



Contents

OVERVIEW

2

About Xstrata Zinc Australia
Chief Executive's Message
Chief Operating Officer's Message
2009 Scorecard and 2010 Targets
About this report

SUSTAINABILITY STRATEGY AND GOVERNANCE

14

Sustainability and business strategy
Sustainability governance
External commitments
Stakeholder engagement

HEALTH AND SAFETY

18

Policy and approach
Performance

OUR PEOPLE

22

Policy and approach
Labour relations
Employee development and training
Human rights

ENVIRONMENT

26

Policy and approach
Biodiversity management
Environmental incidents and fines
Rehabilitation and site closure
Climate change and energy
Water
Emissions to air
Materials and waste
Product stewardship

OUR COMMUNITIES

38

Policy and approach
Community engagement
Socio-economic development
Corporate Social Involvement
Indigenous rights and cultural heritage management

GRI Index

46

Glossary

50

MRM Plant Operator, Ronnie Raggett (Jnr), a Traditional Owner of the local Gurdanji people on whose country the mine is situated and one of the employees who have helped lift Indigenous employment participation at MRM to 17.4% in 2009.



XSTRATA PLC

Xstrata is a global diversified mining group, listed on the London and Swiss Stock Exchanges, with its headquarters in Zug, Switzerland. Xstrata's businesses maintain a meaningful position in seven major international commodity markets: copper, coking coal, thermal coal, ferrochrome, nickel, vanadium and zinc, with platinum group metals business, additional exposures to gold, cobalt, lead and silver, recycling facilities and a suite of global technology products, many of which are industry leaders. The Group's operations and projects span 19 countries.

XSTRATA ZINC

Headquartered in Madrid, Spain, Xstrata Zinc is one of the world's largest producers of zinc and one of the commodity business units within the major global diversified mining group Xstrata plc. Xstrata's zinc and lead operations and exploration projects are located in Australia, Canada, Germany, Peru, Spain and the United Kingdom.

In Australia, operations comprise: the Mount Isa, George Fisher underground, Handlebar Hill open cut and Black Star open cut zinc-lead mines, zinc-lead concentrator, lead smelter and Bowen Coke Works in north Queensland; the McArthur River open pit zinc-lead mine, processing and loading facility in the Northern Territory; and 75% of the Lady Loretta zinc-lead deposit in north-west Queensland.

In Canada, operations and exploration projects include the Brunswick zinc-lead mine and lead smelter in New Brunswick; 25% of the CEZ zinc smelter near Montreal; and the Perseverance zinc deposit in Quebec.

Xstrata Zinc also operates the Nordenham zinc smelter in northern Germany; the Northfleet lead refinery in the United Kingdom; and owns 33.75% of the Antamina mine in Peru.

Around half of all zinc currently consumed is used for galvanizing steel, which is an environmentally friendly method of protecting steel against corrosion. Zinc also finds application in the manufacture of die-cast alloys, brass and the production of zinc oxides and chemicals.

Overview

About Xstrata Zinc Australia

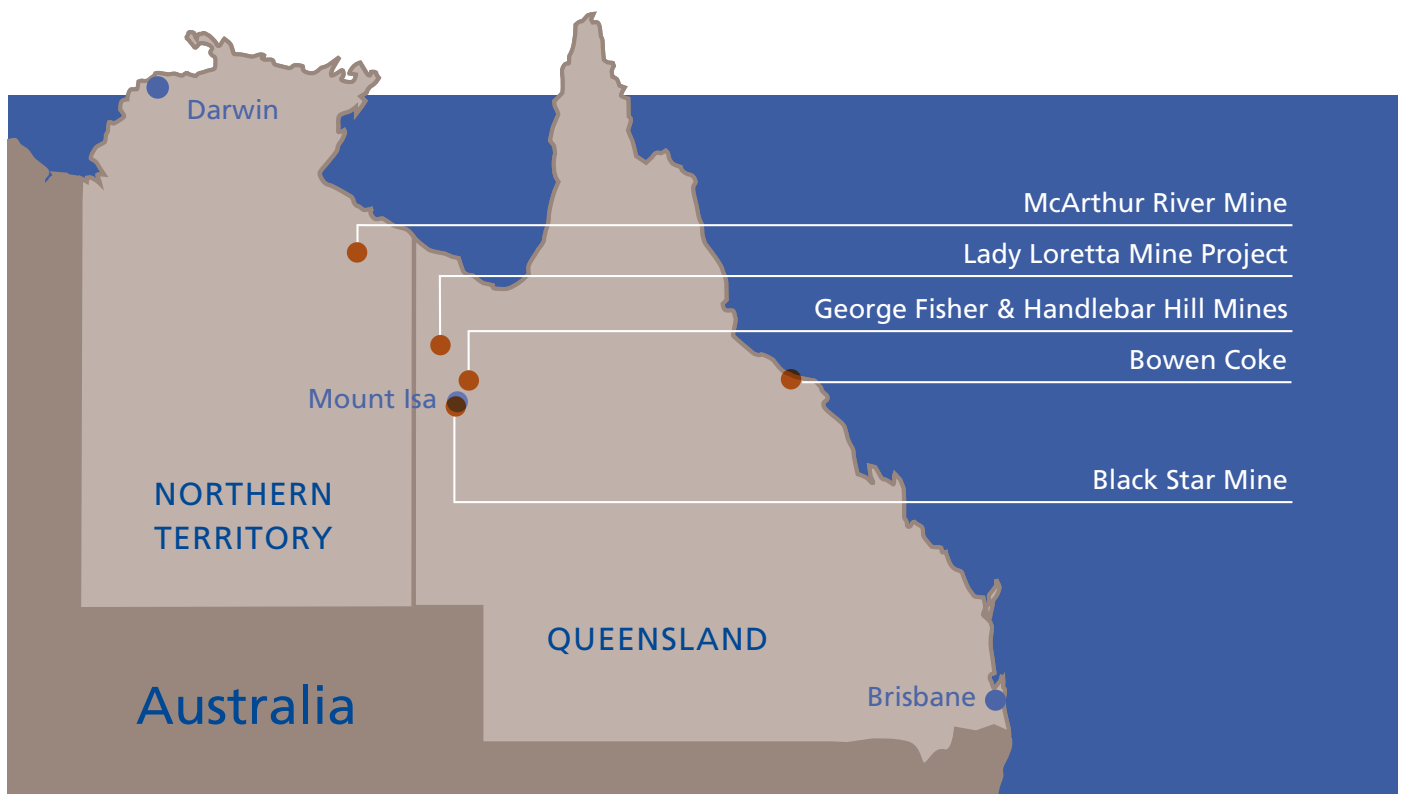
Headquartered in Brisbane, Queensland, Xstrata Zinc Australia was formed in 2008 in response to significant growth in the commodity business' mining and processing operations in Australia. We manage a portfolio of assets that form a strategic part of Xstrata Zinc's global business.

Our mission is to maximise value for shareholders by successfully growing and managing an industry leading portfolio of zinc-lead assets that deliver superior returns. We will achieve this in a safe, environmentally and socially responsible way, in open partnerships between our people, the communities in which we operate, governments and other stakeholders.

Our strategic objectives are:

- Injury-free, safe work environments
- Recognised leadership in environmental performance
- Reputation for social responsibility
- Realisation of the full potential of our people
- Achievement of the full capacity of our physical assets
- Cost competitiveness through the cycles
- Value creation through dynamic growth and continuous improvement.

Map of Operations



Organisational scale, as at December 2009

	Xstrata Mount Isa Mines zinc-lead operations		McArthur River Mining (MRM)		Bowen Coke	
Description	<p>Xstrata Mount Isa Mines zinc-lead operations commenced in 1969 and now comprise:</p> <ul style="list-style-type: none"> • George Fisher underground, Black Star and Handlebar Hill open-cut zinc-lead mines, with combined reserves of 107 million tonnes • An 8 million tonne per annum capacity zinc-lead concentrator • A lead smelter • A zinc filter plant • 75% ownership of the Lady Loretta zinc-lead deposit in north-west Queensland. 		<p>McArthur River Mining (MRM) mines one of the largest zinc and lead deposits in the world. Assets include:</p> <ul style="list-style-type: none"> • An open-pit mine which was developed between 2006 and 2009 after operating as an underground mine since 1995 • A 2.5 million tonnes per annum capacity concentrator and processing plant • The Bing Bong loading facility on the Gulf of Carpentaria. 		<p>Bowen Coke was established in 1933 to convert coking coal from the then State Government-owned coal mine at nearby Collinsville into metallurgical coke for use in the production of non-ferrous metals. Bowen Coke produces three grades of coke:</p> <ul style="list-style-type: none"> • Metallurgical coke • Nut coke • Breeze. 	
Markets	<p>Approximately 74% of zinc concentrate is exported to the Far East and Xstrata's zinc smelters in Europe. Bullion from the lead smelter is shipped to the UK for further refining.</p>		<p>MRM supplies 70% of global demand for bulk concentrate. All of MRM's output is exported, with the major markets being smelters in Poland, Japan and China.</p>		<p>Metallurgical coke is exported or used in the blast furnace at Xstrata Mount Isa Mines. Nut coke is used in aluminium smelting, and breeze is used in fuel production.</p>	
Employees	1,072		207		22	
Production	2008	2009	2008	2009	2008	2009
Ore mined (mt)	6.4	7.4	2.0	2.1		
Zinc in concentrate (kt)	283	324	142	166		
Lead (kt in bullion)	167	146				
Silver (t in bullion)	317	243				
Coke (t)					49,006	45,343



Santiago Zaldumbide
Executive Director Xstrata plc
and Chief Executive Xstrata Zinc

Chief Executive's message

All in Xstrata Zinc should be satisfied with what was achieved in 2009 in the face of continuing weak economic conditions. Operating and capital cost savings were realised across the zinc portfolio, while zinc concentrate production increased by 20% and zinc metal by 4% compared to 2008. This has maintained Xstrata's position as the premier integrated global zinc producer.

In Australia, it is interesting to note that prior to their acquisition by Xstrata in 2003, the Mount Isa zinc operations and McArthur River Mine were under review and likely to be closed. Since that time, Xstrata Zinc's management has identified numerous opportunities to progressively expand the mines and the zinc-lead concentrators, extract maximum value from the resource base and develop sustainable operations for the long term.

Against a difficult economic environment, we have continued to improve and invest in our Sustainable Development (SD) programs as a key part of our business strategy. The reason is simple. As the Xstrata plc Mission Statement makes clear, we recognise that to create industry-leading returns for our shareholders, we must work in genuine partnerships with governments, communities, employees and other stakeholders.

This 2009 Sustainability Report outlines Xstrata Zinc Australia's progress in managing the issues of most importance to our stakeholders and our business. It details our significant investment in environmental management which has succeeded in reducing water and energy consumption and protecting the environments in which we operate in line with regulatory conditions. It also illustrates the substantial community benefits and contribution made by our operations.

Unfortunately, we were not successful in achieving our most critical targets in relation to the health and safety of our people. One fatality and one serious incident in Mount Isa underscore the performance of safe work practices in respect to heavy machinery operation and inspire new efforts to improve our safety performance.

Xstrata Zinc's Sustainable Development Strategy (2010 – 2012) has been developed as an important task as part of the strategic review of Xstrata Zinc's stakeholders and material sustainable development issues. Stakeholder mapping has shown many groups and they are all important, however, priorities for the period of the strategy are employees, contractors, employees' relatives, business and joint venture partners, media, shareholders, suppliers, customers, local communities and administration.

Based upon our stakeholders' feedback and their relevance, we have identified and included the material SD issues: prevention of fatalities and occupational injuries and diseases, occupational heavy metals exposure, labour relationships and collective bargaining, community social investment, business continuity, sulphur dioxide and heavy metals emissions in the community, carbon trading schemes and other significant environmental emerging regulations, REACH compliance (Registration, Evaluation, Authorisation and Restriction of Chemical substances), energy intensity, management of tailings and residues, closure planning, water management, biodiversity conservation, reputation, communication and collaboration and ethics.

While some of these are managed at a group level, many are reflected in the material issues identified by Xstrata Zinc Australia and discussed within this report.

I would like to also note the 2009 retirement of Kevin Hendry from his role as Executive General Manager Xstrata Zinc Mount Isa, and to thank him for his contribution to our company and to the local community over the last six years.

Santiago Zaldumbide

Executive Director Xstrata plc and Chief Executive Xstrata Zinc

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All in Xstrata Zinc should be encouraged by what was achieved in 2009.



MRM processing plant which, after the concentrator's expansion in 2008, achieved a 17% increase in zinc metal produced in 2009.



Brian Hearne
Chief Operating Officer,
Xstrata Zinc Australia

Chief Operating Officer's message

Welcome to the first Xstrata Zinc Australia Sustainability Report. Previously, our North Queensland and MRM operations provided separate reports, but, in line with the establishment of Xstrata Zinc Australia in 2008 to oversee the management of our portfolio of assets, we have merged our reporting to provide you with this single account of our performance.

Xstrata Zinc has continued to invest in Australia during 2009, investigating strategic opportunities to develop existing assets, strengthen their overall performance and improve their sustainability. In the process, our operations generated direct benefits to the Australian economy valued at over \$1.1 billion.

A number of initiatives were implemented including the commitment of \$11 million to feasibility studies into the potential expansion of the George Fisher underground and Black Star open cut mines, a restructuring of the Mount Isa zinc-lead operations and reductions in unit costs by 40% in Mount Isa and 18% at MRM. These actions combined with improved productivity resulted in a 2009 operating profit for the Australian zinc operations of US\$192 million compared to a loss of US\$54 million in 2008.

Record production was achieved at Mount Isa as a result of increased production from the high grade George Fisher and large-scale Black Star operations. The Handlebar Hill operation was put onto care and maintenance in January to reduce costs and conserve reserves at a time of low prices, and by August we began mining opportunistically in line with recovering market conditions. Increased mine production enabled the Mount Isa zinc-lead concentrator to achieve record throughput of 7.4 million tonnes, a 22% increase on 2008.

MRM began the year on care and maintenance following the Australian Federal Court's invalidation of its original approval for conversion to an open pit operation. Despite being operational for just over 10 months, the mine achieved its planned production profile for 2009. Total ore milled increased by 3% compared to 2008 to 2.1 million tonnes, and higher average head grades resulted in a 17% increase in the production of zinc metal for the year.

Our performance against targets shows we have continued to make progress in our efforts to make SD an integral part of how we do business.

Health and safety

While safety performance at MRM continued to improve, our Mount Isa operations tragically recorded one fatality and one serious injury at its George Fisher mine. We were saddened by the untimely passing of Pekka Tuppurainen, and we again extend our sympathies to his family, friends and workmates. These events underline the need for a continuing effort to manage safety hazards and improve safety behaviour. Improving our safety performance is a priority in 2010.

Our people

Xstrata Zinc Australia employed 1,301 people and invested \$6.8 million in their development during 2009. We are typically the major employer in the communities in which we operate and we work hard to maximise local employment, attract good people to our operations, and provide a workplace along with career opportunities that encourage our people to develop.

Environment

We made a significant investment in environmental management in 2009, and our environmental programs continued to deliver improved results. Energy consumption and greenhouse gases fell from 2008, a major biodiversity study was undertaken around our Mount Isa operations, and we continued efforts to reduce consumption and waste. Importantly, emissions of sulphur dioxide in Mount Isa remained well below the legislated standard. At MRM, rehabilitation of the McArthur River rechanneling was severely disrupted by the suspension of all works for two months in the crucial wet season of 2008/09. We are working hard to make up for lost time in this important work.

Our communities

In 2009 we continued to invest in the communities in which we operate. A total of \$2.3 million was committed through our corporate social involvement programs supporting the social and economic development of our regions.

In Mount Isa, we also continued to participate in the Living with Lead Alliance and to offer free blood lead testing for residents in order to raise community awareness about living safely with lead.

Your feedback on this report, using the contact details on the back cover, is welcomed to ensure we continue to improve our reporting and meet your expectations.

Brian Hearne

Chief Operating Officer Xstrata Zinc Australia



Surveyor Ned Errington conducting site surveys in preparation for the expansion of the G stage of the open pit at MRM.

”
Xstrata Zinc has continued to invest in Australia during 2009.

2009 scorecard and 2010 targets

HEALTH AND SAFETY: 2009 scorecard

MRM	Performance
Zero fatalities	✓
LTIFR < 5.3	✓ (2.5)
TRIFR < 14.4	✓ (8.9)
DISR < 177.7	✗ (189)
No blood lead levels recorded above 30 µg/dl	✗ (2)
Xstrata Zinc North Queensland	Performance
Zero fatalities	✗ (1)
LTIFR < 0.4	✗ (2.1)
TRIFR < 14.5	✗ (17.9)
DISR < 68	✗ (139.3)
> 90% compliance to pre-employment health assessments	✓
> 90% compliance to internal blood lead testing	✓
No lead in blood removals over the national limit of 50 µg/dl	✗ (1)

HEALTH AND SAFETY: 2010 targets

0 Fatalities, Fines & Penalties
Achieve a 15% reduction on TRIFR, LTIFR & DISR over 2009 performance
0 Occupational illnesses
0 Employees and contractors > 38 µg/dl blood lead level
0 blood lead & cadmium removals and relocations due to exceedance of site standards
Blood lead 95th percentile annual average to be 29 µg/dl or below
0 Employees and Contractors > 8 µg/dl blood cadmium
Blood cadmium annual average 95th percentile to be 5 µg/dl or below
Conclude the development of major hazard plans including the plans for heavy metals exposure
Fully implement local drug and alcohol policies
Annually review occupational health and hygiene hazard registers
Maintain fit-for-work programs

OUR PEOPLE: 2009 scorecard

MRM	Performance
Continue with delivery and improvements to newly accredited Certificate II in Entry into Mining for Indigenous Trainees	✓
Maintain the number of Apprentices at 15 for 2009	✗ 13 Apprentices
Develop a register of refresher training intervals for existing competencies based on level of risk. Ensure provision of refresher training at nominated intervals	➔
Secure and maintain 10 Trainees under the MST program. Continue to promote future employment opportunities for graduated Trainees	✓ 17 Trainees
Xstrata Zinc North Queensland	Performance
Award 30 university scholarships and 16 school bursaries across Xstrata Mount Isa Mines	✓
Maintain apprenticeship intake at > 35; continue to offer school based apprenticeships	✓

OUR PEOPLE: 2010 targets

Update all Job Description and Action Plans to link job and SD requirements
Develop targets for training, turnover & absenteeism
Develop supervisor training to measure retention of required management system information
Implement a Safety Observation Program to assist the PASS program
Support the implementation of all CBU Human Resources initiatives
Define graduate, vacation student and apprenticeship intakes through integration with succession planning and turnover data
Continue to provide opportunities in line with the Indigenous Employment and Training Strategy at MRM

✓ Achieved
 ✗ Not achieved
 ➔ Action continues into 2010

ENVIRONMENT: 2009 scorecard

MRM	Performance
Achieve a 5% reduction in greenhouse gas emissions per tonne of contained metal over 2005 performance by 2010	→ 2009 result: 0.06, 2010 target: 0.02
Achieve a 1% reduction in energy intensity per tonne of contained metal over 2007 performance by 2012	✓ 2009 result: 0.39, 2012 target: 0.60
< 2 category 1 incidents per month	✓ Four incidents in 2009
< 2 category 2 and above incidents per year	✓ Zero
Zero category 3, 4 or 5 incidents	✓
Continue to monitor flora and fauna in line with both NT and Commonwealth legislative requirements. Provide NT DRDPIFR with an Annual Environmental Monitoring report	✓
Continue the assessment of rehabilitation establishment in 2009 to determine rehabilitation success and to identify any mitigation strategies that may be required	✓
Implement programs in conjunction with Charles Darwin University on aspects of acid mine drainage and metal resistant microbes	✓
Xstrata Mount Isa Mines zinc-lead operations	Performance
Achieve a 5% reduction in greenhouse gas emissions per tonne of contained metal over 2005 performance by 2010	→ 2009 result: 0.93, 2010 target: 0.80
Achieve a 1% reduction in energy intensity per tonne of contained metal over 2007 performance by 2012	✓ 2009 result: 7.6, 2012 target: 9.5
Publish the Lead Pathways Phase 1 Land Report	✓
Develop a Climate Change Action Plan	→ Strategy developed but some actions delayed pending Commonwealth Government legislation
Complete the analysis of the 2008 CANSOLV pilot study	→ Baseline flow assessment and pilot trial completed
Bowen Coke	Performance
Finalise site completion plan	✗
Complete implementation of improved monitoring program	✓
Zero level 2 or 3 environmental incidents	✓
Zero non-compliance with licence conditions	✓
Zero regulatory actions or fines	✓
Achieve a 5% reduction in greenhouse gas emissions per tonne of contained metal over 2005 performance by 2010	✓ 2009 result: 0.01, 2010 target: 0.01
Achieve a 1% reduction in energy intensity per tonne of contained metal over 2007 performance by 2012	→ 2009 result: 0.06, 2012 target: 0.05

ENVIRONMENT: 2010 targets

Zero environmental breaches
No environmental incidents category 3, 4 or 5
10% reduction of Category 2 incidents over 2009 performance
No environmental fines, penalties or prosecutions
Achieve a 5% reduction in the intensity of direct GHG emissions (per tonne of final product/ore milled) over 2005 performance by 2010
Achieve a 1% reduction in energy intensity (per tonne of final product / ore milled) over 2007 performance by 2012
Comply with requirements under the National Greenhouse and Energy Reporting Scheme (NGERS), <i>Energy Efficiency Opportunities Act 2006</i>
Achieve a 5% reduction of freshwater consumption per tonne of final product / ore milled over 2008 by end of 2010
Develop reduction of freshwater consumption and conservation plans with stakeholders
Comply with legislative requirements for water management planning and reporting
0 net loss of habitat for IUCN Red List Species and have in place a system to monitor these species
Xstrata Mount Isa Mines zinc-lead operations to continue to investigate potential to increase SO ₂ capture rate to 98% in line with environmental planning for submission to the Queensland Government in 2011
Develop an Xstrata Zinc Australia Biodiversity framework that includes strategic site programs
Continue to conduct and develop rehabilitation programs at MRM
Conduct audits on tailings storage facilities and process water ponds
Conduct a hydrocarbon storage audit for all areas

2009 scorecard and 2010 targets

OUR COMMUNITIES: 2009 scorecard

MRM	Performance
Continue to work towards a target of 20% Indigenous workforce participation	→ 17.4%
Complete review of Inaugural Community Benefits Trust Annual Plan	✓
Continue to operate the MRM CRG as a forum for ongoing community consultation	✓ Two meetings held
Ensure all certified sacred sites are protected	✓
Xstrata Mount Isa Mines zinc-lead operations	Performance
Launch and deploy Indigenous Affairs Strategy	→ Indigenous Affairs Strategy developed
Continue cultural awareness training program deployment plan across NQ sites	→ Continued training and deployment
Launch the Sustainability Report to key stakeholders in Mount Isa and Bowen	✓
Participate in 2 XCPPNQ Management Committee meetings	✓
Participate in 2 XCPPNQ External Advisory Committee meetings	→ Deferred to 2010
Conduct Community Attitude Surveys in Mount Isa	✓
Bowen Coke	Performance
Hold one community information session in Bowen	✓ One held
Conduct Community Attitude Survey in Bowen	✓

OUR COMMUNITIES: 2010 targets

Annually review stakeholder engagement plans
Maintain and manage community complaint processes
Corporate social involvement plans measured annually against specific outcomes
Further enhance the University of Ballarat Alliance
Promote the Xstrata Zinc CBU Ethics Code
Continue to conduct community information sessions as planned
Maintain involvement in and support for key industry forums
Implement the Xstrata Zinc Suggestion System

✓ Achieved ✗ Not achieved → Action continues into 2010



Children enjoying the water-play area at the Mount Isa Family Fun Park developed with \$1 million support from Xstrata Mount Isa Mines and opened in June 2009.

About this report

This report summarises the Sustainable Development performance of Xstrata Zinc Australia's operations from 1 January 2009 to 31 December 2009. This is the first Xstrata Zinc Australia Sustainability Report following the establishment of Xstrata Zinc Australia in 2008. Previously, individual reports were published annually for our MRM and North Queensland operations. All monetary values are expressed in Australian Dollars.

The data presented within this report is offered to provide a full and accurate account of the performance of each site in line with policy and international standards. However, it should be noted that due to the different methods of reporting information from the North Queensland operations and the significant differences in the comparative scale and nature of the Mount Isa, MRM and Bowen Coke sites and their regulatory environments, this data should not be read as a direct comparison.

Corporate definitions

Xstrata Mount Isa Mines is comprised of two separate mining and processing streams: copper and zinc-lead-silver. Where SD issues are jointly managed by the Zinc and Copper businesses, they are reported on as 'Xstrata Mount Isa Mines'. Issues and performance specific to the Zinc business are reported as 'Xstrata Mount Isa Mines zinc-lead operations'. Where statistics are provided for 'Xstrata Zinc North Queensland', the results from Xstrata Mount Isa Mines zinc-lead operations and Bowen Coke have been grouped together.

Target audience

Xstrata Zinc Australia's Sustainability Report provides a broad range of stakeholders with information about Sustainable Development policies, practices and performance. Target groups for this report are employees and their families, communities associated with our operations, governments, business partners, media, employee unions and industry participants. The report also provides relevant information for development organisations, non-governmental organisations, the investment community, existing and prospective shareholders, socially responsible investment analysts and investors, and intergovernmental bodies.

Defining report content

In 2009 Xstrata Zinc Australia sites placed an increased emphasis on applying and managing the principles of inclusivity, materiality and responsiveness, as defined by the AccountAbility 1000 Accountability Principles Standards 2008 (AA1000APS). Sustainable Development issues are identified from many sources, including:

- Legislative requirements, stated policies and Business Principles, and risk assessment processes
- Industry norms and challenges
- Stakeholder concerns and needs identified through formal consultation initiatives and through our ongoing stakeholder engagement process
- External initiatives and best practice guidelines, including the Global Reporting Initiative (GRI) G3 guidelines and its Mining and Metals supplement.

We prioritise these issues based on their relevance to stakeholders and their significance to the success of our operations. We aim to provide in this report a complete and balanced view of our performance in the areas we have defined as being material. The extent of content provided for each site is based on our assessment of the importance of an issue or topic for local stakeholders.

Data and assurance

This report has not been subjected to external assurance. Data in this report covers economic, environmental and social performance at Xstrata Zinc Australia sites. Data is recorded in Xstrata's proprietary online sustainability database which is validated at commodity business and Group level. Xstrata's sustainability data, reporting systems and Group Sustainability Report are subject to annual assurance by an independent verifier. The signed assurance review report is provided in the Group Sustainability Report.

Restatements

As this is the first Xstrata Zinc Australia report, some of the data previously reported for individual sites is presented on a combined basis.

GRI Application Level

This report is self-declared to meet Application Level B of the GRI G3 Sustainability Reporting Guidelines, including the Mining and Metals sector supplement. A GRI guide is at the end of this report.

GRI Application Level								
		2002 in accordance	C	C+	B	B+	A	A+
Mandatory	Self-declared			Report externally assured	✓	Report externally assured		Report externally assured



A feasibility study into the expansion of the Black Star Open Cut Mine in Mount Isa (above) was one of two conducted in 2009 as part of a strategic review to maximise the potential of existing assets.

Figure 1: Our approach to SD



More information on Xstrata's approach to SD is at www.xstrata.com/sustainability.

Xstrata Zinc's SD policy is displayed at all sites and is available at www.xstratazinc.com/en/publications/pages/sustainabledevelopment.aspx.

SUSTAINABILITY GOVERNANCE

Under Xstrata's highly devolved management model, the leaders of our business at each site are responsible for implementing the SD Framework. Guided by Xstrata's SD Standards in leadership, strategy and planning, our leaders are empowered to identify and evaluate risks and opportunities, provide internal communication and training, and monitor performance. Sustainability outcomes at each site are reported to the Xstrata Zinc SD Committee by the Manager Health, Safety, Training and Human Resources. This Committee meets quarterly.

Xstrata's SD Assurance Program is the key mechanism for checking that the Group's policies and standards are being met. Internal audits are conducted annually, and independent audits are conducted on a maximum three-year cycle. All Xstrata Zinc Australia sites are scheduled for independent SD audits in 2010. The results of these audits are used to drive improvements in the system and in our overall SD performance.

At Xstrata Zinc Australia, the Chief Operating Officer has direct responsibility for all aspects of SD, and specific managers at each site have responsibility for health and safety, human resources, environment, and community relations.

We raise employees' awareness about SD aspects through awareness and risk management training programs and SD Committee Meetings, and educate relevant personnel about the risks and opportunities relevant to their position. Safety, human resources, environmental and community relations experts are engaged when needed to provide specialist advice.

Sustainability Strategy and Governance

SUSTAINABILITY AND BUSINESS STRATEGY

We aim to manage our business so as to balance economic, environmental and social considerations. We recognise that success in resolving sustainability issues enhances our corporate reputation and creates competitive advantage for our business in critically important areas including:

- Gaining access to new resources
- Maintaining a 'licence to operate' from society and enhancing the security of our operations
- Attracting and retaining the best people
- Accessing diverse and low-cost sources of capital
- Identifying and managing new business opportunities and risks.

Xstrata's Sustainable Development (SD) Framework commits us to maximise the benefits to society of our activities while minimising the negative impacts. This framework comprises Xstrata's Business Principles, SD Policy, and SD Standards.

This corporate framework is complemented within the commodity businesses. Xstrata Zinc's SD Policy is specific to the operations of its business and is implemented with site-specific policies on safety and health, environment, community, risk management and human resources.

Ethics Line

The Xstrata Ethics Line is a confidential facility operated independently by the global business advisory firm, KPMG. The line empowers employees and other stakeholders to report any breaches of Xstrata's Business Principles, policies or prevailing legislation. A toll free phone number is provided in every country in which Xstrata has managed operations; for Australia, the number is 1800 987 310. The Ethics Line can also be accessed online via www.xstrataethics.com.

EXTERNAL COMMITMENTS

Precautionary principle

We apply the precautionary principle in our approach to environmental management. This proactive approach means that even in the absence of evidence that environmental degradation is occurring, or will occur, we take action to mitigate the possibility of any adverse events.

Externally developed SD charters or principles endorsed by the organisation

Xstrata's SD Framework has been mapped to international standards including the International Council on Mining and Metals and United Nations Global Compact principles, Voluntary Principles on Security and Human Rights, ISO14001 and OHSAS18001.

Memberships

Principal organisations of which Xstrata Zinc Australia or its sites are members include Minerals Council of Australia, Queensland Resources Council, Minerals Council of Australia Northern Territory Division, Australian Institute of Mining and Metallurgy, International Lead Association, The Mining Industry Skills Centre (MISC), Skills DMC – National Industry Skills Council, Indigenous Mining and Enterprise Task Force, The Australian Institute of Occupational Hygienists, Major Industry Training Advisory Council, and Queensland Minerals and Energy Academy (QMEA).

Initiatives supported by Xstrata Zinc Australia, or its sites, include the annual Queensland Mining Industry Safety and Health Conference, the annual Queensland MISC Queensland Training Conference and Awards, the MISC regional training group, QMEA steering committee for Indigenous employment, and an alliance with University of Ballarat's Metallurgical, Geology and Mining Engineering Departments.

Bribery and corruption

Xstrata's Business Principles state that we do not offer, solicit or accept any form of inducement or bribe. Xstrata's internal audit function, supported by KPMG, takes into account identified fraud and compliance risks associated with our key business activities, including the ethical performance expectations contained in our Statement of Business Principles.

In addition, our Fraud Policy explicitly states any incidence of fraud committed by employees or others, either from within or outside the organisation, will not be tolerated. It outlines the channels available for employees or others to safely and confidentially report fraud or other unethical behaviour that is contrary to the Xstrata Business Principles.

We ensure that all relevant employees use the Delegated Authorities Manual that sets out the framework and controls for key decisions to be made in relation to financial matters. The internal audit function regularly tests the adequacy of these controls, particularly in relation to the procurement of goods and services. This ensures that business deals are always conducted in a competitive environment.

No incidents of corruption, fraud or unethical behaviour were recorded at our operations in 2009. Our Mount Isa operations have been assessed for risks related to corruption, while our Bowen and MRM sites are considered to have a low risk of corruption. Information packages on Xstrata's Business Principles, including the target for zero incidents of bribery and corruption, were distributed to all employees in 2009.

Public policy

Xstrata's Business Principles prohibit political contributions of any kind. Xstrata plays an active role in a number of significant international and national industry organisations and multi-stakeholder groups through membership, funding, provision of expertise and participation in committees and working groups. These, and the industry associations Xstrata Zinc Australia is involved in, are listed in this chapter. Our public position on proposed climate change legislation is described in the Environment chapter of this report.

Xstrata Zinc Australia did not provide any financial or in-kind contribution to political parties or individuals in 2009.

Fines

In 2009 Xstrata Zinc Australia recorded:

- No fines or sanctions for non-compliance with laws and regulations
- No legal actions for anticompetitive behaviour, anti-trust or monopoly practices.

Awards

Rewards related to Sustainable Development, and received in 2009, were all conveyed to Xstrata Mount Isa Mines and were:

- Injured Worker Achievement Award – Return to Work Same Employer, by QComp, Queensland's workers' compensation authority
- Named a 'Top Ten Engineering Wonder of Queensland' by Engineers Australia
- Most Interactive Display Award – 2009 Xstrata Mount Isa Mining Expo
- Finalist, Excellence in Environmental Management Xstrata North Queensland, 2009 Australian Mining Prospect Awards.

STAKEHOLDER ENGAGEMENT

We have improved our stakeholder engagement programs by developing stakeholder engagement strategies more closely aligned to the inclusivity, materiality and responsiveness principles of the AA1000APS.

Table 1: Stakeholder engagement – material issues

Issue	Relevant stakeholders	Xstrata Zinc Australia response	More detail on page:
People			
Occupational Health and Safety: keeping employees and contractors safe in mining and processing operations	Employees Governments	The health and safety of our workforce is our highest priority. The frequency of injury and occupational disease has been trending down for several years as work continues to deliver further improvement. We are especially conscious of the need to minimise and monitor exposure to lead. Tragically, one fatality and one serious injury were recorded in 2009.	18
Attracting and retaining appropriately skilled employees	Employees Communities Governments Traditional Custodian Groups	We provide many career development opportunities and fair compensation for our workforce, and we prioritise local employment where possible.	22
Environment			
Minimising the impact of mining and processing activities on the environment	Communities Traditional Custodian groups Governments Media NGOs	Each site has an Environmental Management Plan to minimise impacts, guide rehabilitation and protect biodiversity. At Mount Isa, we aim to continually reduce emissions from mining operations. At MRM, the particular focus is on the rehabilitation and management of the McArthur River and Barney Creek rechannellings. Bowen Coke's challenge is to prevent contamination of mangroves and the Great Barrier Reef Marine Park.	28 – 37
Minimising the consumption of freshwater	Communities Governments Media NGOs	Actions to reduce consumption and increase recycling take place at all sites, but are particularly important at Xstrata Mount Isa Mines where rainfall is significantly lower than at MRM or Bowen Coke	32
Climate change	Governments Media NGOs Business partners	We are acting to reduce greenhouse gas emissions and comply with relevant Federal legislation. Participation in the Energy Efficiency Opportunity program is helping to identify initiatives to reduce energy consumption and greenhouse gases.	30 – 33
Communities			
Impact on regional communities	Communities Traditional Custodian groups Governments NGOs Media	Xstrata Zinc Australia is one of the largest employers at each of our locations, and we aim to maximise the positive socio-economic impacts we can have on communities. For example, we provide local jobs and social investment, while working to minimise dependency on our operations.	38 – 45
Lead at Mount Isa	Employees Communities Traditional Custodian groups Governments Media NGOs	We take the issue of lead levels in the Mount Isa community very seriously and continue to work with the community and key stakeholders to address this important social issue. Xstrata Mount Isa Mines supports the Living with Lead Alliance to increase awareness and influence behaviour of residents to live safely with lead. A <i>Lead Pathways Study</i> is continuing, and free, independent and confidential blood-lead testing for all community members is available.	45
Economic			
Commodity price volatility	Employees Governments Communities Business partners	Significant commodity price fluctuations caused by the global financial crisis and economic recovery have an impact on demand for our products. This in turn creates operational and human resources challenges.	

Our stakeholders include:

- Employees, contractors, and unions
- Local communities, including residents, schools, businesses and community organisations in the towns of Borroloola, Mount Isa and Bowen surrounding our operations and in the wider Northern Territory and Queensland communities
- Traditional Custodian groups
- Business partners, including joint venture partners, suppliers and customers
- Local, Queensland state government, Northern Territory government and Federal government representatives
- Inter-governmental bodies and organisations
- Local, regional, national and international media
- Non-governmental and development organisations.

Stakeholder engagement takes many forms and is organised at a site and Xstrata Zinc Australia level. We engage with our stakeholders in an equitable and culturally sensitive manner with the maximum transparency that is commercially possible. Engagement activities comprise:

- Sharing news and information, including: producing Sustainability Reports, websites, fact sheets, newsletters (*Mine to Market* bimonthly and *MemoRanduM* quarterly), and newspaper advertisements, providing mine tours and school visits, and contributing media articles and interviews
- Seeking feedback through consultation including: three community information sessions in Mount Isa and one in Bowen, two MRM Community Reference Group meetings, telephone and email hotlines, and the biennial Community Attitude Survey of North Queensland residents
- Active involvement including: community partnerships (Living with Lead Alliance and MRM Community Benefits Trust), cultural heritage management, and regular government meetings.

Table 1 summarises the material sustainability issues managed in 2009 – those issues that are important to stakeholders, as well as the risks, opportunities or initiatives that are important to Xstrata Zinc Australia.



MRM Plant Operator Mick McCormick checking pulp levels in the concentrator.

Health and Safety

OBJECTIVE

To operate a workplace that is injury and fatality free and to promote the wellbeing of employees and contractors.

POLICY AND APPROACH

Mining involves serious hazards that must be managed with the utmost vigilance to prevent injuries. We are committed to achieving safe workplaces, and our health and safety risk registers are compiled and regularly updated at all sites.

We make our management accountable for safety performance, train our employees to improve their safety knowledge and skills and make them aware they have a responsibility to themselves, their family and friends to work and behave safely.

Our sites maintain comprehensive safety management systems, aligned to the AS/NZS 4801 standard, and guided by Xstrata SD Standards relating to occupational health and safety including Behaviour, Awareness and Competency, Health and Occupational Hygiene, Contractors, Suppliers and Partners, Incident Management and Emergencies, Crises and Business Continuity.

Monthly reports of safety performance including actual and potential high risk incidents are provided to the Xstrata Zinc SD Manager in Spain and the Xstrata Zinc Australia Chief Operating Officer in Brisbane.

Formal safety meetings are open to everyone on-site. In addition, approximately 5% of site personnel attend SD committee meetings, where issues including safety are discussed. Where collective bargaining agreements are in place, health and safety topics in the agreements include training required, hours of work, reasonable rest breaks between shifts, timing for meal breaks/rest pauses, and personal protective equipment.

Challenges and opportunities

The key health and safety challenges in 2009 were:

- Ensuring site risks are identified, prioritised, mitigated and managed
- Minimising exposure to occupational hygiene hazards such as noise, dust and lead
- Working in hot climatic conditions
- Integrating large and diverse groups of employees and contractors with varying levels of industry experience into one culture and values system.

PERFORMANCE

Safety performance is tracked using three key measures:

- Total Recordable Injury Frequency Rate (TRIFR) which includes all injuries except first aid treatments
- Lost Time Injury Frequency Rate (LTIFR) which measures the number of lost time injuries per million hours worked
- Disabling Injury Severity Rate (DISR) which records the number of days lost or on restricted duties per million hours worked.

Table 2: Health and safety performance

	Xstrata Zinc North Queensland		MRM	
	2008	2009	2008	2009
TRIFR	13	18	15	8.9
LTIFR	0.5	2.1	5	2.5
DISR	80	139	210	189
New occupational health diseases	0	6	0	0
Absentee rate	Not recorded	2.2%	Not recorded	4.95%
Fatalities	0	1	0	0

During 2009, safety statistics at MRM continued to improve. The LTIFR declined by 50% from the previous year, and the TRIFR dropped from 15 to 8.9. The DISR however increased from 210 to 216, indicating a greater time required for rehabilitation. In 2010 we will continue to work to reduce lost time injuries and better manage the return of injured people to work through return to work plans or alternative duties.

The Xstrata Mount Isa Mines zinc-lead operations undertook many safety initiatives to improve health and safety performance, including the completion of the 'Site Use Only' clothing project for clothing worn by all personnel within operational areas, and the continuation of the Safety Profile and Mature Leadership program, which began in 2008 and aims to improve the overall safety culture and leadership effectiveness within the organisation.

The performance of the site, however, was impacted by two serious incidents occurring at George Fisher Mine. In May, employee, Pekka Tuppurainen, was fatally injured when the loader he was driving entered a stope. The other incident in July resulted in serious injury to a contractor involved in a single vehicle accident when travelling down the underground decline. Since this time many changes have occurred both within the mine and within the mining industry in Queensland, and significant learnings were made as a result of the need to find better ways to manage these activities. Further changes to both systems and resources will be made in 2010 to continue to monitor and review our practices to ensure these incidents are avoided.

In 2009 there were six noise-induced hearing loss injuries at Xstrata Mount Isa Mines zinc-lead operations. Our ongoing work to minimise these injuries includes providing education on hearing conservation and preventative measures, monitoring noise levels and implementing abatement programs in relation to noise exposure, and incorporating hearing conservation standards in our process for plant and equipment purchase.

Figure 2: Injury performance - Xstrata Zinc North Queensland

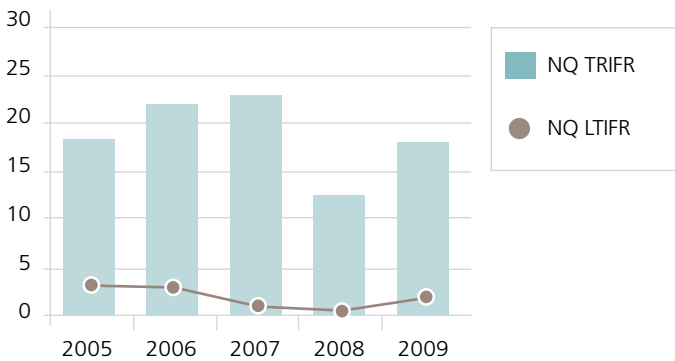
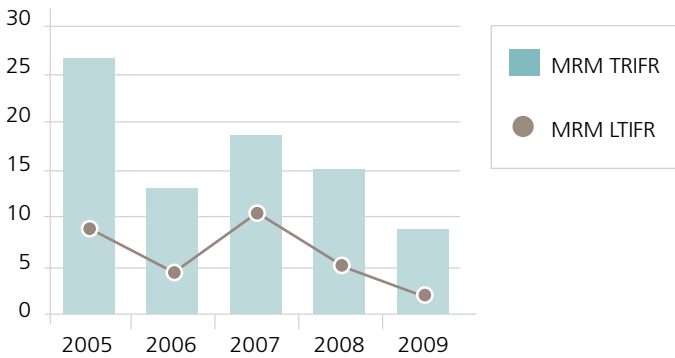


Figure 3: Injury performance – MRM



Xstrata Mount Isa Mines Health and Risk Management Superintendent, Dave Thomas, undergoes a periodic health assessment with Gemini Medical Registered Nurse, Janet Emerson.

Lead in the workplace

Lead can enter the body through inhalation, ingestion or occasionally skin contact. We minimise exposure through various means including engineering, mechanical and procedural controls, and additional personal protective equipment where deemed necessary.

Xstrata Zinc Australia has comprehensive biological and workplace monitoring programs in place. These meet the National Occupational Health and Safety Commission standard as well as recognised occupational hygiene standards. A community program of blood lead testing is also supported in Mount Isa through our involvement in the Living with Lead Alliance.

Protocols to reduce risk of exposure to lead in the workplace include mandatory showering on completion of each shift, on-site laundering of work clothes (a Clean-In Clean-Out Policy), mandatory washing before meal breaks and no smoking policies. At Xstrata Mount Isa Mines, a dedicated internal Xstrata Lead Committee guides the management of lead within the site.

All workers at Xstrata Mount Isa Mines and MRM operations are required to have venous lead in blood tests at frequencies which are determined by the area they work in, their previous result, gender and reproductive capacity. This form of biological sampling provides an accurate measure of a worker's exposure to lead. Xstrata sets its medical removal limit below the prescribed standard of 50 micrograms per decilitre ($\mu\text{g}/\text{dl}$). Employees with blood-lead concentration levels of 40 $\mu\text{g}/\text{dl}$ or greater must be removed from the workforce until concentrations are below 30 $\mu\text{g}/\text{dl}$. In the Xstrata Mount Isa Mines zinc-lead operations lead smelter, where the lead is more concentrated, the limit is currently 45 $\mu\text{g}/\text{dl}$ or greater, and will reduce to 38 $\mu\text{g}/\text{dl}$ in 2010 for male employees. Pregnant employees should not have a blood-lead concentration that exceeds the national standard of 10 $\mu\text{g}/\text{dl}$.

At MRM, 780 blood lead samples were taken in 2009, with two people returning blood lead levels over 30 $\mu\text{g}/\text{dl}$, down from five in 2008. The highest blood lead level reading for 2009 was 34.8.

Table 3: Health and safety programs

	MRM	Xstrata Zinc North Queensland
Education/training	An on-site wellbeing program includes the provision of health and fitness programs, sports facilities, and information on healthy life choices.	Programs on obesity, smoking, alcohol abuse, fatigue, nutrition, sleep apnoea, mental health and shift work are in place. Xstrata Mount Isa Mines zinc-lead operations employees also have the opportunity to utilise the 'Health Promotions' website developed during 2009 at Xstrata Mount Isa Mines.
Counselling	Employee assistance program, for all on-site employees and contractors to seek support from a trained counsellor for personal or work-related issues.	
Prevention	In 2009, there were five positive drug tests, down from 24 in 2008. Changes in wet mess hours and the inclusion of new purchasing rules for alcohol on-site reduced the number of positive alcohol tests from 110 to 11. The number of incidents reported decreased by 25%, following a 20% decrease in 2008. Further training on incident notification will be provided in 2010 to continue this improvement.	In 2009, more than \$500,000 was invested by Xstrata Mount Isa Mines in monitoring and analysis programs for dust contaminants, Diesel Particulate Matter, noise, lead, arsenic and potable water. A new shift sampling log for each worker in our dust and Diesel Particulate Matter sampling program was introduced in 2009 to provide additional information for targeted controls to reduce exposure.
Treatment	As part of MRM's support for the appointment of a doctor at Borroloola, general consultations were provided on-site for all employees and contractors.	Gemini Medical Services is contracted to operate a medical centre with three doctors and 24/7 attendance by a registered nurse at Xstrata Mount Isa Mines. Further treatment is referred to Mount Isa District Hospital if required.

At Xstrata Mount Isa Mines zinc-lead operations, 4,576 blood lead samples were taken, with one instance of an employee in the lead smelter exceeding the national medical removal limit. A three-year strategy aimed at reducing risk of lead exposure was initiated in 2009.

More information on programs to monitor lead emissions and work with the community to prevent lead in blood is provided in the environment and community sections of this report.

Other health and safety programs

Other programs in place to manage occupational health and safety hazards are summarised in Table 3.

Emergency preparedness

To ensure we are prepared to respond to a range of operational challenges, our Response and Recovery Manuals are regularly tested with different scenarios. Our emergency preparedness procedures were activated twice in 2009, in relation to the fatality and serious injury at George Fisher Mine noted earlier in this section.

Our site Mines Rescue Teams annually participate in industry coordinated Mines Rescue Challenges, judging their proficiency at dealing with realistic scenarios that could happen on or around a mine site.

Contractor management

With contractors representing almost 25% of our workforce at Xstrata Mount Isa Mines zinc-lead operations and 32% at MRM, we continue to work with contracting firms to assist them to develop their own safety management standards. Reviews and audits of contractors take place to ensure Xstrata Zinc standards are enforced and maintained on our operations.

Xstrata-engaged contracting firms now have access to all site level SD documents to not only improve their understanding of our requirements but to enable them to use the information to build their own systems in line with Xstrata's requirements. Contractor audits were also undertaken to ensure continual improvement of the contracting firm's ability to develop their SD management systems.

CASE STUDY:

Lead contained on-site at Mount Isa

In 2009, a number of new initiatives were implemented to reduce the risk of lead being taken from site into the community. A new style of uniform, clearly designated as 'Site Only', was introduced.

The uniforms are clearly identifiable by their high visibility yellow and blue colouring and distinct wording on the back of overalls, shirts and pants. The distinct fluorescent colour and wording (either 'Xstrata Site Use Only' or 'Lead Smelter') will ensure no uniforms worn in the zinc-lead operational areas will leave the site.

As part of our Clean-In Clean-Out procedures, upgrades to the industrial laundry were completed in July to further improve the on-site capture of heavy metals from the lead smelter. The upgrades will now allow the facility to wash and dry up to 600 sets of uniforms on-site in 12 hours and return them to employee lockers prior to their next shift.

Another benefit of the laundry upgrade is the capture and re-use of waste water from the laundry facility for the suppression on unsealed roads within the mining lease.

Other initiatives included:

- Additional facilities for on-site vehicle refuelling and servicing, reducing the need for vehicles to leave site
- Site-specific training on workplace controls, environmental and community aspects of lead management.



Production Driller, Jose Cunado, commencing a new shift at the George Fisher underground mine near Mount Isa wearing one of the new 'site only' uniforms which were introduced to reduce the risk of lead being taken from site into the community.

Our People

OBJECTIVE

To maintain a workplace based on mutual respect, fairness and integrity.

POLICY AND APPROACH

We provide many career development opportunities and fair compensation for our workforce, and we prioritise local employment where possible. Our employment policies prohibit discrimination, promote diversity and protect human rights, including the right to collective representation.

Xstrata SD Standards relating to labour practices and decent work include Planning and Resources, Behaviour, Awareness and Competency, Health and Occupational Hygiene, Contractors, Suppliers and Partners, Incident Management, and Emergencies, Crises and Business Continuity.

In 2009, our SD Workforce Committees were comprised of 50% employees and 50% management at Xstrata Mount Isa Mines zinc-lead operations, and 65% employees and 35% management at MRM.

We educate our workforce about training opportunities, labour relations, and human rights through initiatives including our training management system, inductions and regular staff communication mediums.

Challenges and opportunities

The key workplace challenges in 2009 were to:

- Attract and retain appropriately skilled employees to regional sites
- Manage the impact of the Global Financial Crisis on training and employment programs
- Continue to maximise local employment
- Develop skills and leadership.

LABOUR RELATIONS

In 2009, Xstrata Zinc Australia provided jobs for 1,301 employees, compared to 1,390 in 2008.

We provide industry-leading career development opportunities, competitive remuneration and fair and non-discriminatory workplaces. Our remuneration system ensures equitable pay and allowances, as roles are based on relevant experience and qualifications, and non-gender specific criteria. Entry level wages are higher than the Australian minimum wage, and all positions attract the same rate of pay regardless of gender.

Benefits provided to Xstrata Zinc Australia permanent employees that are not provided to casual employees include:

- Paid leave provisions
- External education assistance/tertiary education assistance
- Higher rates of superannuation (13% superannuation contributions of ordinary time earnings, while part-time and temporary employees receive the current legal requirement of 9% of their superannuation salary)
- Disability cover and salary continuance.

The most recent financial report for Xstrata super was for the quarter ending 30 September 2009 and showed the market value of assets exceeds members' benefits 1.82 times.

All employees are free to join a union and to be represented collectively in line with the Xstrata Business Principles but subject to the existing Representation Order in Mount Isa. New Collective Agreements covering 93% of employees were negotiated with MRM in 2009. Other Collective Agreements cover 69% of Xstrata Mount Isa Mines employees and 86% at Bowen.

To facilitate production and operational requirements, as much notice as possible is given for changes in working hours. The minimum notice period for roster changes is 24 hours at the north Queensland operations and one month at MRM.

There were no strikes at Xstrata Zinc Australia operations in 2009.

Table 4: Workforce breakdown

		Xstrata Mount Isa Mines zinc-lead operations		MRM		Bowen Coke	
		Male	Female	Male	Female	Male	Female
LA1 Workforce breakdown by employment type	Permanent	1,063		205		22	
	Temporary/Fixed Term	9		2		0	
	Full time	1,063		205		22	
	Part time	9		2		0	
LA2 Employee turnover (excluding contractors)	<30	92	23	20	3	0	0
	30-50	81	12	38	6	0	0
	>50	23	3	6	1	0	0
LA13 Employee diversity (excluding contractors)	<30	319	57	48	11	4	0
	30-50	498	67	98	12	6	1
	>50	126	5	34	2	11	0
	Executive management	0	0	1	0	0	0
	Senior management	3	0	4	0	0	0
	Management	9	0	10	1	0	0
	Supervisors/admin/ technical	257	62	62	0	2	1
	Operational/production/ maintenance	686	55	128	0	19	0

EMPLOYEE DEVELOPMENT AND TRAINING

Xstrata Zinc Australia invested \$6.8 million in training during 2009.

Our training systems deliver competency-based training for all workers, enabling them to work safely and competently, and to support continued learning and employability at all stages of their development.

Training Coordinators work closely with line management and supervisory staff to identify training requirements and gaps in knowledge, and all employees have an annual performance review where training opportunities are identified as part of their professional development.

Differences in the training spend per employee in 2009 reflect the greater infrastructure available within Mount Isa and depth of team within the large operation to support training initiatives and the different nature of the training needs of Bowen Coke.

Leadership

A 2009 Leadership Development Program (LDP) attracted 161 participants from Xstrata Mount Isa Mines zinc-lead operations. The LDP aims to articulate the role of a leader within the business and provide participants with the required skills.

In June, Xstrata Zinc Australia hosted a Management Development Program for leaders from the global Xstrata Zinc business unit including Australian executive and management, designed with input from the University of Queensland and other experts.

Table 5: Training

	Xstrata Mount Isa Mines zinc-lead operations		MRM		Bowen Coke	
	2008	2009	2008	2009	2008	2009
Total training (hours)	45,419	39,750	28,718	9,317	810	816
Executive management (average hours)	0	0			0	0
Senior management (average hours)	58	34			0	0
Management (average hours)	45	49			0	0
Supervisors/admin/technical (average hours)	39	39			183	184
Operational / production/maintenance (average hours)	37	36			13	13
Total \$ spend on training	\$8.4m	\$6.1m	\$1.1m	\$0.6m	\$0.1m	\$0.1m
Average \$ spend per employee	\$4,200	\$4,684	\$3,942	\$1,739	\$5,398	\$5,400

* Training hours per position was not recorded at MRM.

Apprentices

In 2009, Xstrata Mount Isa Mines invested \$7.1 million in apprenticeships and scholarships, with 24 apprentices plus 6 school-based apprentices recruited into the zinc business. We also offer existing employees interested in moving into a trade field the opportunity to undertake an apprenticeship.

MRM employed 13 apprentices in 2009, in fields including carpentry, electrical, plumbing, fitting and boiler-making. Significantly, the first local Indigenous apprentice to complete a four-year apprenticeship with MRM graduated with a Certificate in Engineering Fabrication.

Vocational skills

We work closely with community stakeholders to provide real and meaningful vocational career pathways for individuals, in careers that reflect the needs of our business.

Xstrata Mount Isa Mines has programs that introduce secondary school students to opportunities and careers within the mining sector. It also runs a comprehensive Graduate Program to provide employment and structured development opportunities for recent graduates. In 2009, 79 permanent graduates were recruited, 71 university students employed in the Vacation Work Experience Program, and 30 bursaries worth \$8,000 each awarded to university students to assist with their education.

In addition, Xstrata Mount Isa Mines continued to develop its \$2.1 million Alliance Program with the University of Ballarat's Metallurgical, Geology and Mining Engineering Departments. This mutually beneficial program provides our expertise to develop the University's curriculum in line with industry requirements, and gives us the opportunity to benefit from the increased knowledge and technical capacity of the students within our Graduate Program.

HUMAN RIGHTS

Suppliers and contractors that accept a purchase order for the supply of goods and/or services are contractually bound to comply with the governing laws of Queensland, the Northern Territory and Australia. As the risk of human rights violations is assessed as low, our suppliers and contractors are not screened on compliance to human rights and contracts do not include human rights clauses.

Training on human rights policies is conducted for human resource and other key personnel. Where we contract security personnel to protect our people and assets, we ensure appropriate human rights training has taken place. We do not provide or require training for suppliers and general contractors on human rights policies and procedures, or for screening contracts. However, we do monitor compliance with our Business Principles, SD Policy and Standards.

We uphold the elimination of all forms of forced or compulsory labour and prohibit any form of child labour in compliance with Xstrata's Statement of Business Principles and relevant Australian workplace legislation. The age of the youngest Xstrata Zinc Australia employee in 2009 was 16 and the age of our youngest work experience student was 15.

In 2009, there were:

- No incidents of discrimination reported
- No incidents involving violation of Indigenous rights, or human rights infringement complaints received.

CASE STUDY:

Indigenous employment outcomes improving

A review of MRM's Indigenous Employment and Training Strategy in 2008/2009, in consultation with industry and community stakeholders, has succeeded in improving the retention rate of trainees within real jobs.

The 'Pathways to Employment' strategy begins with pre-employment programs and includes progression through entry-level courses, formal training and career development. It is a culturally sensitive framework that recognises every person has different strengths and interests.

The revised strategy provides tailored training, mentoring and support for trainees, and the MRM working environment celebrates the diversity of participants. This revised strategy provides nine alternative career paths within MRM, giving all trainees a clear direction towards long-term, sustainable jobs.

The entry-level traineeship program targets Indigenous residents of the surrounding Borroloola region including the Gurdanji, Mara, Garawa and Yanyuwa people.

In 2009, 17 trainees entered the program to gain a national Certificate II in Entry into Mining qualification. By the end of the year, 14 had moved to career positions or were preparing to commence work placements in mining operations, environment, metallurgy and mining administration.

As at December 2009, the Indigenous participation rate at MRM was 17.4%, compared to 14.8% in 2008 and 9.2% in 2006.

In 2009, Borroloola-based employee, Damien Baker, became the first local Indigenous person to complete a four year apprenticeship with MRM. With his elevation to tradesman now complete, Damien is continuing to work at MRM as a Metal Fabrication Welder.



After a four-year apprenticeship with MRM, Damien Baker now has an Engineering Fabrication Certificate.

Environment

OBJECTIVE

To preserve the long-term health, viability and function of the environment.

POLICY AND APPROACH

While we are operating and after we have closed a site, we aim to maintain an environment that can sustain biodiversity, landscape functions and the needs of local communities. We recognise the significant challenges and opportunities posed by the need to limit the environmental impacts associated with our operations, and our SD Policy sets out our commitment to identify, reduce and eliminate where possible, all the significant impacts of our operations on the environment.

Xstrata's SD Standards clearly articulate our management and performance expectations regarding the environment, biodiversity and landscape management, lifecycle management of products and operations, incident management, and product stewardship. Environmental risks and impacts are managed through a Group-wide framework that identifies risks, prioritises actions, implements mitigation measures and tracks progress.

When environmental incidents do occur we determine the cause and take steps to prevent recurrence. We also plan and maintain a current closure plan in a way that is consistent with our commitment to Sustainable Development. This includes rehabilitation of land disturbed by our activities.

Xstrata Mount Isa Mines and MRM invested a combined \$39.1 million in environmental management in 2009.

This comprised of \$36.7 million in Mount Isa (94%) which reflects the significant scope of the copper and zinc-lead operations that comprise the largest mining, processing and smelting operation in Australia. Note: this expenditure includes environmental management of the extensive Xstrata Copper operations as well as the zinc-lead operations in Mount Isa and Bowen Coke. The majority of this total was related to capital expenditure on the Smelter Emissions Project (\$18.2 million) including \$12 million invested by the Xstrata Mount Isa Mines zinc-lead operations. For further detail refer to page 34.

The \$2.4 million invested in environmental management at MRM represents a slight decrease of 7% on the 2008 investment of \$2.6 million. This was largely due to the mine being placed in care and maintenance for two months and the associated stoppage of planned works.

Challenges and opportunities

Key environmental challenges are to:

- Cost-effectively reduce our greenhouse gas emissions intensity (the volume of emissions per tonne of material produced)
- Manage impacts on the surrounding environment, including rehabilitation, air emissions and water consumption
- Minimise waste generation and maximise materials recycling
- Explore efforts to reduce energy, water and materials usage.

OUR ENVIRONMENT

Xstrata Zinc Australia's three operating sites are in different environments with varying degrees of ecological sensitivity.

None of our operations are located within protected areas. At MRM some notable species of fauna are located in areas potentially affected by or adjacent to the open pit operations. MRM is sensitive to the potential for impact on these species as a result of its operations, and has processes to minimise the risk of impact and extensive monitoring to assess performance. These species include:

- Endangered species: Freshwater sawfish (*Pristis microdon*), found in the McArthur River, and a species listed in the International Union for the Conservation of Nature and Natural Resources (IUCN) Red List
- Near threatened species: Carpentaria grass wren, spectacled hare wallaby, purple-crowned fairy wren, white-browed robin, grey falcon, and Worrell's turtle
- Vulnerable species: Australian bustard.

A 2009 biodiversity survey identified the Red Goshawk, listed as vulnerable, on the Xstrata Mount Isa Mines lease.



Xstrata Mount Isa Mines

Xstrata Mount Isa Mines manages approximately 30,000 hectares of land on mining lease ML8058 within the Inlier bioregion and Australia's tropical savannas. ML8058 is characterised by rugged, rocky hills and poor shallow soil. Low open woodland with Eucalyptus, Corymbia and Acacia species predominates, with a ground layer of Triodia species (Spinifex) which reflects the complex geology, infertile soil and semi-arid climate.



MRM

MRM is contained within five adjoining mineral leases located on the McArthur River Station Pastoral Lease. The 8,000 square kilometre station is an operating property leased and managed by Colinta Holdings Pty Ltd, an Xstrata subsidiary, and runs approximately 17,000 head of cattle which range freely across large sectors of the Station.

Bing Bong Loading Facility is situated on a mining lease also located within the McArthur River Station. This lease extends into the Gulf of Carpentaria to include the navigation channel between the loading facility and the designated offshore transfer zone.



Bowen Coke

The Xstrata Bowen Coke Works encompasses 9.04 hectares of land situated on the northern bank of Doughty Creek, approximately 1.5 kilometres upstream of the creek mouth.

Table 6: Environmental incidents

Incident category	Environmental impact	Remediation required	Number recorded	
			2008	2009
1	Negligible and reversible	Nil / minor	32	29
2	Minor and reversible	Minor	3	6
3	Moderate and reversible	Moderate	0	0
4	Serious	Significant	0	0
5	Disastrous	Major	0	0

ENVIRONMENTAL INCIDENTS AND COMPLIANCE

Xstrata Zinc Australia received no environmental fines or penalties, no monetary or non-monetary sanctions for non-compliance with any regulations, and recorded no significant environmental spills during 2009. All minor environmental incidents were investigated and corrective measures implemented to prevent recurrence. The year ended with no environmental incidents classified as moderate or greater.

Transition from Mount Isa Mines Limited Agreement Act

In May 2008, the Queensland Government passed legislation to transition Xstrata Mount Isa Mines from the *Mount Isa Mines Limited Agreement Act 1985* to the *Environmental Protection Act 1994*. The existing Mining Plan 2005–2010 originally established under the *Mount Isa Mines Limited Agreement Act 1985* will remain the guiding document for environmental management on-site until the transition period expires in 2011. During the transition period Xstrata Mount Isa Mines will continue to work closely with the Queensland Government and other key stakeholders to implement the upcoming changes to our environmental regulation while monitoring the sustainability of our operations.

Independent environmental monitoring - MRM

In November 2009, the second annual assessment of MRM's environmental monitoring and management programs by the Northern Territory Government-appointed Independent Environmental Monitor concluded that MRM's reporting, presentation and interpretation of monitoring has improved substantially and that the mine has adequately conformed to the commitments and the conditions for the \$110 million open pit development. Some priorities raised by the Independent Monitor, including mosquito monitoring, dredge spoil management at Bing Bong, and Tailings Dam seepage, had been identified by MRM and significant action taken.

BIODIVERSITY MANAGEMENT

All Xstrata Zinc Australia operations have a biodiversity conservation plan. Biodiversity is monitored throughout the lifecycle of an operation to identify any impacts on species or ecosystems and ensure the integrity of local protected areas.

MRM

The rechanneling of the McArthur River necessitated by the conversion of the mine from underground to open pit operations, was opened for water flow prior to the 2009 wet season. The Barney Creek channel was opened the previous year. Associated with this development are a wide range of biodiversity management programs which monitor all potential impacts from the new channels. To date, these programs provide evidence that the significant investment in the design and construction of the new channels has been successful in supporting local fauna.

Fish surveys

A key part of the environmental management program is MRM's commitment to the protection of the Freshwater sawfish (*Pristis microdon*). Biannual sampling since May 2006 has investigated the fish fauna of the McArthur River and its catchments. During 2009, fish sampling was conducted in April and September and provided the first full year of data collection since the completion of the channel and subsequent closure of the original McArthur River channel. A total of 1089 fish were caught representing 24 species from the 31 sites sampled. Of these, 239 were tagged bringing the total tagged since the introduction of the program to over 700. This includes 6 Freshwater sawfish captured including juveniles that had travelled through the new channel in the 2009 wet season floods.

Riparian bird surveys

The monitoring program involves observing birds from 56 sites within a study area. During 2009, 168 surveys were conducted in the wet season and 156 in the dry season. Over the past three years, 39,330 observations of birds have been compiled and assessed through these surveys involving a total of 138 bird species including the Purple-Crowned Fairy Wren and the Buff Sided Robin. These show that with the exception of changes in birds observed at cleared sites and the river channels, natural seasonal variations in vegetation structure and density, surface water availability and seasonal flowering and fruiting of trees all have an influence over bird assemblage. Seasonal data on the distribution and abundance of riparian birds in the McArthur River study area is providing an indication of the progress of rehabilitation strategies and is informing decisions on the plant species used.

Migratory birds

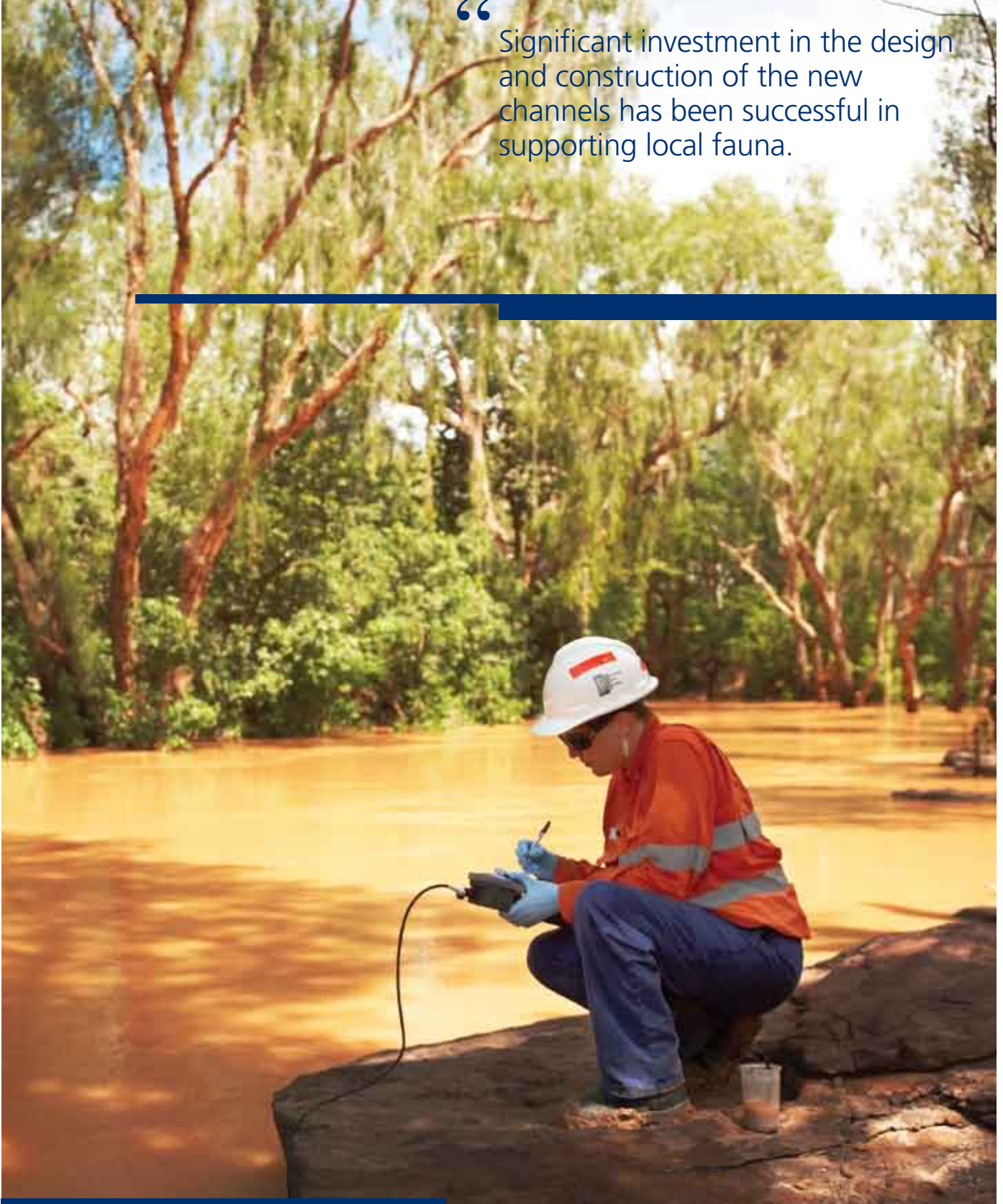
Baseline surveys of listed migratory birds and other birds on the lower McArthur River reaches and Port McArthur coastline were conducted by Charles Darwin University in 2008 prior to the opening of the McArthur River channel. MRM is scheduled to recommence monitoring during the 2010 wet season in line with Commonwealth Government conditions.

Marine monitoring

MRM routinely monitors heavy metal concentrations in sediment, seawater, biota (such as oysters), and seagrass around the Bing Bong Loading Facility and the Sir Edward Pellew Islands. This includes an annual marine monitoring program now conducted by the Australian Institute of Marine Science (AIMS). At the time of publication of this report, the analysis of the annual marine monitoring was not available. These results will be published within the MRM website when received.

Routine monthly seawater and biannual sediment sampling has however, found no elevated levels of heavy metals attributable to MRM in 2009 at sampling sites other than in the Bing Bong loading facility swing basin. Within this man-made structure, adverse weather conditions had mobilised sediment prior to sampling. Ongoing monitoring will assess if dredging has been successful in removing the elevated levels of arsenic, lead and zinc.

“ Significant investment in the design and construction of the new channels has been successful in supporting local fauna.



MRM Environmental Graduate, Anne Whacker, conducting water sampling along the McArthur River during high water flows in the 2010 wet season.

Macroinvertebrate studies

The abundance and distribution of aquatic macroinvertebrates (worms, clams, crustaceans and insects) is monitored at 23 reference sites along the McArthur River as an indicator of the health of habitats around the mine. The final report from 2009 surveys is currently awaited. However, the results of the 2008 sampling collected 180 taxa with the majority, Ephemeroptera (mayflies), and most taxa rich groups, Coleoptera (water beetles), Diptera (true flies) and Odonata (damselflies and dragonflies) in line with baseline studies.

Xstrata Mount Isa Mines

Xstrata Mount Isa Mines continued biodiversity management planning comprising three key components:

- Biodiversity Strategy – a strategic framework for the assessment and mitigation of potential impacts on biodiversity values
- Operational Biodiversity Guide – provides a ‘ready reference’ for operations personnel to implement the biodiversity strategy
- Biodiversity and Land Management Environmental Management Program – specific lease-wide targets for achieving the objectives of the biodiversity strategy including monitoring and assessing biodiversity status, compliance with legislative and corporate frameworks and initiating and implementing projects to understand, maintain or enhance biodiversity values.

Of particular note as part of this strategy is the management of sulphur dioxide emissions. Sulphur dioxide fallout from the Xstrata Mount Isa Mines smelters can have a localised impact on vegetation, although any effects on habitat can be reversed over time. The Smelter Emissions Project has succeeded in substantially reducing sulphur dioxide emissions in recent years (see further detail on page 34).

Bowen Coke

An Environmental Management Plan for Biodiversity and Land Management has reduced the facility’s environmental footprint by lowering fugitive dust and noise, expanding air emission and live weather monitoring, and conducting biodiversity health assessments in Doughty’s Creek.

REHABILITATION AND SITE CLOSURE

We minimise the impact of mining operations on landscapes by removing as little topsoil and vegetation as possible, and by rehabilitating the area as soon as possible.

Table 7: Area of land disturbed and rehabilitated (hectares)

	Xstrata Zinc North Queensland		MRM	
	2008	2009	2008	2009
Land disturbed	62	0.244	205	67
Land rehabilitated	0	0	104	15

Numerous studies are being undertaken to develop best practice rehabilitation techniques specifically tailored to the local environment. At this time, the opportunity for rehabilitation at Mount Isa Mines is limited because most areas are considered ‘active’ and not available for rehabilitation.

At MRM, the completion of the water course rechanneling in 2008 reduced the amount of land disturbed in 2009. Rehabilitation focused on the rechannelled areas of McArthur River and Barney Creek, and the Mine Levee wall, although this work was severely disrupted by the Commonwealth approvals process which suspended all rehabilitation during the all-important 2008/09 wet season. Approximately 1,000 seedlings were planted in the McArthur River channel in 2009 and further planting is scheduled to occur in 2010. Seedlings are propagated from seed collected locally to ensure only species native to the area are planted.

An assessment of rehabilitation of the Barney Creek channel by Charles Darwin University showed 98% of trees and 92% of grasses survived well following planting. *Eucalyptus camaldulensis* (River Redgum) survived best of all trees. The monitoring has however identified that about half the *Chionachne cyathopoda* (cane grass) and *Casuarina cunninghamii* died back in the dry season. It is possible that some grasses will resprout from below ground buds so this will continue to be monitored.

Our mine sites at Mount Isa and MRM have mine closure plans in place to provide a basis for orderly planning and budgeting to address identified social, environmental and economic issues associated with eventual closure of the operations. These plans are reviewed annually.

CLIMATE CHANGE AND ENERGY

Xstrata Zinc Australia’s metallurgical operations are powered primarily by electricity, while the main source of energy in our mining operations is the diesel used to run our mining fleet. Access to secure and cost-effective supplies of energy – particularly baseload electricity generation – is a key factor in our ability to develop our operations.

Greenhouse gases are released by the consumption of fossil fuels related to these energy sources and other sources. We recognise these emissions contribute to climate change, and through Xstrata plc, support the need for co-ordinated, global action to reduce greenhouse gas emissions. We recognise the future potential impacts of climate change including increased regulation, higher energy costs and physical impacts such as drought and flooding, present a risk to our operations.

Xstrata Mount Isa Mines zinc-lead operations invested around \$12 million in a range of initiatives in 2009 to reduce fugitive emissions and design and implement operational and engineering controls to collect and reduce off-gases produced from each vessel.

Xstrata Zinc Australia’s energy consumption reduced by 24%, from 5.8 million GJ in 2008 to 4.4 million GJ in 2009. This decrease was a result of factors including reduced ore trucking at the Handlebar Hill open pit mine when placed in care and maintenance, upgrades to the Xstrata Mount Isa Mines zinc-lead concentrator to improve energy efficiency, and the use of more efficient Isa Mills and differing grinding media at MRM.

The same factors contributed to a 9% reduction in Xstrata Zinc Australia’s greenhouse emissions of 557,000 tonnes of carbon dioxide equivalents (CO₂-e). The reduction in greenhouse gas emissions and carbon intensity in 2009 was a sound achievement considering the total site volume of ore processed by all sites to recover metal increased by 13.1% on the previous year. As ore grades at Mount Isa continue to reduce, higher volumes of ore will need to be processed in order

CASE STUDY:

Mount Isa Biodiversity Study

During 2009 Xstrata Mount Isa Mines conducted a lease-wide biodiversity study in association with Southern Gulf Catchments and a team of experts to identify key environmental values for the site in a regional context.

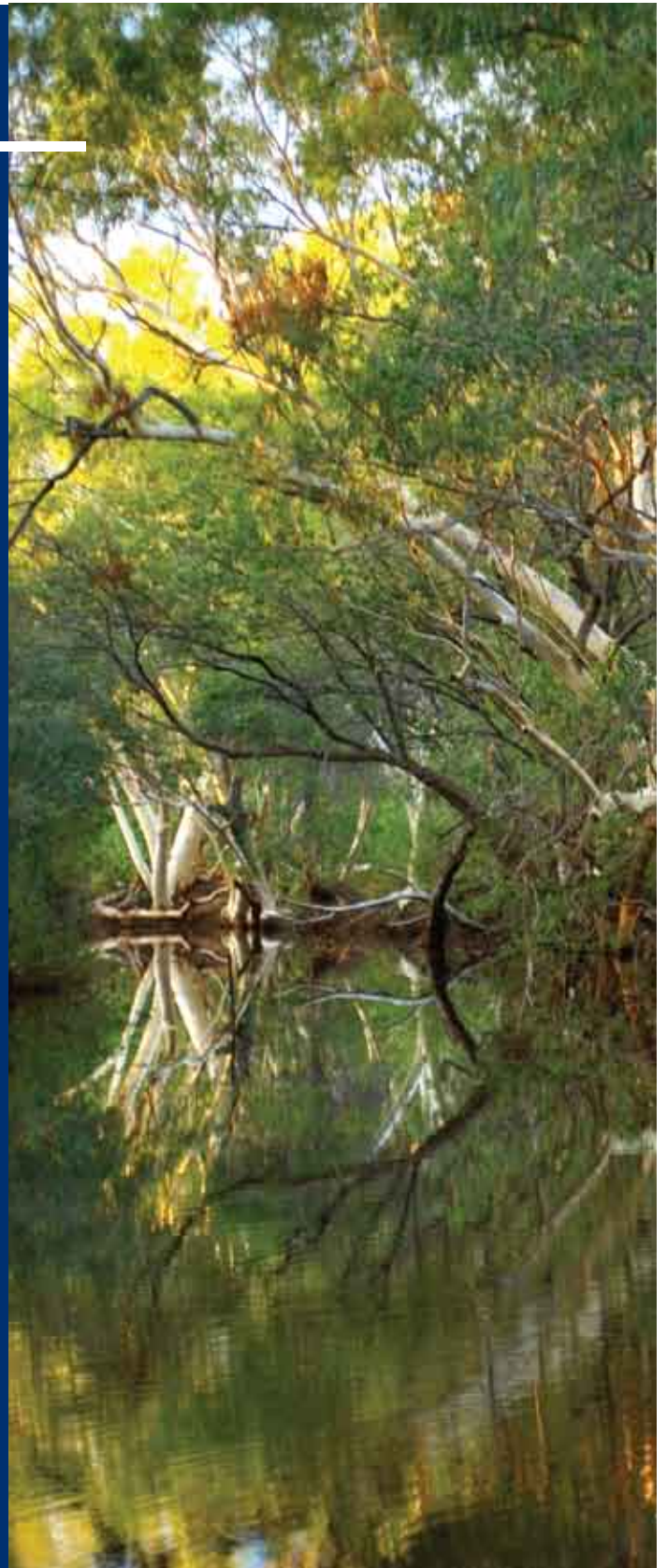
Almost \$500,000 was invested in the study, which included separate biodiversity surveys of vegetation, terrestrial fauna, and aquatic fauna.

The terrestrial fauna surveys identified one bird species of national significance (Red Goshawk), and several species of state conservation significance, including Swamp Box Gullies, River Red Gums and Purple-necked Rock-wallaby. The aquatic fauna surveys found no species of national or state conservation significance however, a freshwater sole species was located and may undergo state reclassification to vulnerable.

Stakeholder workshops were held with the Kalkadoon Community Pty Ltd, the Traditional Custodians of the region, to discuss the scope of the study and findings of the surveys. The outcomes of the study have led to the development of a range of conservation management and weed management plans, which will be integrated into the existing Xstrata Mount Isa Mines' Environmental Management system. The information collected also contributes to setting strategic direction and identifying operational priorities for transitioning from the *Mount Isa Mines Limited Agreement Act 1985* to the contemporary legislation in 2011.

The study also highlights our commitment to the continual improvement of the biodiversity strategy, with clear linkages to Xstrata's Sustainable Development Standard 10, the principles set out by the International Council on Mining and Metals (ICMM) and the Xstrata Mount Isa Mines Environmental Management System.

The study was completed in February 2010 and a final presentation was delivered by Southern Gulf Catchments to Xstrata and other key stakeholders in March 2010.



Water monitoring at East Leichardt River, Mount Isa.

to recover equivalent amounts of contained metal. This increase in processing will increase the site's energy consumption making continued reductions in greenhouse gas emissions and carbon intensity a significant challenge for the operation going forward.

Data on Scope 3 emissions, resulting from activities such as employee commuting or shipping our product to market, are not currently collected.

In 2009, Xstrata Mount Isa Mines submitted progress reports under the Commonwealth Energy Efficiency Opportunities Program. Energy saving initiatives introduced have reduced energy consumption by 0.3% at Xstrata Mount Isa Mines and 6.5% at MRM. Key initiatives being progressed include:

- At Xstrata Mount Isa Mines, making greater use of solar hot water systems for laundry and site accommodation facilities, and solar power for some fixed plant such as gauging stations
- At MRM, converting hot water systems from electric to solar, trialling different grinding media to reduce grinding times, and improving haul road maintenance to reduce large earthmoving equipment tyre wear and diesel consumption.

National Greenhouse and Energy Reporting System (NGERS)

The Australian Government introduced the *National Greenhouse and Energy Reporting Act* in 2007. This Act requires entities emitting more than 25,000 tonnes of carbon dioxide equivalents (CO₂-e) per annum to register and report annually their total carbon emissions.

The first reporting year for this scheme was the year ended 30 June 2009. Xstrata Holdings Pty Ltd was registered in accordance with the *National Greenhouse and Energy Report Act 2007* and the first annual report was submitted to government in October 2009. Xstrata Mount Isa Mines activities are reported as part of the Xstrata Holdings Pty Ltd submission but not MRM which was exempted until 2010.

Prior to the introduction of NGERS, our operations collected carbon activity data and reported greenhouse emissions in our annual sustainability reports and annual submissions under the Australian Government's Greenhouse Challenge Plus and the Energy Efficiency Opportunities Programs.

Due to the more detailed reporting requirements of NGERS, we have reviewed and streamlined our existing data capture, recording and reporting system to further improve data integrity and compliance.

WATER

We use large volumes of water in the extraction and processing of zinc and lead. We are committed to continually improving the efficiency with which we use water, and to avoiding negative impacts of our operations on water quality.

Freshwater consumed at Xstrata Mount Isa Mines is sourced from two dams. Lake Moondarra (106,000ML) is situated approximately 20 kilometres downstream from the major site operation, and Lake Julius (107,500ML) is located 70 kilometres north east of Mount Isa. The dams are used in combination to ensure the supply of freshwater to Xstrata Mount Isa Mines and the Mount Isa community. Both of these dams reached over 100% capacity in January 2009, breaking a long drought period. Alternative water sources to freshwater include harvested stormwater, underground mine dewatering, water recycled internally within plant areas, waste water streams from neighbouring operations, return water from tailings thickeners and tailings decant water.

MRM's groundwater is mainly sourced through the Emu, Donkey and Mimex borefields in close proximity to the mine. Surface water is sourced primarily from rainfall collected in the raw water dam, and from McArthur River when the level is within the extraction license conditions. In 2009, MRM sought and was granted permission to obtain further water from the new channel area to aid in rehabilitation and dust suppression, although no water was withdrawn for this purpose in 2009.

Table 8: Energy consumption

Direct	Unit	Xstrata Mount Isa Mines zinc-lead operations		MRM		Bowen Coke	
		2008	2009	2008	2009	2008	2009
Petrol	GJ	2,095	2,184	447	294	92	63
Diesel	GJ	2,145,105	1,203,414	661,700	389,012	784	1,096
LPG	GJ	1,724	1,943	1,642	979		
Coke	GJ	1,100,115	996,327				
Wood	GJ	1,328	486				
Indirect	Unit	Xstrata Mount Isa Mines zinc-lead operations		MRM		Bowen Coke	
Electricity	GJ	1,448,990	1,366,723	435,051	464,034	1,796	1,744
Total	GJ	4,699,356	3,571,077	1,098,840	854,319	2,672	2,903

Bowen Coke is not located in a water-scarce location and uses relatively low amounts of water from the Bowen municipal water supply. Water is primarily used in a cooling process, and water not lost as steam is recycled.

Performance

Approximately \$3.5 million was spent on increasing water reclamation, stormwater containments and drainage across the Xstrata Mount Isa Mines mining lease. A large capital project to minimise the loss due to evaporation of the water being pumped to tailings has been planned to increase the availability of process water to the plants by pumping this tailing water back into the process water system.

At MRM a greater emphasis on the use of water from underground void areas or the Tailings Management Dam has dramatically reduced groundwater use and also reduced energy consumed in maintaining pumps from the bore fields.

Discharges

We monitor the quality of water discharged off-site. This monitoring, in conjunction with water quality results from Lake Moondarra and waterways around MRM and Bowen Coke, consistently show our operations are not affecting water quality.

At Xstrata Mount Isa Mines, there were 15 minor instances of stormwater discharging off-site in 2009 due to extreme storm events at the beginning of the year. All sites are currently assessing an increase in the containment capacity for stormwater during high rainfall events. Surface water in the Xstrata Mount Isa Mines region flows into the Leichhardt River and then into Lake Moondarra.

During 2009, 85.5ML of water was discharged from MRM to McArthur River under a discharge licence that sets out the minimum height the river has to be in order to discharge, water chemistry trigger levels, and monitoring before and after discharge.

A total of 24 surface water sampling sites are monitored up and downstream of MRM within Barney Creek, Surprise Creek, the Glyde River and McArthur River to check water quality. Sediment is also collected at these sampling locations. During 2009, higher concentrations of lead and zinc were identified in sediment at localised points in Surprise Creek and downstream in the lower sections of the Barney Creek and McArthur River channels. These elevated concentrations were isolated to only these points as sampling sites further downstream along the McArthur River reported no impact. MRM has investigated the potential source of the elevated levels and mitigation measures are being implemented.

EMISSIONS TO AIR

Our most significant emission to air, apart from greenhouse gases, is sulphur dioxide (SO₂) produced during metallurgical operations at Xstrata Mount Isa Mines.

Emissions monitoring, control and impact reduction strategies are a major component of environmental management at Xstrata Mount Isa Mines. Since taking ownership of the Mount Isa operations in 2003, Xstrata has invested in excess of \$250 million on over 150 environmental initiatives to limit potential environmental impacts on the local community.

Figure 4: Xstrata Zinc Australia Energy Consumption, '000 GJ

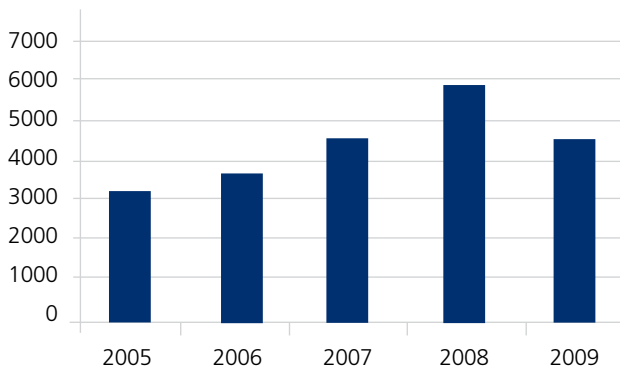


Figure 5: Xstrata Zinc Australia Greenhouse Emissions, '000 CO₂-e tonnes

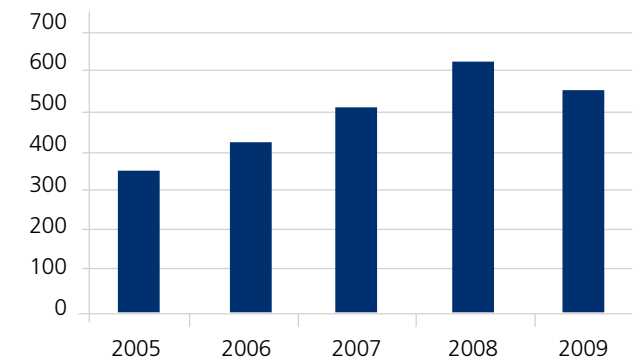


Figure 6: Xstrata Zinc Australia Energy Intensity, GJ/tonnes contained metal

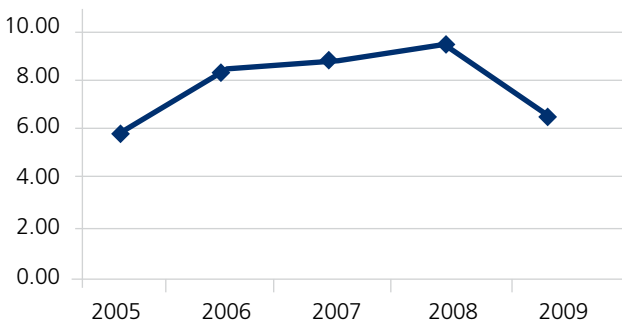


Figure 7: Xstrata Zinc Australia Greenhouse Intensity, CO₂-e tonnes/ tonnes contained metal

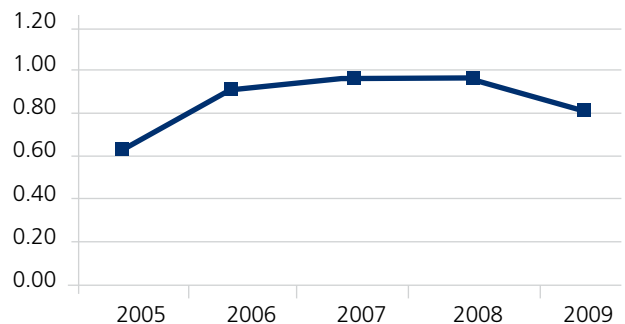


Table 9: Water consumption (ML)

	Xstrata Mount Isa Mines zinc-lead operations		MRM		Bowen Coke	
	2008	2009	2008	2009	2008	2009
Groundwater	1,281	494	1,388	951		
Surface water	7,433	0	30	0		
Potable water	6,132	3,783	150	30	84	59
Recycled or reused water	23,368	13,850	13,638	9,507		

Table 10: Oxides of sulphur and nitrogen emitted to air (tonnes)

	Xstrata Mount Isa Mines		MRM		Bowen Coke	
	2008	2009	2008	2009	2008	2009
NOx	5	5	0	0	41	42
SOx	132,502	128,489	1.2	2.7	331	278

Under the Smelter Emissions Program established in 2007, Xstrata Mount Isa Mines is assessing the feasibility of a range of initiatives and activities to further improve the capture and treatment of SO₂ emissions. In 2009, over \$12 million was invested in a range of initiatives to reduce fugitive emissions and design and implement operational and engineering controls to collect and reduce off-gases produced from each vessel. The most significant of these initiatives was an \$11 million upgrade to the zinc-lead concentrator commissioned in December 2009 and which offers the potential to reduce SO₂ emissions at the lead smelter by 8%.

Dust generation both in Mount Isa and MRM is controlled by the use of water carts and sprinkler systems, effective maintenance of unsealed roads, controls to reduce the speed of vehicles on site, blasting only under favourable weather conditions and rehabilitating exposed areas as soon as practicably possible.

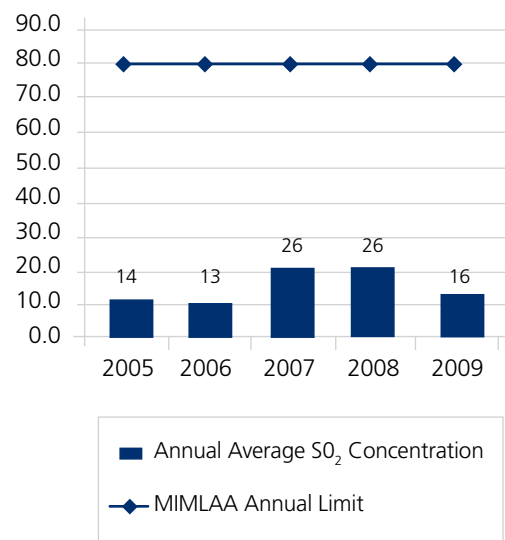
Performance

Significant improvements in ambient air monitoring were made in 2009 on the basis of internal and external reviews. Ambient lead-in-air (PM10) concentrations and the annual average ground level sulphur dioxide concentration in Mount Isa both remained significantly lower than the standards specified in the *Mount Isa Mines Limited Agreement Act 1985* (MIMLAA).

The annual average ground level SO₂ concentration reduced between 2008 and 2009 (see Figure 8) largely due to a decrease in the amount of hours of westerly winds blowing across town. Westerly winds have a significant impact on Xstrata Mount Isa Mines’ operations.

Xstrata Zinc Australia does not emit ozone depleting substances at its operations.

Figure 8: Average annual SO₂ concentration, Mount Isa



National Pollutant Inventory (NPI)

Xstrata Zinc Australia operations report annually their emissions to the NPI, a Federal Government Internet database (www.npi.gov.au) with information on the emission of 93 substances from industrial facilities and non-industrial sources.

As the largest mining, processing and smelting operation in Australia, Xstrata Mount Isa Mines has a significant operational footprint including two open cut mines, three underground mines, two smelters, two concentrators, a filter plant, multiple engineering and maintenance facilities, warehouses and supply depots, rock quarries and tailings dams. As a result, Xstrata Mount Isa Mines is comparable to the sum of multiple individual mines and industrial facilities listed on the National Pollutant Inventory (NPI).

Xstrata Mount Isa Mines reported substantial decreases in five of the six emissions compounds to the NPI database in 2008-2009 for which it was the top emitter the previous year. These decreases in lead, zinc, arsenic, antimony and cadmium were partly due to an increased volume of sampling, which has improved confidence in emissions estimates.

The NPI does not measure emissions into the community itself and cannot be used directly to determine the potential impact of these emissions on the community and the environment. Information on the NPI and estimated on-site emissions at the source are available from www.npi.gov.au.

MATERIALS AND WASTE

We actively seek opportunities to reduce input consumption, and all operations have waste management plans designed to reduce, reuse, recycle or responsibly dispose of waste. The core of our waste management plans is a contract for general waste and scrap metal collection based on a 'polluter pays' principle, where waste costs are distributed to departments according to the volume they generate.

Xstrata Zinc Australia produced a total of 39.9 million tonnes of waste (primarily excavated materials, overburden, waste rock, slag, tailings and processing wastes) in 2009, compared to 91.0 million tonnes in 2008. A total of 515,802 tonnes of hazardous waste was recycled and 1,105 tonnes disposed of in line with regulatory requirements.

Materials

Improvements in the reporting of additional materials have resulted in higher reported volumes of grinding media (where sand and ceramic media is now recorded) and Xanthates (with additional flocculants).

The volume of cement used at Xstrata Mount Isa Mines was significantly reduced by extracting tailings from a disused tailings dam for use in the George Fisher Mine as underground fill. A process review of the lead-zinc concentrator at Mount Isa also led to a dramatic decrease in reagents used in the floatation cells.

None of the materials in Table 11 used recycled input materials.

Table 11: Summary non-renewable materials consumed

Direct	Unit	Xstrata Mount Isa Mines zinc-lead operations		MRM		Bowen Coke	
		2008	2009	2008	2009	2008	2009
Cement	tonnes	30,181	7,803				
Ammonium nitrate / fuel oil	tonnes	0	0.1	42	191		
Copper Sulphate	tonnes			5,135	4,792		
Coal	tonnes					67,671	66,322
Coke	tonnes	40,745	36,900				
Emulsion	tonnes	12,785	6,846	3,293	1,470		
Grinding Media	tonnes	32,268	43,318	3,292	5,965	-	28,394
Silica	tonnes	86,536	84,223				
Xanthate / flotation reagents	tonnes	5,556	2,331	1,283	2,152		
Lubricating oils	kilolitres	1,567	1,335	271	196		

General waste

All non-salvageable waste is disposed of in line with strict waste management systems and legislative requirements.

Recycling initiatives include exporting a large proportion of scrap metal to South East Asia for recycling, and sending waste oil from MRM to Mataranka Lime Plant for addition to its calcification process (the heat generated by the addition of oil decreases emissions and consumption of gas at that facility).

Overburden

Waste rock from overburden is used in the construction of on-site roads or bunds, or may be stored in dumps that we rehabilitate by shaping rock piles and revegetating to mimic the natural environment. In 2009, our operations stored an estimated 43.2 million tonnes of waste rock.

MRM, Black Star and Handlebar Hill open cut mines have developed waste rock dumps from their operations in accordance with best practice design principles. A major component is encapsulating potentially acid forming materials within the waste rock dumps for long term storage, away from exposure to weather.

At Black Star, trials of a Moisture Store and Release Cover System are continuing to ensure improved environmental outcomes for waste rock storage facilities at Xstrata Mount Isa Mines.

In addition, computer modelling of final outer slope designs for the waste rock dumps for Black Star and Handlebar Hill open cut mines was completed in 2009 after generating and testing 3D simulations of erosion processes of up to 1,000 years. Field trials to calibrate these models have commenced and will be monitored over the next two to three years.

Tailings

A Tailings Placement Strategy guides storage of tailings. Tailings storage facilities are split into cells, and tailings deposition is alternated between cells on a regular basis to keep them moist to reduce the likelihood of dusting by wind gusts.

While the assessment of tailings' chemical properties indicates that they are non acid forming, any seepage from the tailings dam is captured in seepage ponds and pumped back to the tailings dam to prevent off-site discharges. Seepage to groundwater is monitored through a series of groundwater bores. Visual inspections of the tailings dams and seepage ponds are conducted multiple times during any day and on an increased frequency during the wet season.

At Xstrata Mount Isa Mines, two major research projects assessing revegetation and the environmental risk of seepage in naturally mineralised areas have been initiated to assess long-term closure options and potential impacts from the tailings dams. In combination with other studies described in this report, such as the Lead Pathways Study and Biodiversity Study, these will be used to refine closure criteria for the dams to ensure they are safe, stable and non-polluting in the long term.

Table 12: Major waste streams and disposal/treatment methods

	Unit	Xstrata Mount Isa Mines zinc-lead operations		MRM		Bowen Coke		Disposal/treatment
		2008	2009	2008	2009	2008	2009	
General Waste	(t)	1,971	1,632	-	31	11	13	Landfill
General Waste	(t)			577	251			Incineration
Scrap metal	(t)	3,165	1,144	139	160			Recycling off-site
Hydrocarbons*	(kL)	306	313	236	169			Recycling and/or filtering for reuse. Some disposed off-site.
Light Vehicle tyres*	#	925	685					Retreading where available, or disposal for unrepairable tyres
Batteries*	(t)	1.4	0.2	12	3			Recycling
Other recyclables	(t)	1,971	1,679	-	9			Recycling
Tailings	(t)	3,752,086	4,616,185 515,613	1,795,613	1,809,104			Tailings storage facility Recycled as underground fill

*Hazardous waste

MRM has been particularly active in tailings management, investing over \$2 million in recent years installing state-of-the-art geopolymer barrier walls to provide an additional safeguard to eliminating seepage. In 2009, consultants visited site as part of planning to address sulphate levels, and as a result, work was conducted to:

- Create additional recovery bores and a trench for containment
- Apply Total Ground Control to suppress dust on uncapped tailings areas
- Complete an electromagnetic survey to identify locations within the tailings storage facility at risk of seepage
- Continue a comprehensive monitoring regime to record recovery rates.

In 2010, a further \$1 million will be invested in additional recovery and containment options.

PRODUCT STEWARDSHIP

Xstrata's SD Standards provide guidelines to ensure the impacts and risks associated with our products and services are identified, analysed, evaluated and addressed. Material safety data sheets are completed for products and intermediaries including product physical and chemical composition, risks to human health, handling, transport, storage and exposure control.

Zinc is used for galvanising steel, which is a highly cost-effective and environmentally-friendly method of protecting steel against corrosion. Zinc also finds application in the manufacture of die-cast alloys, brass and the production of zinc oxides and chemicals.

Lead is primarily used in lead acid batteries. Other applications for lead include alloys, submarine cables, lead sheeting and oxide lead uses.

Xstrata works with stakeholders – including industry associations, customers and suppliers – to understand the environmental and health and safety risks of our products, and to find ways to mitigate these risks. We work on product stewardship issues through our involvement with national and international industry and commodity associations.

Xstrata Mount Isa Mines ships most of its products from Townsville, 904km from Mount Isa, by rail and road. A study to determine the carbon footprint of goods transport has been undertaken and we are gathering information on our carbon footprint from the materials use, waste management and environmental management systems and strategies.

MRM operations are heavily reliant on air services to transport workers the 950km from Darwin, while most goods are sourced by road. Product from the mine is transported by road to a loading facility at Bing Bong, 120km from MRM, from where a barge loads ships within an authorised channel at sea.



The Aburri barge docked at Bing Bong loading facility which transports MRM bulk concentrate to ships at sea.

Our communities

OBJECTIVE

To contribute to the social and economic development of the communities associated with where we operate.

POLICY AND APPROACH

Our operations are based around the communities of Mount Isa in North West Queensland, Bowen in North East Queensland, and Borroloola in the gulf region of the Northern Territory.

We aim to maximise the positive impacts our activities can bring about for host communities and minimise or avoid potential negative impacts.

Our programs are guided by Xstrata's SD Standards relating to community, including Communication and Engagement, Social and Community Engagement, and Life Cycle Management.

We work with communities to identify and evaluate their needs and concerns, as well as the actual and potential impacts our operations have on them. We engage with our communities in a transparent and culturally appropriate manner. We respond to community needs and concerns, along with any related impacts, risks and opportunities our operations present, in cooperation with communities, governments and other stakeholders.

Challenges and opportunities

The key community issues are to:

- Effectively engage with our Indigenous stakeholders, together with our diverse community of stakeholders
- Ensure competitive provision of goods and services to regional and remote sites
- Support local economic growth in regional and remote areas and in the face of deteriorating global economic conditions, and commodity price fluctuations
- Protect public health and safety
- Ensure Indigenous cultural heritage is not affected by our mining operations
- Deliver long-term beneficial impacts to the development of the communities in which we operate.

COMMUNITY ENGAGEMENT

Xstrata Zinc Australia's engagement program is critical to our understanding of material SD issues. Stakeholder feedback is used to identify risks and opportunities and is integrated into business planning and strategy.

Our communities are consulted through mechanisms including regular Community Attitudes Surveys in North Queensland, a formal engagement program in association with the annual planning of the MRM Community Benefits Trust, community information forums, and regular informal meetings and briefings.

Grievances and complaints

We record, monitor and address community complaints, take corrective action where appropriate, and provide feedback to complainants. All complaints received are handled by members of the Community Relations team and complainants are responded to promptly.

In 2009, 11 complaints were received at Xstrata Mount Isa Mines zinc-lead operations. Of these, 8 were in relation to fumes with the remainder concerning dust and noise. In all cases, the complainants were advised of the current Air Quality Control (AQC) status and any action being taken. The AQC Centre closely monitors emissions and automatically closes down the smelter if emissions approach regulatory limits.

MRM received no complaints in 2009, but, as reported in its 2008 Sustainability Report, a number of traditional owners opposed the river diversion and expansion of MRM. While a number of traditional owners remain opposed to the mine, many Indigenous and non-Indigenous residents of the Borroloola community are supportive of the mine's continued development and efforts to monitor its environmental performance.

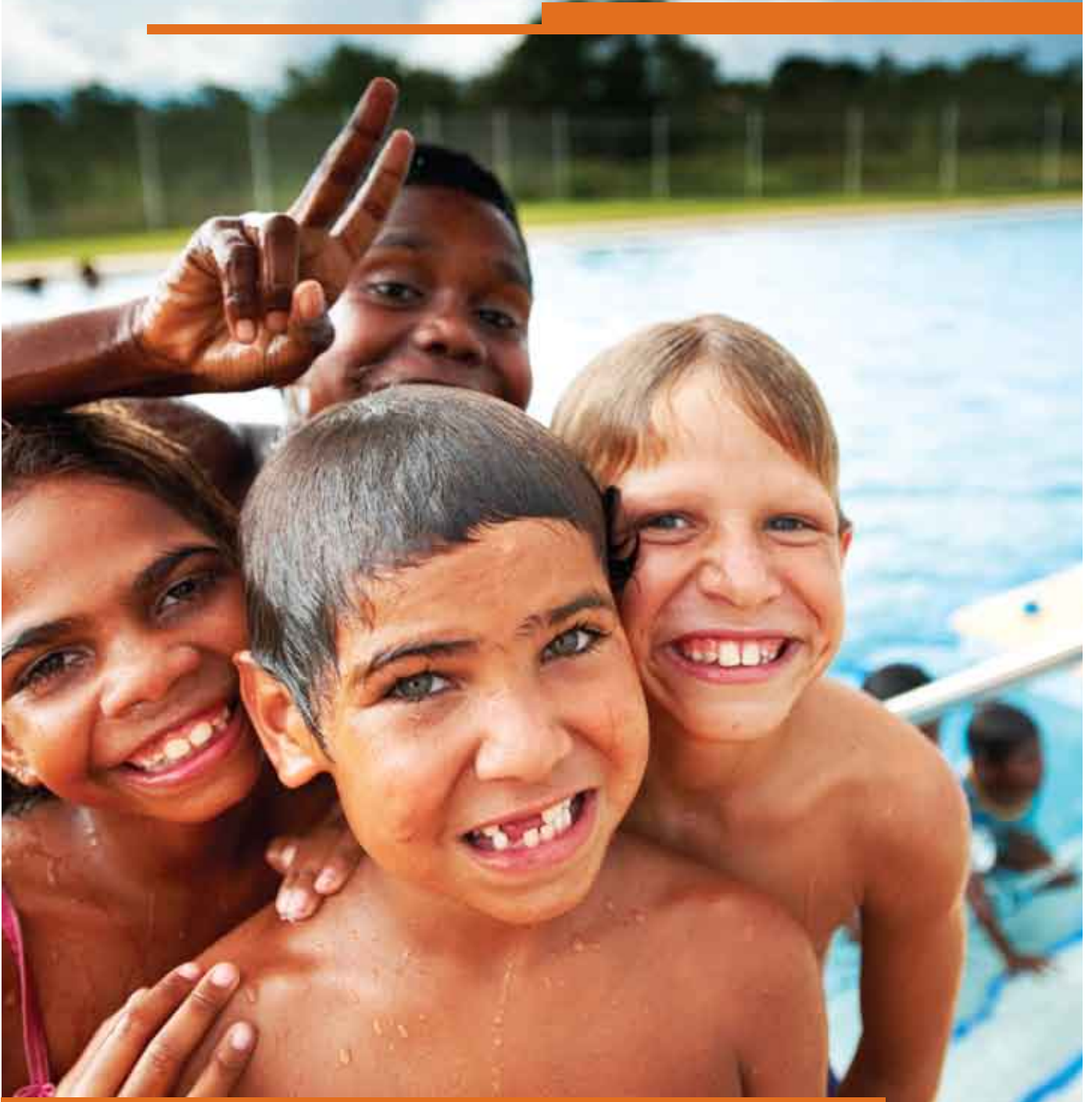
Bowen Coke received six complaints in 2009, primarily relating to fumes.

SOCIO-ECONOMIC DEVELOPMENT

We generate employment opportunities, support local businesses, fund community projects and contribute to government taxes and charges and, in doing so, bring substantial benefits to the communities in which we operate.

“

In 2009 we invested \$2.3 million in corporate social involvement programs.



Borroloola children enjoy the new local swimming pool, constructed by MRM in partnership with the community.

Table 13: Community issues

Xstrata Mount Isa Mines	
Community issue	Xstrata's response
Air pollution	<ul style="list-style-type: none"> • Maintaining a robust air monitoring program including 10 sulphur dioxide monitors and five high volume dust samplers to monitor emissions in Mount Isa • Improving the capture and treatment of emissions through the Smelter Emissions Project • Continuing to improve emissions efficiency and to focus on dust management and emissions monitoring
Unemployment/lack of employment opportunities	<ul style="list-style-type: none"> • Maintaining the Xstrata Apprenticeship Program • Maintaining employee levels within the zinc operations • Maximising local procurement • Continuing investment in CSI activities to address enterprise and job creation
Future of mine and town/long-term viability of town	<ul style="list-style-type: none"> • Announcing two feasibility studies into extending operations in the region: Black Star Open Cut Deeps, and George Fisher Mine expansion feasibility studies • Continuing to invest in CSI activities including the development of social infrastructure in the community
Lead in blood levels	<ul style="list-style-type: none"> • Supporting the Living with Lead Alliance to deliver community education programs regarding living safely with lead • Continuing the <i>Lead Pathways Study</i> of land, air and water • Finalising planning work as part of the Smelter Emissions Project to further improve the capture and treatment of smelter emissions • Continuing to offer free, independent and confidential blood-lead testing for all employees and community members through Queensland Medical Laboratory (QML) • Improving working conditions to better manage exposure to lead such as the new Clean-In Clean-Out facility and vehicle washing and servicing procedures
Lack of services	<ul style="list-style-type: none"> • Implementing the Xstrata Mount Isa Mines zinc-lead operations' Housing Management Plan which includes constructing new management houses, duplexes and barracks at George Fisher Mine for contractors • Investing 59% of total CSI expenditure in health and 28% in community development
MRM	
Community issue	Xstrata's response
Community health, jobs and youth services	<ul style="list-style-type: none"> • Continuing our community partnership activities through the \$32 million MRM Community Benefits Trust and continuing to champion community issues
Creation of a community hub	<ul style="list-style-type: none"> • Completing the construction of the Borroloola Swimming Pool complex • Providing in-principle support for a \$1 million grant to the Roper Gulf Shire Council for the establishment of a multi-purpose indoor sports and recreational facility through the MRM Community Benefits Trust
Environmental impacts of the mine	<ul style="list-style-type: none"> • A comprehensive program to prevent environmental impacts and monitor environmental management as described in the Environment section
Bowen Coke	
Community issue	Xstrata's response
Environmental impacts, such as noise, dust and fumes	<ul style="list-style-type: none"> • Providing detailed environmental information to the community • Reducing dust by concreting a large exposed operational area • Reducing site working hours to reduce noise.

The potential economic benefits of our operations include:

- Support for initiatives to improve prosperity and wellbeing
- Paying royalties and taxes to governments
- Improving or contributing to local infrastructure and services
- Giving priority to supporting local businesses and establishing new enterprise
- Employment opportunities, especially for local people
- Improved local skills and ability to secure work elsewhere
- Indirect job creation in service industries.

Potential negative economic impacts of our operations include:

- Risk of economic dependency on company-funded projects
- Increased traffic and pressure on local services
- Loss of employment and investment following mine closure.

Economic value distributed

Xstrata Zinc Australia operations generated direct economic benefits of over \$1.1 billion during 2009.

Table 14: Direct economic value distributed (\$m)

	Xstrata Zinc North Queensland	MRM
Employee wages and benefits	134.7	20.9
Utilities	69.5	21.6
Government taxes and royalties	28.5	1.1
Community investments	0.9	1.4
Other	703.1	88.2
Total	936.7	133.2

Information on Xstrata Zinc Australia's net sales and Xstrata plc's capitalisation can be found in Xstrata plc's Annual Report 2009. Please refer to www.xstrata.com/publications/financial.

Local procurement

We recognise the value that can be delivered to the local economy through our activities and wherever possible, encourage the development and use of local suppliers and contractors. We define a 'local' supplier as a supplier from the nearest regional centre with proximity to our mining operations.

In 2009, around \$219 million or 37% of Xstrata Zinc North Queensland total expenditure for contracted services was invested with local suppliers. At MRM, the value of local procurement within the Borroloola region increased by \$0.9 million to \$7.8 million in 2009, or 6% of total procurement. The main contract was for shipping services. A further \$49.2 million (64% of total procurement) was spent with Northern Territory based suppliers. At Bowen, the local expenditure figure was 90%. These varying percentages reflect the relative differences in the depth of the local economies in which we operate and the nature of the operations themselves.

Our policy is to source local suppliers who provide value for money and quality. We also assess businesses based on their involvement in community support programs or local social initiatives. All suppliers and contractors are provided with a copy of Xstrata's Business Principles so they are aware of our core values, and are required to identify and mitigate the potential SD risks associated with their operations.

Local employment

Xstrata Zinc Australia operations feature both live-in and fly-in fly-out workforces.

Our Mount Isa and Bowen sites are residential operations which maximises the number of employees living within the community and contributing to the local communities. The proportion of the workforce and senior management hired from the local community is approximately 64%.

MRM is a fly-in, fly-out operation due to the remote location of the mine and the distance to a local community. As at the end of 2009, 17.4% of the MRM workforce (36) were from the local community of Borroloola, of whom 27 were Indigenous employees.

A small proportion of employees were recruited from outside Australia. In 2009, 1.22% (28) of Xstrata Mount Isa Mines zinc-lead operations employees (excluding contractors) were foreign nationals without permanent residence in Australia.

Government assistance

In 2009, Xstrata Mount Isa Mines received \$396,129 from the Mining Industry Skills Centre and \$265,900 from Queensland Apprenticeship Services.

MRM participated in a Structured Training and Employment Project and received \$126,406 from the Federal Government to support the Indigenous Employment and Training Strategy.

CORPORATE SOCIAL INVOLVEMENT

Xstrata Zinc Australia's corporate social involvement (CSI) programs are an important part of our work with our local communities. Through these programs our operations develop community partnerships and undertake sponsorships and donations in the areas of enterprise and job creation, health, education, art and culture, environment, and social and community development.

In 2009 we invested \$2.3 million in CSI programs comprised of:

- our participation in the Xstrata Community Partnership Program North Queensland and Xstrata Community Partnership Program Queensland
- contribution to the MRM Community Benefits Trust
- sponsorships and donations managed by each site.

Xstrata Community Partnership Programs

Xstrata Mount Isa Mines supported 22 initiatives in North Queensland with a program value of \$3.43 million under the Xstrata Community Partnership Program North Queensland (XCPPNQ). The program, co-funded by the Zinc and Copper businesses, funds projects that deliver real improvements to our communities, both in the short-term and long-term. It has now supported more than 60 initiatives since 2004, with a total program value of more than \$11 million through to 2010.

Key projects funded in 2009 include:

- Mount Isa Family Fun Park: Development of a large block of vacant land into a vibrant, family-friendly park featuring an all-abilities children's playground to cater for children with disabilities, a water fun park, gardens and BBQ facilities for families
- Dugalungi Civil Construction and Mining Skills Prevocational Program, in partnership with Myuma Pty Ltd: Funding places for Indigenous participants in two separate, 13-week live-in programs and funds to support the expansion of training and mentoring services
- Diabetes Centre and education program, in partnership with Queensland Health: Funding of a centre to provide consistent, modern diabetes management including a diabetes educator for outlying Indigenous communities.
- Queens Beach State School Parents and Citizens Association, Bowen: Interactive White Boards (see case study for more information).

MRM Community Benefits Trust

The MRM Community Benefits Trust was established by MRM and the Northern Territory Government in 2007 as a vehicle for delivering social and economic benefits to the Borroloola regional community. An annual investment of \$1.35 million is committed.

In 2009, 6 grants valued at \$2.04 million were committed to programs supporting environmental, health, enterprise and job creation, and cultural objectives. This follows the provision of 12 grants in 2008 valued at \$1.5 million.

The key outcomes arising from the 2008 programs were reviewed and measured in 2009 and found:

- An estimated 78 local Indigenous residents were undertaking or planned to undertake nationally-accredited training
- A further seven new full time jobs had been created
- Four local businesses directly benefitted from significant investments in their assets and resources

- The sustainability of three popular arts and culture facilities and events was improved
- 32 school students participated in work experience and vocational education training.

Importantly, the review showed the long-term regional vision and short-term priorities identified through community consultation are being targeted and addressed by the CBT. For more information, visit www.mcarthurrivermine.com.au/community_benefitstrust.cfm.

Sponsorships and community donations

In addition to the community partnership programs, sponsorships and donations are structured around events or opportunities for assistance and capacity building.

In Mount Isa, sponsorships during 2009 included the Xstrata Mount Isa Mines Rotary Rodeo, Xstrata Mount Isa Mines Mining Expo, NAIDOC Week celebrations, Mount Isa and Regional Business Awards, and Clean Up Australia Day local initiatives.

We also continued to provide significant in-kind support through goods, materials or personnel time, such as:

- Building and surveying support of close to \$50,000 was supplied to AFL Mt Isa toward the development of a new sporting complex
- Involving Xstrata Mount Isa Mines apprentices in constructing equipment for a variety of community and sporting organisations.

MRM provided a broad range of sponsorships as summarised in Table 15 (page 44).

In Bowen, significant funding was provided in 2008 for the establishment of a Police Citizens and Youth Club in line with community needs. Construction of the building commenced in late 2009 and is due for completion in late 2010.

Infrastructure for public benefit

In partnership with Mount Isa City Council, and in response to the feedback from the 2007 Community Attitudes Survey, Xstrata Mount Isa Mines contributed \$1 million over two years to help establish the new Mount Isa Family Fun Park, including \$250,000 in 2009 for the final stage development. Leveraged by \$1.5 million contributions from both the Mount Isa City Council and the Queensland Government, the park was officially opened on 5 June 2009.

In Borroloola, an impressive swimming pool complex was handed over to the Roper Gulf Shire Council after a three year development program managed by MRM. The complex is a product of a cooperative approach between MRM, the Australian and Northern Territory governments, and the community and features a 25-metre, five lane pool and accompanying wading pool, kiosk and amenities building. MRM provided \$600,000 of in-kind support for the project management and construction of utilising personnel and resources contracted during the open pit development. The pool provides the town with a modern recreational facility which is also expected to generate health benefits for the community's children.

CASE STUDY:

Bowen school benefits from smartboards

Queens Beach State School in Bowen, like many schools in rural and regional Australia, is working hard to give its students hands-on access to information technologies that urban students often take for granted.

To help ensure the school's 380 students are literate in fundamental information technologies, Xstrata is two years into a three-year partnership with both the school and its Parents and Citizens' Association to purchase and install Smartboards in 12 classrooms.

The program is supported through the Xstrata Community Partnership Program North Queensland.

Over the past two years, seven classrooms and the Computer Lab have had Smartboards installed and all classroom teachers have been trained in their use. In 2010, the final four classrooms will have this technology fitted. Smartboards are a hi-tech version of a whiteboard, allowing a whole class to have interactive internet, email and computer access.

Thanks to this partnership, all students from Prep to Year 7 have opportunities for enriched research and activities which may not have been possible so soon without Xstrata's contribution – and no child is being deprived of the latest advances in learning opportunities due to remoteness or socio-economic factors.

The Principal of Queens Beach State School, Mary Franklin, says Xstrata's involvement has had a huge positive impact on the school.

"Teachers have repeatedly expressed their appreciation of having access to 'cutting edge' technologies which assist in achieving aspirational learning opportunities, and parents are very pleased to see a regional school like ours having the same level of technology as city schools," Ms Franklin says.

"In the Annual 2009 Education Queensland Student Opinion Survey, our students gave much higher satisfaction levels for information technology in their classrooms and their access to information technology than in the past.

"Perhaps most importantly, Queens Beach State School has performed quite well in NAPLAN Testing, and part of that success in Maths would be due to the confidence students are gaining in accessing programs, email, and internet connections via the Smartboards."



Supporting improved education outcomes within the communities in which we operate is a major focus of our corporate social involvement programs.

Table 15: MRM community-based sponsorships and donations, 2009

Project	Nature of support
Community development	
Transport	<ul style="list-style-type: none"> Provision of flights for community members when required
Art and culture	
Borrooloola Show Committee	<ul style="list-style-type: none"> Funding support for 2009 Borrooloola Gulf Show
Documentary " <i>From Manakurra to Borrooloola</i> "	<ul style="list-style-type: none"> Provision of flights for a University of Queensland Senior Lecturer and film maker to travel to Borrooloola for filming
National Aborigines and Islanders Day Observance Committee (NAIDOC)	<ul style="list-style-type: none"> Donation to NAIDOC Week organising committee for activities during the week-long celebrations in Borrooloola
Waralungku Aboriginal Art Centre	<ul style="list-style-type: none"> Donation of funds to Boonu Boonu Art Festival held in conjunction with the annual NAIDOC Week celebrations Provision of flights for visiting artists to Borrooloola teaching alternative artistic styles.
Sport	
Borrooloola Swimming Complex	<ul style="list-style-type: none"> Project management of construction of the complex Support for the opening of the facility
NT Clay Target Association	<ul style="list-style-type: none"> Funding support to travel to National Clay Target Championships in Queensland
Borrooloola Cyclones Soccer Club and Team	<ul style="list-style-type: none"> Provision of flights for members to attend A-League try-out and exhibition matches
King Ash Bay Easter Fishing Competition	<ul style="list-style-type: none"> Donation of prize money
Daly Waters Rodeo	<ul style="list-style-type: none"> Donation of prize money
Borrooloola Rodeo	<ul style="list-style-type: none"> Financial assistance for promotion activities, annual prizes and equipment.
Employment and training	
Northern Territory Young Achievers Awards 2009	<ul style="list-style-type: none"> Sponsorship of the Regional and Rural Initiative category
Education	
Work Experience	<ul style="list-style-type: none"> Provision of skills training and accommodation for Year 12 Borrooloola students
Health	
Mums and Bubs Program	<ul style="list-style-type: none"> Provision of funds to support Healthy Living, Healthy Lifestyle awareness day at Borrooloola clinic
Borrooloola Health Clinic	<ul style="list-style-type: none"> Incentive package for retention of a permanent GP Funding support for Alcohol and Other Drugs Awareness Day Funding support for women's travel to Katherine for breast screening purposes (mammograms).

INDIGENOUS RIGHTS AND CULTURAL HERITAGE MANAGEMENT

We are committed to protecting culturally significant sites or artefacts that could be affected by our operations. Training courses are designed to raise employee awareness of the importance and contributions of cultural heritage.

Xstrata Zinc Australia's position is that identification of local lands with regard to Indigenous peoples shall be based on the Native Title Claims Register administered by the Australian Government's National Native Title Tribunal (NNTT) and certified sites of cultural significance with the Northern Territory Aboriginal Area Protection Authority.

In north west Queensland there are 14 language groups represented; the largest of these is the Kalkadoon Nation.

MRM is situated on Gurdanji country, and operates mining leases on lands traditionally used by the Gurdanji and Yanyuwa language groups. These, and other traditional language groups, including the Garrawa, Mara and Alyawa people, have historically been consulted about the mine as members of the local community.

Any person carrying out an activity has an obligation to take all reasonable and practicable measures to ensure the activity does not harm Aboriginal Cultural Heritage. To ensure compliance with this obligation, our internal procedures require us to seek the engagement of the identified Aboriginal Party in the planning, conducting and reporting of Aboriginal Cultural Heritage Surveys prior to undertaking an activity that may disturb Aboriginal Cultural Heritage within the site of operations.

During 2009 there were no known incidents of Indigenous rights being violated or reports of Cultural Heritage breaches as a result of Xstrata Zinc Australia's operations.

LIVING SAFELY WITH LEAD

Xstrata Mount Isa Mines takes the health and safety of the Mount Isa community very seriously and understands the unique situation with mining and smelting operations situated close to town amid an area of naturally-occurring lead mineralisation.

For over 15 years, Xstrata Mount Isa Mines has worked with the local and Queensland Government to raise community awareness about living safely with lead. In December 2007, Xstrata joined with Queensland Health, the Environmental Protection Agency (now Department of Environment and Resource Management), the local State Member of Parliament and Mount Isa City Council to form the Living with Lead Alliance. The aim of the Alliance is to provide people in Mount Isa with the information they need so they can put in place simple measures to help them stay healthy in an environment with naturally occurring mineral such as lead. The Alliance is also driving long term actions to address the issue of lead in the community.

Initiatives include an ongoing public information campaign, various working groups, the development of a range of educational material, meetings with local schools, kindergartens and community groups and involvement in community events.

In addition to the actions of the Alliance, Xstrata Mount Isa Mines continues to offer free, independent and confidential blood lead testing for Mount Isa residents through Queensland Medical Laboratory and has made significant progress in understanding and limiting potential impacts from its Mount Isa operations with projects such as the Lead Pathways Study and Smelter Emissions Project.



“ We are committed to protecting culturally significant sites and artefacts

During 2009 an Indigenous Affairs Strategy was developed and cultural awareness training for employees continued to be deployed.

GRI Index

Indicator	Descriptor	Status and location	
Strategy and analysis			
1.1	Statement from the most senior decision-maker	✓	4
1.2	Description of key impacts, risks and opportunities	✓	16
Organisational profile			
2.1	Name	✓	2
2.2	Major products and services	✓	3
2.3	Operational structure	✓	2-3
2.4	Location of organisation's headquarters	✓	2
2.5	Countries where organisation operates	✓	1
2.6	Nature of ownership	✓	1
2.7	Markets	✓	3
2.8	Scale of reporting organisation	✓	3
2.9	Significant changes during the reporting period	✓	6
2.10	Awards received	✓	15
Report parameters			
3.1	Reporting period	✓	12
3.2	Date of most recent previous report	✓	12
3.3	Reporting cycle	✓	12
3.4	Contact point for questions	✓	52 (Back cover)
3.5	Process for defining report content	✓	12
3.6	Boundary of the report	✓	12
3.7	Any limitations on scope or boundary of report	✓	12
3.8	Basis for reporting on joint ventures, subsidiaries, etc	✓	12
3.9	Data measurement techniques and the bases of calculations, including assumptions and estimations	✓	12
3.10	Effect of any restatements of information provided in earlier reports	✓	12
3.11	Significant changes from previous reporting periods in scope, boundary or measurements applied in report	✓	12
3.12	GRI report content table	✓	46
3.13	Assurance	✓	12
Governance, commitments and engagement			
4.1	Governance structure	✓	14
4.2	Whether Chair of highest governance body is also an executive officer	✗	Details of our highest governance body, Xstrata plc, are provided at www.xstrata.com/sustainability
4.3	Number of members of highest governance body that are independent and/or non-executive members		
4.4	Mechanisms for shareholders and employees to provide recommendations or directions		
4.5	Linkage between executive compensation and performance		
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided		
4.7	Process for determining the qualifications and expertise of members of governance body		
4.8	Internally developed statements of mission or values, codes of conduct, etc	✓	
4.9	Procedures of the governance body for overseeing SD performance	✓	14

4.10	Processes for evaluating governance body's own SD performance	✗	Refer to Xstrata plc. www.xstrata.com/sustainability
4.11	Precautionary approach	✓	15
4.12	External charters or principles subscribed to or endorsed	✓	15
4.13	Principal memberships in associations and advocacy organisations	✓	15
4.14	List of stakeholders engaged by the organisation	✓	17
4.15	Basis for identification and selection of stakeholders with whom to engage	✓	17
4.16	Approaches to stakeholder engagement including frequency and type	✓	17
4.17	Key topics and concerns raised by stakeholders and how they've been addressed	✓	16
Economic			
EC1	Direct economic value generated and distributed	✓	41
EC2	Financial implications and other risks and opportunities due to climate change	→	30
EC3	Coverage of defined benefit plan obligations	✓	22
EC4	Significant financial assistance received from government	✓	41
EC5	Range of ratios of standard entry level wage compared to local minimum wage	→	22
EC6	Policy, practices and proportion of spending on locally-based suppliers	✓	41
EC7	Procedures for local hiring and proportion of senior management hired from the local community	✓	41
EC8	Development and impact of infrastructure investments and services provided for public benefit	✓	42
EC9	Understanding and describing significant indirect economic impacts	✓	40-41
Environmental			
EN1	Materials used by weight or volume	✓	35
EN2	Percentage of materials used that are recycled input materials	✓	35
EN3	Direct energy consumption by source	✓	32
EN4	Indirect energy consumption by source	✓	32
EN5	Energy saved due to conservation and efficiency improvements	✓	30-32
EN6	Initiatives to provide energy-efficient or renewable energy	→	30-32
EN7	Initiatives to reduce indirect energy consumption and reductions achieved	→	30-32
EN8	Total water withdrawal by source	✓	34
EN9	Water sources significantly affected by withdrawal of water	→	32
EN10	Percentage and total volume of water recycled and reused	✓	34
EN11	Location and size of land in or adjacent to protected areas and areas of high biodiversity value	✓	26
EN12	Description of significant impacts of activities on biodiversity in protected areas and areas of high biodiversity value	✓	28-30
EN13	Habitats protected or restored	→	28-30
EN14	Strategies, current actions and future plans for managing impacts on biodiversity	✓	28-30
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations	✓	26
EN16	Total direct and indirect greenhouse gas emissions by weight	✓	33
EN17	Other relevant indirect greenhouse gas emissions by weight		33
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved	✓	30-32
EN19	Emissions of ozone depleting substances by weight	✓	34
EN20	NO, SO and other significant air emissions by type and weight	✓	34
EN21	Total water discharge by quality and destination	✓	33
EN22	Total weight of waste by type and disposal method	✓	35

EN23	Total number and volume of significant spills	✓	28
EN24	Weight of treated waste deemed hazardous and percentage shipped internationally	✓	36
EN25	Identity, size, protected status, biodiversity value of water bodies and related habitats affected by discharges of water and runoff	→	32
EN26	Initiatives to mitigate environmental impacts of products and services	✓	37
EN27	Percentage of products and their packaging materials that are reclaimed		
EN28	Monetary value of significant fines and non-monetary sanctions for non-compliance with environmental laws and regulations	✓	28
EN29	Significant environmental impact of transporting products and other goods	→	37
EN30	Total environmental protection expenditures and investments by type	→	26
MM1	Amount of land disturbed or rehabilitated	✓	30
MM2	Number/percentage of sites with Biodiversity Management Plans	✓	28
MM3	Total amounts of overburden, rock, tailings and sludges presenting potential hazards	✓	36
Labour practices and decent work			
LA1	Workforce by employment type, contract and region	✓	23
LA2	Total number and employee turnover by gender, age group, region	✓	23
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees	✓	22
LA4	Percentage of employees covered by collective bargaining agreements	✓	22
LA5	Minimum notice periods regarding operational changes	✓	22
LA6	Percentage of total workforce represented by joint management-worker health and safety committees	✓	18, 22
LA7	Rate of injury, occupational diseases, lost days, fatalities and absenteeism	✓	18
LA8	Education, training, counselling, prevention programs in place to assist workers, families and community	✓	23-24
LA9	Health and safety topics covered in formal agreements with trade unions	✓	18
LA10	Average hours of training per year per employee by category	✓	24
LA11	Programs for skills management and lifelong learning that support continued employability	✓	23-24
LA12	Percentage of employees receiving regular performance and career development reviews	✗	
LA13	Composition of governance bodies and breakdown of employees per category by gender, age, minority group	✓	22, 23
LA14	Ratio of basic salary of men to women by employee category	✓	22
MM4	Number of strikes and lockouts exceeding one week's duration	✓	22
Human rights			
HR1	Percentage and total number of investment agreements that include human rights clause/screening	✓	24
HR2	Percentage of suppliers and contractors that have undergone screening on human rights	✓	24
HR3	Total hours of employee training on human rights policies and procedures	→	24
HR4	Total number of incidents of discrimination and actions taken	✓	24
HR5	Operations at which the right to freedom of association and collective bargaining may be at risk	✓	22
HR6	Operations at which child labour may be a risk	✓	24
HR7	Operations at which forced and compulsory labour may be a risk	✓	24
HR8	Percentage of security staff trained in human rights policies	✓	24
HR9	Number of incidents involving violation of Indigenous rights and actions taken	✓	45
MM5	Number of operations taking place in or adjacent to Indigenous Persons' territories, and number of operations where there is a formal agreement with Indigenous Persons' communities	✓	45

Society			
SO1	Programs and practices to manage impact of operations on communities	✓	38
SO2	Percentage of operations analysed for risks related to corruption	✓	15
SO3	Percentage of employees trained in anti-corruption policies and procedures	✓	15
SO4	Actions taken in response to incidents of corruption	✓	15
SO5	Public policy positions and participation in public policy development and lobbying	✓	15
SO6	Total value of financial and in-kind contributions to political parties, individuals	✓	15
SO7	Total number of legal actions for anti-competitive behaviour and their outcomes	✓	15
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	✓	15
MM6A	Number and description of significant disputes relating to land use, customary rights of local communities and Indigenous communities	✓	45
MM6B	The extent to which grievance mechanisms were used to resolve disputes, and their outcomes	✓	38
MM7	Involvement in small-scale mining operations within company areas of operation	✗	Our operations do not involve small-scale mining, and did not result in any resettlements in 2009
MM8	Sites where resettlement took place, number of households resettled, and how their livelihoods were affected	✗	
MM9	Number or percentage of operations with site closure plans	✓	30
MM10	Significant incidents involving communities in which grievance mechanisms have been invoked to address them and outcomes	✓	38
MM11	Number and description of incidents affecting employees, communities or the environment in which emergency preparedness procedures were activated	✗	
Product responsibility			
PR1	Life cycle stage in which health and safety impacts of products area assessed for improvement	→	Page 37, Product Stewardship describes our initiatives in these areas
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning product health and safety impacts		
PR3	Type of product and service labelling information required by procedures		
PR4	Total number of incidents of non-compliance with regulations and voluntary codes regarding labelling and information		
PR5	Practices related to customer satisfaction		
PR6	Programs of adherence to laws etc regarding marketing communications		
PR7	Total number of incidents of non-compliance with regulations and voluntary codes regarding marketing, advertising		
PR8	Total number of substantiated complaints regarding breaches of customer privacy		
PR9	Monetary value of significant fines for non-compliance with laws and regulations regarding products and services	✓	28

✓ Fully reported → Partially reported ✗ Not reported n/a = not applicable

Glossary

AQC

Air Quality Control

Biodiversity

An abbreviation of “biological diversity” that means the variability among living organisms from all sources, including land based and aquatic ecosystems of which they are part

Biodiversity EMP

Biodiversity and Land Management Environmental Management Program

Business Principles

Xstrata’s Statement of Business Principles sets out the ethical framework for the way we work globally. The statement sets out specific aspirations and commitments that apply to the company’s relations with its customers, employees, stakeholders, partners, suppliers and in the communities where it operates

Commodity Business

Xstrata’s activities are structured into global commodity businesses organised along commodity lines; Xstrata Alloys, Xstrata Coal, Xstrata Copper, Xstrata Nickel, Xstrata Zinc and Xstrata Technology

CO₂-e

Carbon Dioxide equivalents

CSI

Corporate Social Involvement programs

DISR

Disabling injury severity rate. $DISR = (LTI \text{ Days Lost} + RWI \text{ Days Lost}) \times 1,000,000 / \text{hours worked in the reporting period}$

EEO

Energy Efficiency Opportunities

EMESRT

Earth Moving Equipment Safety Round Table

EPA

Environmental Protection Agency

GHG

Green House Gas

GJ

Gigajoules (a thousand million joules)

GRI

Global Reporting Initiative – a multi stakeholder, international process whose mission is to develop and disseminate globally applicable Sustainable Reporting Guidelines to assist corporations in reporting on the economic, environmental, and social performance of their operations

IUCN

International Union for the Conservation of Nature and Natural Resource

kt

Thousand tonnes

LTIFR

Lost Time Injury Frequency Rate. $LTIFR = LTI \times 1,000,000 / \text{hours worked}$

MIMLAA

Xstrata Mount Isa Mines zinc-lead operations Mines Limited Agreement Act

MISC

Mining Industry Skills Centre

mt

Million tonnes

MW

Megawatts (1 megawatt = 1,000,000 watts or 1,000 Kilowatts)

NGERS

National Greenhouse and Energy Reporting System

NNTT

National Native Title Tribunal

NPI

National Pollution Inventory

NOHSC

National Occupational Health and Safety Commission

Rehabilitation

In this report, rehabilitation is defined as disturbed areas that have been prepared for rehabilitation and seeded.

SD

Sustainable Development

SO₂

Sulphur Dioxide

Stormwater

Rainfall that does not infiltrate into the soil but runs overland into creeks, catchment areas or man-made water storage facilities, such as dams (i.e. unplanned discharge of water). Quality of discharged stormwater is only reportable where it is directly discharged, i.e. not via a water treatment facility (which would already report total effluent quality).

Tailings and tailings dam

The fine fraction of waste rock remaining after the mining and on-site processing of mineral resources. This consists of finely ground particles and traces of process reagents and chemical residues. Tailings are piped into engineered impoundments known as tailings dams, which are developed, operated, monitored and maintained to prevent seepage and water contamination both during and after mining operations.

TRIFR

Total recordable injury frequency rate. $TRIFR = (LTI + RWI + MTI) \times 1,000,000 / \text{Hours worked in the reporting period}$

XCPPQ

Xstrata Community Partnership Program Queensland

XCPPNQ

Xstrata Community Partnership Program North Queensland

Xstrata Mount Isa Mines

Results of SD issues jointly managed by the copper and zinc-lead operations in Mount Isa

Xstrata Mount Isa Mines zinc-lead operations

Issues and performance specific to the zinc-lead business in Mount Isa and reported separately to the copper operations

Xstrata Zinc North Queensland

Combined results from Xstrata Mount Isa Mines zinc-lead operations and Bowen Coke

Tables and Figures Index

Illustration	Title	Page
Table 1	Stakeholder engagement - material issues	16
Table 2	Health and safety performance	18
Table 3	Health and safety programs	20
Table 4	Workforce breakdown	23
Table 5	Training	24
Table 6	Environmental incidents	28
Table 7	Area of land disturbed and rehabilitated (hectares)	30
Table 8	Energy consumption	32
Table 9	Water consumption (ML)	34
Table 10	Oxides of sulphur and nitrogen emitted to air (tonnes)	34
Table 11	Summary non-renewable materials consumed	35
Table 12	Major waste streams and disposal/treatment methods	36
Table 13	Community issues	40
Table 14	Direct economic value distributed (\$m)	41
Table 15	MRM community-based sponsorships and donations, 2009	44
Figure 1	Our approach to SD	14
Figure 2	Injury performance - Xstrata Zinc North Queensland	19
Figure 3	Injury performance - MRM	19
Figure 4	Xstrata Zinc Australia Energy Consumption, '000 GJ	33
Figure 5	Xstrata Zinc Australia Greenhouse Emissions, '000 CO ₂ - e tonnes	33
Figure 6	Xstrata Zinc Australia Energy Intensity, GJ/tonnes contained metal	33
Figure 7	Xstrata Zinc Australia Greenhouse Intensity, CO ₂ - e tonnes/tonnes contained metal	33
Figure 8	Average annual SO ₂ concentration, Mount Isa	34

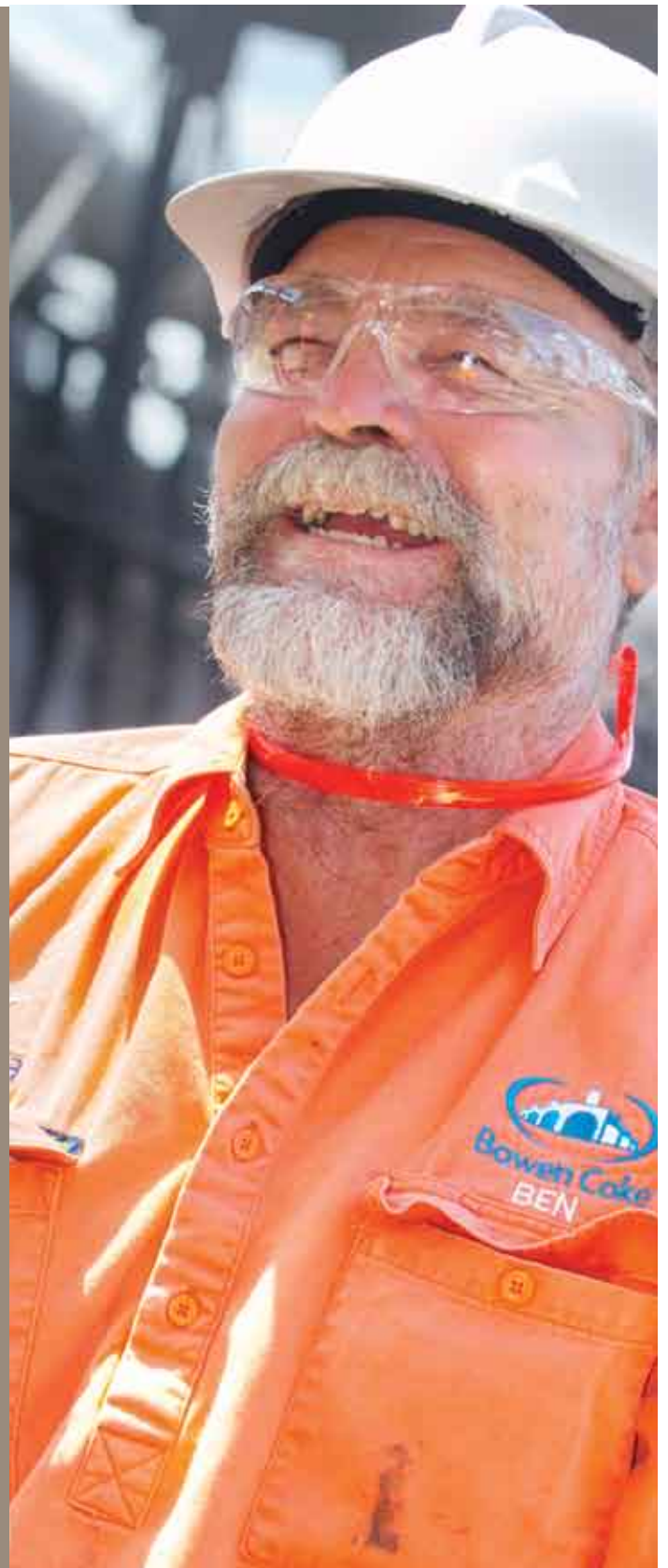


We welcome your feedback on any aspect of our performance or reporting.

Please send your comments to sustainability@xstratazinc.com.au

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