and mine site visits were carried out to receive input from communities, government, regulators and Diavik to both help reviewers understand closure requirements and to obtain input on closure goals, objectives and criteria can be established. Some of the specific activities related to the review are outlined below (please refer to the ICRP document for further detail on any of the activities listed).

- EMAB workshop on closure – January 2009;

- DDMI mine site tour related to closure – January 2009;
- WLWB workshop to develop closure objectives for Diavik mine – February 2009;
- DDMI workshop to review closure options and initiate development of closure criteria – May 2009;
- DDMI workshop on caribou movement through the mine after closure – August 2009; and,
- DDMI community visits to present on closure – September 2009 to February 2010.

3.3 Reclamation Research Plan (2002)

This Reclamation Research Plan has been developed as per Diavik's Class A Water License, Part L, Section 3. The objective of the plan is to outline research that will be used to verify closure design plans as outlined in the ICRP. Several research projects were identified, and a short description and recent work done on them in 2009 is presented below.

Country Rock Test Piles - The purpose of this study is to determine to what extent water may be able to make its way in to the rock pile where temperatures inside the pile may be below the freezing point of water. The study will also determine the role temperature plays in acid rock drainage (a flow of acidic water), as well as how well lab tests predict results in large scale test piles. In addition, the study is looking at the roles bacteria play in acid rock drainage, how the physical conditions within the test piles change with time, and the effects of a warming climate on the piles.

Construction of a third instrumented test pile was completed in 2007, and the test piles research program moved into the monitoring and maintenance phase. Instruments installed in the core of the piles have been sampled regularly through all field seasons and data is being collected. The data collected year after year will help evaluate how the physical conditions and acid rock drainage evolve over time. All collected data will be used for temperature, water, and chemistry modelling.

Initial findings of research to date show clear trends in the data being collected and suggest that small-scale experiments can give reasonable estimates of field-scale rates, providing that materials are well characterized. To further test this idea, instrumentation was added to the full-scale Type III waste rock pile at the Diavik mine in 2009. DDMI has also committed funds to an additional 5 years of research on the test piles, beginning in 2010, to allow for a larger data set for scale-up comparisons as well as to obtain more information on linkages between heating/cooling effects and gas and water transport within the pile.

Re-vegetation Research - This study began in 2004 (Phase I) to determine which substrates (types of ground) are most effective for enhancing soil properties and native plant growth, which soil amendments (things that are added to the soil) are most effective at enhancing substrate properties, native plant & community development, and which groups or individual native species are able to establish and survive on different substrates and amendments. Test plots were established and soil amendments added in previous years of the study; soil data collection, seed collection and seeding of some species also took place in the past.

The year 2009 was the final year of monitoring. Vegetation assessments of the plots were done in late July and early August, at the peak of plant productivity. Soil samples were also collected in each substrate and amendment plot. Total vegetation cover, plant density and health by species were measured and presence of florets or flowers, as well as evidence of grazing was recorded. Soil water and temperature readings continued to be obtained on an hourly basis throughout 2009. A final report summarizing the results of the study will be available by the end of 2010.

During 2007, nine additional research plots were established (Phase II). These plots were established to build on the results of Phase I and to determine more detailed options for successful re-vegetation of disturbed sites at the mine. Microtopography treatments (small changes in ground elevation as opposed to flat ground surfaces) were applied in June 2008 and included soil mounds, depressions and boulders. Topsoil treatments were added to some sites, as were cuttings and seed, in June 2008. Additional greenhouse studies are being conducted as a part of this research to determine if shrub species can establish from cuttings under ideal conditions.

The following preliminary conclusions can be drawn from the analysis to date:

- Plant density and cover increased slightly between 2008 and 2009, as did cover of moss and litter;
- Average plant cover and density (number of plants in an area) was greatest in the same two treatment types, both with sewage amendments;
- Treatments that performed well in the first few years are not necessarily the ones that ended up with the highest plant density and cover; and,
- Planting of shrubs at the site in Phase II was not overly successful and water erosion caused some issues in some plots.

Fish Habitat Restoration – DDMI is working on fish habitat restoration work under its Fisheries Authorization (SC98001) around the A154 and A418 pit shelf areas (upper levels of the pit on the inside of the dike). This work was on-going through 2009 and will continue in 2010. The fish habitat to be created on the inside of the dike consists of placing material dug out from the pit in the area between the top of the pit and the inside edge of the dike. The constructed fish habitat will include an area ranging from 3 to 5 meters below the average water level for Lac de Gras.

As part of fish habitat restoration requirements, DDMI conducted work on the “M-lakes” project. This project is designed to improve fish habitat in several lakes and streams around Lac de Gras. Work on this project began in 2009 with baseline data being collected by students from the University of Alberta (U of A). Diavik has entered in to a 5 year research agreement with the U of A that includes monitoring of the lakes and streams before and after habitat improvements are completed.

4. Country Rock Management

In order to mine kimberlite, Diavik needs to remove other rock from the pits and underground, called Waste Rock or Country Rock. Some Country Rock is used at the mine site to build things like roads and dams. The remaining Country Rock is placed in a rock pile. Some types of Country Rock have minerals in them that can cause water to become acidic when it runs over the rock. The acidic water can dissolve metals from the rock, which can be carried by the water. This process is known as Acid Rock Drainage (ARD) and is something that mines all over the world deal with.

Diavik tests the rock before it is mined for how much sulphur is in it (a good indicator for ARD potential) by collecting samples of blast hole cuttings (blast holes are required for explosives to be used to break up the rock and the 'cuttings' are the small pieces of rock that come out of the blast hole during drilling). Diavik also classifies rock using a visual classification method. The rock that has high or medium potential to generate acid (known as Type 3 and Type 2 rock) is stored in the rock pile where it is contained so that ARD will not occur. Diavik only uses rock that has very little ARD potential (known as Type 1 rock) for things like road and dam construction.

The way Diavik's manages rock at the mine site is detailed in the Waste Rock Management Plan, discussed below.

4.1 Country Rock and Till Storage Updated Design Report Submitted to MVLWB in 2001

This report outlines the plan for storage of rock and till (soil and sediments that were removed from the surface after the dikes were built) materials from the development and mining of the three kimberlite pipes in Lac de Gras. The updated design follows the decision to separate rock into three types based on acid generating potential that may produce metal-impacted water (i.e. this report conforms with the Waste Rock Management Plan, discussed below) and details how and



where these types of rock will be stored after being removed from the pits. The design was updated from the original 1999 Design Report. Parts of this plan are being reviewed/revised as part of the Closure and Reclamation review process (see Section 5).

4.2 Waste Rock Management Plan (v5) Submitted to WLWB, March 2010

This plan was still under review by the WLWB at the time this report was prepared. The previous approved plan was submitted to the MVLWB in 2009.

This document talks about the identification and separation of potential acid generating rock produced from mining the A154 and A418 kimberlite pipes. As outlined in the Country Rock and Till Storage Updated Design Report, separation is done to minimize the potential for ARD from the Country Rock Pile.



This new (2010) plan includes two methods for identifying rock types for segregation. The plan includes the sulphur analysis method (using sulphur content to measure ARD potential), and presents the visual classification method.

The 2010 plan also includes consideration for storage of Type III rock under water. This is recognized as an effective method of rock storage to prevent

ARD. There are three possibilities outlined for where Type III rock could be used in construction: where rock becomes wet as quickly as possible once placed, where rock has not been exposed to oxygen for extended periods of time and to avoid rock placement in areas where water levels would fluctuate a lot.

Temporary waste rock storage is also required for the underground operation and the 2010 Waste Rock Management Plan outlines the location of these storage areas, as well as storage practices that DDMI has outlined for different types of rock. Because different equipment is used to haul material at the surface than is used underground (i.e. bigger trucks on surface), there is a requirement to store this material for a short period of time.

Best management practices for handling country rock during operations are presented in this report. Rock that is classified with sulphur analysis is segregated into three types:

- Type I: considered clean rock with <0.04 percent total sulphur;
- Type II: considered intermediate rock with a 0.04 – 0.08 percent total sulphur and minimal to no potential for acid generation; and
- Type III: considered potentially acid generating rock with >0.08 percent total sulphur.

The sulphur level for each drill hole sample is classified as either Type I, II or III. Geologists then overlay the sulphur results over the blast pattern and mark off smaller units of each rock type. The mound of blasted rock is then flagged off by rock type so it can be loaded and trucked to the proper dump area in the waste rock pile.

The visual classification method identifies rock as being Type I or Type II/III (i.e. groups Type II and Type III rock together).

The plan to classify, separate and cover the potentially reactive rock meets the best management practices proposed during the environmental assessment and the water license permitting process.

4.3 2009 Waste Rock Quantities

The figure below shows the amounts of these types of materials moved on the island in 2009.

Table 2: Monthly Rock Moved at Diavik in 2009 (in million cubic meters)

Month	Till/Sediment	Type I Rock	Type II Rock	Type III Rock
Open Pits				
January	0.00	0.50	0.04	0.09
February	0.00	0.38	0.05	0.17
March	0.00	0.43	0.03	0.05
April	0.00	0.48	0.01	0.27
May	0.00	0.40	0.02	0.17
June	0.00	0.26	0.02	0.19
July	0.00	0.16	0.01	0.11
August	0.00	0.10	0.01	0.05
September	0.00	0.45	0.05	0.19
October	0.00	0.43	0.02	0.26
November	0.00	0.32	0.03	0.22
December	0.00	0.21	0.01	0.23
Underground				
U/G Year Total	0.00	0.03	0.00	0.07
TOTAL	0.00	4.15	0.30	2.07

5. Dam and Dike Annual Inspections

The A154 and A418 dikes were built to allow the water to be pumped out of the area around the kimberlite pipes A154N, A154S and A418. The North Inlet, where Diavik stores water from the open pit and underground mines before it is treated in the water treatment plant also has dikes at both ends to separate it from Lac de Gras. The PKC and water collection ponds around the mine site have dams that are used to contain water inside of these facilities.

As part of Diavik's Water License, dams and dikes must be inspected each year.

5.1 Dams

Diavik hired Golder Associates Ltd. to do an Annual Dam Safety Inspection for the dams of the Dredged Sediment Storage Facility (Pond 3) (Part H, Item 3f), Processed Kimberlite Containment (PKC) facility (Part H, Item 1f) and Drainage Control and Collection System (Part H, Item 2e). Part H of the water license requires that an inspection of the dams be completed by a Geotechnical Engineer in July/August of each year.

Suggestions that came out of the 2009 inspection were:

- Thorough inspections and monitoring of the structures and detailed documentation of the results should be continued;
- Placement of PKC within the PKC facility should be done to minimize the time that the pond water is in direct contact with the dams to limit seepage from the PKC facility;
- The design basis for the spillway (a structure to provide for controlled release of an emergency overflow event, in order to avoid damage to a dam) on Pond 3 should be documented and included in the site-wide water management plan; and,
- Till placed along the upstream left junction of Pond 7 is very wet and soft and requires remediation.

Diavik has addressed these recommendations as follows:

- DDMI remains committed to maintaining the current inspection regime. In addition, the Dam Safety Review (DSR) as prescribed by the Canadian Dam Safety Guidelines was completed for these structures in September 2009 by AMEC.
- 2009 PKC construction works have provided spigot points along the East and West PKC dams. These dams previously had water ponding directly against the upstream shell as described in both the 2008 and 2009 Annual Dam Inspection reports:
 - DDMI deposited from the West dam spigots in order to form a long beach and separate the dam from the pond, and
 - A long beach was formed in front of the East PKC dam during the 2008/9 winter
- DDMI has requested the design basis from the Designer of Pond 3 and will ensure that the re-built spillway dimensions are in accordance to the original design.
- The till along the upstream left abutment of Pond 7 has been removed and replaced with a thick zone of compacted till during the first two weeks of August 2009. This was documented and will be included in the as-built drawings.

5.2 Dikes

The A154 dike was built in 2001 and 2002, and the initial dewatering (removing water from inside the dike to allow open pit mining to start) took place from late July to mid September of 2002. The A418 dike was built in 2005 and 2006, and dewatering also took place in 2006. The North Inlet East Dike was constructed in 2001 and 2002, and a raise was added (the dike was made higher to allow more water to be stored in the North Inlet) in 2007. The North Inlet West Dike was constructed in 2007. An annual inspection and performance evaluation is required and is to be done



following the break-up of lake ice in July. Below is an outline of some key recommendations and DDMI's response to the 2009 annual inspection report:

- Continue monitoring and inspection efforts and change measurement frequencies to account for new requirements, automated systems versus manual readings, and changes that result from mine development. These changes have been included in DDMI's operational programs.
- Incorporate automated pumping systems from water collection wells, including a link to a computer system, in order to be able to control and understand water flows. This was worked on during 2009 and will continue in to 2010.
- Survey the area around the water collection wells to assess the risk of overflow to the pit area during a storm. This has been completed and information on the allowable water level has been determined.
- Maintain blasts to ensure the maximum vibration level for the dike is maintained. This has been included in DDMI's operational procedures.

Additionally, a few recommendations relating to dike and equipment maintenance were made; these would not impact the stability or safe operation of the dike. These recommendations were not completed in 2009 due to the limited staff on site during the summer shutdown. There are plans to address these recommendations during 2010 and 2011.

6. Dust Deposition Monitoring Program

Air and water quality issues related to dust in the air, resulting from mining activities, were identified by all parties to the Diavik Diamond Mine Environmental Agreement as a concern. As part of the environmental monitoring program and commitments outlined in the Environmental Effects Assessment report and Comprehensive Study Report, Diavik has developed a program to measure dust deposition resulting from mining activities that has been ongoing since 2001. The program goal is to understand dust deposition rates caused by project activities. Results are compared with the predictions outlined in the Environmental Effects Report, Climate and Air Quality (1998). Dust monitoring is also completed to provide data for the Wildlife Effects and Aquatic Effects monitoring programs. The objectives of annual monitoring for dust deposition are to:

- Measure dust deposition rates at various distances from the mine, using snow core samples and dust gauges; and
- Determine physical and chemical characteristics of dust that may be deposited from mining activities.

The Dust Deposition Monitoring Program has been revised several times since 2001 as the project evolves and sample locations are added, removed and relocated for various reasons. The sampling stations were established through a transect approach (series of sample locations that extend outwards in generally straight lines from the mine site) and include dust gauges (sampling devices that collect dust for analysis) and snow survey stations (locations

where Diavik collects samples of the snow to measure the amount of dust deposited over the winter and the water quality of the snow where dust was deposited).

6.1 Dust Deposition Monitoring Report, Submitted to WLWB March 2010

In 2009 there were 24 snow survey stations along five transects on land and on ice around the mine site. The stations (not including control stations) range from approximately 25 to 2000 meters from mining operations. Control stations are stations setup further from the mine site that are used to measure natural (or background) dust deposition. There were 11 dust gauges (including two control gauges) placed at various locations on East Island and surrounding islands.

The key findings reported in the 2009 Dust Monitoring Program Report were:

- Dust deposition rates continued to be greatest adjacent to mining operations and construction activity and decreased with distance from the mine. Results from 2009 showed a decrease compared with those in 2008, and likely are linked to the operational shut down during the summer. Deposition rates were also influenced by localized activity such as pit blasting, rock crushing, haul truck traffic and airport activities, as well as by prevailing winds;
- Measured dust deposition rates exceeded the predicted rates from the 1998 Environmental Effects Report. The 1998 predictions were based on ambient air quality criteria at the time and did not take into account construction which increased in 2005 and continued through 2006 to 2009, the periods in which the highest rates were generally measured; and
- Water chemistry from melted snow collected from the snow survey stations indicated that most parameters monitored were below effluent discharge criteria from the Water License (these are the levels that Diavik must meet for water being discharged from the mine site), with the exception of zinc at one sample from station SS2-2, northeast of the A154 pit.

These results are consistent with previous years of monitoring. The 2009 dust deposition results were incorporated into the 2009 AEMP.

In 2010, Diavik will be revising the air quality emissions model to revisit the predictions that were made in 1998 and assess whether the current monitoring program is collecting the right information.

7. Hazardous Materials Management Plan (v14) Submitted to WLWB, March 2010

This plan was still under review by the WLWB at the time this report was prepared. It is a requirement of the Water License that this plan be updated every year. The previous approved plan was submitted to the WLWB in 2009.

Diavik must transport, store, handle and use hydrocarbon products, explosive materials, and other chemicals as part of the



mining operation. Hazardous Materials must be transported, stored and handled safely and efficiently. Prevention, detection, containment, response, and mitigation are the key elements in the management of hazardous materials. Diavik is committed to minimizing the potential for harmful effects on wildlife, plants and aquatic life and ecosystems that may result from accidental spills of harmful substances. The purpose of this plan is to outline procedures for managing hazardous materials.

The Hazardous Materials Management Plan lists the types and amounts of hazardous materials on site and describes storage for each type of material. It describes ways to protect the environment such as:

- Purchasing and Inventory Control procedures;
- Secondary containment facilities for petroleum products (this means that things like diesel are stored in tanks that either have built-in containment or are constructed in areas that have containment so that spills, leaks and overfills do not get released to the environment) ;
- Proper recycling and/or disposal methods for hazardous materials;
- Inspection and monitoring of petroleum products, explosives products, and other hazardous materials stored on site; and
- Training for personnel that handle hazardous materials.

The Plan also describes plans for closure of the mine and how hazardous materials will be removed from site during closure.

8. Meteorological Report

Diavik has collected meteorological data since the 1994 baseline data collection program. The meteorological station at Diavik measures: wind speed, wind-direction, precipitation, ambient air temperature, incoming solar radiation, and relative humidity. Manual precipitation stations are also used to measure rain and snow, as well as evaporation. A second weather station was installed in September, 2003 to aid in evaporation data collection, as well as providing supplementary weather data.

Diavik details metrological data in an Annual Meteorological Report. Metrological data is also used for a variety of programs at Diavik such as Air Quality Modelling.

In 2009, data was recorded hourly and summarized daily from January 1st through December 31st. Due to an error during data retrieval, a gap in the data (24) hours occurred between 26 and 27 January, where no observations were recorded.

Climatic conditions at the Diavik site for 2009 had a maximum ambient air temperature in June of 24.9°C. The minimum ambient air temperature was -43.4°C and occurred in March. The annual average ambient temperature was -9.5°C and is consistent with all previous monitoring years.



Relative humidity ranged from a low in March of 70.8% to a high of 84.6% in October. Total precipitation at the project site was 386.6 mm, with rain accounting for 58% and snow for 42%. Winds were recorded from the Meteorological station throughout the year. The prevailing winds were mostly from the southeast. There was an overall average wind speed of 5.2 m/s (including calm periods).

Meteorological monitoring will continue at Diavik in 2010.

9. North Inlet Water Treatment Plant Expansion

Diavik treats water from the mine in the North Inlet Water Treatment Plant (NIWTP) before it is discharged to Lac de Gras. The development of the underground mine at Diavik means that more water will need to be treated than before. This increase in the amount of water requiring treatment will be facilitated by expanding the NIWTP so that it has increased capacity.

In September 2007, Diavik submitted its plan and design for the NIWTP expansion to the WLWB for approval. The WLWB responded with questions about the proposed diffuser (the underwater pipe where treated water from the NIWTP flows into Lac de Gras) for the expansion. Diavik provided answers to the WLWB questions in January 2008 and the NIWTP expansion approval was completed on March 17, 2008. The construction of the plant expansion was completed in 2009.

10. Operational Phase Contingency Plan (v14) Submitted to WLWB, March 2010

This plan was still under review by the WLWB at the time this report was prepared. It is a requirement of the Water License that this plan be updated every year. The previous approved plan was submitted to the WLWB in 2009.

The purpose of the Operational Phase Contingency Plan (OPCP) is to provide response procedures for any accidental release (spill) of hazardous or toxic substances, as well as procedures for water management. The OPCP outlines the responsibilities of key personnel and Diavik's Emergency Response Team when responding to spills to the environment. Within this document are the emergency contacts listed for Diavik, contractors, government agencies, private organizations and nearby sites/operations. The OPCP gives guidelines for minimizing impacts to the environment from spills, which include:

- Preventing spills through proper transport, transfer and storage of hazardous materials;
- Regular inspection of equipment and storage areas;
- Training and exercises for the Emergency Response Team to ensure they are prepared for all types of material releases; and
- Current inventory of response materials and equipment that would be required in the event of a release.

This revised version includes updated quantities and types of hazardous materials stored on site, and a section on contingencies for the underground part of the mine operation. The Plan also includes maps noting sensitive fish and sensitive wildlife areas at the mine site, to provide guidance for mitigative measures in case a spill occurs in these locations.

11. Quality Assurance/Quality Control (QA/QC) Plan

Diavik's Quality Assurance (QA) and Quality Control (QC) Plan was approved in 2000 by Indian and Northern Affairs Canada (INAC). This revised document was submitted as required by the Type A Water License. The purpose of the revised QA/QC Plan is to outline the steps, procedures, and equipment that are used by Diavik personnel to maintain quality samples and to assess the precision and accuracy of lab results.

12. Seepage Survey Report

Diavik monitors dams and dikes around the mine site for seepage. The dikes and dams are designed to hold back water, however, some seepage through these structures is expected. The purpose of the survey is to check areas of potential seepage so that Diavik can take appropriate measures to address seepage issues. The monitoring includes regular inspections of the dam and dike structures and collection of water samples. Water samples are collected as part of regular monitoring (seepage stations and groundwater wells) and when a new seepage is observed. Each year, Diavik submits a Seepage Survey Report to the WLWB (a requirement of the Water License), detailing seepage monitoring and sampling from the previous year. Diavik regularly updates the INAC Inspector of how Diavik is (or plans to) address seepage issues at the mine site.

Diavik is in a zone of continuous permafrost, which means the ground remains frozen all year round except for a thin layer at the surface, called the active zone. The active zone thaws in spring and freezes again in the fall. Under natural conditions, water seepage on East Island occurs in the active zone mostly as surface runoff, however, some seepage occurs in the melted ground, called melt water or groundwater. Typically, seepage



occurs from May through to the beginning of October. The PKC contains enough water that it does not completely freeze in the winter, and therefore seepage can occur all year round.

Diavik has a drainage control and collection system to intercept seepage before it enters Lac de Gras. Seepage water from the PKC, the Country Rock Pile, and other areas around the mine is collected in a series of collection ponds, which are all monitored as part of the seepage survey.

2009 Seepage Survey Report

The 2009 seepage survey monitored 24 stations, including: 9 seepage survey stations, 5 groundwater monitoring stations, and 10 collection pond stations.

Seepage Survey stations and groundwater monitoring wells were inspected weekly and sampled monthly, if seepage was present. Collection Pond stations were sampled monthly during the open water season. In June, DDMI ceased monthly sampling of the A154 and A418 dike seepage stations as it is only a requirement of the SNP if the water is directed to Lac de Gras; dike seepage is currently directed to the north inlet.

Only two seepage events were noted from seepage survey stations, both of which occurred in June. Each of the samples showed turbidity levels that slightly exceeded (15.3 and 16.4 NTU) water license criteria (15 NTU). The increased turbidity was because of runoff water carrying suspended materials during the spring melt. No samples were collected from the groundwater monitoring stations as the wells were dry throughout the year. Water from Collection Ponds is not sent to Lac de Gras, but to the PKC. For this reason, water license criteria do not apply to pond water. Details of laboratory results for all stations can be found in the annual seepage report.

Several other areas of seepage were monitored in 2009 including:

1. Seepage into Pond 1 – a suspected flow from the PKC, through the Country Rock Pile. No seepage observed outside of the containment area;
2. PKC North Cell – seepage flow between the main pool of the PKC and the north PKC cell. Seepage reports to Pond 1 (see above). A leak detection investigation was done and a number of repairs were made to address this issue;
3. PKC East Dam – seepage was observed between Pond 1 and Pond 5, suspected to be coming from the PKC East Dam. Flow passed through the South Haul Road and entered Lac de Gras on 23 June. Seepage flowed for only 6 hours before DDMI staff was able to contain and re-direct the water. Water quality results showed that zinc was slightly above, and pH slightly below water license criteria for a grab sample. This largely relates to natural conditions in this area;
4. PKC West Dam – seepage continues to be observed from the PKC West Dam into and downstream of Pond 4. A sump was installed downstream of Pond 4 to collect and re-direct any water flowing in this area. As well, a seepage ditch was excavated to collect any water resulting from ice dams during winter;

5. Pond 5 – a bulge was observed in the Pond 5 liner (a liner is placed inside of a dam to prevent water from flowing through the dam) in 2008 from water building up behind it. Diavik released the pressure by making two small holes in the liner and maintained water levels below those holes throughout 2009. No seepage was observed downstream of Pond 5;
6. Pond 13 – to collect any seepage that may flow from Pond 13, a culvert was installed through the road downstream and a pump system was put in to place in May. No seepage was observed entering Lac de Gras during 2009, and the pump system worked well; and
7. North Inlet East Dike – instruments used to monitor the dike temperature (an indicator for possible seepage) showed some anomalous measurements in 2008. DDMI installed an additional 28 thermosyphons (cooling equipment) in the dam to promote freezing, as well as two new thermistors (temperature gauges) to improve monitoring coverage.

For each of the above 7 items, Diavik kept the INAC Inspector informed of seepage issues and of the short and long term plans for monitoring and repairs. Seepage from the PKC east dam reached Lac de Gras on one occasion. During 2009, DDMI focussed their efforts on putting into place ways to capture and re-direct water seepages to the lake.

13. Surveillance Network Program

Diavik monitors water quality around the mine site in accordance with the Surveillance Network Program (SNP), which is a component of Diavik's Water License. The SNP outlines where Diavik collects water samples, how often samples are collected, and what parameters (metals, nutrients, other compounds and other water quality characteristics) are to be measured. The SNP includes sample stations for:

- North Inlet Water Treatment Plant effluent;
- Lac de Gras water near the North Inlet Water Treatment Plant effluent discharge;
- Pit Water;
- Underground Water;
- PKC Water;
- North Inlet Water;
- Collection Ponds;
- Seepage and Groundwater Stations; and
- Sewage Treatment Plant effluent

The SNP also outlines sampling requirements for discharges to Lac de Gras during dewatering activities. In July 2009, water from Pond 3 was directed to Lac de Gras. As noted in the water license, DDMI submitted a request for approval to INAC (with applicable supporting documents and laboratory results) in June 2009, prior to beginning dewatering. INAC approved the request on June 25, 2009. Pond 3 water was directed to Lac de Gras from July 1, 2009 until July 9, 2009. A total of 218,213 m³ of pond water was directed to Lac de Gras over that period. Water quality parameters were within regulated limits for the duration of the dewatering activity.



Each month Diavik submits an SNP report to the WLWB outlining the previous month's SNP results. SNP data for the year is also compiled and presented in the Type A Water License Annual Report.

13.1 Changes to Requirements of SNP Program

On February 19, 2009, DDMI submitted a request to the WLWB regarding proposed changes to the SNP. Following a review and comment period for stakeholders, on May 19, 2009 the WLWB provided a letter to DDMI titled, Diavik Request for Changes to the Surveillance Network Program, outlining its decisions regarding the proposed changes. The letter included a revised SNP document with the new approved SNP requirements. June 2009 was the first month of sampling under the new SNP.

With the expansion of the North Inlet Water Treatment Plant (NIWTP), basically two treatment plants would be operational at Diavik. For this reason, a second effluent disposal line and a second diffuser were added to the plant and required two changes to the SNP:

- A second 'effluent' station, 1645-18B, had to be established for monitoring effluent quality through the new part of the plant; and
- The location of stations A/B/C at 1645-19 (in Lac de Gras at the diffuser mixing zone) had to be adjusted to ensure sample points surrounded the new diffuser.

DDMI notified the WLWB on March 18, 2009 of plans to start up the second (new) diffuser during the spring, during which time field sampling from the ice would be done to determine appropriate locations for SNP stations around the diffusers. The field work was delayed due to ice blockage in the new diffuser line so, on June 12, 2009, DDMI submitted a plan to the WLWB for setting up SNP stations during the open-water season. On August 10, 2009, DDMI sent in a summary of findings from the fieldwork with recommendations to stop using station 1645-19B and relocate it to a new location (1645-19B2) in order to ensure sample points were around both diffusers. There was also a recommendation to establish station 1645-18B to monitor effluent from the second half of the NIWTP (i.e. through the expanded area). DDMI recommendations were tentative as further study would be required in the winter of 2010 to ensure stations 1645-19A, 19B2 and 19C could all be safely accessed during the ice-cover season and pending results of a plume delineation (study to determine how big the area around the diffusers is, as the diffusers mix the effluent within the lake) scheduled for spring 2010. On September 11, 2009, the WLWB approved the SNP changes

with various conditions related to further study of the effluent mixing zone. DDMI is planning to complete the plume delineation programs in 2010.

In fall 2009, DDMI commissioned a second pump station (9105 Pump Station) for dewatering underground workings to prepare for underground ore production. The new pump station directs flow to the North Inlet in a dedicated line, separate from the previously existing 9290 Pump Skids (SNP Station 1645-75). On November 24, 2009, DDMI submitted a request to add station 1645-75B to the SNP in order to monitor the new underground dewatering line. The sample location for 1645-75B (where the line comes to the surface near the Fresh and Return Air Raise (FAR/RAR) location) was inspected and approved by the INAC Inspector on November 2, 2009, and DDMI recommended that station 1645-75B include the same parameters and sample frequency as 1645-75. Although a formal response was not received from the WLWB, DDMI has been monitoring and reporting on station 1645-75B since November 2009.

13.2 Implementation of Toxicity Testing with *Hyalella azteca*

As part of Diavik's Water License renewal in 2007, protocols were to be developed for conducting toxicity testing with an organism called *Hyalella azteca*. Toxicity testing involves putting different organisms (fish and other aquatic species) in effluent and monitoring their activity and survival over a specified period of time. The purpose of using *Hyalella azteca* as a test organism was due to its sensitivity to ammonia. The Water License indicates that protocols must be developed for acute toxicity and chronic toxicity. Acute toxicity refers to effects of a substance which result from a short exposure, while chronic toxicity refers to effects resulting from exposure to a substance over a long period of time.

The acute toxicity protocol was developed in early 2008 and has been implemented since May 2008. It is sampled on a quarterly basis, as defined in the water license.

Diavik determined that development of a chronic toxicity protocol using *Hyalella azteca* for the Diavik mine was not feasible. Diavik has put forward some other monitoring methods to address this requirement and is working with the WLWB to determine their suitability. Diavik continues to conduct this monitoring until we receive any further feedback from the WLWB.

14. Diavik Type 'A' Water License

14.1 Water License Annual Report

As a requirement of Diavik's Type A water license, an annual report is prepared and submitted. Every year, the report provides information on activities related to water and waste including tables and figures on amounts, sources and uses for water used at the mine site, dewatering activities, water discharged to and from the PKC facility, amounts of waste rock moved, the amount of water pumped from the open pits and underground and numbers related to sewage.

The 2009 report was submitted in March 2010 in conjunction with updated management plans and updates to studies being undertaken as per the terms of Diavik's Water License. It includes a summary of operational activities and an update on studies related to reclamation (both similar to what is contained in this report) that occurred in 2009. A brief update of work carried out under management plans is given, and a summary of changes or

maintenance done on several facilities such as the Water Treatment Plant and the PKC. There is also a list of spills that were reported to government during the year. Many facts and figures of the report have been included throughout this Environmental Agreement Annual Report. It is too difficult to summarize all sections of the Water License Annual Report in this report, because of the amount of detail and figures. However, some of the highlights are presented below:

- 1,344,901 m³ of fresh water were used for drills, domestic use, kimberlite processing and dust control;
- Over 1.5 million m³ of water was recycled from the PKC for use in the process plant;
- 63 spills (greater than 100L or near water) were reported to the NWT Spill line in 2009. Spills were cleaned up where possible and some were closed by the Inspector before the end of the year; and
- 6.5 million m³ of country rock (including Type 1, 2 and 3) was removed from the open pits and underground during 2009.

14.2 Temporary Water Allocation Increase

Diavik's Water License regulates the volume of fresh water Diavik is allowed to take from Lac de Gras each year. Diavik supplements this by recycling water from the PKC for use in the Processing Plant. The Processing Plant is the largest single user of fresh water at Diavik.

In the summer of 2008, Diavik realized that there was not enough water available in the PKC to sustain water recycling through the winter. This meant that Diavik had to add more water to the PKC by using more fresh water from Lac de Gras. This increase in water use was going to exceed the allocated volume in the Water License (1.28M cubic meters).

In August 2008, Diavik submitted a request for a temporary (2-year) increase in its fresh water limit so that operations would not be affected. The request was approved by the WLWB in October 2008 after a period for parties to comment or voice their concerns. The Water License amendment was signed by the INAC Minister on November 5, 2008 and applied to water use volumes for 2008 and 2009.

14.3 Pond 7 Engineering Design

As discussed previously in this report, Diavik has a drainage control and collection system to capture runoff and seepage around the mine site. Engineered ponds provide places for water to be impounded (stored) until it is sent to the PKC (for use as recycled water in the Processing Plant) or it is discharged from the site through the North Inlet Water Treatment Plant or dewatered directly to the environment provided that lab results show that it is safe to do so.

The Water License says that changes to the drainage control and collection system need to be approved by the WLWB. In 2008, Diavik began construction of a new collection pond, Pond 7, located southwest of the PKC. Prior to beginning construction, Diavik submitted the Pond 7 Engineering Design to the WLWB for approval. The design was approved on

September 16, 2008 and construction began shortly afterwards. Pond 7 construction was completed in 2009 and as-built drawings were submitted to the WLWB.

15. Waste Management Plan (v13), Submitted April 2010

Diavik is committed to taking all necessary steps to ensure that the collection, storage, transportation and disposal of all wastes are being done in a safe, efficient and environmentally compliant manner. The Waste Management Plan outlines the management of waste and a waste minimization program. The main objectives of the plan are to:

- Outline procedures for the proper disposal of wastes;
- Minimize potentially harmful effects to the environment; and
- Comply with the Federal and Northwest Territories legislation.

The plan outlines the different types of waste that are created at Diavik as well as the proper way to handle/store/dispose of each type in order to minimize environmental impacts. The Plan includes:

- Storing, incinerating (burning) or land filling of waste;
- Details of waste facilities (including an approved landfill); and
- Training for operators that handle regular and hazardous waste.

The Waste Management Plan also includes a Waste Transfer Area (WTA) Operating Plan. The WTA is where Diavik stores different types of waste. Some of that waste is stored for a full year so that it can be hauled south on the winter road, while Diavik deals with some waste onsite (for example food waste at Diavik is incinerated). This document outlines daily and weekly inspections of the WTA, guidelines for operating the soil remediation area at the WTA, and general operating procedures for waste handling. The latest version of this plan is very similar to last year's plan and is submitted to the Government of the Northwest Territories.

16. Water Management Plan (v8), Submitted to WLWB December 2009

Water management is an important environmental aspect at Diavik. Water from many sources must be properly managed to protect the environment. This includes the water Diavik uses from Lac de Gras, water that enters the open pit and underground through the ground or by seeping through the dikes, water contained in the PKC, water contained in the North Inlet and water contained in collection ponds.

Seepage water (water that seeps through water retaining structures like dams) is another water source that Diavik manages, but this is discussed separately in Section 12 of this report.

The purpose of Diavik's Water Management Plan is to describe how water around the site is managed and to provide a water balance for the mine site (discussed in the next section). The plan describes existing water management systems, and future water management changes that are anticipated. The Water Management Plan is a requirement of Diavik's

Class A Water License and an updated version is submitted to the WLWB every December. Objectives of this plan include:

- Ensuring compliance with water license discharge and monitoring requirements;
- Minimizing use of fresh water and maximizing the use of recycled water; and
- Anticipating and managing water handling issues.

Diavik has developed several methods to meet these objectives:

- Water system designs have backup plans to lower risks;
- All major water flows are monitored and reported through Diavik's Project Information Management System (PIMS); and
- A Water Management Committee meets twice per year to review water management performance, identify water management issues, and develop action plans to resolve these issues.

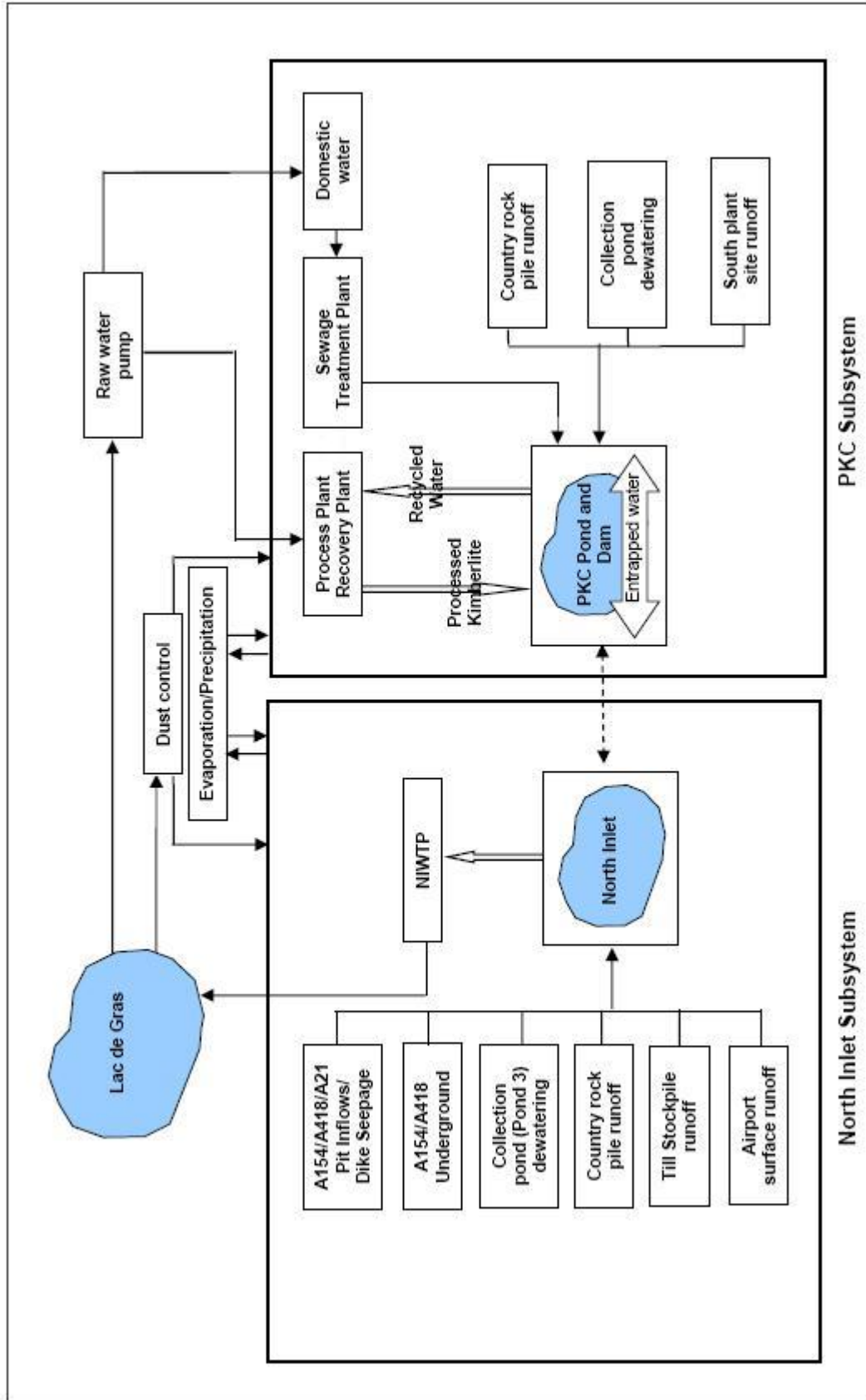
This new revision to the plan includes water management strategies for the four key areas of water management at the Diavik site, including mining, site services, processing and construction. The plan covers management, monitoring and control of water in each of these areas. Details of actual water use at Diavik are outlined in the Type A Annual Water License Report, discussed in Section 14 of this report.

16.1 Diavik Site Water Balance

A computer model was set up to predict water flows at the Diavik site from 2003 to 2023. The water balance model uses predictions and assumptions, which allow for both long and short term (1-5 year) planning. As part of the Water Management Plan, Diavik updates the site water balance each year.

This model looks at two main areas - around the North Inlet and around the Processed Kimberlite Containment (PKC) Facility. The water balance gives Diavik an idea of the amount and location of water on site at any given time, so that planning can take place for handling and treating water. The figure on the next page provides a flow diagram of the Diavik water management system.

The results of this document are very similar to last year's. This water balance concluded that capacity in the North Inlet will be enough for predicted inflows and water movement with good scheduling and monitoring of open pit and underground water flows. It also concluded that the PKC facility is a negative sink for water - more water is put in than can be taken out - so processing needs makeup water from Lac de Gras for operations. Construction of the north inlet to process plant pipeline addresses this concern and helps to minimize the amount of water needed from Lac de Gras.



17. **Wildlife Monitoring and Management Program (2009)**

As per the Environmental Agreement, Diavik developed a Wildlife Monitoring Program to check the accuracy of predictions in the Environmental Assessment and to assess the effectiveness of actions that have been taken to reduce impacts to wildlife. This program was developed based on information from four years (1995 – 1998) of wildlife baseline studies, community consultation, recommendations developed during the Environmental Assessment, and years of project activity monitoring. This program takes into consideration wildlife and wildlife habitat-based technical issues raised by the Environmental Monitoring Advisory Board (EMAB) and Environment and Natural Resources (ENR) during early reviews of this program. The program was updated in 2009 and is now referred to as the Wildlife Monitoring and Management Plan (WMMP).

The WMMP is a method for observation, mitigation and improving procedures for wildlife and habitat management at the mine site. The WMMP is therefore closely linked with Diavik policies and guidelines, management plans and standard operating procedures (SOPs). There are several SOPs to protect wildlife and these are evaluated as part of the WMMP.

The program includes monitoring the following:

- Vegetation/Wildlife Habitat;
- Caribou;
- Caribou Advisory;
- Caribou Mitigation Effectiveness;
- Grizzly Bear;
- Wolverine;
- Waste Management;
- Raptors; and
- Waterfowl.



The Wildlife Monitoring and Management Plan is adaptive. It can be changed in response to changes and unforeseen circumstances that are identified from monitoring and from new information.

In addition to continued on-going monitoring programs, Diavik has also been participating in a joint review process of the diamond mine wildlife monitoring programs. This process continued throughout 2009 and included a fall workshop with representatives from the three diamond mines (Diavik, EKATI and Snap Lake), each of the Monitoring Agencies (EMAB, IEMA and SLEMA), the Government of the Northwest Territories (GNWT) department of Environment and Natural Resources (ENR), Environment Canada, the Wekeezhii Renewable Resources Board (WRRB) and the communities.

17.1 Wildlife Monitoring Report, Submitted to ENR, April 2010

As a requirement of the Environmental Agreement, Diavik conducts a wildlife monitoring program. This program was created to collect information about plants, animals and birds in the area to see if they are affected by the mine. This is measured by comparing results to predictions made in the Environmental Assessment. Below are some notes from the 2009 program. Further details are provided in the Rolling Effects Summary section of this report.

Vegetation/Habitat Loss

Direct vegetation (plant) loss in 2009 from mine development was 0.12 km², bringing the total area lost to date from mining activities to 9.78 km². This is within predicted limits. The fifth and final year of a re-vegetation study (part of closure and reclamation research) being conducted with the University of Alberta was completed during the summer of 2009. Further research opportunities will be identified from the results of the 5-year study.

Caribou

Plant loss for the species that caribou use was within the expected amount at the end of 2009. There were no caribou mortalities or injuries caused by mining activities. Diavik did weekly aerial surveys for caribou with BHP-Billiton from July to October 2009. Transect lines flown during the aerial survey are spaced 8 kilometers apart. Diavik staff also worked with BHP-Billiton to complete a number of caribou behavioural observations, or scans, around the mines throughout the summer. The data will be shared among the mines in order to get a better idea of how caribou behave closer to and further from the mines. Caribou road and rock pile surveys continued in 2009 and two herding events occurred to move caribou away from infrastructure associated with the mine.

Grizzly Bear

Plant loss for the species that grizzly bear use was also within the expected amount at the end of 2009. There were a total of 22 grizzly bear visits to site during summer, including a group of 3 bears that lived at the mine site from 6 July to 21 August. No mortalities or injuries occurred to bears during 2009. Because of safety concerns, the grizzly bear monitoring program was cancelled for the 2009 season. Diavik is looking at a different way to get similar information that is safer for staff.

Raptors

Raptor monitoring for peregrine falcons was done in June and July of 2009, in cooperation with the Government of the Northwest Territories. There were two out of six raptor nests that had chicks in the nest. There were no raptors nesting in the open pits at the mine this year and no mortalities occurred due to mining during 2009.



Wolverine

Wolverines were present on East Island in 2009, and the spring snow track survey was completed. Diavik has committed to participating in a wolverine DNA research program in 2010 in coordination with ENR and BHP-Billiton.

Waterfowl

There was no more shallow or deep water areas developed in 2009, therefore the total area of water habitat loss is unchanged and within the predicted amount. Waterfowl surveys were completed in 2009 and migratory birds were seen at the East Island shallow bays and are still using ponds and wetlands changed by or created for the mine site.

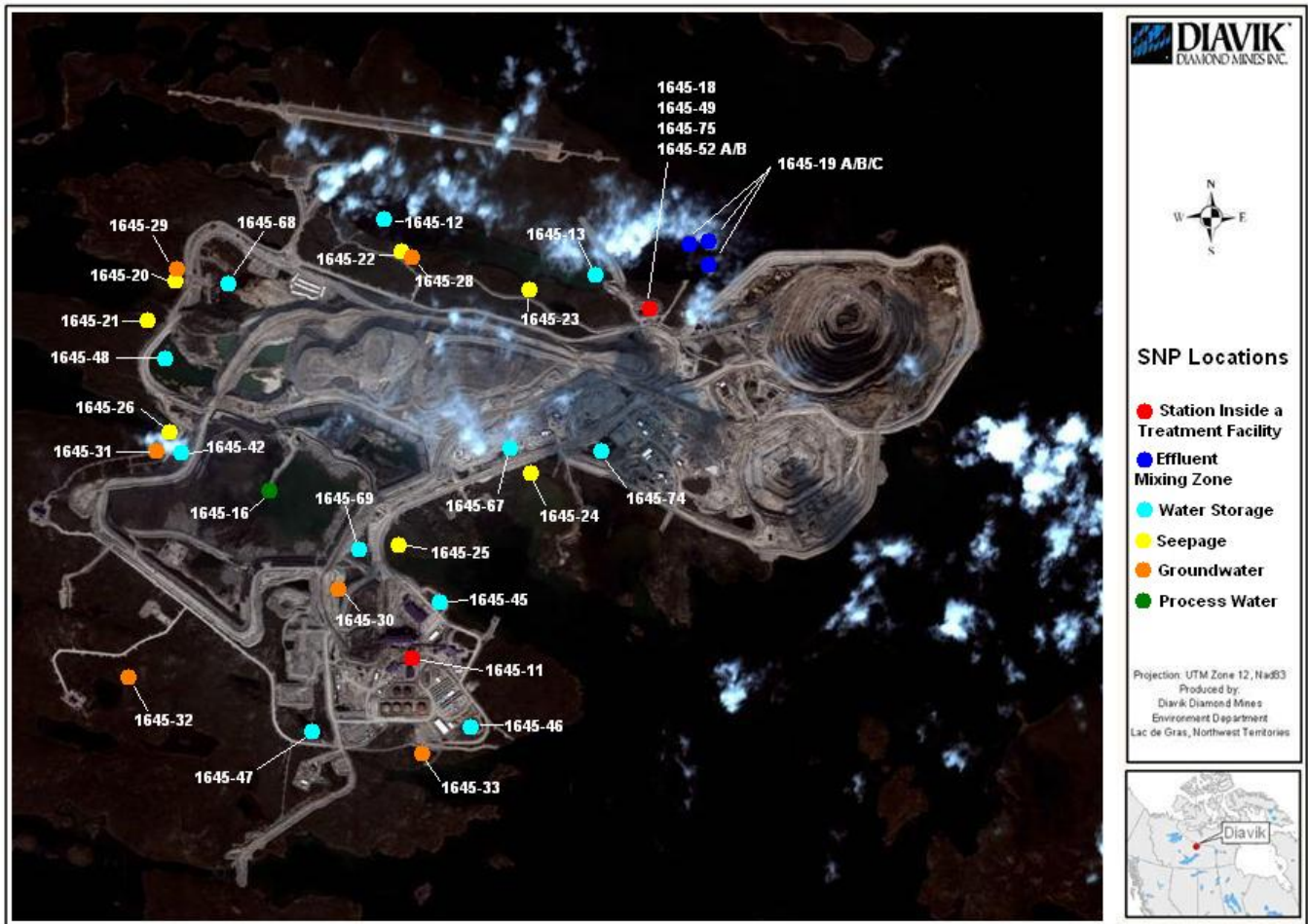


Waste Management

Waste inspections continued to be done every other day during the year 2009. Food and food packaging were found during some inspections at the Waste Transfer Area and some at the inert landfill. Overall, the number of incidents with improper waste decreased in 2009. Diavik has a barricade at the landfill to stop incorrect dumping and Environment staff continue to educate workers on the importance of segregating wastes properly.

Summary of 2009 Operations

There were a number of construction projects ongoing in 2009 as Diavik continued open pit mining of A154 (north and south) and A418 kimberlite pipes and advanced construction of underground operations at A154/418. A summary of operations and construction projects initiated, completed or ongoing in 2009 is provided in this section, along with a description of activities that will be carried forward into 2010. A map with the Surveillance Network Program (SNP) stations is provided at the start, for reference.



Various construction projects were ongoing through 2009 and many will continue in 2010. These projects include:

- PKC Dam Raises;
- New Power House (Power House #2) construction;
- North Inlet Water Treatment Plant Expansion - complete;

- Underground Mine Dry construction;
- Underground Fresh Air Raise construction;
- Underground electrical, mechanical and water management installations;
- New Crusher construction; and
- Paste Plant.

In addition to the above construction projects, monitoring of the Test Rock Piles and dewatering of Pond 4 to Pond 5 (to prevent seepage) were also ongoing through 2009.

January

During the month of January, all required SNP stations were sampled by Diavik. Due to an equipment malfunction, turbidity field measurements were not obtained at 1645-19B on 24 January. Instead these values were analyzed at the lab upon return from the field; values were within typical measured values. Sample station 1645-50 (in the A418 pit) was disconnected.

There were no notable concerns associated with the monthly toxicity sampling (*Hyalella azteca*) conducted in January. When taking a toxicity sample, an extra sample is collected for water quality at 1645-18 at the same time. In January, the sample at 1645-18 was missed the day the toxicity sample was collected, and was taken the next day instead.

Construction of fuel tank #6 at the South Tank Farm was completed.

Additional thermosyphons (cooling pumps) were installed on the north inlet east dike to promote freezing and address a concern relating to rising temperatures within the centre of the dike.

February

During the month of February, all required SNP stations were sampled by Diavik. One sample for 1645-18 was missed on 3 February. The sample was instead taken on 4 February.

There were no notable concerns associated with the monthly toxicity sampling conducted in February.

The A21 on-ice drilling program started in February and continued until May.

The Tibbitt to Contwoyto Winter Road opened to commercial traffic on 1 February. DDMI annual re-supply continued throughout the season.

March

During the month of March, all required SNP stations were sampled by Diavik with no notable issues.

Quarterly toxicity sampling was conducted in March, with no notable concerns.

On March 18, 2009 DDMI notified the WLWB of plans to commission the North Inlet Water Treatment Plant (NIWTP) expansion, and the new effluent discharge pipe and diffuser in Lac de Gras that are a part of the plant expansion.



The annual winter road re-supply to Diavik was completed on 22 March and the road officially closed to commercial traffic on 25 March.

A delineation drill program (to determine the size of a deposit) began for the A154 south kimberlite pipe in the A154 pit.

April

During the month of April, all required SNP stations were sampled by Diavik with no notable issues. Monitoring of SNP seepage and groundwater stations began this month.

Pond 1 (1645-67) had sufficient open water to obtain a sample in April, largely because of increased water levels in a cell of the PKC; the rest of the ponds remained frozen.

There were no notable concerns associated with the monthly toxicity sampling conducted in April.

The ice-cover session of 2008 AEMP sampling (the first round) began in April and continued into May.

The wolverine track survey was completed from 2 to 6 April, with help from a community assistant. Caribou road and PKC/rock pile surveys began in late April and continued until October.

The delineation drill program in the A154 pit that started in March was completed 17 April.

May

During the month of May, all required SNP stations were sampled by Diavik with no notable issues. Collection ponds remained frozen this month.

There were no notable concerns associated with the monthly toxicity sampling conducted in May.

Seepage into Pond 1 continued and was dewatered to Pond 5 and then in to the PKC. Seepage was also observed between Pond 1 and Pond 5 in May. Several sumps (a hole created at a low point where water can drain in to) were excavated and pumps deployed to capture the seepage flows and return the water to Pond 5.

A sump and pump were installed on the tundra down-gradient of Pond 13 to intercept potential seepage from that area. Pond 13 had been an area of concern during freshet in 2008, and this installation was a proactive approach in 2009 in case of a reappearance of seepage.

Various additional pumping efforts were ongoing on East Island in May as snow and ice began melting.

Waterfowl surveys began in May and continued until September.

June

During the month of June, all required SNP stations were sampled by Diavik with the exception of 1645-19 (Lac de Gras near the NIWTP diffuser) and 1645-67 (Pond 1). The ice at 1645-19 was unsafe in June, and the station was still inaccessible by boat. Pond 1 could not be safely accessed to collect a sample due to hanging ice around the pond perimeter. All other collection ponds were sampled in the month of June.

In the June 9, 2009 quarterly toxicity test, 60% mortality was noted for the Ceriodaphnia analysis using DDMI effluent, and there was 20% mortality in the control sample for this analysis. Effluent water quality results showed no concerns with total metals concentrations, ammonia concentration (1.13 mg/L) or pH (7.67); all were below discharge criteria and similar to past sample results from this station. There were no concerns from any of the other toxicity tests conducted on this sample, including the 96-hr trout, 48-hr daphnia and 10-day Hyalella tests. Upon receiving the toxicity results, DDMI notified the WLWB and the INAC Inspector. In response to this result, DDMI collected and submitted another sample for full dilution toxicity testing with Ceriodaphnia during the week of July 21, 2009 (shortly after DDMI was made aware of the June toxicity results). A water quality sample from 1645-18 was also collected at the same time. No issues were noted with the July Ceriodaphnia toxicity test. Results of the July toxicity test were communicated to the WLWB and the INAC Inspector.

Changes to the SNP that were approved by the WLWB in May were applied beginning in June.

Seepage into Pond 1 continued to be dewatered to Pond 5 and then to the PKC. A pump staging road was constructed south of the South Haul Road in June to provide access to the tundra between Pond 1 and Pond 5 for seepage interception. On one event, seepage bypassed an engineered containment and pumping system and reached Lac de Gras. It flowed for a total of 6 hours before the water was contained and re-directed.

Annual dam inspections (PKC and Collection Ponds) were completed on June 13 and 14, 2009.

Raptor surveys were conducted on June 11, 2009.

July

During the month of July, all required SNP stations were sampled by DDMI. Total suspended solids (TSS) and turbidity were missed at station 1645-18 on 3 July and at station 1645-75 on 22 July due to errors in the DDMI lab. Dissolved oxygen samples for 1645-19A and 1645-19B could not be analyzed due to a field error preserving the samples.

Testing of the new NIWTP diffuser (discharging to Lac de Gras) began on 22 July. DDMI conducted a sampling program around the two diffusers in Lac de Gras to support the request to amend SNP stations at 1645-19 because of the expansion to the NIWTP. A new SNP station, 1645-18B was established for monitoring NIWTP effluent from the expansion plant.

In order to investigate the seepage issues in to Pond 1 from the PKC, water from Pond 3 was discharged to Lac de Gras from 1 to 9 July; this was to free up some storage space for water that had to be moved out of the PKC. After pumping of Pond 3 water to Lac de Gras stopped, water from Pond 3 was then sent to the North Inlet. DDMI then began transferring water from the PKC to Pond 3 and ultimately the north inlet; this began 12 July and continued through to 10 November. Due to the connection between the PKC and the North Inlet, BOD, Oil & Grease, and Faecal Coliforms were added to SNP sampling at 1645-18 (because the PKC receives treated sewage effluent from the Sewage Treatment Plant). Due to the time sensitivity for Faecal Coliform analysis, sampling for these additional parameters was often deferred several days so that collection lined up with outgoing flights.

As part of the PKC development, the reclaim barge was moved to a new access road leading from the South Spigot Road (the barge was formerly accessed from the North Spigot Road).

Acid (in totes) was transferred from the Chemical Storage Building at the D1 Laydown to tanks in the new Acid Storage Building adjacent to the NIWTP. The acid storage building was constructed as part of the NIWTP expansion to be able to treat for elevated ammonia levels in effluent, if required.

The second round sampling for the 2009 AEMP (the first of three open water sessions) began on 17 July and concluded in early August.

Raptor surveys were conducted on July 27, 2009.

The University of Alberta conducted re-vegetation research field work from July 21 to 28, 2009. This was the first of two fieldwork sessions completed during 2009.

Aerial caribou surveys began in July in cooperation with BHP-Billiton. The aerial survey method was revised in 2009 to incorporate a larger area of the Slave Geologic Province that covers the footprint of both Diavik and EKATI mines and increase the spacing between transects. These continued through October.

Grizzly Bear habitat plot surveys were suspended in 2009 to focus efforts on developing a different method to collect information in a safer manner.

Open water on Lac de Gras (considered safe for navigation to access far-field AEMP stations) was July 25, 2009.

In response to the global economic downturn, a mining and production shutdown at Diavik began on 14 July and ended on 24 August.

August

During the month of August, all required SNP stations were sampled by DDMI with no significant issues. The sample at station 1645-18 scheduled for 14 August was delayed one day due to a shortage in DDMI's sample bottle inventory. Annual sediment sampling at station 1645-19 was completed in August.

The University of Alberta conducted vegetation research field work from August 18 to 25, 2009. This was the second of two fieldwork sessions completed during 2009, and the last year of the current research program.

The third round of sampling for the 2009 AEMP (the second session of open water sampling) was conducted in August and included benthic invertebrate and sediment samples.

In August 2009, DDMI identified elevated temperature trends measured in thermistors (similar to thermometers) in the North Inlet East Dike (similar to those measured in August 2008). DDMI took immediate measures to lower the North Inlet water levels to match Lac de Gras water levels in order to prevent potential seepage through the dike. DDMI continued to maintain the water level in the North Inlet near Lac de Gras elevations through 2009 and into 2010. Installation of additional thermosyphons to promote freezing in the dike and additional thermistors to increase monitoring coverage in the dike has been planned for February/March 2010.

September

During the month of September, all required SNP stations were sampled by Diavik with no significant issues. Faecal coliform, Oil & Grease and BOD sampling at station 1645-18 were missed on September 2 and 8 due to DDMI error. Oil and Grease analyses at stations 1645-50 and 1645-75 were missed on September 30 due to DDMI error.

With approval for the operation of the expanded NIWTP, SNP station 1645-18B (expanded plant effluent) was added and 1645-19B was changed to a new location identified as 1645-19B2. The approval was conditional on various studies and reviews scheduled for completion in 2010.

There were no notable concerns with the quarterly toxicity samples obtain in September.

Water transfer from Pond 3 to the North Inlet (which was ceased in August) resumed on September 17 and continued through the month.

Waterfowl surveys that began in May concluded at the end of September.

The final round of sampling for the 2009 AEMP (the third open water session) was completed in September. The AEMP concluded on September 20, 2009.

Testing of the new Underground 9105 Pump Station began in September. The station began pumping water (as part of testing) to the North Inlet on September 20, 2009.

Construction of the Pond 7 Dam which began in 2008 was completed in September.

DDMI began construction of a pipeline to connect the North Inlet to the Process Plant in September. This pipeline will provide reclaim water for ore processing to supplement reclaim water already being withdrawn from the PKC. Use of the pipeline will reduce fresh water withdrawn from Lac de Gras for ore production. Construction of the pipeline continued through the remainder of 2009.

October

During the month of October, all required SNP stations were sampled by Diavik. Faecal coliform, Oil & Grease and BOD sampling at stations 1645-18 and 1645-18B were missed on October 7 due to DDMI error. Dissolved Organic Carbon at station 1645-19B2 was missed on October 19, 2009 because the bottle broke during transport. Due to the formation of lake ice, only 2 of 3 stations at 1645-19 could be sampled in October. 1645-19C was not sampled.



On 14 October, no further seepage was observed reporting to Pond 1 from the PKC north cell. Any seepage downstream continued to be collected by the sump and pump system installed in the spring.

Seepage investigations and liner repairs in the PKC North Cell concluded for the year in October. Two locations of potential seepage in the PKC North Cell remain to be investigated in 2010.

Lac de Gras and collection ponds froze in October. The main body of the lake was completely frozen ("freeze up") by 28 October.

Aerial caribou surveys that began in July concluded in October.

November

During the month of November, all required SNP stations were sampled by Diavik with no significant issues. Oil & Grease analysis for station 1645-18B was missed on 29 November due to a DDMI error. No sampling was conducted at 1645-19 due to unsafe ice conditions.

Monitoring for station 1645-75B (9105 underground pump station) started in November.

December

During the month of December, all required SNP stations were sampled by Diavik with no significant issues. Sampling at stations 1645-18 and 1645-18B, originally scheduled for 18 December, were delayed three days due to a DDMI error.

Quarterly toxicity testing was completed with no notable concerns. The annual sample from station 1645-11 (sewage treatment plant effluent) was collected in December.

There were no notable concerns associated with the monthly toxicity (10-day Water Only *Hyalella azteca*) and quarterly toxicity testing conducted in December. The Early Life Stage (trout embryo) chronic toxicity test was delayed beyond the routine holding time due to the availability of organisms at the laboratory.

Water was transferred from Pond 3 back in to the PKC in order to ensure water was available for process operations during the winter months.

Summary of 2009 Camp Numbers:

Main Camp Average Population: 319
South Camp Average Population: 247
Total Average Camp Population: 566

Pit Bottom Elevations on December 31, 2009:

A154: 140 m

A418: 315 m

**The Lac de Gras water surface elevation is approximately 415 m

Underground Development in 2009:

The total underground development for 2009 was 3155 m.

Operational activities planned for 2010:

- Since the global economic downturn in late 2008, Diavik has been evaluating operation and construction activities;
- Mining of the A418 and A154 pits will continue through the year;
- Underground: the A154 and A418 kimberlite pipes will begin production (kimberlite mining), additional dewatering, electrical installations, power feed and paste boosters to be installed;
- Other construction projects to support underground operations (Paste Plant, mine dry office & accommodation complex, Fresh Air Raise, etc.) will continue in 2010;

- North inlet east dike and PKC dam remediation projects; and
- PKC dam raises will continue in 2010.

18. Public Concerns

In 2009, there was no direct communication or letters sent from the public to Diavik expressing concerns with the mine's operation. Below is a summary of questions, issues and concerns that came from the Environmental Monitoring Advisory Board (EMAB) in 2009, and the responses that Diavik provided to the issues. A list of community visits and concerns raised during community updates are provided following the section on EMAB correspondence.



Diavik also corresponds with EMAB through correspondence with the WLWB and the INAC Inspector. Monitoring reports, review comments/responses, WLWB decisions, inspection reports, and other documents are regularly distributed, presented and discussed amongst Diavik, EMAB, INAC and the WLWB. A discussion of these items is beyond the scope of this report, however, these documents are available to the public and are regularly posted on the WLWB registry.

18.1 Diavik and EMAB Correspondence

January 12:

Communication: EMAB wrote to Diavik with a request to provide information relating to DDMI's efforts to implement EA clause 7.6 (b) and (c) regarding training and employment of Aboriginal peoples.

Diavik Response: Diavik provided a response to the EMAB letter in April 2009. Diavik's response was organized into 10 categories, and a description of each program/initiative was provided: northern and Aboriginal hiring policy, Aboriginal Leadership Development Program, Aboriginal employees in the Diavik Environment department, Aboriginal community involvement in 2008 monitoring, community-based monitoring, scholarships, community visits, career fairs, employee education assistance and apprentices.

February 24:

Communication: EMAB recommended that DDMI undertake community consultation on the draft ICRP and arrange a site visit for closure workshop participants.

Diavik Response: DDMI replied with a letter in May stating plans to conduct a site visit during the summer of 2009 to focus on caribou/wildlife movement post-closure, and plans to meet with the Leadership of Aboriginal groups to get feedback on DDMI's approach to closure planning and on-going involvement of the communities.

March 27:

Communication: DDMI wrote to EMAB Directors to request input/proposals on topics to be included in the 2009 Community-based Monitoring (CBM) camp. Two ideas for potential programs were provided.

EMAB Response (from the Chair): Outlined six items for clarification/consideration in relation to the camp. Noted that more detailed proposals should be provided by DDMI in relation to program content/plans.

March 31:

Communication: DDMI wrote to EMAB to request that EMAB consider closing their offices and discontinuing Board activities during the shut down periods planned for the mine in 2009.

EMAB Response: Felt the request was inappropriate based on the following five categories, and an explanation for each was provided: the EA, DDMI not shutting down, EMAB activities to be carried out, financial considerations and EMAB responsibility to Parties.

May 20:

Communication: EMAB requested that Diavik meet to discuss each respective organizations' work planning for implementation of the EA for 2009 and 2010.

Diavik Response: A meeting to discuss EA implementation was deferred by DDMI until 2010.

May 21:

Communication: EMAB wrote to DDMI to consider revising the Wildlife Research Permit application related to caribou monitoring. Two specific requests were outlined.

DDMI Response: DDMI responded in June to outline preferences for the programs and progress to date. Request was made to EMAB to provide their input on the process, timeline and content of programs being proposed.

EMAB Follow-up: EMAB sent a letter in August stating four points to consider relating to consultation, as well as expected timelines. The Board also acknowledged DDMI revising the aerial survey to extend further south, in response to their request.

April 30:

Communication: EMAB wrote to DDMI to obtain confirmation that the environmental monitoring and protection programs scheduled to occur during the 2009 summer production shutdown would still occur.

DDMI Response: DDMI responded in May stating that implementation of environmental monitoring and management programs would not be affected by the scheduled shutdown.

August 19:

Communication: EMAB provided recommendations for Diavik's consultation plans on proposed changes to the Wildlife Monitoring Program for 2010.

DDMI Response: No response was submitted by the end of 2009, but a response was provided in 2010.

December 14:

Communication: EMAB recommended that DDMI engage communities to discuss how best to determine if the plain-language summary is adequate and how best to present information contained in the Environmental Agreement Annual Report to the communities.

DDMI Response: This topic to be covered in the EA implementation meeting in 2010.

18.2 Community Updates

In 2009 and early 2010, Diavik and EMAB planned community visits to discuss the various environmental monitoring programs ongoing at Diavik. Meetings were arranged with the North Slave Metis Alliance (NSMA), Kitikmeot Inuit Association (KIA), Yellowknives Dene First Nation (YKDFN), the Tlicho and the Lutsel K'e Dene First Nation (LKDFN).

Topics covered at the community meetings included: closure planning, employment & training update, the transition to underground, proposed mining method for A21, changes to the wildlife monitoring programs, and land use permit applications that DDMI submitted.

Below is a summary of community visits and any relevant concerns that were discussed.

Yellowknives Dene First Nation, 16 September 2009

In relation to the environment, there was a discussion on spills at the mine where representatives from the YKDFN wanted more information on a few larger spills that had occurred at the mine in the spring. A Diavik representative explained that one piece of equipment was not running well and was the cause for those larger spills. The meeting attendees were also informed that that piece of equipment was taken out of service for significant repairs.

There was also a discussion on caribou monitoring. There was some confusion that the aerial surveys DDMI performed were the population counts (number of caribou) for the herd. DDMI explained that the GNWT is responsible for surveys to count the number of caribou in the herd and that the DDMI survey only looks at the number of animals passing through the area around the mine, and how the caribou move around the mine. Some people felt that aerial caribou surveys should be done every year so that we know where the caribou are. Concerns were also raised on the decline of the caribou herd. There was a question raised as to why DDMI reports to the WLWB, which is a Tlicho board. DDMI let attendees know that we follow directives and regulations that are set by INAC.

Lastly, there were many questions related to employment and training opportunities or issues at the mine, and the transition to underground.

Whati, 17 September 2009

There were a few questions related to the environment and some concern over distribution of reports and information. In relation to closure, one Elder stated that he was hopeful that the mine would look okay after closure and was hopeful it would look the same as before. They also told of the history of mining in the north and their concern with actions in the past. It was explained that the area of the mine will not look exactly like it did before, but that DDMI is looking at the best ways to close the mine to make it safe for wildlife and people.

Concern over the decline in caribou numbers was also discussed and the purpose of the GNWT and DDMI surveys was made clear to meeting attendees. There were questions about where reports were sent within the Tlicho and DDMI staff informed them where our various reports were submitted. A request was made that important wildlife monitoring information and things like land use permit applications also get sent to the Chief in Whati directly.

There were also questions raised about job opportunities and how to find out about them.

Gameti, 21 September 2009

There were no questions or concerns raised in relation to the environment. There were many questions on how best to apply for work, and whether there were any jobs available in the Environment department at the mine site.

Wekweeti, 28 September 2009

There was some discussion over the reclamation plans for the site including questions around closure options for the rock pile, PKC and north inlet. DDMI explained some of the work currently being done to narrow down the options for closing these features, as well as some of the considerations that need to be thought about in relation to closing these areas. There were also questions about how to get more information on job opportunities.

Behchoko, 19 October 2009

There were no questions or concerns raised in relation to the environment. There were many questions about jobs and business opportunities as the mine moves underground and toward closure.

Kugluktuk, 3 December 2009

There was a discussion started by a former employee about unreported spills that had been noticed while working at the mine. DDMI Environment staff informed the representative that they were not aware of a spill in the location mentioned, but that everyone at site is encouraged to report spills, even if it is outside their normal work area.

There was a general discussion related to water quality, especially after closure, because Kugluktuk is downstream from Lac de Gras. Some questions were raised on how exactly the pits would be closed and DDMI provided some further explanation on the plans to fill the pits with water and break the dikes.

People were curious on the methods used to obtain DNA samples from animals such as wolverine and grizzly bear. DDMI explained how this was done and made reference to similar work being done in the Kitikmeot by a local biologist.

One attendee asked if the CBM camp was where the Elders went to taste the fish. DDMI stated that it was and there was a discussion on the results of the fish tasting study that was done in the summer. This also raised a discussion on caribou movement through the mine after closure and that it was good that Diavik was starting to look at this.

There were also many questions on employment and training opportunities.

Lutsel K'e, 9 December 2009 and 25 February 2010 (February meeting was joint with EMAB)

There was some discussions on the CBM Camp land use permit application relating to the electric fence. Questions were raised as to why a fence was used, what the voltage was, how long it runs for, when the fence is taken down and what all is involved in taking down an electric fence. DDMI provided answers to these questions and explained that the reason why we changed our practices to start taking the fence down was because of an incident that resulted in a caribou getting caught in the electric fence a couple of years ago.

Questions relating to closure were raised. One person wanted to know how to control the water rushing in when flooding the pits and DDMI explained that the pits would be filled by pumping water in through a pipeline, not by breaking the dike right away. Attendees also wanted to know if there would be monitoring done after the mine closed and DDMI stated that the target is to complete monitoring by 2030, or approximately 7 years after closure. One person wanted to know if the rock from the pits could be put back in the pits and DDMI explained that to do that would involve more drilling, blasting and moving of rock, and therefore more dust. DDMI explained that rock cannot be put back in the pits while they are mining underground beneath them and that originally we heard feedback from communities that they did not want the rock put back in the lake.

Attendees also wanted to know if the ground where dust settles is studied and DDMI informed them that snow and dust samples are taken to determine dust levels and content of the dust.

A presentation on phosphorous was made in February and participants asked whether they should be concerned with fish health due to phosphorous and whether or not new or different species of phosphorous were showing up. A representative from the Department of Fisheries and Oceans (DFO) attended the meeting and explained that Lac de Gras is considered undernourished as it does not have much nutrients. The DFO employee was not aware of any negative effects to fish health from phosphorous and explained that phosphorous means more fish food, and fish may become used to having more food. If there ends up being too much phosphorous in a lake, it can be a bad thing because it changes the colour and oxygen

levels in the lake. DDMI explained that the types of phosphorous being recorded in Lac de Gras are not changing, but that more of the same species are being recorded.

There were some questions on the proposed method to mine A21. One person wondered why Diavik would use another technology when we have a proven method with the dikes and DDMI explained the challenges with A21 that are different from A154 and A418, as well as the possible benefits for the environment and northern mining opportunities.

There were some additional questions around the shutdown, the EMAB budget dispute and employment and training opportunities.

North Slave Metis Alliance, 10 March 2010

There was some discussion about the mining method DDMI is thinking about at the A21 pipe. Questions related to what materials would be used to construct the rock structure that is similar to the pit dikes, how deep the water is in the area and how much water the cutter would use. DDMI provided responses to these questions. There was also a discussion around closure that focussed on the rock pile and what it would look like after closure.

Additional questions were raised in relation to employment and training.

Advanced Technology

During 2009, Diavik continued investigations into the technologies discussed below. In 2010 Diavik will be re-evaluating its expenditures on new and existing technologies to identify potential opportunities that may prove effective.

Wind Energy

In 2004, Diavik had started investigating whether the wind could be used as a source of energy at the Lac de Gras mine site. Wind experts began work in 2005, and in 2006 a wind tower was put up. The tower had to be taken down due to Nav Canada airport requirements. In 2007, installation of a new wind tower was completed and Diavik has been collecting data since then to see if wind power generation is feasible as a source of energy. The required weather information has now been collected and Diavik is reviewing it to see if it is possible to set up wind turbines at the mine site.

Ammonia Reduction

In 2008 Diavik began working with the University of Alberta (U of A) to study the biological breakdown of ammonia in the North Inlet. There are several ways that ammonia levels in water are reduced while in the North Inlet. Some of it is broken down (changed into other compounds or into nitrogen and hydrogen, the elements that make up ammonia) by the sun, some naturally off-gases (goes from the water and into the air), and some microbes (living or biological organisms) in the North Inlet are able to break ammonia down into other compounds. The project with the UofA is designed to study how much of the ammonia reduction is from biological breakdown. Actual field work for this study began in 2009 and is scheduled to be completed in 2010. After the initial study is completed, the next step will be to determine if it is practical and feasible to investigate methods to promote increased biological break down of ammonia.

Waste Disposal

Diavik had previously investigated new types of incinerators to burn waste at the mine site. The new incinerators have a scrubber built into them, and scrubbers help to remove harmful substances such as dioxins, furans and mercury from the emissions that the incinerator gives off. These incinerators were researched in 2006, and ordered in early 2007. In 2008, a new waste management facility was completed at the mine site that will house these new units. Engineering for the new incinerators continued in 2009 as design and foundation considerations for the incinerator building were assessed.

A21 'Wet' Mining

In Diavik's water license we are currently permitted to build a dike and open pit mine for the A21 kimberlite deposit. We have found out that ground conditions and costs prevent underground mining of this pipe. During the Environmental Assessment, Diavik was

encouraged to look at alternate mining methods for A21 that could reduce disturbance of the land.

During 2009, Diavik was looking in to a style of mining referred to as 'wet' mining. What this means is that a sediment control structure made of rock with a liner in the middle would be built out in to Lac de Gras, similar to the dikes around the A154 and A418 pits. However, instead of draining the water out of the area behind the rock structure, the water would remain in place. Then, a crane with a large cutter head would be mounted on a barge. The cutter would be lower through the water, on to the kimberlite pipe, and then cut away the kimberlite. The kimberlite would then be drawn up a pipe to the surface and the water would be removed from the kimberlite once back on the surface. This method would have a lot less disturbance to the land than an open pit.

Diavik began discussions with communities in 2009, talking about the sediment control structure and new mining technology. Discussions with communities and regulators on this were on-going in to 2010.

Rolling Effects Summary

This section of the report gives a summary of monitoring information and data from each year up to the present. These monitoring points are called measured indicators, which are compared to indicators that were described in the Environmental Assessment. The Environmental Assessment included predicted indicators that would either stay the same over time or would change over time to pre-calculated predicted levels. Where indicator trends are not similar to those predicted, Diavik has provided possible reasons.

For each indicator, Environmental Assessment predictions are provided followed by a discussion of observations. Graphs and figures or tables are given where practical to show the trends over time. Further details can be found in the full reports that Diavik produces for each topic.

Climate and Air Quality

Will the mine development affect air quality around Lac de Gras?

EA Predictions:

- Ambient air quality objectives will not be exceeded; and
- The mine will be a very minor contributor of greenhouse gases.

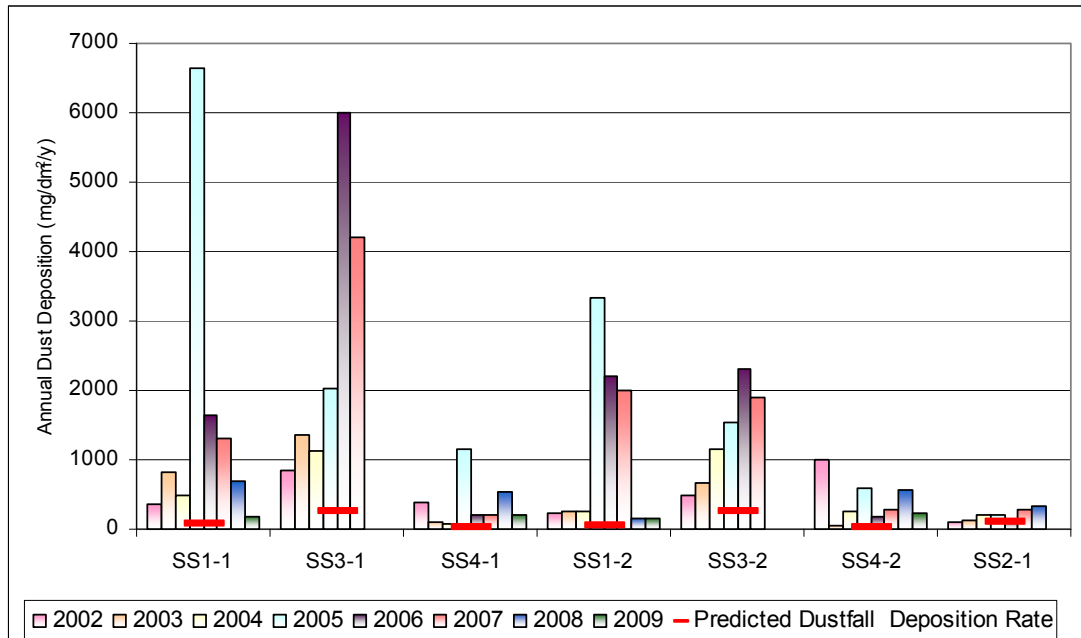
Observations:

As predicted, dust deposition is greatest close to the mine and decreases with distance away from the mine. The rate of dust being deposited is affected by activities at the mine (for example, higher dust deposition is typically measured at the airport compared to the west part of East Island where there is very little activity) as well as by wind direction (because wind carries the dust). These trends have been measured each year since dust monitoring began in 2001.

For the fifth year, overall dust deposition rates observed during 2009 were more than what was predicted by models in the Environmental Effects Report; however, it should be noted that 2009 deposition rates were less than those during 2008. Snow water chemistry analyses (measurements of chemicals in the water from melted snow) indicate that the concentrations of regulated parameters (the chemicals in the Water License that Diavik must keep below set levels) measured in 2009 were mostly below the maximum allowable concentration outlined in the Water License, with the exception of zinc in one sample at location SS2-2, located northeast of the A154 dike. The Environmental Effect predictions were based on normal air quality at that time. It is, however, important to note that the original predictions did not take into account construction activities such as the advanced schedule to build and mine the A418 dike or the type and amount of infrastructure required to support the type of underground development. These activities have been ongoing for the last couple of years (2005 to 2009), but were not calculated in the dust deposition estimates during the EA. As

noted last year, dust levels are expected to decrease in the coming years as these types of activities decrease. It is expected that dust will decrease as construction slows down and as Diavik transitions from an aboveground to an underground mine.

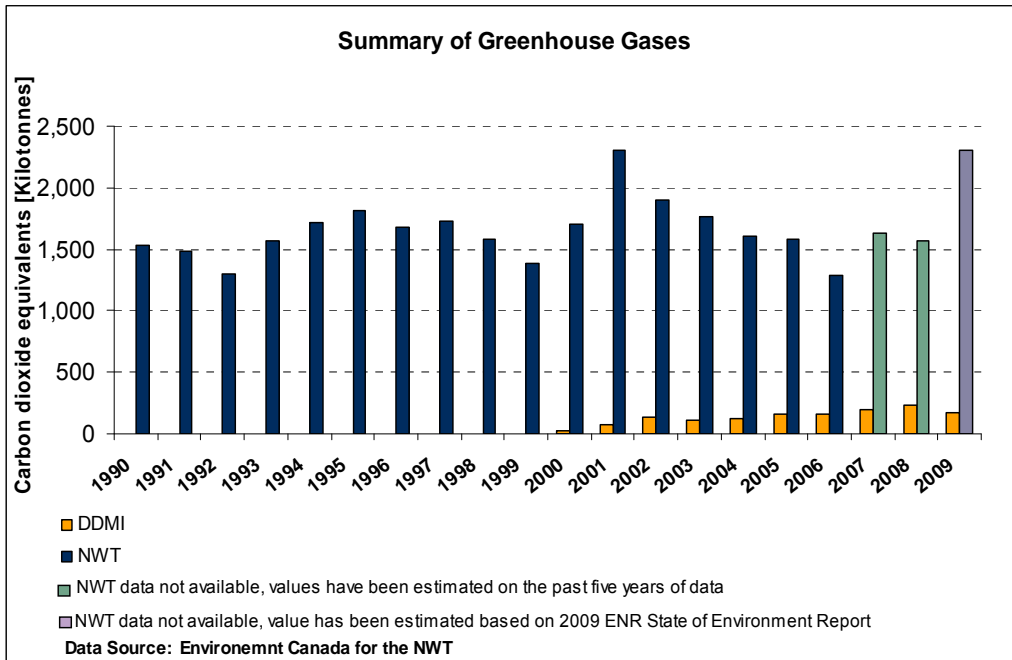
Predicted and calculated annual dust deposition rates at snow survey sampling locations, up to and including 100 m from the project footprint - 2002-2009



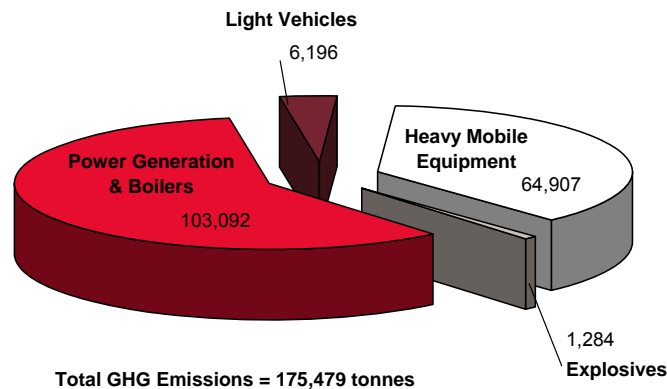
Diavik began revisiting air quality modelling (last completed in 1998 as part of the Environmental Assessment) in 2008 to further assess dust deposition and other air quality parameters. During 2009, data inputs were reviewed and values assigned, non-emissions related information (e.g. weather) were provided by DDMI and BHP-Billiton air quality data was obtained for use in the model. It is expected that work with the model and updated predictions on deposition rates will be completed during 2010.

Total greenhouse gas emissions from Diavik in 2009 were 211,117 tonnes of CO₂ e. “CO₂ e” is an abbreviation of ‘carbon dioxide (CO₂) equivalent’. CO₂ is a greenhouse gas, but there are many more greenhouse gases. To make it easier to understand greenhouse gases, a standardized method is to report all of the greenhouse gases from a site together as if they were equal to a set volume of CO₂; this is the CO₂ e referred to above.

The bar chart below shows Diavik’s greenhouse gas figures compared to the NWT. The pie chart breaks Diavik’s greenhouse figures into category sources.



Diavik 2009 Greenhouse Gas Emissions by Category Carbon Dioxide Equivalents [tonnes]



Vegetation and Terrain

How much vegetation/land cover will be directly affected by the mine development?

EA Predictions:

- Approximately 12.67 km² of vegetation/land cover will be lost at full development; and
- Slow recovery of vegetation following mine closure.

Observations:

The direct vegetation/habitat loss in 2009 due to the mine footprint was 0.12 km² and total habitat loss to date from mining activities is 9.78 km². This is within the predicted amount of 12.67 km². The map below shows the land disturbed over time on the Diavik mine footprint. The table below shows a running total of the habitat lost to date.

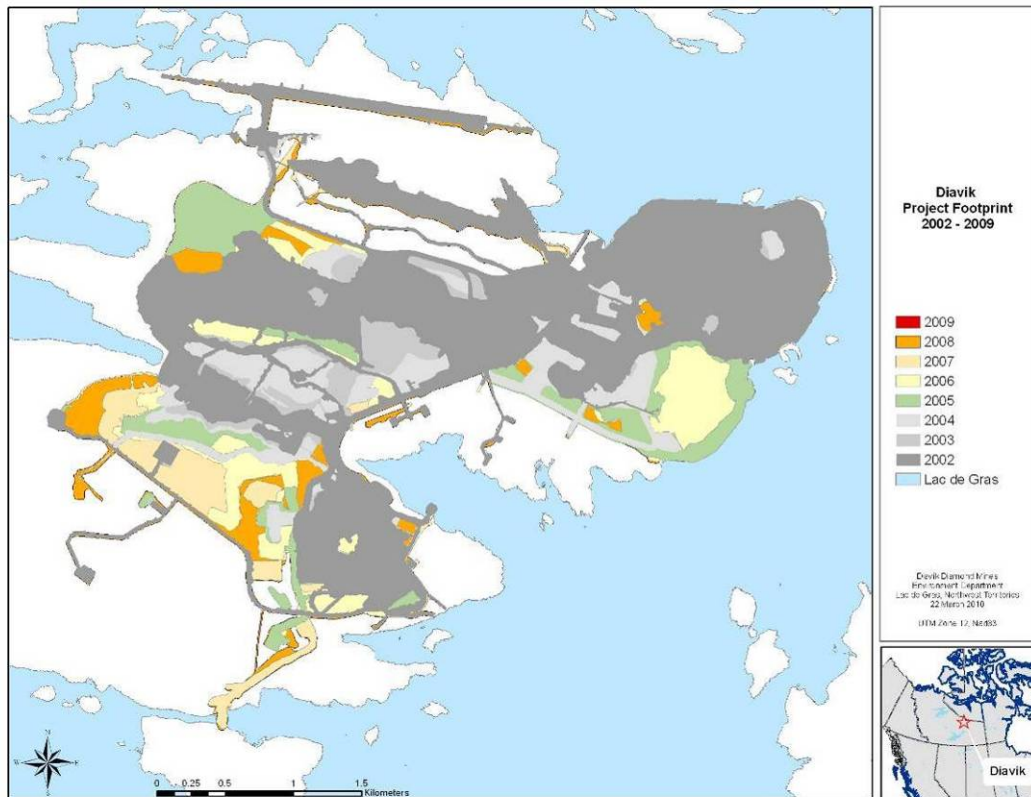


Table 2: Habitat Loss by Year

<i>Predicted Vegetation Habitat Loss (km²)</i>	Up to 2001	2002	2003	2004	2005	2006	2007	2008	2009
12.67	3.12	5.88	6.32	7.30	8.15	8.86	9.40	9.66	9.78

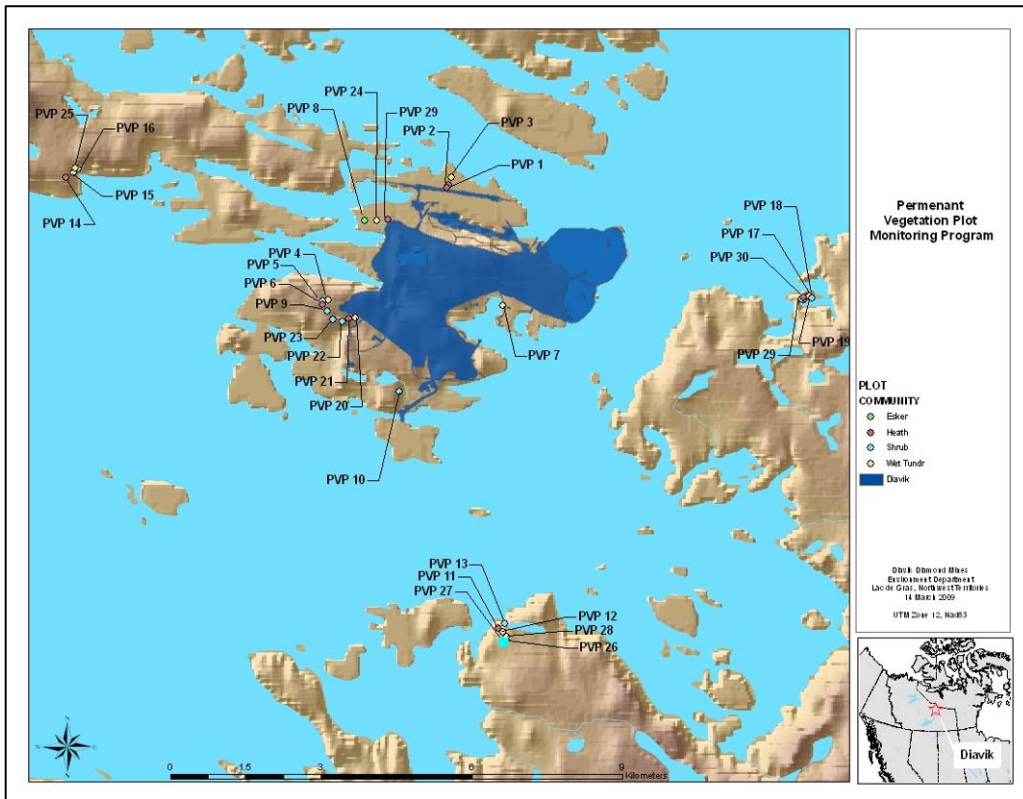
How will the vegetation communities outside the mine footprint be changed as a result of mine development?

EA Prediction:

- Localized changes in plant community composition adjacent to mine footprint due to dust deposition and changes in drainage conditions.

Observations:

Permanent vegetation plots (PVPs) has been established close to and far from the mine site to monitor if there are differences in vegetation and ground cover near the mine and farther away from the mine. In 2001, ten Permanent Vegetation Plots (PVPs) were established by Diavik for analyzing habitat. In 2004, the University of Alberta assessed the data collection and made recommendations - including monitoring every two years, permanent marking of plots, and adding reference plots and plots in specific vegetation communities to balance the monitoring design. Some plots also had to be relocated from 2004 to 2006 as they were lost to new mine development. Most of the 2004 recommendations were accepted by Diavik and implemented for the 2006 assessment. After the 2006 sampling session, further recommendations were made to increase the number of plots per vegetation community to reduce within site variability of plant communities (which was high) and increase the likelihood of capturing true change in plant abundance between mine and reference areas over time. For the 2008 assessment, the number of plots per vegetation type was increased from three to five. The PVPs were reassessed in 2008 with no ecologically significant difference in vegetation and ground cover between mine and reference plots for each of the plant communities assessed. Observations of PVPs were not conducted in 2009. The map below shows the locations of the PVPs.



Wildlife

Will the distribution or abundance of caribou be affected by the mine development?

EA Predictions:

- At full development, direct summer habitat loss from the project is predicted to be 2.97 habitat units (HUs). (A habitat unit is the product of surface area and suitability of the habitat in that area to supply food for caribou and cover for predators);
- The zone of influence (ZOI) from project-related activities would be within 3 to 7 km;
- During the northern (spring) migration, caribou would be deflected west of East Island and during the southern migration (fall), caribou would move around the east side of Lac de Gras; and
- Project-related mortality is expected to be low.

Observations:

- Direct summer habitat loss in 2009 from the mine footprint was 0.04 habitat units, which brings the total to date to 2.46 HUs (see table below). This is less than the loss that was predicted.

Table 3: Caribou Habitat Loss by Year

<i>Predicted Caribou Habitat Loss (HUs)</i>	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Loss to Date
2.97	0.39	0.59	0.28	0.15	0.32	0.23	0.15	0.18	0.13	0.04	2.46

Caribou summer habitat loss was greatest in 2001, when the majority of haul roads and laydown areas for mine infrastructure were constructed. Habitat units lost due to mining activities this past year is similar to that lost in 2003 and 2006. The loss of habitat in 2008 was associated with expansion of mine infrastructure to support underground mine development. Plant loss for the species that caribou use was within the expected (predicted) amount at the end of 2009, as there was little additional development of the mine footprint.

- Golder (2005) completed a comprehensive analysis of the caribou data from 1998 through 2007 within the regional study area for the Diavik and Ekati mines. The results indicated that the estimated ZOI on the probability of caribou occurrence around the Diavik mine ranged from 22 km to 26 km for the northern and southern migration periods. In 2006, Diavik expanded the study area for aerial surveys to assess the possibility of a larger ZOI. A similar analysis was conducted in 2008 to

incorporate data from 2005 through 2007. The range identified for an estimated ZOI remained relatively consistent for the Diavik mine.

During 2008 and 2009, additional analysis was done by an external review of the Diavik and EKATI survey data. These results indicated a ZOI that ranged from 11 km to 28 km. Based on feedback received during 2008 and 2009, Diavik revised their aerial survey in 2009 in order to survey a larger, combined footprint in cooperation with BHP-Billiton. These surveys were done weekly from July to October, until caribou were no longer seen in the area. Each line flown during the aerial survey was spaced 8 kilometers apart and covered a distance 30 km away from mine development.

- Diavik staff also worked with BHP-Billiton in doing caribou behavioural observations, or scans, throughout the summer. BHP-Billiton will focus on scans near to the mine and Diavik will focus on observations further from the mine. The data will be shared among the mines in order to get a better idea of how caribou behave closer to and further from the mines.

During the past five years, Diavik has had limited opportunities to study caribou behaviour on the ground through scanning observations. During 2003, 2004, 2005, 2006 and 2007, ground observations of caribou behaviour were successfully completed for 12, 14, 5, 8 and 24 caribou groups, respectively. During 2008, DDMI was able to successfully complete 7 behavioural observations. All of these observations were completed away from the mine site, as the number of caribou on East Island was low. During 2009, a total of 110 behavioural observations were done, with Diavik conducting 89 of them. This is a significant improvement over past years and proved the efforts to work with BHP-Billiton were successful in completing this work.

Diavik will be suspending the joint aerial surveys for caribou during 2010.

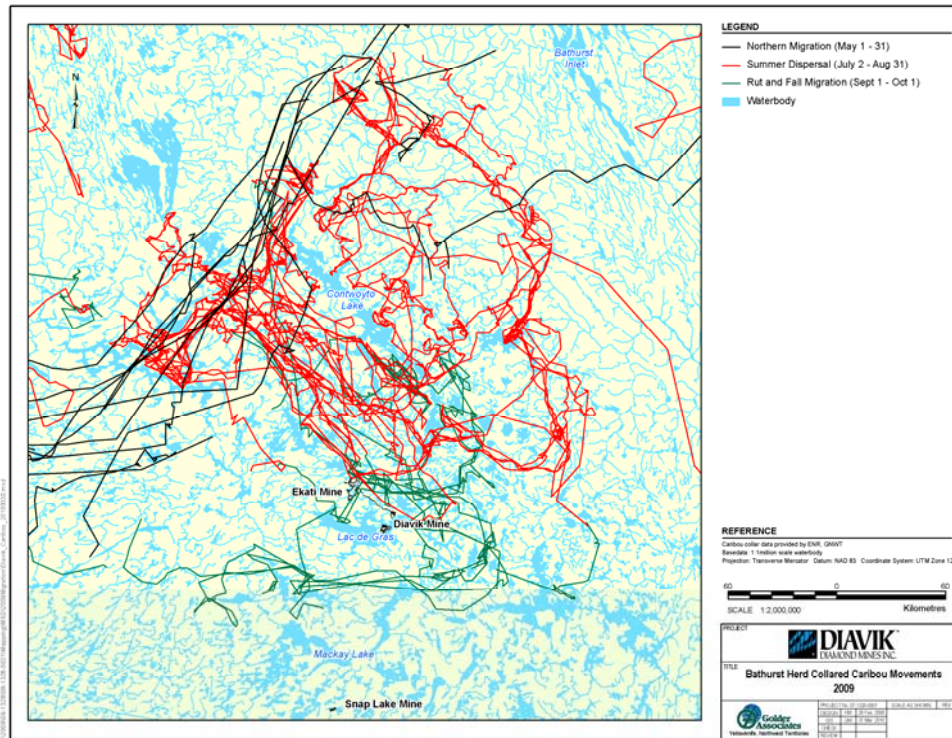
- The number of caribou observed within the Diavik wildlife study area was higher during baseline (1996 to 1997) than from 2000 through 2009, most notably during the southern migration. However, data from 2002 to 2006 (aerial surveys) show relatively constant numbers, with the exception of 2004, 2007 and 2008. There are many factors that can affect the annual distribution and movement of caribou across their home range, which can create year-to-year changes in the abundance of animals in a single study area, and other local areas (e.g., communities).

In 2008, 1,393 caribou were observed in the Diavik wildlife study area during the northern migration, similar to numbers observed in 1997 (1,400 caribou), 2000 (1,700 animals) and 2002 (979 caribou). In contrast, approximately 6,000 animals were observed during the northern migration in 1996, and an estimated 5,000 caribou were counted in 2001. No caribou were observed on the East Island during the northern migration period in 2008, or in 2001, 2004, 2005 and 2006. Relative to 2002 through 2007, the timing of the first caribou sighted in the study area during the northern migration in 2008 (8 May) was similar to other years; the earliest sighting for a caribou across all years occurred in 2002 on 18 April. For the southern migration,

timing in 2008 was similar to previous years, and was approximately two to three weeks later than in 2005 and 2006. Surveys during the northern migration were not conducted during 2009.

In 2009, 2,549 caribou were observed in the Diavik wildlife study area during the southern migration. Given that less transects were surveyed in 2009 because of the change in spacing from 4 km to 8 km, this number is similar to that observed during previous years. The average number of caribou observed over the years was 2,650, and ranged between 1,916 (2001) and 3,507 (2005) animals. Caribou numbers throughout the 2009 season were consistently distributed among groups of 1 to 500 individuals.





Data from satellite-collared animals record cows in the Bathurst herd west of the mine site during the northern migration. Collar maps for the southern migration suggest that cows traveled through the southern portion of the study area during the fall migration period. The distribution of caribou groups observed during aerial surveys also indicated that most groups were recorded south of Lac de Gras. A comprehensive analysis also showed that from 2002 to 2007, with the exception of 2006, the majority of collared caribou traveled adjacent to or through the southeast corner of the study area (Golder, 2008). Data collected for the southern migration appears to agree with the impact prediction found in the EER (DDMI, 1998), stating that caribou would travel east of the mine site during the southern migration.

- There were no caribou mortalities or injuries caused by mining activities in 2009. There has been only one caribou mortality caused by mining activities (2004) since baseline data began being collected in 1995.
- The level of caribou advisory monitoring remained at “no concern” (no caribou or fewer than 100 caribou) for all days in 2008, 2007, 2006, 2005, 2004, and 2003, and at “no concern” for 362 of 365 days in 2002. In 2009 it was at “No Concern” for 364 days of the year. One day (29 April) the board was at “Caribou Advisory” due to 150 animals off the south road.
- Caribou road, rock pile and PKC surveys were conducted 49 times during 2009. Caribou were noted 7 times; 1 less than 50 m from the road, 1 between 50 and 200 m from the road and 5 greater than 200 m from the road.

- DDMI's Caribou Herding SOP was employed twice during 2009. The first time was on 14 May 2009 when a group of 27 animals located near the airstrip moved on to the airstrip before an incoming flight. A vehicle was used to encourage the caribou to move off and away from the airstrip. Pilots were told of the location of the caribou before beginning descent in order to be able to monitor how close the animals were to the airstrip, and DDMI Environment personnel remained on location until the aircraft landed and again departed site. This same group of 27 caribou frequented the area between the airstrip and the north inlet for approximately two weeks in May during the northern migration. During this time, a number of incoming and outgoing flights occurred with only one herding event being needed.

The second herding event took place on 28 May 2009 when one caribou was found on the Type I rock pile. Environment staff coordinated with the Mine Operations Supervisor to close the haul road and then herd the animal off the pile and toward the north inlet where it then started to graze. This was a single, adult female and staff noted a slight limp when the animal was walking, indicating a potential injury to its left hind leg. The caribou had moved off site by that evening.

Will the distribution or abundance of grizzly bears be affected by the mine development?

EA Predictions:

- Approximately 8.7 km² of grizzly bear habitat will be lost and there will be some avoidance of the area, but the abundance and distribution of grizzly bears in the regional area will not be affected measurably;
- The maximum zone of influence from mining activities is predicted to be 10 km; and,
- Bear mortalities due to mine related activities are expected to average 0.12 to 0.24 bears per year over the mine life.

Observations:

The table below shows the grizzly bear habitat that has been lost to date (in square kilometers), which falls within what was predicted. Plant loss for the species that grizzly bear use was also within the expected amount at the end of 2009.

Table 4: Grizzly Bear Habitat Loss by Year

<i>Predicted Grizzly Habitat Loss (km²)</i>	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Loss to Date
8.67	1.25	1.62	0.94	0.42	0.93	0.69	0.43	0.50	0.26	0.12	7.18

Grizzly bears are still observed in the study area. The calculated mine mortality rate for grizzlies since 2000 is 0.10, which is below the range predicted. One mortality occurred at the mine in 2004. No grizzly bear injuries, mortalities or relocations occurred during 2009.

In 2009, a total of 22 observations of grizzly bears were made on East Island, with one additional observation off East Island. The number of observations does not give the full picture of 2009 bear activity on East Island as there were 3 grizzly bears living on the island from 6 July to 21 August; each sighting of these bears was not recorded.

Because of safety concerns for field staff, the grizzly bear monitoring program was cancelled for the 2009 season. During this time, Diavik was looking at different ways to get the same information in a safer way.

Recent statistical analysis of bear sign data in different types of habitats (Golder, 2008) could not estimate a ZOI for grizzly bears within the study area. Habitat surveys have shown that grizzly bears show a slight avoidance of areas near the mine during operations. There are many things that likely contribute to this type of use, some due to mine operations (e.g. waste management practices) and others to natural events (e.g. caribou distribution).

Will the distribution or abundance of wolverine be affected by the mine development?

EA Predictions:

- The mine is not predicted to cause a measurable shift in the presence of wolverines in the study area; and
- Mining related mortalities, if they occur, are not expected to alter wolverine population parameters in the Lac de Gras area.

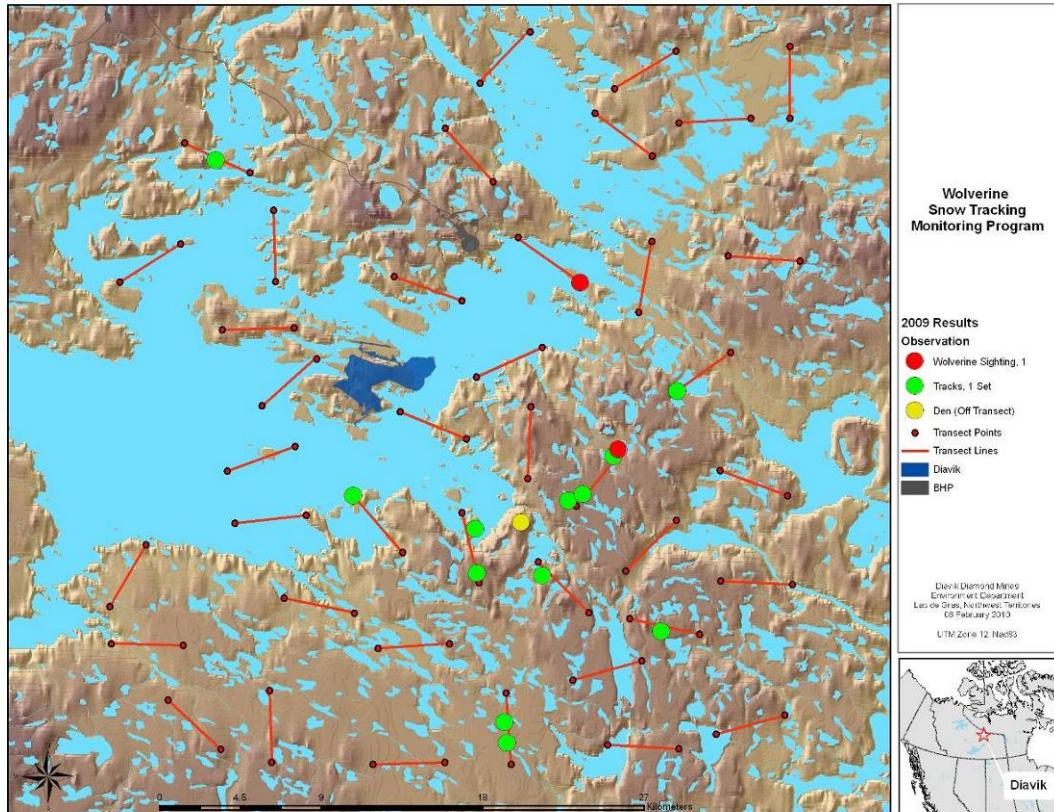
Observations:

Wolverine presence around the Diavik Diamond Mine is monitored in three ways: snow track surveys, incidental observations at site, and sightings during caribou aerial surveys. The snow track surveys began in 2003, and have been conducted with the assistance of community members from Kugluktuk, as available. In 2008, Diavik revised the wolverine track survey in favour of an increased number of transects (4 km straight lines that are followed by personnel in the field while they are looking for wolverine tracks) of standard length compared to the surveys completed in previous years. Transects are randomly distributed throughout the study area, but some bias is placed on tundra areas identified as preferred habitat for wolverine based on Traditional Knowledge. The use of transects of standard length allows more accurate analyses of data and aligns Diavik's monitoring program with those of the other diamond mines.

Diavik records all sightings of wolverines on East Island and summarizes observations of wolverines made during caribou aerial surveys.

The spring wolverine snow track survey was conducted from 2 to 6 April 2009. A total of 12 sets of wolverine tracks were found over 38 transects surveyed (refer to the map below).

One wolverine was seen while out doing the spring survey. Winter wolverine snow track surveys (December) were not conducted for 2009 and have been cancelled going forward due to poor tracking conditions with little snow on the open lakes and tundra. This makes snowmobile travel and track recognition very difficult.



Wolverines were present on East Island in 2009. From 1 January to 31 December 2009, 21 wolverine sightings were reported. The number of occurrences of wolverine on East Island in 2008 was higher compared to most years; however it is important to realize that many of the sightings were of the male animal that was denning under South Camp. Many of the other sightings were of another wolverine that had a snow den on the west side of East Island during January and February 2008.

There was no mine-related mortalities of wolverine this year. In 2008 a wolverine was denning under the South Camp accommodations and caused damage and almost started a fire after chewing through electrical wires. This wolverine was trapped and killed with assistance and direction from the Government of the Northwest Territories. Since 2000, two wolverines have been relocated and two mortalities (2001 and 2008) have occurred at the Diavik mine site.

In 2005/2006, Diavik participated in a study coordinated by Environment and Natural Resources (ENR) designed to monitor wolverine abundance across broad landscapes using DNA and genetic analysis. The results of this study have been published in a separate report. Diavik plans to conduct this same program again in 2010.

Will the distribution or abundance of raptors be affected by the mine development?

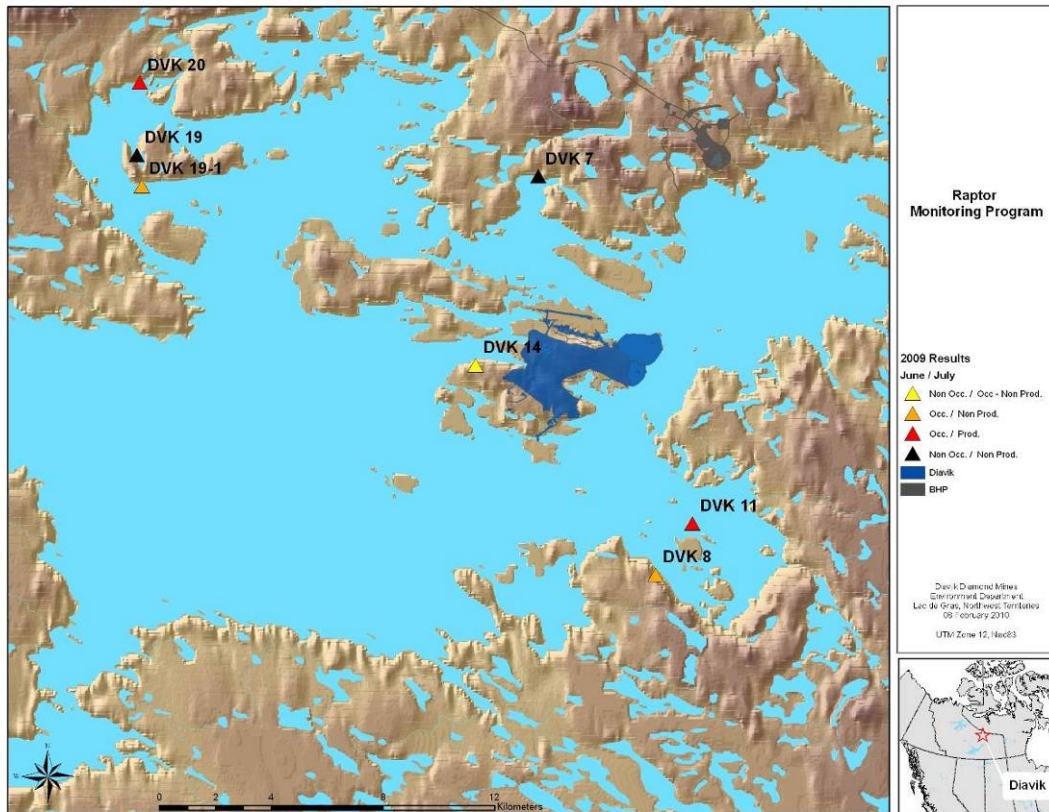
EA Predictions:

- Disturbance from the mine and the associated zone of influence is not predicted to result in measurable impacts to the distribution of raptors in the study area; and
- The mine is not predicted to cause a measurable change in raptor presence in the study area.

Observations:

Raptor monitoring for peregrine falcons was done in June and July of 2009, in cooperation with the Government of the Northwest Territories. Falcon nesting sites included sites near the Daring Lake Tundra Research Station (July only), Ekati Diamond Mine, and Diavik Diamond Mine wildlife study areas. The falcon monitoring results from Daring Lake are used as a control data for productivity from an undisturbed area. Previously identified potential nesting sites were visited by helicopter in June to determine if nesting sites were occupied, and again in July to count any young in the nest.

Six known nesting sites in the Diavik wildlife study area were each surveyed during 2009. During the spring occupancy survey conducted on 11 June by Diavik and ENR, four of the six sites surveyed were occupied (8, 11, 19-2 and 20). One of the nests (11) contained a breeding pair of peregrines, while the remainder contained a single peregrine falcon.



The productivity survey was completed on 27 July, and found three of the six nest sites occupied (11, 14 and 20). Two peregrine falcon nests were confirmed productive, as was a rough-legged hawk nest found during the survey.

Productivity and occupancy showed an increase over the range recorded in the Diavik wildlife study area since 2000. Historically, this is only the second year where all six nests have been occupied during either the occupancy or productivity surveys. Chick production in the past has ranged from zero to seven. In 2008 and 2009, two out of six raptor nests had chicks in the nest. During 2007, a total of 7 chicks were recorded; this is equal to the number produced in 2006 and ranks as one of the most successful years for chick production recorded since data collection began in 2000. The observations made in 2009 are similar to those of the control site at Daring Lake for productivity.

Since May 2005, peregrine falcons have nested at Diavik on the highwall of the A154 pit in some years. There were no raptors nesting in the open pits in 2009, but frequent sightings of these birds were reported, indicating their continued use of the study area.

There were no falcon injuries or mortalities at the Diavik site during 2009.

Will the distribution or abundance of waterfowl be affected by the mine development?

EA Predictions:

- At full development, 3.94 km² of aquatic habitat will be lost; and
- The mine is not predicted to cause a measurable change in waterfowl presence in the study area.

Observations:

By the end of 2007, a total of 2.56 km² of shallow and deep water habitat had been lost due to mine development. There were no additional shallow or deep water areas developed in 2008 or 2009, therefore the total area of water habitat loss remained unchanged compared to 2007. The total habitat loss remains below predictions.

East Island shallow bays and mine-altered water bodies were surveyed for waterfowl presence daily from 24 May to 1 July 2009 and then weekly to 30 October 2009. Waterfowl were seen at the East Island shallow bays and are still using ponds and wetlands changed by or created for the mine site regularly.

No project-related bird mortalities occurred in 2009. Two project-related bird mortalities have occurred, one each in 2005 and 2002.

Fish and Water

At Diavik, fish and water are monitored through the Aquatic Effects Monitoring Program (AEMP), discussed in detail in Section 1 of this report. The discussions below regarding fish and water come from the results of the AEMP.

What effect will the mine development have on water quality?

EA Predictions:

- Water will remain at a high quality for use as drinking water and by aquatic life;
- Localized zones of reduced quality during dike construction;
- Nutrient enrichment likely from the mine water discharge;
- Post-closure runoff expected to influence quality of two inland lakes.

2009 Observations:

The Aquatic Effects Monitoring Program was successfully implemented in 2009. There were only a few quality control samples (extra samples taken to test the accuracy of field and/or lab techniques) that were missed because of scheduling issues.

Similar to 2008, the 2009 Aquatic Effects Monitoring Program showed nutrient enrichment (increased levels of phosphorous and nitrogen in the water available for algal growth, where increasing algal growth is a sign of eutrophication, or increased lake productivity) in areas of the lake. Nutrient enrichment is the main change in Lac de Gras that leads to most of the other changes we see relating to the different animals that live in the water.

Specific observations that were noticed in the 2009 data include:

- The analysis of effluent (treated water discharged back in to the lake) and water chemistry (quality) data collected during the 2009 AEMP field program and from relevant stations from the Water License Surveillance Network Program stations indicated an early warning/low level effect on water chemistry within Lac de Gras resulting from the Mine. This means that there is a difference between samples taken near the mine and those taken farther away from the mine, but is within the expected range. Some values may be slowly increasing over time, though, so it is important to monitor for any changes that may occur from one year to the next.
- Results of the sediment analysis did not identify conditions that are likely to affect aquatic life through enrichment or impairment. Most of the metals and nutrients measured in the sediment had an early warning/low level effect on sediment chemistry. However, bismuth was assigned a “high level effect” designation; this means that samples near the mine and at least one sample part way across the lake had average concentrations that were higher than those of the reference area at the other end of the lake.
- Analysis of the number and types of benthic invertebrates (small organisms that live on the bottom of the lake) indicated a range of effect designations, from no effect to a high level effect, depending on what was analyzed. Low level/early warning effects were detected based on significant differences between the reference areas further from the mine and the exposure areas near the mine in eight of twelve benthic invertebrate community variables compared (variables include things like the number of species found, whether one species was found more than another, number of organisms in a given area, number of midges, etc.). Total invertebrate densities, as well as two species densities (Pisidiidae and Heterotrissocladius sp.) were higher closer to the mine than the range measured in areas farther from the mine. Densities of Pisidiidae near the mine and part way across the lake were greater than the range measured in areas at the other end of the lake; for that reason, it was assigned a high level effect. These results relate back to the nutrient enrichment happening in the lake.
- Findings to date on a special study to examine changes in amount, number and types of zooplankton (tiny animals) and phytoplankton (algae) that live in the water of Lac de Gras show a pattern linked to nutrient enrichment from mine effluent. Because there are higher amounts of phytoplankton (chlorophyll a/algae) and total phosphorus in areas near the mine compared with areas farther from the mine, this effect has been given a “moderate” level effect designation. Higher zooplankton biomass (the amount of small animals in an area) near the effluent resulted in an early warning/low level effect designation; this means that there is a difference between the areas closer to and further from the mine, but that it is within the expected range.

- A weight-of-evidence (WOE) analysis compares all the information collected (water quality, sediment quality, benthic invertebrates, etc.) to try and answer two questions:
 - Could damage to aquatic animals happen due to chemical contaminants (primarily metals) released to Lac de Gras?
 - Could enrichment occur in the lake because of the release of nutrients (phosphorus and nitrogen) from treated mine effluent?

The weight-of-evidence analysis confirmed nutrient enrichment and concluded that there is strong evidence for a mild increase in lake productivity due to nutrient enrichment. There was not a lot of evidence of damage to aquatic animals as a result of contaminant exposure. The observation of potential low-level harm of the benthic invertebrate community has a fairly high amount of uncertainty.

2008 Observations:

The Aquatic Effects Monitoring Program was successfully implemented in 2008. There were only a few open water sediment/benthic samples that could not be obtained due to hard/rocky lake bottom and some water quality and plankton stations that were not sampled in the third open water period due to inclement weather. Special Effects Studies for mercury detection limits (measuring mercury at very low levels), chromium VI (a compound Diavik investigated because it could be a concern at lower levels compared to other forms of chromium) and trout fish tissue metals levels (based on previous AEMP studies that showed possible elevated level of metals in fish) were also completed.

Overall, the 2008 Aquatic Effects Monitoring Program determined that nutrients (nitrogen and phosphorus) released into Lac de Gras from the treated mine water discharge are causing mild nutrient enrichment in the bay east of East Island.

Nutrients are essential to the growth of plants and animals in land and in the water. Adding nutrients to natural waters can result in increased production of plants or algae. Too many nutrients can cause environmental problems generally known as nutrient enrichment or eutrophication. These problems include increased oxygen consumption in the water by algae (fish need this oxygen too) and a reduction in the amount of light getting to plants at the bottom of the water body.

Other results of note from the 2008 Aquatic Effects Monitoring Program include:

- Dust gauges and snow core sampling both provide useful information on dust deposition rates and distribution around the mine site. Dust continues to be an issue that requires ongoing management.
- The analysis of effluent and water chemistry data collected during the 2008 AEMP field program and from locations around the mine site (from Surveillance Network Program) indicated a low level effect on water chemistry within Lac de Gras resulting from the mine.

- Results of the sediment analysis did not identify conditions that are likely to affect aquatic life through enrichment or impairment. Bismuth and uranium (metals) were however assigned “high level effects” designation as both near-field and at least one mid field area had mean (average) concentrations greater than the reference area (sites far away from the mine) range.
- Analysis of the number and types of small organisms that live on the bottom of the lake (benthic invertebrates) indicated a range of effect designations, from no effect to a high level effect, depending on the variable analyzed. Low level or early warning effects were detected based on differences between the reference areas (far away from the mine) and exposure areas (near the mine) in eight of eleven benthic invertebrate community variables compared. Density (number of individuals in a specified area) of the midge Procladius in the near-field area were greater than the range measured in the reference areas and was assigned a moderate level effect. Density of Sphaeriidae in the near-field and mid field areas greater than the range measured in the reference areas and was assigned a high level effect. Both results are indicative of nutrient enrichment.
- The fish liver tissue analyses from 1996, 2005, and 2008 has not indicated that there has been an increase in the concentration of metals, including mercury, in lake trout over that period and therefore a no effect classification has been assigned for lake trout usability.
- Findings to date on a special study to examine changes in amount, number and types of tiny animals (zooplankton) and algae (phytoplankton) that live in the water of Lac de Gras indicate a pattern consistent with nutrient enrichment from mine effluent. Based on the measured higher amounts of phytoplankton (chlorophyll a) and total phosphorus in the near field areas compared with the reference areas this effect has been given a “moderate” level effect designation. Higher zooplankton biomass near the effluent resulted in a “high” level effects designation.
- Mercury and chromium VI levels in the treated mine water discharge, both subject of special studies in 2008, were determined to be at concentrations below the best analytical detection limits available.
- The AEMP confirmed that there is a nutrient enrichment effect and concluded that there is strong evidence for a mild increase in lake productivity due to nutrient enrichment. There is negligible evidence of impairment to lake productivity as a result of any contaminant exposure. The observation of potential low-level impairment of the benthic invertebrate community has a relatively high degree of uncertainty.

No changes to the monitoring program design are recommended at this time. Items have been identified for consideration during the program review that will follow the implementation of the program in 2010. Special studies on dust sampling frequency, mercury detection limits, and chromium VI are now complete. The mine effluent plume delineation survey (a study of the area where treated water from the mine mixes with Lac de Gras water) originally planned for 2009 is proposed to be conducted in 2010 so that the survey can evaluate the

effectiveness of the new treated mine water discharge line that is being installed as part of the water treatment plant expansion that has been ongoing since 2007.

Follow-up special studies from the 2007 program finding of elevated mercury levels in slimy sculpin will include a 2009 joint research program with Fisheries and Oceans Canada to assist in understanding if mercury in the slimy sculpin tissue is related to the treated mine water discharge (if nutrient enrichment may affect mercury uptake in fish), and a repeat of the small-bodied fish survey in 2010.

2007 Observations:

- Effluent and water chemistry data collected indicated a low-level effect on water chemistry within Lac de Gras from the mine.
- Lakebed sediment chemistry data indicated a potential low-level effect for lead, and a potential high level effect for bismuth and uranium on sediment chemistry within Lac de Gras from mine activities, although benthic results suggest that sediment exposure concentrations are unlikely to pose risk to aquatic life.
- Benthic invertebrate analyses indicate a low-level nutrient enrichment effect on benthic invertebrates within Lac de Gras.
- The fish study indicated a pattern consistent with an increased availability of food and nutrients in near-field and far-field exposure areas compared to far-field reference areas. Elevated barium, strontium, mercury and uranium in slimy sculpin was assigned a moderate-level effect.
- Dike monitoring results revealed potential dike-related minor changes to water quality and concentrations of lead and uranium in sediment. Overall, analyses suggest benthic communities near the dikes are more likely responding to habitat variation than to changes in water quality or sediment chemistry.
- Eutrophication indicators showed a moderate-level nutrient enrichment effect within Lac de Gras, with the mine being a significant contributor to this effect.
- As with the previous year's results, despite the proximity of SNP Station 1645-19 to the effluent diffuser (60m), open-water and ice-cover water quality results remain within Canadian Council of Ministers for the Environment (CCME) Guidelines for the Protection of Aquatic Life.
- Ice-cover concentrations at SNP Station 1645-19 still tend to be higher and more variable than open-water concentrations. This is likely a result of increased wind driven lake circulation in the open-water, resulting in better initial dilution or mixing.

2005/2006 Observations:

Due to pending changes to the AEMP, data reports were completed for the 2005 and 2006 programs, however, a report of the analysis and interpretation was not submitted.

2004 Observations:

- As with the previous year's results, despite the very close (60m) proximity of SNP Station 1645-19 to the effluent diffuser, open-water and ice-cover water quality results remain within Canadian Council of Ministers for the Environment (CCME) Guidelines for the Protection of Aquatic Life.
- Ice-cover concentrations at SNP Station 1645-19 still tend to be higher and more variable than open-water concentrations. This is likely a result of increased wind driven lake circulation in the open-water, resulting in better initial dilution or mixing.
- Data analysis was conducted following the approved four step process. The results of the first step of the data analysis methods identified that there were changes in the concentrations of six parameters. Total arsenic and total nickel results were compared with original EA predictions (data analysis step 3). Measured changes are within the levels predicted in the environmental assessment and are below levels that would cause environmental effects.
- As with the previous year, the results for several of the parameters indicated a possible change when the actual reason for the positive results was a low baseline statistic. There are also locations (LDG50) or parameters (nitrite at LDG46) where baseline data are not available and so the data analysis is not possible. Finally there are parameters where baseline detection limits have dominated the baseline statistic and could result in changes not being detected. It is therefore recommended that the Diavik Technical Committee, with Diavik, reset trigger values for the step 1 analysis on a parameter-by-parameter basis.

2003 Observations:

- Despite the very close (60m) proximity of SNP Station 1645-19 to the effluent diffuser, open-water and ice-cover results remain within CCME Guidelines for the protection of aquatic life.
- Ice-cover concentrations at SNP Station 1645-19 tend to be higher and more variable than open-water concentrations. This is likely a result of increased wind driven lake circulation in the open-water resulting in better initial dilution or mixing.
- Data analysis was conducted following the approved 4 step process. The results of the first step of the data analysis identified specific monitoring locations where there were changes in the concentrations of seven water quality parameters. Of these, only total arsenic could be identified as possibly being caused by the NIWTP effluent (data analysis Step 2). Measured changes in total arsenic are within the levels predicted in the environmental assessment (data analysis Step 3) and are below levels that would cause environmental effects.
- The results for several of the parameters indicated a possible change when the actual reason for the positive results was a low baseline statistic. There are also locations (LDG50) or parameters (nitrite at LDG46) where baseline data are not

available and so the data analysis is not possible. It is therefore recommended that in the future the data analysis method be modified so that the baseline references are from the combined mid-field and far field sites instead of each individual monitoring site. This change would reduce the number of false positives results.

2002 Observations:

- Water quality at all Lac de Gras monitoring locations, including sites immediately adjacent to effluent diffuser remained high.
- Increases from location specific baseline levels were measured for turbidity and suspended solids at 3 mid-field monitoring stations, however all remained within typical baseline values for the area.
- Predicted nutrient enrichment effects were not realized although phytoplankton biomass was determined to have increased over baseline at one far-field location but not at any mid-field locations.
- No trends or specific concerns were noted for zooplankton, benthic invertebrates and sediment quality, based on two sampling results.
- Snow chemistry results were all below discharge limits.

Previous Years Observations:

- Localized increases in turbidity, suspended solids and aluminium were measured due to dike construction.
- Water and sediment quality, zooplankton, phytoplankton and benthic invertebrate results were generally consistent with baseline, however some results, particularly benthic invertebrate numbers, showed larger year-to-year variability.

What effect will the mine development have on water quantity?

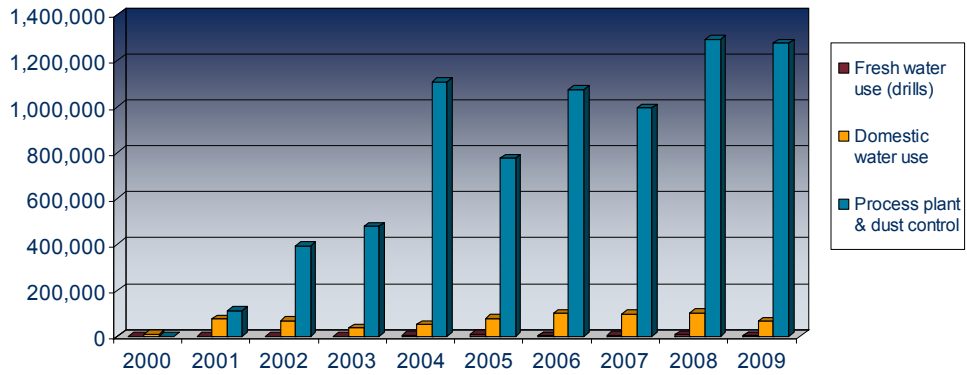
EA Prediction:

- Water supply to the mine is not limited and use of the resource will not cause changes in water levels and discharges from Lac de Gras beyond the range of natural variability.

Observations:

The figure below shows the fresh water used from 2000 to 2009, and what it was used for. Baseline information indicated that the water level of the lake normally fluctuates between level 415.5 m and 416.0 m on an annual basis. The table below shows water levels at various dates since 2004. Use of water from Lac de Gras by Diavik is not causing changes in water levels beyond natural variability.

Freshwater Use (m³), 2000 through 2009



Date	Elevation (m.a.s.l)
September 21, 2004	415.31
April 1, 2005	415.26
June 20, 2005	415.41
August 2, 2005	415.59
September 7, 2005	415.52
October 15, 2005	415.42
May 25, 2006	415.47
June 24, 2006	415.60
August 28, 2006	415.76
July 7, 2007	415.62
August 21, 2008	415.50
October 15, 2008	415.69
June 13, 2009	415.33
September 28, 2009	415.61

What effect will the mine development have on fish?

EA Prediction:

- On a regional scale the only effect on the fish population of Lac de Gras would be due to angling;
- The effect of increases in metal concentrations in fish flesh would be negligible (i.e. metal concentrations in fish flesh would not exceed consumption guidelines (500 µg/kg for mercury));
- Mercury concentrations will not increase above the existing average background concentration of 181.5 µg/kg; and,
- Local effects due to blasting, suspended and settled sediment from dike construction, increase in metal concentrations around dikes and post-closure runoff.

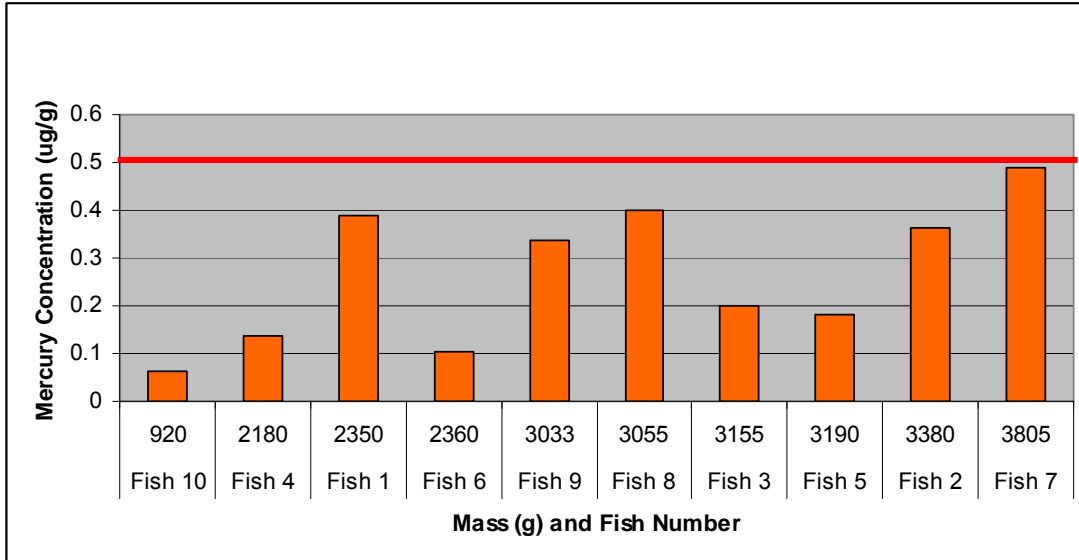
Observations:

Since 2000, no fish have been taken by recreational fishing from Lac de Gras by Diavik. From 2003 until present, the fish from Lac de Gras have tasted good according to participants in the community-based monitoring camps that are held during the summers. Scientific testing for metals levels in fish tissue and organs that were caught during these camps were also as expected - the results showed no concerns.

After the 2006 camp, elevated mercury was detected in tissue from small-bodied fish (slimy sculpin) taken from the lake. In 2008, Diavik conducted a study to further evaluate the elevated mercury in fish tissue, this time studying large-bodied fish (lake trout). The fish liver tissue analyses indicated that there is no concern relating to the concentration of metals, including mercury, in lake trout, but that some very large/old fish did show higher levels of mercury than smaller fish, as can be expected. A mercury study was also completed on treated mine water discharge and determined that concentrations are below the best analytical detection limits available.

Based on the results of the 2008 trout survey, it was determined that mercury levels were safe for consumption and that the fish palatability study could be done in 2009. Participants from each of the community groups for the Diavik mine participated in the fish palatability study at site. Four fish were cooked for tasting using the same methods as previous studies, and fish tissue and organ samples were taken for metals testing, including mercury. Each of the four fish that were cooked for the palatability study also had metals samples submitted for testing. Results for the metals levels in the fish tested during the 2009 fish palatability study showed mercury levels below Health Canada's guideline for consumption and that fish were okay for eating.

Fish weight versus mercury concentration in fish tissue, 2009 Palatability Study



Additional follow-up special studies included a 2009 joint research program with Fisheries and Oceans Canada (DFO) to assist in understanding if mercury in the slimy sculpin tissue (identified in 2007) is related to the treated mine water discharge. Field work for the 2009 DFO study was conducted in May and samples were transported back to the DFO lab for testing. Results from this study had yet to be finalized when this report was written.

Additionally, it is planned to repeat the small-bodied (slimy sculpin) fish survey in 2010.

Fish habitat utilization studies showed that lake trout continue to use both natural and man-made shoals near the A154 dike.

A Blasting Effects Study was done starting in 2003 and showed no effects on fish eggs.

Other observations made in past years include:

Sediment deposition rates measured during the construction of the dikes were below levels predicted in the Environmental Assessment.

In 2002, 2526 fish were salvaged from inside the A154 dike pool and released in Lac de Gras. 526 fish were salvaged from the North Inlet and released to Lac de Gras.

In 2006, 725 fish were salvaged from inside the A418 dike pool and released in Lac de Gras.

Summary of Compliance – 2009

The following table provides a summary of inspections conducted by the INAC Inspector of the Diavik mine site during 2009. Also listed are the actions taken by Diavik for any requests or directives from the Inspector.

Date	Purpose of Visit	Comments/Notes	Follow-Up Requirements
2009.02.09 to 2009.02.10	Update on Seepage and Collection Ponds	The inspector met with Tech Services to discuss seepage issues and the status of the planning for collection pond maintenance/repairs. The inspector visited Pond 1, Pond 4, Pond 5, Pond 11 (including the snow dump) and former Pond 14.	Continue to update the inspector on seepage issues.
	Sewage Treatment Plant Operation	The inspector visited the STP to learn more about it's operation and to discuss how it is functioning given that camp population has been greater than was planned when the plant was constructed.	None.
	Spills	The inspector met with the Manager, Asset Management to discuss the increasing trend in hydraulic oil spills at Diavik. The risk review and planned action items to address spills were reviewed with the inspector.	None.
		A spill from the EXM04 shovel occurred in the A418 pit while the inspector was onsite. The inspector visited the spill site with DDMI Environment and the Pit Lead Hand.	Necessary follow-up will be documented in the external spill follow-up report as required in the NWT Spill Regulations.
	Pit Sampling	The inspector accompanied DDMI during drill cutting sampling in the A418 pit. The sampling is conducted for sulphur analysis as part of DDMI's waste rock management.	None.
	HME Fuel Bay Inspection	The inspector visited the HME fuel bay and inspected the tanks and re-fueling area.	None.
	Miscellaneous	Several other topics were briefly discussed with the inspector during her visit, including: Phosphorus loading, Paste Plant Fire remediation, Winter Road activities, and site water management/drainage.	None.

Date	Purpose of Visit	Comments/Notes	Follow-Up Requirements
2009.02.17 to 2009.02.19	Winter Road Inspection	The inspector came to site via the winter road. An inspection of the road was conducted by the INAC inspectors for Snap lake, E'Kati and Diavik.	None.
	Tank Inspections	The inspector visited the South Tank Farm, D1 Tank Farm and Underground Tank Farm. She observed off-loading of fuel from Super-B's at the South Tank Farm	None.
	Waste Transfer Area/ERT Training Area	The inspector visited the Waste Transfer Area to inspect the preparations being done for the winter road back-haul of hazardous materials. Inspections were also completed at two former WTA's - in the PKC (decommissioned) and on the Airport Road (currently used for waste-oil storage and ERT training).	Several tanks of apparent waste oil were not labeled. Some waste oil had not been slated for removal on the winter road. Although the inspector did not request it, DDMI will address these issues.
	Airport Operations	The inspector met with the Fixed Plant/Surface Operations Superintendent to review records related to dust suppression (dates/volumes of chemical EK-35 application) and deicing.	Records of deicing activities and EK35 application need to be updated. DDMI Environment to follow-up with FPSO.
	Metcon Laydown	An inspection of the Metcon Laydown area was completed. The inspector asked if an inventory of the materials in the area exists (each owner of materials in the laydown are responsible for their own records of this) and if materials not being used could be backhauled. There are no plans to backhaul material from the Metcon Laydown on the 2009 winter road.	None.
2009.03.31 to 2009.04.01	Update on Seepage and Collection Ponds	The inspector met with Tech Services to discuss seepage issues and the status of the planning for collection pond maintenance/repairs. The inspector visited Pond 1, Pond 5 and Pond 13 and the A154/A418 dikes.	Continue to update the inspector on seepage issues. Provide the inspector with an action plan for Pond 13 by May 31, 2009
	Update on Spills	The inspector met with Asset Management to discuss ongoing initiatives related to reducing spills.	None.

Date	Purpose of Visit	Comments/Notes	Follow-Up Requirements
	Truckshop Inspection	The inspector conducted an inspection of the Main Truckshop and Pit Maintenance Shop.	No issues were identified by the inspector at the time of the site visit. Confirmation pending further correspondence and/or the inspection report.
	Power House Inspection	The inspector conducted an inspection of the Power House (Power House #1).	No issues were identified by the inspector at the time of the site visit. Confirmation pending further correspondence and/or the inspection report.
	Inspection of Pit Operations	The inspector accompanied blasting personnel during loading of blast holes in the A418 pit and accompanied maintenance personnel during PM inspections of pit equipment.	No issues were identified by the inspector at the time of the site visit. Confirmation pending further correspondence and/or the inspection report.
2009.05.19 to 2009.05.20	Inspection of Collection Ponds	The inspector visited Ponds 1, 2, 3, 4, 5, 7, 10, 11, 12 and 13 to conduct a pre-freshet inspection of each of the containment facilities. She also met with the Water Management Coordinator to discuss DDMI preparations for spring melt.	Update the inspector regarding any seepage and water movement as freshet progresses
	Seepage Report Review	The inspector discussed concerns (identified by other regulators and INAC) related to the 2008 Seepage Report.	Meet with the inspector to discuss communications and a plan to address concerns raised re: the 2008 Seepage Report. (DDMI met with the inspector on May 22, 2009 - refer to notes below). DDMI also agreed to provide the inspector with more details (durations and estimated flow rates) of some of the specific seepage events.
	Follow-Up to Spill 101-2009	A release of process affected water from one of the PKC reclaim lines occurred on May 13. The inspector visited the spill site to conduct a follow-up inspection.	Provide the inspector with a follow-up report (as per spill regulations), including chemistry from station 1645-16 collected that day.

Date	Purpose of Visit	Comments/Notes	Follow-Up Requirements
2009.05.22	Meeting with Inspector re: Communications and Seepage Concerns	DDMI met with the Inspector and the INAC District Manager. The purpose of the meeting was to discuss recent concerns brought forward by other regulatory agencies regarding seepage at Diavik and how the inspector and Diavik have been addressing those issues.	DDMI and the INAC inspector have agreed to modify (increase) their level of communication and explicitly identified how information will be conveyed to other regulatory bodies - DDMI to provide information to the inspector, the inspector is to communicate this information to other regulators. DDMI also committed to creating a document that outlines the seepage issues of concern brought forward that details each item and the follow-up actions taken and/or that are planned.
2009.06.15 to 2009.06.16	Inspection of Collection Ponds and PKC Seepage	The inspector visited Ponds 1, 2, 3, 4, 5, 6, 7, 10, 11, 12 and 13 to conduct an inspection during freshet of each of the containment facilities. The collection sumps and tundra down gradient of the PKC East Dam seepage were also visited.	Updated the inspector regarding seepage and water movement as freshet progressed.
	Spill Follow-up 115-2009	The inspector visited the area where the Pond 11 dewatering pipeline broke, resulting in an unauthorized release of water - DDMI Spill #115-2009	A spill follow-up report was sent to the Inspector.
	PKC South Cell Dewatering	The inspector visited the South PKC cell to observe the ongoing pumping to dewater the south cell to the main PKC pool.	None.
	Spill Follow-up 068-2009	The inspector visited the area where a refueling truck was overfilled earlier this winter (DDMI Spill #068-2009), resulting in an unauthorized release of diesel.	None. The spill follow-up report was provided to the inspector in April.

Date	Purpose of Visit	Comments/Notes	Follow-Up Requirements
	Spills	The inspector met with the Manager, Asset Management to discuss DDMI efforts towards reducing hydraulic oil spills at Diavik. Overhauls/shutdowns of problem equipment, sourcing replacement hoses, spill volume estimating and maintenance plans during the summer shutdown were discussed with the inspector.	None.
2009.07.20 to 2009.07.23	Land Lease Inspections	The inspector conducted inspections of the five DDMI Land Leases on East Island. These inspections included new infrastructure installed since the previous land lease inspections, waste management, hazardous materials storage, hydrocarbon management and water use/management.	A minor issue was identified during the visit with drum storage near the LDG shop. The concern was raised with the Capital Projects Manager, and the drums were removed from the area.
	Spill File Closures	The inspector visited various spill sites to conduct a final inspection before closing the open spill files.	No issues were identified during the spill follow-ups. All spills were adequately remediated.
	Inspection of Collection Ponds	The inspector visited Ponds 1, 2, 3, 4, 5, 6, 7, 10, 11, 12 and 13 to conduct an inspection of each of the containment facilities.	Updated the inspector regarding seepage and water movement as freshet progressed.
2009.09.03	LUP Inspection - CBM Camp	DDMI was not present, however, the INAC Inspector visited the CBM Camp to conduct a Land use Permit inspection.	Fuel oil drums required drip pans or other adequate secondary containment installed. Drip pails were installed in January.
	LUP Inspection - Lac du Sauvage Exploration Camp	DDMI was not present, however, the INAC Inspector visited the former Lac du Sauvage Exploration Camp to conduct a Land use Permit inspection.	No issues were identified. INAC now considers the exploration camp to be closed.
2009.11.02	Inspection of Collection Ponds	The inspector visited Ponds 1, 2, 3, 4, 5, 6, 7, 10, 11, 12 and 13 to conduct an inspection each of the containment facilities. Most facilities have been pumped dry and pumps have been removed in preparation for winter.	None.

Date	Purpose of Visit	Comments/Notes	Follow-Up Requirements
	LDG Shop	The inspector followed up on a previous visit to the LDG Shop where drums had been stored outside with some leakage into a secondary containment basin. The drums have been cleaned up, however, new concerns with the shop heating oil tanks have been identified.	DDMI developed a plan to upgrade the heating oil system at this facility, including replacement of the existing tanks in 2010.
	Exploration Update	The inspector wanted an update on plans for exploration this winter and summer, however, key exploration staff were not available.	Provided the inspector with a general update of planned exploration activities later in the month.
	New SNP Station 1645-75B	The inspector visited the new underground mine water sampling station where the lines from the 9105 pump station come to the surface near the FAR/RAR. According to license, the sampling location must be approved by the inspector.	The sample location was approved by the inspector and DDMI submitted a request to the WLWB to add station 1645-75B to the SNP.
2009.11.30 to 2009.12.01	Underground Inspection	The Inspector went underground for the first time. The inspection included the underground maintenance shop, pump stations, refuge stations, and dewatering galleries.	None.
	Spill Inspection (Spill #184-2009)	The Inspector visited the Truck Shop to inspect the location of a recent glycol spill, where a line carrying glycol for in-floor heating failed. The Inspector also walked the shop parking area where equipment is parked awaiting service.	DDMI provided a follow-report for Spill #184-2009. Two small coolant leaks that were observed in the parking area were cleaned up and drip pans under both leaks were deployed.
	Geotechnical Inspections	The Inspector accompanied a Geotech Technician during routine dam inspections	None.
	Project Updates	The Inspector met with several other DDMI managers, superintendents and planners to get updates on various ongoing projects a Diavik.	None.

In 2009, there was one incident resulting in non-compliance with our Water License at Diavik; this is discussed below. Overall, Diavik was in compliance with the Land Leases and the Water License.

North Inlet Water Treatment Plant – 10 May 2009

From May 2 to May 6, 2010 water was pumped from the A418 Pit in to a storage pond because the A418 dewatering pipeline had been installed, but was not operational because there was not enough water in the pit to be able to pump continuously. On May 10, water from the pond was pumped to the North Inlet by hooking it up to the future A418 dewatering line. This line enters the NIWTP and discharges to a wastewater well. The well has a valve which must be open to ensure water flows to the North Inlet.

The water came into the plant from the A418 dewatering line, but it could not flow out to the North Inlet because the wastewater well valve was closed. When the wastewater well filled, the overflow was directed to the clear (treated) water well, which discharges through the NIWTP diffuser to Lac de Gras.

At 15:30 hours on 10 May, turbidity in the North Inlet Water Treatment Plant effluent exceeded 5 NTU so the plant went into automatic shutdown and then the operator put the plant back online in recirculation mode to troubleshoot the problem. In recirculation mode, the plant operates normally, except it directs treated flow back to the North Inlet instead of to Lac de Gras. In total, approximately 500 m³ of untreated water was discharged in to Lac de Gras.

There were a number of follow-up actions identified and carried out in response to this incident.

**Appendix A – Monitoring Programs and Adaptive
Management Summary Tables**

Table A1: Environmental Monitoring Programs 2009

Program	Purpose of the Monitoring	Key 2009 Activities	Key Results
Dust Monitoring	Determine if environmental assessment (EA) predictions were accurate. To inform management when dust levels require management response.	<ul style="list-style-type: none"> Ongoing notification to Operations for dust suppression. The Dust Monitoring Program continued in 2009 with summer / winter dust sampling, in order to determine the extent of dust dispersion related to operational activities. Results are analyzed in the Annual Dust Report and utilized in the AEMP and Wildlife Monitoring Program. Diavik began evaluating the use of treated mine effluent for dust suppression, which would reduce fresh water taken from Lac de Gras. Work to update the dust dispersion model continued in 2009. 	<ul style="list-style-type: none"> Dust suppression using water is effective for reducing dust during non-freezing periods, however, this increases Diavik's fresh water demand from Lac de Gras. Dust deposition rates are higher close to mine activities and were higher than EA predictions for 2009 Elevated zinc levels were present in one sample from one snow sample location (NE of A154 dike)
Meteorological Monitoring	Measure/detect meteorological trends. Determine influences on site water balance. Provide design and construction information to operations.	Measured: wind speed and direction, temperature, relative humidity, precipitation (rain and snow), incoming solar radiation and evaporation	<ul style="list-style-type: none"> Annual average temperature was -9.5 °C (similar to other years). Relative humidity averaged 77% Prevailing winds are mostly from the southeast Total annual precipitation was 386.6 mm (58% rain and 42% snow) One weather station was damaged by wildlife during 2009
Water Quantity	Measure limits, sources and purpose of water consumption as established in water license.	<ul style="list-style-type: none"> All water used for consumption and operations is metered. PKC facility levels are monitored. All make-up water is measured. Increased fresh water demand requirement in 2008/09 as approved by the WLWB. Completed an updated mine site water balance. 	<ul style="list-style-type: none"> Freshwater obtained from Lac de Gras for domestic water use for the accommodations complexes, south construction camps, maintenance shops, process plant, dust control around the site and other associated infrastructure totaled 1,344,901 m³ in 2009. This was within the allocated volume from the Water License (1,750,000 m³).
Water Quality Compliance	Monitor effluent limits as required by the water license.	<ul style="list-style-type: none"> Collected and analyzed samples in compliance with the water license at required SNP locations in 2009 Seepage issues from collection ponds and the PKC were addressed using various solutions (pumps, liner repairs, diversion ditches, etc.) 	<ul style="list-style-type: none"> Results of monitoring are consistent and compliant with water license requirements One seepage from the PKC east dam reached Lac de Gras in June 2009 - water quality of this water closely met with water license requirements, with the exception of zinc (slightly elevated) and pH (slightly below). The Water Treatment Plant had one incident where untreated water from a staging pond was mixed
Aquatic Effects	Collection of information to determine the short and long-term effects in the aquatic environment resulting from the project. Provides triggers to determine where further investigation may be warranted.	<ul style="list-style-type: none"> Samples collected at AEMP sites for water quality, phytoplankton biomass, zooplankton biomass & species identification, benthic invertebrate biomass & species identification and sediment chemistry 	<ul style="list-style-type: none"> AEMP results are generally consistent with predictions. Nutrient enrichment has been measured in Lac de Gras. Additional data will continue to be collected in coming years to further evaluate the new AEMP and the results obtained.
Wildlife	Determine if predictions in the environmental assessment are accurate. Assess the effectiveness of mitigation strategies.	<ul style="list-style-type: none"> Caribou monitoring for abundance, distribution and behaviour Raptor and waterfowl monitoring Wolverine monitoring Track incidental sightings of wildlife that appear at the mine site or on East Island. 	<ul style="list-style-type: none"> The number of caribou within the study area was higher during baseline (1996 to 1997) than from 2000 through 2009, especially during the southern migration. However, data from 2002 to 2009 (aerial surveys) show relatively constant numbers, with the exception of 2004 when approximately twice the number of animals were recorded. Raptors and waterfowl are still present and using habitat in the area of the mine. Wolverine continue to be present and using habitat on East Island and in the region.
Wildlife Habitat (Vegetation loss)	Determine if environmental assessment predictions (linked to wildlife program) are accurate. Determine extent of loss of vegetation/habitat.	<ul style="list-style-type: none"> Surveyed extent of the mine footprint related to type and amount of vegetation lost 	<ul style="list-style-type: none"> Total vegetation/habitat loss in 2009 was 0.12 km², bringing the total lost to date to 9.78 km². This is within original Environmental Assessment predictions (12.67km²) Vegetation plots were not assessed in 2009 as they are done every 2nd year. Next scheduled for 2010.
Fisheries	Fisheries authorization requirement. Establish additional baseline information. Initiate long-term monitoring programs and identify control sites. Test monitoring methodology. Test modeling predictions.	<ul style="list-style-type: none"> DDMI continues to monitor the health of Lac de Gras fish and has fulfilled various requirements related to its Fisheries authorizations (e.g.—Shoal Habitat studies, Blasting Effects studies) 	<ul style="list-style-type: none"> DDMI was compliant with its Fisheries Authorizations in 2009 A program to look at the potential for mercury uptake in fish from sediments near the treated mine water discharge area was done in 2009
Re-vegetation Test Plots	To establish research programs related to reclamation research. Information gathered from these programs will be used for closure.	<ul style="list-style-type: none"> Soil and vegetation assessments were completed in the summer of 2009. Data and results continue to be gathered and reviewed each year for use in Closure Planning. 	<ul style="list-style-type: none"> Preliminary results are included earlier in this report and are provided in detail in annual reports provided by the University of Alberta to Diavik. A summary report of the 5 year study is expected for release in 2010
Country Rock Test Piles		<ul style="list-style-type: none"> The program continued in the maintenance and monitoring phase. Instruments were sampled and monitored regularly. 	<ul style="list-style-type: none"> Initial data has been gathered and will provide on ARD and temperature changes over time, and will be used for preliminary modeling.

Table A2: Adaptive Environmental Management

Aspect	Performance/Compliance Expected	Adaptive Management	Mitigation Measures	Current Effectiveness of Measures Taken
Waste	<p>Minimal waste management issues.</p> <p>Maintained dump site for inert waste materials.</p>	<p>All domestic and office wastes are incinerated at the waste transfer area</p> <p>Continued the use of clear plastic bags in all areas of domestic and office space</p> <p>New WTA facility incorporated access road around the facility to allow equipment access and snow removal during winter to reduce opportunities for animals to climb over the fence, fencing angled and extended further in to ground to prevent access to burrowing animals; extensions placed on gate in an effort to prevent animal access; improved sump facilities for contaminated soil containment area.</p>	<p>All employees and contractors are provided orientation on proper waste management. Color-coded collection bins and posters for non-food waste around site.</p> <p>DDM Environment Staff conduct regular toolbox meeting discussions regarding waste management.</p> <p>Regular waste inspections are conducted by Environment Staff at the Waste Transfer Area and Landfill. A site-wide compliance inspection is completed weekly.</p> <p>Site Services implemented clear plastic bags in all domestic and office areas to allow staff to verify contents prior to disposal</p> <p>Surface Operations staff collecting waste bins inspect bins prior to pick-up and notify Environment department to arrange for sorting.</p> <p>Gate installed at inert solid waste facility to limit access to dump area.</p>	<p>During Inspector's visits in 2009, no concerns were raised regarding food waste, or the landfill.</p> <p>Inproper disposal of waste is identified during DDMI waste inspections (including food waste) despite training and awareness sessions with site staff, but an overall improvement has been noted over the years.</p>
Water	<p>All effluent is treated before being discharge to Lac de Gras, or is recycled.</p> <p>Ammonia levels within water license limits.</p> <p>Prevent seepage water entering Lac de Gras and seepage water quality to be within license limits.</p>	<p>Review loading and blasting procedures for opportunities to reduce ammonia levels in pit and underground water.</p> <p>Evaluate opportunities to re-use north inlet water as supply water to facilities at the mine site.</p> <p>Diavik is evaluating the use of treated effluent for dust suppression.</p> <p>Diavik is working with the University of Alberta to evaluate the biological removal of ammonia and other nitrogen compounds in the North Inlet</p> <p>Special Effects Studies (SES) are completed when unexpected effects are measured during the AEMP</p> <p>Evaluate seepage prevention or interception methods upstream or downstream of areas of concern.</p> <p>Investigate and assess site infrastructure where seepage issues arise, where possible.</p>	<p>The North inlet provides retention time for mine water before treatment, allowing for ammonia reduction by natural attenuation.</p> <p>Influent and effluent in the NIWTP is monitored consistently for parameters that are indicators of water treatment effectiveness.</p> <p>Daily sampling of pit water, underground water and effluent identifies trends early, before ammonia would become a compliance issue.</p> <p>Diavik has an Ammonia Management Plan that is followed to minimize ammonia loss. This includes use of blast hole liners to reduce ammonia dissolution in water. It also includes limiting holding times for loaded blast hole patterns to 4 days for wet holes and 2 days for sump blasts.</p> <p>Batch plant (cement plant) utilizes treated effluent as a water source instead of fresh water, and the Paste plant was also connected to this supply in 2009.</p> <p>North Inlet to Process Plant pipeline constructed during 2009 to recycle water from the North Inlet (prior to treatment) for use in the Process Plant and reduce freshwater intake volumes.</p> <p>Seepage interception access road and sumps installed downstream of seepage areas.</p> <p>Repairs to damaged infrastructure to prevent future seepage.</p> <p>Source water (North Inlet, Collection Ponds, PKC) chemistry around site are monitored as part of the SNP.</p> <p>SES to determine mercury concentration/availability in fish and sediments within Lac de Gras.</p>	<p>Ammonia levels in 2009 were well below the license limit of 12 mg/L.</p> <p>Ammonia levels in mine water and effluent continue to decrease with time.</p> <p>Parameters regulated in the Water License in NIWTP effluent remain well below discharge criteria.</p> <p>One unauthorized discharge of water from the NIWTP and one seepage event occurred in 2009, each requiring follow-up measures put in place to minimize the risk of future similar incidents.</p>
Hazardous Materials	<p>No significant spills or non-compliance issues.</p>	<p>All reported spills are investigated and taproot lights are conducted on external spills.</p> <p>A new electronic system for MSDS tracking for chemicals onsite is being developed</p> <p>New products being brought to site are reviewed by Health, Safety and Environment personnel</p> <p>Alternative biodegradable products are encouraged.</p>	<p>Orientation and specific training for employees and contractors is provided for storing and handling of hazardous materials</p> <p>Regular waste inspections are conducted by Environment Staff at the Waste Transfer Area and Landfill. A site-wide compliance inspection is completed weekly.</p> <p>Hazardous materials are backhauled each year on the winter road. Prior to backhaul, hazardous materials are stored and inventoried at the Waste Transfer Area (a contained lined facility)</p> <p>All employees and contractors take WHMIS training</p> <p>One piece of equipment was identified as having issues relating to frequency/volume of spills. Equipment was taken out of service and all hoses and fittings changed out.</p>	<p>Spills are reported, recorded and quickly and effectively cleaned up. Follow up actions resulting from external spills are documented and reported to the Inspector.</p> <p>No significant hazardous materials compliance issues were identified in 2009.</p> <p>Spill volumes and frequency from problem equipment decreased during 2009.</p>
Wildlife	<p>No wildlife-related compliance issues.</p>	<p>Caribou are herded away from the airstrip</p> <p>Bears are deflected away from the mine site</p> <p>Wildlife reporting system is in place site-wide, for other wildlife observations</p> <p>Wildlife monitoring programs are adjusted based on results of previous years of studies</p> <p>Review of wildlife monitoring programs being conducted with all 3 mines, industry, Monitoring agencies, government and communities.</p>	<p>Orientation and environmental awareness training related to wildlife on site is provided to all employees</p> <p>Caribou advisory updated as necessary</p> <p>Waste inspections conducted regularly</p> <p>Waste management system in place</p> <p>Study area expanded for caribou based on potentially larger mine zone of influence than predicted.</p> <p>Participation in a regional wolverine DNA study with BHP-Billiton and assistance from the GNWT to contribute data to gain further insight on the wolverine population in the Lac de Gras region and around the mine site.</p> <p>Monitoring methods for grizzly bear changed to reflect requirement to obtain data to better support ZOI estimate, while being safer for field crews.</p> <p>Pit wall surveys for raptors that may nest in the pit or on other infrastructure was formally added to the raptor monitoring program.</p>	<p>There were no wildlife incidents or mortalities in 2009.</p> <p>3 bears (1 sow, 2 cubs) were resident on the mine site during the operational shut-down from 6 July to 21 August 2009 with no incidents.</p> <p>Two herding events were done in May of 2009 - one to move a group of caribou off the airstrip, the other to move 1 animal off the rock pile.</p>
Dust	<p>Isolated higher deposition levels due to construction activities (dust deposition is expected to decrease as construction activities at Diavik decrease and the mine switches from open pit to underground operations).</p>	<p>Evaluate dust control measures used to minimize dust released from construction and operations</p> <p>Evaluate the use of treated mine effluent for dust suppression, which would reduce fresh water use from Lac de Gras</p> <p>Assess vegetation and dust sample locations to provide better coverage of the area for improved data collection</p>	<p>Dust suppression using water during non-freezing periods, on haul roads and the airstrip.</p> <p>New crusher commissioned in 2009 is contained inside a building and has an advanced dust control and collection system.</p> <p>Dust suppressant used on the apron, taxiway and helpaid (approved by both the Lands Inspector and Transport Canada)</p> <p>Addition of vegetation monitoring stations to improve ability to detect potential changes to cover or composition</p>	<p>Control of dust from crusher, small blast areas and roads.</p> <p>Dust suppressant continued to be used on the airport's taxiway, apron and helpaid in 2009.</p> <p>Dust levels measured during 2009 were down from 2008.</p>
Greenhouse Gas Emissions	<p>Measure consumption of applicable sources of GHGs - primarily diesel combustion</p> <p>Meet Internal GHG Reduction Targets</p> <p>Report GHG Emissions to regulatory agencies and within Rio Tinto.</p>	<p>Evaluate new technologies and equipment that may allow for pollution control/ reduced emissions.</p> <p>Diavik is assessing the potential for wind power generation and has been involved in discussions relating to the possibility for hydro power</p> <p>Determine energy draws, optimal use and options to reduce power requirements for buildings on site</p> <p>Diavik has various fuel consumption reduction initiatives.</p>	<p>Use of low sulphur diesel</p> <p>Installation of Delta V fuel consumption monitoring system for all key power consuming buildings on site</p> <p>Boiler optimization program</p> <p>Diavik promotes 'green' alternatives and lifestyle to employees</p> <p>New waste incinerators (with pollution prevention devices) have been procured and design for their installation is being completed.</p> <p>"Waste" heat from powerhouse generators used to heat facilities connected to powerhouse (camps, maintenance shops, etc.)</p>	<p>DDM reports GHG emissions annually to appropriate regulators and internally to Rio Tinto.</p> <p>Installation of waste incinerators has been delayed due to issues with the foundation/substrate in the area they are to be set up.</p>