# Our Commitment 2008 Sustainability Report



**Teck** is a diversified resource company committed to responsible mining and mineral development with major business units focused on copper, metallurgical coal, zinc, gold and energy. We have expertise across the full range of activities related to mining, including: exploration, development, smelting, refining, safety, environmental protection, product stewardship, recycling and research.

We are a company focused on supplying natural resources to people around the world and we will continue our efforts to play a meaningful role in resource stewardship for generations to come.

This is Our Commitment.

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# About this Report

This summary report is intended for audiences who have a general interest in Teck's sustainability performance. Volume Two is our second summary report since transitioning to an on-line reporting format. Our intention is to provide the reader with a more reader-friendly report. The more detailed and comprehensive report is available on our website at www.teck.com/sustainability.

This report, which summarizes our sustainability data from January to December 2008, has been prepared in accordance with the Global Reporting Initiative (GRI) Third Generation (G3) Guidelines. The GRI Reporting Principles, Technical Protocols, Indicator Protocols and the Mining and Metals Sector Supplement (January-April 2009 Draft) guided the structure and content of this report. The AA1000 assurance standards guided the reporting process and its principles of materiality, completeness and responsiveness.

For information on how we comply with the GRI Guidelines, please refer to the GRI Finder on our website. We declare our report to be GRI-checked at the "A" Application Level.





# Letter from our CEO

Thank you for reading the Teck 2008 Sustainability Report: Our Commitment. The financial crisis and recession had a global impact that saw commodity prices tumble. Despite the global economic challenges, we demonstrated our ability to pay down the debt from the Fording Canadian Coal Trust acquisition and now look forward to continued growth and success in our pursuit of sustainability. Our commitment to sustainability initiatives such as the International Council on Mining and Metals (ICMM) and its Sustainable Development Framework and to the UN Global Compact, continue to inform our direction and approach.

There were several highlights from 2008 that we are proud of. Among them were the positive results from a stakeholder and aboriginal group panel that reviewed our 2007 sustainability report. A key outcome of the panel was the development of the following sustainability mission and vision: Our sustainability mission is to find, extract and provide natural resources to society for the benefit of present and future generations – "Resource Stewardship for Generations". We will continue to engage and share our mission and vision with internal and external stakeholders for further feedback.

Although we are saddened to report that a fatality occurred in 2008, we saw improvements in our quest for zero fatalities and incidents. Between 2007 and 2008, our employees and contractors combined achieved a 49 percent reduction in the Total Reportable Incident Frequency (TRIF). Courageous Safety Leadership, a values-based process to help employees make a personal commitment to safety, was initiated and will be implemented across the organization in 2009.

In 2008, we continued our work to improve energy efficiency and reduce Greenhouse Gas (GHG) emissions. We created an expert team to track energy use and develop improvements in energy utilization. This work will continue in 2009 and will lead to short and long-term goals for energy use and GHG emissions. For water management, we were over 99 percent compliant with our permitted discharge requirements and continued to improve our performance. Our goal is to conserve water and minimize the impacts of our activities on water quality.

Our work with communities plays an important role in sustainability. In 2008, community engagement and development training was introduced with personnel participating from all business unit operations and the exploration group. In 2009, we will introduce new management standards for community engagement and development and human rights. In addition, we will develop an indigenous peoples engagement policy and expand our professional competencies and capacity to address the evolving requirements of the important relationships we share with indigenous peoples.

Teck Zinc is working with industry and global organizations such as UNICEF Canada and the International Zinc Association to promote a global initiative to address a global sustainability crisis, zinc micronutrient deficiency in children, through a dietary supplementation and zinc fortified fertilizers program in regions where soils lack zinc. This is just one application of our products that supports a more sustainable world. As a company focused on supplying natural resources to people around the planet, we will continue our efforts to play a meaningful role in resource stewardship for generations to come. This is Our Commitment.

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**Donald R. Lindsay** President and Chief Executive Officer

# Vision, Materiality and Strategy

In 2008, we proactively engaged with internal and external stakeholders on our sustainability reporting and performance. A key outcome was the recommendation that we clearly articulate our vision for sustainability and demonstrate the link between vision, material issues and strategy. A meaningful strategy will continue to be articulated and shared throughout the company. To position ourselves for success in reaching any goals, it is critical to engage early with the people involved in implementing the strategies. Therefore, the long-term objective is to co-create a more comprehensive, company-wide sustainability plan consisting of:

- a shared sustainability vision for the company
- core areas of focus or challenges identified through the materiality assessment
- identified opportunities
- stated goals and targets (both long- and medium-term)
- strategies to manage challenges and opportunities
- resources and designated responsibilities to support actions required to support the strategies

#### Vision

As our understanding of sustainability has evolved – the notion that our actions today must take into consideration the current needs of society and the ability of future generations to meet their own needs – it has become clear that natural resource extraction, more than most other forms of enterprise, has the ability to foster or hinder the pursuit of sustainability on a grand scale. While the scope of our activities may evolve, our mission is to find, extract and provide natural resources to society for the benefit of present and future generations – "Resource Stewardship for Generations". With this in mind, we work to identify the material ways in which our activities may impact sustainability and develop the strategies that will guide us as we maximize our opportunities and minimize our impacts.

#### Materiality

To ensure our alignment with the GRI principle of materiality for defining content, we conducted a materiality analysis. Our definition of 'material information' in connection with our reporting on sustainability matters is information that may impact or influence the company, and has the potential to influence the perception of stakeholders who intend to make decisions and assessments about Teck's commitment to sustainability.

Subject matter and indicators in a GRI-compliant sustainability report should reflect a company's most significant environmental, socioeconomic and social impacts, and should help stakeholders make informed assessments and decisions. Therefore, we used the results of our materiality analysis to set the content for this year's report.

Based on our assessment, the areas of greatest importance to our stakeholders and/or to us in 2008 are, in no particular order:

- Safety and health
- Declining commodity prices and socioeconomic impacts on communities and employees
- Environmental management issues for our company and industry
- Community engagement and development
- Responsible stewardship of our products in society

#### Strategy

Our sustainability strategy focuses on the above-listed five material areas to help drive our sustainability performance. Through directing our effort in these areas, as outlined in the comprehensive goals and progress table on our website, we are dedicated to maintaining our license to operate and meeting the challenges that face us.

# A Sustainability Blueprint

Corporate governance, management systems and transparency provide a blueprint for how we incorporate sustainability into our business. Our core values – safety, integrity, excellence, discipline, commitment, teamwork, innovation and respect – guide our decisions and actions.

#### Corporate Governance

Demonstrating good corporate governance is an important priority for the directors, senior executives as well as all of our employees. Our General Counsel actively participates on the Corporate Governance Committee of the Board of Directors to ensure that our governance practices are up-to-date and meet the highest standards, wherever we conduct business.

Our Code of Ethics affirms our commitment to uphold high moral and ethical principles and specifies the basic norms of behaviour for those conducting business on its behalf. While our business practices must be consistent with the business and social practices of the communities in which we operate, we believe that honesty is essential in any locale. Thus, though local customs may vary, our activities are based on honesty, integrity and respect.

## Sustainability Governance and Management Structure

The Safety and Sustainability Committee of the Board of Directors provides policy direction and monitors the company's environmental, social and safety performance. The Corporate Environment and Risk Management Committee (CERMC), chaired by the Chief Executive Officer (CEO), is a senior management committee that sets priorities and direction for Environment, Health and Safety (EHS) programs, tracks performance and measures results. The Vice President of EHS oversees compliance with environmental and safety standards and regularly reviews performance risks and strategic issues. The Vice President of EHS and the Vice President of Sustainability set goals and objectives approved by the Board of Directors to manage sustainability performance in areas such as: water management, biodiversity, community relations, human rights, and climate change. Both Vice Presidents report to the Senior Vice President of Sustainability and External Affairs, who is accountable for sustainability reporting to the CEO.

## Management Systems

Our commitment to sustainability is integrated throughout our company and is embodied in four interrelated documents:

- Charter of Corporate Responsibility is a set of principles related to business ethics, environment, safety, health and community that governs all operating practices and provides the overarching sustainability governance commitments
- Code of Sustainable Conduct outlines our commitments to sustainable development
- Code of Ethics sets out the company's dedication to upholding high moral and ethical standards, and specifies basic business conduct and behaviour
- Safety and Health Policy fortifies a corporate commitment to providing leadership and resources for entrenching core values of safety and health

Together, these documents provide the foundation that guides our commitment to sustainability throughout all of our operations worldwide.

Our Charter, Codes and the Safety and Health Policy provide a foundation and a framework for the Environment, Health, Safety and Community Management Standards, a set of standards that guide all business activities and form an integral part of management decision making. These standards are based on the ISO 14001 international standard for Environmental Management Systems and OHSAS 18001 standard for health and safety. New standards on 'Community Engagement and Development' and 'Human Rights' are currently being added.

# Sustainability Report Review Panel

Our belief in the value of engagement extends to our sustainability reporting. We assembled a Panel representing a diversity of interests and expertise to review our completed 2007 Sustainability Report so that we could learn how to improve our reporting for 2008 and beyond. We are extremely grateful to all the Panel members for giving us the benefit of their experience and helping us to improve future reports. For the complete report and for our response to the Panel, please go to www.teck.com/Sustainability. Below is a summary of how we've included their recommendations in this year's report.

#### Panel Structure - How we did it

We selected individual Panelists based on their experience, their perspective, and their ability and willingness to tell us frankly what we need to know. All of the Panelists, with the exception of the two employees, were independent. Led by an independent facilitator, the Panel focused their review on the printed report, but had access to the detailed information on the Sustainability section of our website.

# Panel Results – What we learned and how we've included their recommendations

Opening up sustainability reporting to independent critique is still a fairly new practice for companies, so we were encouraged that the Panel showed appreciation for our commitment to transparent reporting. The Panel commented on report structure, presentation and content, and made several recommendations. In the course of reviewing the report they also provided insight that will be of value in the evolution of our sustainability strategy. Some of the recommendations from the Panel that we included in the 2008 report include:

- *Clearly articulate sustainability strategy.* This year we underwent a strategic planning process to review our sustainability vision and plan in order to more clearly articulate our direction, goals and objectives. We discuss our vision and strategy and provide more specific details in the Goals and Progress table. We intend to continue sharing this vision and strategy with stakeholders to receive further feedback.
- Structure Report to align with Teck's sustainability framework. Our planning process started with an evaluation of our material issues. Identifying and evaluating our material issues helps us to manage risk and to identify opportunities, which have both been incorporated in our Goals and Progress table.
- Continue to provide frank disclosure of the challenges Teck faces. We continued to talk about our challenges such as the Upper Columbia River Risk Assessment in the Your Concerns Our Response section. We will update this section with new issues throughout the year.
- Develop a more rigorous methodology for assessing social impacts. Our activities across the project life cycle result in a range of positive and adverse social impacts on our Communities of Interest. The identification and management of such impacts poses both challenges and opportunities and is key to successful risk assessment, decision-making, project development and promotion of social well-being. Strengthening our capacity to better manage potential impacts and act on opportunities will be our focus for the coming years, as outlined in our Goals and Progress table, and will occur as we train our operations in identifying, assessing and managing social impacts.

# Safety Performance

Safety is a core value of our company. Operating management is responsible for safety performance at each site. At the corporate level, the President and CEO is the most senior person responsible for safety and health performance.

Our goal of Zero Incidents was not achieved in 2008. Unfortunately a worker was fatally injured in July at a coal exploration project in the Elk Valley of British Columbia. We wish to express our heartfelt condolences to the family, friends and co-workers of Dennis Michael Gravelle, who worked for a contractor that provided logging services.

In our pursuit of continual improvement and to renew our commitment to Zero Incidents, we established a case study team in 2008 to evaluate safety practices of some of the best-performing mining companies in the world. One key strategic recommendation was to develop and implement Courageous Safety Leadership, a process that challenges people's beliefs and values and puts into context how important personal commitment and leadership are in reducing incidents. The Courageous Safety Leadership implementation is taking place across the organization in 2009. Our commitment to undertaking this important initiative at this time of economic uncertainty is a testament to safety as a core value. Courageous Safety Leadership will assist us in achieving our vision of "Everyone Going Home Safe and Healthy Every Day".

Total Reportable Incident Frequency (TRIF) is our primary lagging indicator of safety performance. This indicator takes into account fatalities, lost-time injuries and incidents requiring medical aid. By this measure, our employees and contractors combined attained a 49 percent reduction in the TRIF between 2007 and 2008. A 59 percent reduction in the lost-time injury frequency was also realized. We are extremely proud of the significant improvement in our safety performance. (See Performance Indicators table at the end of this report).

## Employees

Teck is committed to attracting, developing and retaining the highest quality workforce possible. The Vice President of Human Resources is responsible for establishing company-wide employment, labour management, training and education.

As of December 31, 2008, there were approximately 9,000 regular, full-time employees working at Teck-operated mining and metallurgical operations and offices. In early 2009, we announced a global workforce reduction which will decrease our numbers by approximately 1,000 regular, full-time and temporary positions, as well as 400 contractor jobs. Most of these reductions occurred in the first quarter of 2009, but others will occur due to retirement and attrition throughout 2009. These actions were difficult but necessary and we gratefully acknowledge the service and contributions each affected employee made to the company.

#### **Employee Retention and Attraction**

Despite our workforce reductions, employee retention and attraction continues to be a challenge across the industry. As part of our efforts to improve employee retention and attraction, professional and career development is a priority, with a focus in four key skills areas: technical, operational, business acumen and leadership.

All new graduate engineers complete our four-year engineer development program. Currently, over 100 engineers are participating in the program. As more employees become eligible for retirement, attracting graduating engineers and offering them comprehensive development programs becomes increasingly important. We also have well-developed apprenticeship programs for employees pursuing trades certifications. About 400 employees are currently working towards completion of their apprenticeships.

We continue to offer graduate-level business courses through our Business Education Program, in partnership with Simon Fraser University. Since 1997, 228 employees have completed at least one course through our Graduate Diploma in Business Administration program. In September 2008, we launched our first Master of Business Administration (MBA) program, with the first group of 25 employees working towards completing their MBA's while continuing to work full-time.

Launched in 2007, our Emerging Leaders program seeks to develop the capacities of employees who are on a track to reaching key senior positions in the company. The program aims to broaden understanding and knowledge of our business, deepen understanding and commitment to our business strategies and values, and enhance leadership capabilities. Thirteen employees completed the leadership program in July 2008 and 16 employees are scheduled to complete it in the summer of 2009.

#### **Building Strength with People**

The implementation of Building Strength with People, our performance management program, continued in its second year across most sites. The program encourages discussion between employees and their supervisors focusing on performance, development, and career planning. In 2008, we introduced a new on-line documentation program at selected sites, with continued expansion planned for 2009.

## Scholarship Programs

Several scholarship programs have been established to support students pursuing academic excellence and encourage consideration of studies that would lead to challenging careers in the minerals industry. In addition to our Higher Education Awards, which support qualifying children of our Canadian and American employees entering post-secondary institutions, we have developed Undergraduate Scholarships at selected universities around the world in the areas of mining engineering, mineral processing, geoscience, metallurgy and related disciplines. In partnership with universities, we designed these scholarships to fulfill our objective of supporting high-potential students who have demonstrated a strong commitment to giving back to their community. In addition to one scholarship which honours and recognizes the valuable contribution of a retired employee, Mr. Walter Kuit, other scholarships have been created to support unique programs at a variety of institutions, including a number in South America.

## **Environmental Performance**

#### **Biodiversity and Land Status**

We are a responsible steward of the lands that we manage. Our aim is to minimize our footprint, mitigate our impacts and after mining operations have ceased, leave behind land that will support productive uses for future generations. As part of the development and implementation of our progressive mine reclamation plans, we consider and incorporate biodiversity management principles and activities, such as the appropriate selection of site-appropriate species for planting during reclamation. The latter includes (among other practices) the use of native, indigenous tree and shrub species, which support appropriate habitat for local wildlife and which are consistent with the biogeoclimatic landscape. As our biodiversity practices and activities evolve and become more formalized, operation-specific management plans will be developed and used across the company. In support of our strategy, we are finalizing a guidance manual to support the implementation of biodiversity protection practices.

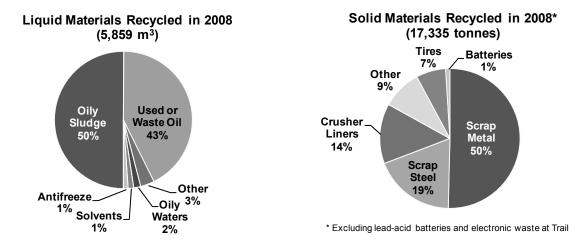
Reclamation (or closure) plans are developed for each of our minesites and are followed through to closure. Our practice is to progressively reclaim lands when they are no longer required for mining. We plant native species of grasses, shrubs and trees, some of which are sourced locally or are grown at on-site nurseries. In order to return the remaining disturbed land to a stable state for post-mining land uses, we conduct the following activities upon closure: remove, relocate, demolish or transfer ownership of buildings and physical infrastructure; close pits and shafts; treat tailings and waste water appropriately; and, slope, contour, cap or cover and vegetate our waste rock dumps. We have won a number of industry and government awards for our innovative approaches to reclamation. About 37% of the lands that we have disturbed have been progressively reclaimed. During 2008, we reclaimed 164 hectares of land and planted over 350,000 native trees and seedling stock, taking great care to use native seeds in order to maintain genetic integrity.

## Materials

We strive to minimize the production of waste from our mining processes. In instances where waste may be generated, every effort is made to divert the materials to other useful purposes. The volume of recycled liquid material in 2008

amounted to 5,859 m<sup>3</sup>, with used oil and oily sludge accounting for the vast majority. The total weight of solid material recycled was over 50,000 tonnes. Approximately 65% of this material is accounted for by the lead-acid batteries and electronic waste recycled at our Trail smelter. The remainder is comprised primarily of scrap metal, scrap steel, and

crusher liners that are recycled at our other operations. Trail is uniquely positioned to provide recycling solutions for metalbearing manufacturing and post-consumer materials. In fact, Trail's pioneering efforts in recycling spent lead-acid batteries led to collaboration with the government of British Columbia and other stakeholders in the development of Canada's first provincial Lead-Acid Battery Collection Program in 1991. More recently, Trail has worked to create an electronic recycling program, which was highlighted as a case study in the 2007 Sustainability Report. This program diverts thousands of tonnes of discarded e-waste from landfills in western Canada and the United States. Recycling postconsumer products is another way we are able to make an important contribution to society.



We have a long and proud history of technical innovation. To keep abreast of new technology, several of our research and development programs are aimed at optimizing and promoting the efficient use of resources in all aspects of the business. We apply the principles of sustainability to the management of materials that were traditionally thought of as waste. An ever-growing list of materials once considered waste are now re-used or converted to useful products. Most of this activity occurs at our Trail smelter. Some important examples include:

- Ferrous granules, once part of the waste stream, are now used in the production of concrete hardeners and as an iron supplement in cement production.
- Lead from lead-acid batteries is recycled and shipped from across Canada and the United States. In 2008, approximately 24,000 tonnes of lead from such sources was processed, the equivalent of over 2.6 million car batteries (based on an average weight of 9 kg).
- Zinc alkaline batteries, which contain about 20% zinc, are being recycled as part of a pilot/demonstration
  campaign to prove the environmental and economic feasibility of this large potential source of metal that is
  currently being landfilled.
- Cathode ray tube (CRT) glass for recovery of lead is being treated in Trail's KIVCET furnace, diverting the hazardous waste from landfills or stockpiles. The glass also provides a required source of silica for the furnace which otherwise would have had to be supplied from other mined sources.
- Trail also expanded its recycling business to recover metals and materials from electronic waste (e.g., old computers, monitors, televisions, etc.) known as e-waste. In 2008, over 8,200 tonnes of e-waste was processed, bringing the total for the past three years to over 15,000 tonnes. As the program grows, we expect to process up to 20,000 tonnes of e-waste per year, the equivalent of 2 million computers(based on an average weight of 10 kg), effectively diverting material that would otherwise go to solid waste landfills in western Canada and the United States.

New recycling opportunities continue to be developed and include fluorescent light bulbs and Phase 2 of B.C.'s electronics recycling program (www.env.gov.bc.ca/epd/recycling/electronics/info.htm). These and many other recycling opportunities on the horizon will continue to allow our Trail operation to contribute to sustainable development.

## Energy and GHG Management

Our operations require energy for the recovery and production of minerals, metals and coal. As part of our sustainability initiative, we are committed to the efficient use of energy and responsible management of associated greenhouse gas (GHG) emissions. Our long-term goal is to achieve a reduction in such emissions through energy efficiency improvements, the increased use of renewable energy, and if necessary, through the use of credits and offsets. We will achieve this challenging goal with ingenuity, creativity and investment of time and resources. Our short-term efforts have focused on:

- Establishing operation-specific targets and further improving processes for monitoring and reporting energy use and GHG emissions
- Enhancing our efforts to identify, assess and implement opportunities to improve energy efficiency, reduce GHG
  emissions and increase the share of energy derived from renewable sources
- Investing in research and development of low-carbon technology for mining and smelting, as well as carbon capture and storage opportunities
- Advancing the application of our products, particularly metals, in areas that support an overall reduction in society's carbon footprint

Energy, in its many forms, but particularly diesel, electricity and natural gas, is one of our most significant cost items. As a result, we have always focused on improving efficiency and overall financial and environmental performance. Over the years, growing effort has been placed on ensuring these activities are undertaken in a more systematic fashion. In 2008, a new corporate working group was established to assist operations in the identification and implementation of energy conservation and energy efficiency projects. Successful initiatives will also bring improvements in carbon intensity and/or reductions in GHG emissions at our operations. Key activities have included: collecting and analyzing detailed site energy/emissions data; creating detailed energy/emissions maps for use as a tool for identifying opportunities; revising existing energy reporting mechanisms/formats; and creating a database of energy/emission reduction projects.

The use of diesel for vehicles, such as large haul trucks and shovels, forms a significant component of our energy use and GHG emissions. Consequently, several initiatives aimed at reducing GHG emissions through improved fuel efficiency or by shifting to low-carbon forms of energy such as hydroelectricity, continue to be evaluated at several operations.

Many of our metal products and advanced technologies will serve important roles in the development of alternative energy sources and energy storage options. For example, we continue to place effort in areas such as the ongoing development of lead-acid battery and zinc-air battery technologies.

## **Climate Change Economics**

In 2008, we continued with a number of processes to evaluate the impact of climate change and associated regulations on the company and to identify energy conservation and efficiency opportunities. Given the on-going evolution of climate change issues, our assessment of the potential impacts, including risks and opportunities, continues to be reviewed through an annual risk assessment process.

For the past three years, we have participated in the Carbon Disclosure Project (CDP) (www.cdproject.net/canada.asp), an independent not-for-profit organization which holds the largest database of corporate climate change information in the world. On behalf of participants, CDP seeks and obtains information from the world's largest companies on the business risks and opportunities posed by climate change, as well as greenhouse gas emissions data.

#### Risks

There appears to be general consensus regarding shifts in climate and weather patterns on a global scale. We must be cognizant of the potential impact of changes in climate, such as increases in periods of severe weather, rising sea levels, prolonged drought in some areas and heavy rainfall and flash flooding in other areas. However, predicting potential climate changes on a local level is very challenging making it particularly difficult to predict how changing weather patterns

might affect our operations. We will continue to explore advances in climate forecasting at the local level to ensure that our current and future facilities are designed and operated with the anticipated future climate in mind.

We believe that despite current economic conditions, governments will continue to develop legislation to constrain carbon and regulate emissions. We continue to participate in the development of climate change regulations with various governments. This includes working with industry associations to guide the development of regulations, mining and smelting industry policies and practices on energy/GHG emissions at national and provincial levels.

#### Opportunities

There is potential to expand existing energy efficiency projects across all operations. Efforts initiated in late 2008 and continuing into 2009 are focused on identifying and implementing energy conservation and efficiency projects at operations. Our aim is to share information on such initiatives and on best practices across the company. Tools, including a database of projects and an intranet site, are being created to facilitate this sharing of knowledge.

Climate change presents us with several process and product-oriented commercial opportunities. We have an opportunity to leverage research and development and on-going technological advances. These include zinc-air fuel cell applications for the green energy sector and the CESL Limited hydrometallurgical method for recovering copper.

Zinc-Air Fuel Systems: research, development and demonstration of zinc applications for the green energy sector have been a focus of our Product Technology Centre (PTC). PTC and partners are developing regenerative zinc-air fuel cell systems which have potential as a "green" power source offering a range of possible uses from mass transit to portable power.

CESL Hydrometallurgical Process (www.cesl.com): This alternative process to smelting is currently being tested at a prototype plant in Brazil with Companhia Vale do Rio Doce (Vale) and provides several environmental benefits including:

- Zero gas emissions, except for a small amount of pure steam produced by the autoclave and in certain instances, an evaporator. The production of sulphur dioxide, a precursor to acid rain, is also avoided in this hydrometallurgical process.
- Innovative design virtually eliminates all effluents. All liquids are recycled through the plant, and process impurity levels are controlled using a precipitation circuit.
- An on-site process that eliminates intensive shipping requirements associated with traditional smelting methods and concentrate sales. In turn, emissions are significantly reduced.

## Spills

Controls are in place at all operations to minimize the likelihood of spill events and mitigate potential impacts to the environment. In addition to facility design considerations, additional control measures include spill containment, meters, alarms, standard operating practices, training, regular inspections and identification of potential issues through internal and corporate risk assessments and audits. The vast majority of spills are confined on-site within primary or secondary containment, and are immediately controlled, reported, and cleaned up.

In 2008, a total of 287 spills occurred, more than three-quarters of which were well under 500 litres in volume. Eight environmental incidents were considered significant, based on a severity index scale that considers location, nature of material spilled and amount of material spilled. Information about each incident is available on our website. Thorough investigations were conducted to identify root causes and to implement measures to prevent future occurrence or similar events.

# Socioeconomic Performance

We are committed to working with local communities to mitigate our potential adverse impacts and to seek sustainable development opportunities that add value and improve overall socioeconomic conditions for those affected by our activities. Continuing to work with community relations staff across our operations and projects remains a key step moving forward to enhance and standardize our community engagement programs.

## Impacts of Mining

Our activities across the mining life cycle result in a range of positive and adverse social impacts on our Communities of Interest. In this context, we define 'social impacts' to mean any positive or adverse consequences experienced by Communities of Interest and their members resulting from the existence of, or changes to, a project or operation. The identification and management of such impacts poses both challenges and opportunities and is key to successful risk assessment, decision making, project development and promotion of social well-being and sustainability. In 2008, we asked mine sites to report for the first time on their programs and practices to manage the social impacts of an operation.

The types of social issues and impacts associated with a mining project, which are well documented in literature, vary in scale, extent and nature and can be both positive and adverse. With the development of social baseline studies and assessments, we are now better placed as a sector and a company to understand, predict and manage these impacts. Strengthening our capacity to better identify and manage potential impacts and act on opportunities will be our focus for the coming years. This will occur as we build capacity at our operations.

## Human Rights

Human rights refer to the basic rights of each human being independent of race, sex, religion, political opinion, social status or any other characteristic. Understanding and communication of expectations in regard to human rights is evolving, as is the potential for extractive industries to either positively or negatively influence human rights through our activities. This rapidly emerging area presents major challenges to our capacity to engage and address the reasonable expectations of people affected by mining while fully realizing the considerable opportunities to improve human rights and reduce the incidence of abuses. As we continue to operate – and as the scope of human rights continues to evolve and include aspects such as the right to water, the right to education, and the right to participate in cultural life – we will continue to improve our ability to integrate business practices consistent with global human rights priorities and standards.

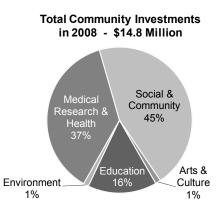
## **Indigenous Peoples**

Almost all of our sites are located within, or close to, traditional territories of indigenous peoples. We have a number of agreements in place to address the expectations, aspirations, and concerns of indigenous peoples, as well as preventative measures to manage impacts. These measures include social and environmental impact assessments which specifically consider indigenous interests through mechanisms such as traditional knowledge studies and impact/benefit agreements.

Our commitment to indigenous peoples spans the mining life cycle, including post-closure. One of our wholly owned subsidiaries operated the Pinchi Lake Mine from 1940 to 1944 and 1968 to 1975 on lands within the asserted traditional territories of the Tl'azt'en Nation and the Nak'azdli Band. In December 2004, a dyke enclosing a lagoon at the mine site failed and mercury-bearing fluids from the lagoon and material from the dyke were discharged into Pinchi Lake. We continue ongoing reclamation of the mine site as we work in close partnership with these two indigenous groups. In 2008, we negotiated an agreement with the Tl'azt'en Nation and Nak'azdli Band to initiate the Pinchi Lake Legacy Fund. A sum of \$5 million has been placed in escrow pending completion of a definitive legacy agreement. The agreement will result in the creation of a non-profit society led by the Nations and with the purpose of building sustainable, healthy communities in the Pinchi Lake area.

## **Community Investment**

Our investment in community partnerships and corporate giving has grown from \$500,000 in 2003 to \$15 million in 2008. Since 2006, we have followed Imagine Canada's (www.imaginecanada.ca) recommendations and have begun publicly disclosing our donations, with a target of donating annually 1% of earnings before interest and taxes on a five-year rolling average basis. However, financial circumstances in the second half of 2008 and 2009 to date, were such that we will be unable to fully meet our stated goal. We fulfilled all of our prior commitments for the year and intend to maintain the Imagine Canada target as our goal.



## **Capacity Building**

Building our internal capacity and knowledge to effectively manage the social aspects of our activities was identified as a long-term priority. In 2008, a review of personnel and resources dedicated to community engagement/development across the company revealed a need for capacity-building and support across sites. As an immediate measure, we hired a corporate manager dedicated to social and community development and designated another corporate employee to work with operations in community engagement; established guidance on company roles and responsibilities with regards to Communities of Interest; and commissioned the Centre for Social Response, based in Brisbane, Australia, to provide training on community engagement and dialogue to our communities' employees. Twenty employees from our operations, exploration and corporate head office completed the first training session in Vancouver in October 2008 with a further 13 employees from Latin America completing the course in Santiago, Chile in March 2009. At the same time, we held senior executive sessions to engage with and build the capacity of our leaders and senior management.

Looking to the future, our goal is to regularly provide relevant training and capacity-building opportunities for community engagement personnel and develop a company-wide professional practice group to continually improve performance and consistency and share best practices. A web-based Community of Practice for communities' staff is in development, with the goal of providing support, information and resources related to managing community and social aspects. In 2009, our goal is to operationalize this Community of Practice across the company in both English and Spanish.

As the Community of Practice gets underway, social metrics will be developed for projects and operations to monitor and measure effectiveness in community engagement and development. This will be an on-going process and multi-year commitment.

# Your Concerns, Our Response

## The Issue: Selenium Water Quality Concerns in the Elk River Valley

#### What is the issue?

Selenium is a naturally-occurring element that is essential and beneficial for all animals, including humans. However, if present in elevated concentrations it can be toxic. Increased concentrations of selenium have been observed downstream of coal mining operations in many parts of the world. This has also been observed at our coal operations in Alberta and British Columbia. Regional monitoring indicates continued, long-term increases in selenium in surface waters downstream of the mines. In some areas, levels have been shown to exceed environmental quality guidelines. Selenium is of concern to us because of the potential for toxicity-related impacts, which are thought to result from the replacement of chemically-similar sulphur with selenium that can occur in developing aquatic organisms.

#### What actions have we taken to address the selenium issue?

We work proactively and cooperatively with provincial and federal regulators to better understand and address the issue of elevated selenium concentrations downstream of our coal mines. Our Cardinal River operation participates in the Alberta Selenium Working Group and the British Columbia coal operations participate in the Elk Valley Selenium Task Force. In addition, we continue to actively participate and contribute to the Canadian Industry Selenium Working Group and the North American Metals Council - Selenium Working Group. These activities are important to us, as they allow us to benefit from the developments, technologies and research that are ongoing nationally and internationally.

We have developed and implemented Selenium Management Plans for all our coal mine sites in the last year and we continue our investigative work at all our mine sites. Our investigations are focused on four main areas: determining the potential for biological effects; monitoring for trends and effects; understanding the source of selenium and mechanisms of release; and identifying management measures.

#### What is the focus of current and future efforts?

It is our goal to: (i) understand the mechanisms of selenium accumulation in, and release from, waste rock piles; and, (ii) to identify and implement measures preventing the release of selenium and management methods, including treatment technologies, which might effectively reduce selenium releases to the environment. For example, a trial of a pilot-scale treatment system at the Cardinal River mine site was initiated last year and further trials are planned for our mine sites in British Columbia. As our understanding of the issue has increased, our efforts are increasingly focused on prevention and treatment.

## The Issue: Red Dog Mine Clean Water Act Lawsuit

#### What is the issue?

Five plaintiffs from the Village of Kivalina, Alaska filed a lawsuit for alleged exceedances of certain conditions of the Red Dog Mine water discharge permit.

#### What actions have been taken to resolve the issue?

Teck Alaska Incorporated, NANA Regional Corporation, the Northwest Arctic Borough and five plaintiffs from the Village of Kivalina, entered into an agreement on September 3, 2008 settling litigation that was before the U.S. Federal District Court for the District of Alaska under the Citizen's Suit provisions of the Clean Water Act.

Under the terms of the Settlement Agreement and a subsequent consent decree filed with the Court, Teck Alaska has committed to diligently pursue the necessary permits and other approvals required to construct a water discharge pipeline to the Chuckchi Sea, 55 miles southeast of the mine. If the permits and approvals necessary to build the pipeline and to

develop and mine the Aqqaluk deposit are obtained, we will engineer, construct and operate the pipeline. The parties have agreed to work cooperatively and to actively support the permitting, design, construction and operation of the pipeline.

The pipeline has been identified as one alternative in the Supplemental Environmental Impact Statement currently being developed for the Aqqaluk extension project at Red Dog. In addition to that study, a full permitting exercise and a thorough environmental review of the pipeline project will be conducted once all approvals for mining Aqqaluk are received. Red Dog is committed to a thorough stakeholder engagement as part of that process.

#### The Issue: Upper Columbia River Risk Assessment

#### What is the issue?

Concern regarding past disposal practices from the Trail Smelter in British Columbia to the Columbia River led to legal action by the Colville Tribe and the State of Washington. Note that this is an update to the information provided in the 2007 Sustainability Report.

#### Why is the remedial investigation taking so long?

The Remedial Investigation and Feasibility Study is a complex and thorough assessment of the risks associated with not just the discharges from Trail but of all pollution sources on the 150 miles of the Upper Columbia River system. Two Indian Tribes, the State of Washington and the U.S. Department of the Interior are participating with the U.S. Environmental Protection Agency (EPA) in the process. One of the Tribes and the State are suing us in District Court seeking natural resources damages and costs. With such complexity, it takes significant effort to develop work plans acceptable to all parties. In 2009 we expect to complete the first round of sampling of beaches and surface water and to complete the fish tissue study.

# If the slag poses no risk, then why is the company cleaning up the so-called Black Sand Beach?

The Black Sand Beach, a short section of riverfront between the U.S.-Canada border and Northport, Washington, is one of the only visible accumulations of slag on the Columbia River. The interim action being proposed for the Black Sand Beach is in response to citizen concerns regarding this area. We are working with the State of Washington to assure that the action is consistent with the measures contemplated in the State's Voluntary Cleanup Program and that the remaining beach meets the expectations of the local citizens for continued recreational activity. The slag will be returned to Trail as a non-hazardous waste.

## **Case Studies**

## Lodging at Carmen de Andacollo

Teck's Hypogene Project at our Carmen de Andacollo mine in Chile has brought 2,700 contractor workers to the site over the past two years. Rather than building a construction camp to house these workers, Teck has set up an innovative housing system - the Lodging Network of Compañia Minera Carmen de Andacollo. The Lodging Network provides comfortable housing for the workers and economically benefits 1,300 people in Andacollo – 300 homeowners and 1,000 community members who supply goods and services to the Network.

Development of the Lodging Network started in early 2007, with a survey of the local communities for potential lodging houses. Homeowners who were interested registered their houses at the Municipality of Andacollo and provided their background information. In March and April 2007, a pilot project was carried out in ten houses, designed to accommodate a total of 80 workers. Standards were developed to ensure a consistent quality of accommodation. The standards cover meal preparation and hygiene, sanitation, furniture, laundry facilities and other amenities. An external company was hired to manage the ongoing allocation of beds and to ensure that the quality standards are upheld. Home-owners and community members involved in the Lodging Network received training in billing, accounting and hotel management.

Currently, there are 52 lodging houses in Andacollo and three in Coquimbo, with a capacity to house 1,750 workers in shifts. Most workers come from cities such as Santiago and Copiapó and stay in the Network for 14 days while they are on shift, returning to their own homes for their seven days off. Carmen de Andacollo financed the Lodging Network for US\$345,000. A payment plan has been established for the home-owners to repay 80% of this investment.

Roxana Vega, a homeowner, describes the experience as "a great opportunity, because it has provided an important increase in income for our family, which has allowed us to provide additional education for our children, to improve our house and to save to make our future dreams come true." Marcelita Pizarro, another lodging-house owner, agrees and points out that her "earnings stay here in the community, with the people who work with me, at my lodging house, in the stores and in the payment of taxes and utilities."

Workers value the Lodging Network because it has allowed them to integrate into the community where they are working. Sergio Cardeñas, a Piping Foreman of Salfa Corp. said: "This is the first time I have received such personalized service. In all of the other places I have worked, we were given money and then had to look for a place to sleep. These houses are very cozy because they have the ambience of a home."

Warren Yau, General Manager Projects, based in our Vancouver office, has stayed in the Lodging Network and reports that it "sure beats living in a camp. It's much more personal in scale, so the atmosphere is more sociable and there is more of a connection to the community hosting us."

Being housed within the community has many benefits for the workers – improving their quality of life, increasing their rest, reducing their stress, and having a positive impact on the work environment and on the safety of all employees.

#### Coos Bay Focused Sediment Remediation at Port Site - Native Oregon Oysters

What started as an effort to minimize future liability from former operations quickly became a biodiversity conservation initiative for Teck. In keeping with our commitment to environmental stewardship, we developed a plan for contaminant removal after the Glenbrook Nickel Operations in Coos Bay, Oregon were shut down in 1998. An environmental site investigation was conducted, which included areas where nickel ore was unloaded and conveyed across the site's dock to storage piles and eventually to a drying and shipping facility. We wanted to ensure that no contamination was left along the shore. Elevated nickel concentrations were identified in sediments between the inside face of the dock and the shore and along a portion of the shoreline on the western edge of the property. After an evaluation of remedial alternatives, we proceeded with land-based excavation and off-site disposal of excavated sediments.

The remedial work was conducted under the Oregon Department of Environmental Quality (ODEQ) Voluntary Cleanup Program, even though there was no legal or regulatory requirement to do so. We saw the value of a clean-up to the company, the community and the surrounding areas. In addition, we added habitat and native species restoration objectives to our project plan. Specifically, Olympia oysters (Ostrea conchaphila) were found in the areas where remediation activities were planned. This is the only oyster species native to the Pacific Northwest, and Coos Bay is known to host high densities of them. We worked with the Oregon Department of Fish and Wildlife (ODFW), who harvested the oysters prior to the removal of contaminated sediments. Excavated areas were backfilled with a sand and gravel mixture, using a gradation pattern similar to the existing area, and shell hash was added to the backfill material to provide a good surface to which the oysters could attach. Our objective was to save the existing oysters and provide a suitable habitat for them to "move back" to, providing they would not re-contaminate the site when clean-up activities were completed. Test results showed that the oysters would not re-contaminate, so the ODFW replanted them when our remedial activities were complete.

In August, the ODEQ issued a "No Further Action" letter for the site, indicating that site clean-up objectives had been achieved. A more significant outcome for the ODFW and the National Estuary Research Reserve (a project that works to maintain the population of native Oregon oysters and understand their optimal habitats), was the ability to more fully characterize the oyster populations in Coos Bay and apply emerging restoration practices to this model site. Work performed at this site, combined with future monitoring, will provide the groundwork to guide similar work in other locations.

#### McCracken Mine Closure - Bat Habitat Preservation

The McCracken mine site, located about 140 miles northwest of Phoenix, Arizona, is in an area characterized by rugged mountain ranges, separated by flat valleys with steep and rocky terrain with high elevations. The site is located in the hot and dry Sonoran desert. Typical desert inhabitants include scorpions, rattlesnakes and bats. The area is also popular for recreational tourists. Silver mineralization was discovered in the late 1800s, with five mining (primarily silver, lead and zinc) claims comprising an area of 100 acres. Several periods of surface and underground mining took place from 1874 to 1985, owned and operated by various firms through the years. Never having operated the mine, we acquired title to the patented claims. Arizona Silver Corporation leased the property and operated the mine from 1983 to 1985 to produce silver; no mining activity has taken place at McCracken since 1985.

An inventory conducted in early 2006 at the McCracken mine site identified 50 surface disturbance features and mine openings. Deep shafts, rotting timbers, and unstable workings are hazards that pose potential safety risks for recreationists. While it was our first priority to address safety risks on the property, the importance of the mine workings for bats, which have a vital role keeping insect populations in balance and are essential to the health of terrestrial ecosystems, was also considered. Much bat habitat has been lost due to human disturbance, so bats have adapted and are known to frequent inactive mine workings. A survey conducted by Dr. J. Scott Altenbach, a renowned bat biologist (University of New Mexico), indicated the presence of four species of bats in some of the openings: California Leaf Nosed (an Arizona and Federal Species of Concern), Townsends Big Eared, Cave Myotis, and Long Eared Myotis.

To preserve habitat that had been identified as important to the bat population, bat-compatible closures were designed and installed with the assistance of the Arizona Game and Fish Department (AGFD). Through a Cooperative Stewardship Agreement with the AGFD, in which both parties agreed to "cooperate for the common benefit of wildlife and the public interests of the people of Arizona", we also support Arizona's efforts within the North American Bat Conservation Partnership Initiative and the Comprehensive Wildlife Conservation Strategy. The work was scheduled for early 2008 to ensure that construction activities took place outside of bat maternity and hibernation seasons. Forty-seven mine openings were secured using polyurethane foam or backfill, and nine bat-compatible, culvert-type gate closures were installed. In recognition of actions to protect the public from hazards associated with historical mining activities and set a benchmark for others, we received a Voluntary Action Award from the Arizona State Mine Inspector.

#### **Performance Indicators**

		2006	2007	2008	
Safety <sup>(1)</sup>	Total recordable incident frequency	2.88	2.58	1.32	
	Fatalities	6	1	1	
	Lost-time injuries (LTI)	117	158	88	
	LTI frequency	0.9	0.97	0.4	
	Severity	208	60	39	
Energy Use <sup>(2)</sup>	Fuel (TJ)	22,874	24,510	30,334	
	Electricity (TJ)	13,056	12,463	13,394	
	Total energy use (TJ)	35,930	36,973	43,728	
	Energy intensity data are provided for each operation in the Energy Intensity in Product section of our on-line report				
GHG	CO <sub>2</sub> equivalents (kt) (direct)	1,985	2,266	2,649	
Emissions <sup>(2)</sup>	CO <sub>2</sub> equivalents (kt) (indirect)	153	159	210	
	CO <sub>2</sub> equivalents (kt) (total)	2,138	2,425	2,859	
	Carbon intensity data are provided for each operation in the Greenhouse Gas Programs & Performance section of our on-line report				
Mined Materials	Total waste rock (kt)	455,155	459,257	555,151	
	Total tailings dry (kt)	61,178	60,038	58,304	
Permit	Permit exceedances	160	145	139	
Compliance	% Compliance - Air	99.96%	99.96%	99.98%	
	% Compliance - Water	98.76%	99.12%	99.15%	
Reportable	Number	274	306	287	
Spills	Volume (L)	1,396,991	11,625,612 <sup>(3)</sup>	987,684	
	Weight (kg)	4,752	4,686	4,522	
Reclamation <sup>(4)</sup>	New reclamation for the year (ha)	85	281	164	
	Reclaimed to date (ha)	5,993	6,240	6,715	
	Land to be reclaimed (ha)	17,381	17,728	18,043	
	Reclaimed / Land to be reclaimed (%)	34%	35%	37%	
	Trees/shrubs planted (number)	300,708	472,918	353,541	
Waste	Total solids recycled (tonnes)	35,693	49,077	50,294	
Management &	Total liquids recycled (m <sup>3</sup> )	2,124	4,800	5,859	
Recycling	Total solid non-hazardous material to landfill (tonnes)	16,564	17,021	14,618	
	Total solid non-hazardous material incinerated (tonnes)	333	275	530	
Water	Total groundwater withdrawal (m <sup>3</sup> /yr)	10,401,839	12,380,410	18,733,539	
Conservation	Total surface water withdrawal (m <sup>3</sup> /yr) <sup>(5)</sup>	113,118,022	112,463,175	112,597,333	
	Total volume of water recycled/reused (m <sup>3</sup> /yr)	124,090,808	133,925,155	131,780,065	
	Total percentage of water recycled/reused (%) <sup>(6)</sup>	100.50%	107.30%	100.30%	

(1) Safety statistics include both employees and contractors. Frequencies are based upon 200,000 hours worked.

(2) Data collected from these properties were reconciled in 2008 so the figures listed in previous reports have been corrected and restated to include the aforementioned data.

(3) This total is comprised mainly (i.e., ~95%) of one very large-volume spill of tailings slurry at our Hemlo mine in 2007. This spill, and the substantial improvements made in response, is described in our 2007 Sustainability Report under the heading "Significant Environmental Incidents".

(4) The amount of land "reclaimed to date" does not always reconcile with the total of "new reclamation for the year" added to the "reclaimed to date" from the

previous year. This is based on the fact that the total number of hectares disturbed in addition to those available for reclamation may change every year. (5) A significant portion of the surface water withdrawn (~70%) is cooling water used by Trail Operations. This water does not come into contact with chemicals or reagents. The only change it undergoes is a slight increase in temperature.

(6) The GRI formula for calculation of Total Percentage of Water Recycled/Reused (total volume used/total volume recycled) is inconsistently applied within the industry. We are working toward standardizing the methodology.

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