
2008 Sustainability Summary Red Dog Operations

Letter from the General Manager

Welcome to Red Dog's 2008 Sustainability Summary Report. In this overview, we highlight our economic, environmental and social progress over the past year and share the opportunities and challenges that we are facing. These are exciting times to work at the Red Dog Mine, and looking to the future we are committed to further improving our sustainability performance, in partnership with our stakeholders and the community of Alaska.

In 2008, our primary areas of focus were: improvements in safety, obtaining the necessary permits for the development of the Aqqualuk deposit and improvements in water management.

Many companies talk about the importance of workplace safety, but few embed it into their organizational culture. At Red Dog, we have taken an aggressive approach to not only addressing and improving our safety performance, but are implementing innovative programs, such as our SafeStart behavior program. The implementation of this program will actually change the mine's culture by establishing safety and health as a core value in everything we do. As a result of this focus, we are proud to report that 2008 saw a dramatic improvement in mine safety and we ended the year with the best safety and health record since the mine opened in 1988.

Securing the necessary permits for developing the new Aqqualuk deposit was also a primary focus in 2008. The current pit will be exhausted in 2011, and the Aqqualuk ore body will keep the mine/mill in production for an additional 20 years. It will take a year of development work before Aqqualuk can produce ore feed for the mill, hence it was critical to make progress on five specific milestones: 1) Renewal of the National Pollutant Discharge Elimination System

(NPDES) permit; 2) Issuance of a wetland fill permit; 3) Issuance of a state Waste Management Permit; 4) state approval of the Reclamation and Closure plan; and 5) Approval of the Northwest Arctic Borough's master plan.

One of the continuing challenges at Red Dog is managing water quality. During the mining process, tiny particles of metals and minerals are dissolved in water and can be harmful to the environment when they exceed certain levels. Like all other mines, we are subject to limits on the amount of these total dissolved solids (TDS) that we are permitted to discharge back into the local waterways. We continue to explore ways to minimize and control TDS at the mine through alternative water treatment technologies, increased and improved treatment plant capacities and direct reduction of TDS in our impoundment facilities.

Undoubtedly, our most important partner at Red Dog is NANA Regional Corporation (NANA), a wholly-owned entity of the Native people of Northwest Alaska. Our agreement with NANA ensures that the mine will provide jobs and other economic benefits to the northwest Arctic region, along with training, to prepare NANA Shareholders to succeed in these jobs. We continually strive to demonstrate the importance we place on our most valuable resource, our people, and we look forward to a productive and collaborative relationship with NANA in the future.

We look forward to positive changes in the way we do business in 2009 and in the coming years for long-term sustainability.

Mike D.J. Bonneau, P. Eng.
General Manager

Overview of Operation/Facility

Red Dog is one of the largest zinc mines in the world, both in terms of reserves and annual zinc production. The mine is located in northwest Alaska, approximately 132 km northeast of Kotzebue and 74 km inland from the Chukchi Sea.

Red Dog is operated by Teck Alaska Incorporated (Teck) under a 1982 Operating Agreement with the NANA Regional Corporation (NANA), an entity wholly-owned by the Native people of Northwest Alaska. NANA is the landowner and Teck is the operator. The Agreement provides the framework for how the mine would be constructed and operated. Teck financed the construction, operates the mine and markets its products. The Agreement requires training and hiring of NANA's people, preservation of their culture, and protection of the subsistence resources. The mine has over 375 employees, of whom over 50% are NANA Shareholders.

In 2008, 3.2 million tonnes of ore averaging 20.1 % zinc, and 3.2 ounces per tonne were mined to produce 934 million tonnes of zinc concentrate and 222 million tonnes of lead concentrate. Concentrates produced from the mined ore are transported to our Chukchi Sea coastal port facility via an 84 km road. The road that connects the mine and port, as well as the port facility, are collectively known as the DeLong Mountain Regional Transportation System (DMTS). The DMTS is owned by the State of Alaska; Red Dog operates and maintains the system and pays a toll fee for its use.

The Red Dog Mine, and the DMTS port are in essence two small cities with all of the services expected in a small city (and all of the environmental responsibilities that come with those services) including an airport, power generation, drinking water systems, landfills, and sewage treatment systems. Each of these small "cities" also contains a major industry (mining and shipping), both of which face high expectations for socially- and environmentally-responsible operations.

Goals and Objectives

Safety and Health

A key goal for 2008 was improving our safety record after the poorest safety performance record in mine history in 2007. We exceeded our goal, and actually achieved our best performance ever in 2008. The many initiatives that contributed to this significant achievement are discussed in more detail in the Safety and Health section below.

Reduction of Releases of Metal-Bearing Fugitives

During the mining process, small particles of the ore break off and form dust particles that collect on the ground in and around the mine area. Similarly, during transport along the 84 km road connecting the mine with the port facilities, dust from the zinc and lead concentrate escapes from our trucks and collects on and near the road. One of our goals last year was to better manage and minimize that dust. Here's what we did in 2008 to meet that goal:

- In 2008, we conducted a moss sampling program to create a robust baseline data set for future comparisons;
- We implemented a near-real-time email alert system, which notifies Mine Operations of excessive dust; and,
- To eliminate wind-blown fugitive dust from exposed tailings, we applied a polymer and wood mulch mixture to the tailings beach in the autumn of 2008. While initially a success, the mixture was eventually abraded by the sand-blasting action of blowing dust. We plan to test different polymers and ice caps on the beaches to address the dust control issue.

Improvement in Water Management

Water quality is a significant concern at our mining operations and we set several goals in 2008 related to managing and improving water quality at Red Dog.

- First, we wanted to evaluate additional options for water management at our tailings pond. During 2008, we attempted to modify our water treatment process by replacing lime with barium hydroxide.

This switch would potentially reduce Total Dissolved Solids (TDS) levels—particles of metals and minerals that dissolve in the water that can be hazardous to the environment in sufficient quantities.

Unfortunately, we had to cancel the test after only a short period, when we realized the barium hydroxide did not mix properly.

- Second, we sought to identify legal and technical roadblocks to switching to a source of generator cooling water with lower TDS levels. Although we found no legal issues with the change, we were unable to find enough low-TDS water necessary for the purpose.

Waste Reduction

In 2008, significant improvements were made in waste reduction. The mine's powerhouse, which contains the main machinery for mine processing, reduced the amount of used oil sent offsite by 17%, exceeding its target of 15%. This was a 6% improvement over 2007 results. By switching to reusable bulk containers, the site significantly reduced the number of empty fuel and lubricant barrels and aerosol cans used.

Some waste reduction projects such as the use of recyclable plastic pallets, were not always successful. The plastic pallets did not maintain structural integrity in cold arctic conditions, and tended to slip off forklift forks. As a result, we continue to use wooden pallets.

Reduction of Leaks and Spills

We achieved our 2007 goal to implement a secondary containment system for the drum dock at our cold material storage site by installing a high density polyethylene (HDPE) liner underneath the drum dock. Our performance targets for 2008 were as follows:

- Reduce the number of reportable spills associated with stationary and mobile equipment by 10%; and,
- Reduce the frequency of concentrator process spills by 15%.

Unfortunately we did not meet these goals in 2008, but we will again attempt to meet them in 2009. To help reach these targets, we are continuing to implement our spill reduction program.

Reclamation

We achieved our 2007 goal to reclaim port site roads constructed from oxidized ore, by removing and recycling the areas of road made of ore. We did not, however, make progress on our goal to reclaim at least one material site in Cape Krusenstern by the end of 2009, because we were unable to come to an agreement on reclamation methodologies with the National Parks Service. We are continuing to work towards this goal, and anticipate alignment on reclamation methodologies in 2009.

Improvement in Acid Rock Drainage (ARD) Management

Acid rock drainage (ARD) occurs when metal sulphides are exposed to air and water, creating acidified water that makes it difficult or impossible for plants and animals to survive and thrive. While ARD can occur naturally, it is often associated with mining operations, because the mass removal and transfer of rock and ore bodies creates an ideal situation for ARD to occur. At Red Dog, we face ARD issues, and in 2007, set several goals to manage and minimize ARD throughout our mining operations:

- A small scale program to test new compacted covers on the waste rock test cells was ended when the test sites was scheduled to be buried with the advancing waste rock lift;
- As part of a large scale cover test program our goal to reclaim the oxide waste rock stockpile was 75% completed in 2008 and included the installation of instrumentation used to evaluate the effectiveness of the compacted covers. The completion of the installation and monitoring of this cover is planned for 2009 and beyond;
- We partially achieved our goal to re-grade slopes on the south and west slopes of the main waste rock dump. The south end of the rock dump was re-graded to a 3:1 slope. The re-sloping of the west slope is planned for the next several years; and,

- We achieved our goal to minimize the effects of hot spots created by ARD reactions within the main waste dump by excavating and cooling the area in 2008.

Safety and Health

Our vision is: “We can achieve zero injuries within our workforce; we want to be the best Safety performers in our company; we want to be the Leaders in Safety and Health performance in our industry”.

At Red Dog, we have made safety a ‘core value’ and not just a priority. A ‘core value’ remains unchangeable regardless of the difficulties or the challenges we face. ‘Priorities’ can change as situations require.

The primary objectives for Red Dog in 2008 were to improve safety performance and develop a safety culture. Coming out of 2007, the facility’s poorest year for safety, the Red Dog Mine’s Safety and Health performance for 2008 was the best ever since the start of operations in 1988. This is a true accomplishment. Our achievement in 2008 can be attributed to four key activities:

- A workforce safety survey was conducted to obtain an understanding of what employees were thinking and what ideas and suggestions they may have to improve safety. Subsequently, objectives and targets were defined and a vision and direction for the entire property was established;
- We implemented additional training;
- We increased site-wide safety awareness, including “SafeStart”, a program directed at changing habits and behaviours towards a more safety-conscious attitude. All Red Dog employees and the primary resident contractors participated in the 5 levels of the SafeStart program followed by two refresher training modules. By year’s end, a total of 540 people had completed the modules of the SafeStart program; and,
- We restructured our Loss Control group, to increase focus on prevention rather than on response.

The results of these activities have been immediately apparent in our safety statistics:

- 1 Lost Time Incident (LTI) in 2008 compared to 23 in 2007;
- 1,222,599 hours worked LTI-free compared to our best ever prior result of 600,000;
- 3rd best safety performance of the operating Teck properties compared to the being last in 2007; and,
- Lost time incident frequency (LTIF) of 0.14 and Total Reportable Incident Frequency (TRIF) of 2.68 (vs. 3.51 and 8.39, respectively, in 2007). These results indicate a significant safety improvement at Red Dog.

Environmental Programs

Aqaluk Deposit Permitting

To extend the mining operations at Red Dog to the year 2031, Teck and NANA are proposing to develop the Aqaluk Deposit, located adjacent to the Main Pit. The development of the deposit requires approval on the Federal, State and local levels. Under the proposal, the mining of the Aqaluk pit would commence in 2010 using the same methods and existing facilities.

The US Environmental Protection Agency (EPA) determined that a Supplemental Environmental Impact Statement (SEIS) would be needed before it could determine if a modification to our existing National Pollutant Discharge Elimination System (NPDES) permit would be required for the mine extension. In October 2007, the EPA held several scoping meetings to determine the issues to be reviewed in the SEIS.

The comments received at the meetings identified two significant data gaps. First, the local villagers felt that there was insufficient information available to fully review the operation’s current and future impacts on subsistence resources. To address this issue, Tetra Tech, an environmental consulting firm hired by the EPA, and the Alaska Department of Fish and Game (ADFG), conducted a subsistence use pattern survey in 2008. We provided the funding for the \$500,000 study. The study determined that there is a

perception that the operation has caused a minor, localized change in caribou and beluga whale movements, which has resulted in reduced hunting success. Since the inception of the operation working closely with NANA, we have put policies in place to minimize the operation's impacts on subsistence resources. We will continue to work with local residents to review and modify these procedures to minimize, our impact on subsistence resources to the fullest possible extent.

The second issue was a concern raised by members of the Noatak and Kivalina communities that the continued operation of the mine could have a negative impact on the health of the community. To address this issue, a Health Impact Assessment (HIA) was conducted by the Maniilaq Association, and added to the SEIS. The agencies determined that the operation has not had a negative effect on the health of the residents of the region.

Major permitting milestones & schedules are as follows:

- Draft SEIS – published December 2008
- Issues Final SEIS – (expected) October 2009
- Issues Record of Decision and renewed NPDES permit – (expected) February 2010
- Issues Record of Decision and Wetland Fill permit – (expected) March 2010
- Waste Management Permit and Reclamation and Closure Plan Approval – (expected) December 2009
- Northwest Arctic Bureau (NWAB) Master Plan amendment – (expected) December 2009

Environmental Management System

Red Dog first certified its environmental management system according to ISO 14001 standards in 2004. The system has evolved from a stand-alone "program" into the normal way Red Dog conducts its environmental business. Our self-created environmental information system software SiteLine, which helps to consolidate, track and evaluate environmental requirements, has been instrumental in this achievement.

Fugitive Dust Management

Following the completion of a Fugitive Dust Ecological and Human Health Risk Assessment in 2007, our focus shifted in 2008 to developing strategies to manage the risks identified in the assessment. A 3-day risk management workshop was held in Kotzebue, Alaska, to solicit stakeholder input for a draft Risk Management Plan (RMP), which was released for public comment in August 2008. The RMP is part of a process intended to minimize risks associated with fugitive dust emissions from operations at the Red Dog Mine. It combines and builds upon our previous and ongoing efforts to reduce dust emissions and their potential effects on environmental resources. The RMP addresses issues identified by several studies and programs, including the DeLong Mountain Regional Transportation System (DMTS) risk assessment, the mine-area ecological risk evaluation, conducted as part of the closure and reclamation planning process, our Memorandum of Understanding (MOU with the Alaska Department of Environmental Conservation (ADEC), and the SEIS for the Aqqaluk Pit Extension.

As part of our continuing efforts to address potential sources of fugitive dust, a new dust collection system commonly known as a "baghouse" was installed on the mine concentrate storage building. Unfortunately, due to weather constraints and mechanical challenges, the baghouse will not be operational until 2009. We will continue to carefully monitor the new system to ensure its proper functioning.

Treated Water Discharge

The major challenge in effectively managing water at our facility is the need to accommodate the growing volume of tailings stores in the tailings impoundment. We can access additional space by reducing the volume of free water in the impoundment and discharging it into Red Dog Creek. However, we are limited in the amount of water we are allowed to discharge into the Creek, based on water quality. As the amount of dissolved metals and minerals (total dissolved solids—or TDS) increases, the volume

of water that we can discharge decreases. Because TDS levels of water in the tailings impoundment increase, we face a compounded challenge: just when we need to discharge water the most (i.e., to create space for additional tailings) we are prevented from doing so based on the water quality. We are working on several fronts to address this challenge through:

- **Reduction of impoundment TDS concentration:** A very cost-effective measure for indirectly controlling and ultimately reversing the TDS trend in the impoundment has been the installation of a geosynthetic curtain barrier around the impoundment-intake barges.
- **Alternative water treatment technologies:** The use of barium hydroxide to replace slaked lime – this was taken from pilot-scale testing to a full-scale trial and appears to be promising for treatment within a specific set of discharge conditions.
- **Increased or improved treatment plant capacity:** Other engineering measure improvements have included increased treatment plant availability (i.e., reduced downtime) and design improvements to clarifier rakes.

These measures are critically important, as we exceeded our permit levels several times in 2008. During the second quarter, effluent sample analytical results indicated that the TDS concentrations exceeded the permitted daily maximum limit of 196 mg/l¹ and the monthly average limit of 170 mg/l². During the third quarter, effluent sample analytical results indicated that the TDS concentration exceeded the maximum limit of 3,900 mg/l². Furthermore, during the third quarter, results of effluent sample whole effluent toxicity (WET) testing indicated the daily maximum permit limit of 12.2 TU_c had been exceeded.

The permits associated with Red Dog's water discharge practices have been the subject of some controversy. The facility's NPDES Permit is the federal regulatory instrument that governs

treated water discharges from the Red Dog Mine. In 2007, a new NPDES permit was issued and subsequently withdrawn by the US EPA. We considered obtaining a State wastewater permit, but ultimately pursued renewal of our NPDES permit through a Supplemental Environmental Impact Statement (SEIS), which is discussed throughout this report. Much of the uncertainty surrounding the treated water discharge permitting situation had been compounded by ongoing litigation by five individuals from the Kivalina community over previous permit violations. However, agreement was reached between Teck and the five Kivalina citizens through a formal Consent Decree that became effective in October of 2008. More information on NPDES in the form of frequently asked questions is available at: <http://cfpub.epa.gov/npdes/faqs.cfm>.

Toxic Release Inventory (TRI)

The Toxics Release Inventory (TRI) is a publicly-available EPA database containing information on chemical releases and waste management activities reported annually by certain industries and federal facilities. Mining companies operating in the United States have been required to report TRI numbers to the EPA since 1998 and Red Dog is currently reported as emitting the nation's largest TRI release. Why are the Red Dog mine's TRI numbers so high? The mining industry as a whole reports high TRI numbers, often because materials identified as 'toxic' (e.g., lead) are naturally contained in rock excavated from mine sites. For example, when miners at Red Dog move a pile of rock from one place to another, that rock contains naturally-occurring lead. Because it has been moved, it is considered by the EPA to have been "released" and is thus subject to the TRI reporting requirements.

Due to the size and high-grade nature of its rock and ore, the Red Dog Mine reports high levels to the TRI. However, these releases are not, strictly speaking, 'pollution' in the conventional sense. In fact, 99.95% of Red Dog's reported TRI 'releases' are simply piles

¹ Under the 1998 Mine NPDES Permit limits as believed to be in effect during grayling spawning season.

² Under the 2003 modified Mine NPDES Permit believed to be in effect at the time.

of rock that have been mined and are being stored, along with mill tailings stored underwater in the tailings pond, an engineered structure. These 'releases' are still contained on-site and are being managed in an environmentally-responsible way.

Teck is encouraged that the U.S. EPA has recognized the common misunderstanding created by the TRI as it relates to mining and is now considering clarification and/or changes to how EPA's TRI reporting requirements apply to metal mining operations. Learn more about TRI at: www.epa.gov/tri.

Reclamation and Closure

The Alaska Department of Natural Resources (ADNR) coordinates the permitting of large mining projects in the State of Alaska through a large mine project team (LMPT), an inter-agency group that works cooperatively with large mine applicants and operators, federal resource agencies and the Alaskan public. The ADNR is responsible for reviewing Red Dog's Reclamation and Closure Plan, coordinating public comment, and issuing formal approvals. In 2008, we worked cooperatively with the LMPT to develop the draft Reclamation and Closure Plan and numerous supporting documents, including the development of financial assurance, in preparation for public comment. Public comment on the plan and approval of the Plan by the ADNR is anticipated in 2009.

Tailings Management

If tailings or waste rock from a mine project has the potential for impacting state waters, then a Waste Management Permit must be obtained. As part of the large mine project team, the Alaska Department of Environmental Conservation (ADEC) is responsible for issuing a Waste Management Permit for Red Dog. This permit usually requires pre-operational, operational and post-closure monitoring. The permit also requires financial assurance both during and after operations to cover short

and long-term treatment if necessary, closure costs, monitoring, and maintenance. In 2008, Teck worked cooperatively with the ADEC to develop the draft Waste Management Permit and associated monitoring plan for release for public comment. As indicated above, the public comment and approval of the Permit and the Plan by the ADEC is anticipated in 2009.

Challenges associated with the difficulty of treating and discharging a sufficient amount of waste water from the tailings impoundment has resulted in increased water levels within the impoundment. Consequently, raising the height of the main tailings dam and the installation of a back dam were initiated in 2008. The construction of the back dam utilizes an innovative method of installing a bentonite and concrete cut-off wall, within the structure of the dam, to prevent seepage.

Conservation, Biodiversity Initiatives

Over the past year, we have supported and participated in several studies pertaining to the biology, population, and demographic composition of bears in Alaska.

In 2008, the U.S. Fish and Wildlife Service and the U.S. Geological Survey initiated a multi-year study of the Chukchi Sea polar bears. The purpose of the study was to gather the biological and demographic information needed to develop a management program overseen by a joint US-Russia Commission. To aid in this important research, the Red Dog Port hosted and provided logistical support to the research team for a portion of the 2008 survey period. While at the port, researchers were able to focus solely on the survey, and were relieved of the time-consuming tasks of operating a remote field camp. They were able to capture 19 bears during the nine days they resided at the port. The arrangement was so successful that the researchers planned to stage the entire 2009 field season program from the Red Dog Port.

Similarly, during 2008, the Alaska Department of Fish & Game and the U.S. National Park Service determined that it was time to survey the brown bear population in the region. The last population survey in the area had been conducted prior to the construction of the mine in 1988, and at that time there were concerns that the activity at Red Dog would drive away the bears. For this survey, Red Dog hosted 14 field personnel and provided logistical support for seven aircraft. The Red Dog Airport is centrally located to the survey area, so by basing the survey at the Red Dog airport, the researchers were able to access the survey area immediately instead of spending valuable flight time commuting back and forth from more distant airports. The final survey reports are not yet available but, preliminary results indicate that the brown bear population in the region has actually increased, indicating that the mine has not displaced brown bears.

By supporting these types of studies, Red Dog is helping to ensure continued proper management of the wildlife of the region. Through these studies, the government and local communities are able to determine the proper harvest levels to ensure the caribou, bears, and other wildlife will be available as a subsistence resource for generations to come.

Internal Audits

In 2008, we conducted an internal EMS Audit from October 27 to October 29, utilizing seven employee auditors. The significant aspects audited were: management of waste with special considerations (materials that need to be shipped off-site for treatment and/or disposal; e.g., hazardous waste, used oil, glycols), physical stability of mine features (e.g., waste rock dumps, tailings dam), leaks and spills of materials to water, acid rock drainage, fugitive dust and wastewater discharge. The audit resulted in seven minor findings and one opportunity for improvement. These findings have been addressed appropriately.

Energy Efficiency and GHG Emissions Management

In the fall of 2008, we reconfigured our fuel delivery system to provide continuous Diesel #2 to the mine's powerhouses. We generally use either a blend of Arctic Diesel and the Diesel #2, or just Arctic Diesel for the winter months. Diesel #2 contains more BTUs per gallon than Arctic Diesel, and also performs better in our generator sets due to its increased lubricating value. All these factors lead us to believe we should be seeing a 4 to 4.5% increase in fuel efficiency. We undertook simultaneous improvement projects at the powerhouses, hence it is difficult to know the exact results from the reconfiguration, but our best estimate shows a 2.85% improvement from January to April.

Community Outreach, Engagement, Dialogue

The operation's environment, health and safety (EHS) policy commits us to "Providing information to stakeholders, specifically recognizing the importance of local community relations, by promoting communication on the environmental impact of the Operation." This is not always easy, however. The most challenging aspect of Red Dog outreach is the remoteness of the site and the time and expense involved in bringing in visitors. The highly technical aspects of many of the relevant issues, is a challenge to communicate. Even in this report, we walk a fine line between making the language clear and accessible to the average reader, while providing enough detailed information for our experienced mining stakeholders.

Of paramount importance is Red Dog's outreach to people living within the NANA Region. The Operation has established a program of regular meetings with the residents of the eleven regional villages and towns, with a specific focus on the local community and tribal governments. Annually, each village

is visited by a cross-section of the Red Dog team, including corporate Vice-Presidents, the Operation's General Manager and his management staff, human resources and environmental staff and knowledgeable members of the workforce, including hourly employees. Monthly, or as often as possible, we also visit the two nearest communities (i.e., Noatak and Kivalina) with additional individuals from the Subsistence Committee (see the Aboriginal Relations section below for more information). The planned agenda for all community visits is to meet with the local government and visit the schools. The meeting culminates in an open and interactive community meeting. Issues discussed include water and air quality, spills, fish and caribou information, whaling impacts, permitting and new regulations, employment, future plans, training, operational status, construction programs, education and safety.

In addition, Red Dog hosts visits for key stakeholders on an annual basis. These visits often include an overnight stay, presenting opportunities to share the various aspects of the operation and discuss them in greater detail. We also conduct workshops to address key issues, such as closure planning and risk management plans for fugitive dust.

In 2008, Red Dog expanded its engagement to Non-Governmental Organizations. Key Alaskan environmental groups with an interest in mining activities were consulted to discuss the Aqqaq Extension Project, and several participated in a site visit. The issues we most often discuss with stakeholders are related to water and dust. One of the most contentious issues centered on water discharges from the mine to Red Dog Creek. While we are able to effectively and easily remove most metals and minerals from water prior to its discharge, dealing with dissolved sulphates (measured by TDS levels) continues to be a challenge. In past years, our TDS discharges have exceeded permitted levels, causing concern from the community pertaining

to the mine's effect on water quality and the surrounding habitats. As we work to manage TDS levels, our exceedances have been authorized by the appropriate agency through specific Compliance Orders and ultimately, we expect to finalize a new permit in 2009 that will allow us to operate within the approved limits. Nonetheless, we remain sensitive to public perception about our water discharges and are committed to continuing that dialogue with stakeholders.

Another key issue of concern is the high level of metals in Red Dog's dust. We have implemented a number of improvements to better manage mine dust, and have also conducted an ecological and human health assessment that identified potential adverse impacts from Red Dog's dust, including potential impacts to ptarmigan (a type of small bird), voles (small rodents), and vegetation. Numerous operational improvements have reduced dust to manageable levels. We are currently formulating a set of risk management plans to address these issues. To kick off this process in 2008, we held a workshop comprising more than 60 regional, Non-Governmental Organizations (NGO) and agency stakeholders. In 2009, a technical team (Ikayuqtit Team) will be assembled to provide a way for external stakeholders to continue to participate in the risk management process.

Aboriginal Relations

We are extremely proud of our record in working with indigenous peoples, and believe that Red Dog is a prime example of responsible development of mineral resources through co-operation based on mutual respect.

Bisected by the Arctic Circle, the NANA region is home to some 7,600 people, 75 % are Inupiaq Eskimo. The Inupiat people of the NANA region rely heavily on subsistence hunting and fishing. For most families, the household economy is a mix of hunting, fishing

and part-time, or seasonal jobs. Subsistence hunting and fishing is not only an economic necessity, it also has strong cultural and social significance. Reliance on the land is a traditional way of life for the Inupiat people.

NANA receives a 25 % net proceeds equity share of the operation's annual revenue, amounting to \$208 million in 2008. Our agreement with NANA states that net proceeds will increase by 5 percent every five years until we share our profits equally with NANA. Under provisions of the act that formed the Native corporations, NANA must share the majority of this revenue with twelve other Native corporations throughout the state, thereby expanding Red Dog's benefits throughout the area.

Management of Red Dog is conducted by a 12-member management committee (six members representing NANA and six members representing Teck). When the initial agreement was signed, two important advisory committees were formed: the Subsistence Advisory Committee, and the Employment Advisory Committee.

The Subsistence Committee is an advisory committee tasked with providing guidance to the Management Committee to ensure that the mine's environmental impacts are properly managed. Comprised of elders from the local communities, they are a critical component of our community outreach and provide an important means of exchanging information at the local level. The Employment Advisory Committee was established with members drawn equally from senior management and human resources personnel from both Teck and NANA. Their charge is to identify opportunities and hindrances that can affect our goal of hiring 100 % of Red Dog employees from the NANA community. To consider these issues, they meet routinely to discuss and formulate plans for improved hiring practices, workforce development and workplace satisfaction.

Employers at Red Dog include Teck Alaska and two principal contractors which are NANA joint ventures:

- NANA Management Services for housekeeping and food services; and,
- NANA Lynden Logistics for concentrate and freight haulage.

In addition, several other NANA joint ventures provide goods and services required by the operation (e.g., NANA Construction provides support for on-site infrastructure projects). In 2008, a total of \$112 million was paid to NANA joint ventures providing services to the mine.

Community Development/ Good Neighbour Practices

The single largest economic impact to NANA Shareholders, the region, and the state, is employment. As production has risen and economics have improved, Shareholders, the region and the state have benefited. The state-wide payroll, exclusive of related construction, is over \$50 million. At the end of 2008, 56% of the employees at operation were NANA Shareholders.

With more than half of our employees belonging to NANA, we have a strong connection to Red Dog's surrounding communities. Roughly half of these workers are residents of local villages and are successful and highly-regarded members of their communities. Their interplay with friends, family and neighbours provides a constant stream of information throughout all the communities.

The region's boundaries are identical to Alaska's Northwest Arctic Borough government. The Borough was incorporated in 1986 with authority over education, taxation, transportation, planning and zoning. In lieu of taxes, Teck provides millions of dollars annually (i.e., \$7.7 million in 2008) in payments to the Northwest Arctic Borough. This unusual agreement recognizes the Company's support for the Borough government, while relieving the Borough of the enormous administrative

costs of audits and taxing residents on their homes. The funds flow back to area residents in the form of improved education and economic development opportunities.

Teck and NANA have approached education and training through a partnership. Simply stated, we try to encourage and assist young people to achieve a good education. We have a Co-operative Education Job Share Program for employees and numerous scholarships. In conjunction with the Northwest Arctic Borough School District, we conduct a School-To-Work program and provide a job shadow educational experience for high school students. Students from each regional high school are selected through an essay contest to visit the mine site for an understanding of the operation, its job opportunities and to gain an insight into the Red Dog lifestyle. We have also developed an educational program that offers employees a semester on/semester off job share-education program schedule. Scholarship funding is provided through a number of programs and additional funding goes to several University of Alaska curricula.

Awards and Recognition

The members of the Red Dog mine Fire Team placed 2nd overall in team competition at the Alaska State Firefighters Conference held in Juneau on September 27, 2008.

	2006	2007	2008
Health & Safety Statistics			
Total Recordable Incident Frequency	3.96	8.39	2.68
Fatalities	1	0	0
Lost Time Injuries (LTI)	11	23	1
LTI Frequency	1.83	3.51	0.14
Severity	953.55	131.00	5.51
Energy Use			
Fuel (TJ)	2652	2588	2569
Electricity (TJ)	0	0	0
Carbon Energy Intensity in Product (GJ/t)	3.89	3.64	4.03
Energy Intensity in Product (GJ/t)	3.89	3.64	4.03
GHG Emissions			
CO2 equivalents (kt) (Direct)	183	190	190
CO2 equivalents (kt) (Indirect)	0	0	0
CO2 equivalents (kt) (Total)	183	190	190
Carbon Intensity in Product (t/t) (Direct)	0.27	0.27	0.30
Carbon Intensity in Product (t/t) (Indirect)	0.00	0.00	0.00
Carbon Intensity in Product (t/t) (Total)	0.27	0.27	0.30
Production – Metal Contained in Concentrate (kt)			
Zn	557	575	515
Pb	123	136	123
Mined Materials			
Total waste rock (kt)	4,236	3,549	4,606
Total tailings dry (kt)	1,989	2,086	1,894
Permit Compliance			
Number of Permit Exceedances	26	21	23
Total Parameter Count – Air	290	139	272
Total Count over Permit Limit – Air	4	0	1
% Compliance Air	98.62%	100.00%	99.63%
Total Parameter Count – Water	876	857	882
Total Count over Permit Limit – Water	22	21	22
% Compliance Water	97.49%	97.55%	97.51%
Reportable Spills			
Number	130	150	112
Volume (L)	1049021	358119	443790
Weight (kg)	1486	4327	451
Reclamation			
New reclamation for the year (ha)	0	0	0
Reclaimed to date (ha)	0	0	0
Land to be reclaimed (ha)	1,022	1,022	1,029
Reclaimed/Land To Be Reclaimed (%)	0%	0%	0%
Trees/shrubs planted (number)	0	100	0
Waste Management & Recycling			
Total solids recycled (tonnes)	927	754	532
Total liquids recycled (m ³)	67	161	220
Total solid non-haz. material to landfill (tonnes)	7,423	5,207	4,491
Total solid non-haz. material incinerated (tonnes)	333	275	313
Water Conservation			
Total groundwater withdrawal (m ³ /yr)	0	0	0
Total surface water withdrawal (m ³ /yr)	845,117	558,569	488,429
Total volume of water recycled/reused (m ³ /yr)	12,136,635	12,957,127	21,039,928
Total percentage water recycled/reused %	1436.09%	2319.70%	4307.67%

Red Dog Operations
3105 Lakeshore Drive
Building A, Suite 101
Anchorage, AK USA 99517

+1 907 426 2170 Tel
+1 907 426 2177 Fax
sustainability@teck.com
www.teck.com

