



XSTRATA NORTH QUEENSLAND
SUSTAINABILITY REPORT 2004



THIS IS THE FIRST SUSTAINABILITY REPORT PUBLISHED BY XSTRATA'S NORTH QUEENSLAND OPERATIONS. THE REPORT DETAILS THE HEALTH, SAFETY, ENVIRONMENT AND COMMUNITY PERFORMANCE OF MOUNT ISA MINES, ERNEST HENRY MINE, THE TOWNSVILLE COPPER REFINERY, TOWNSVILLE PORT OPERATIONS AND THE BOWEN COKE WORKS FROM 1 JANUARY 2004 TO 31 DECEMBER 2004.



Health and Safety 4



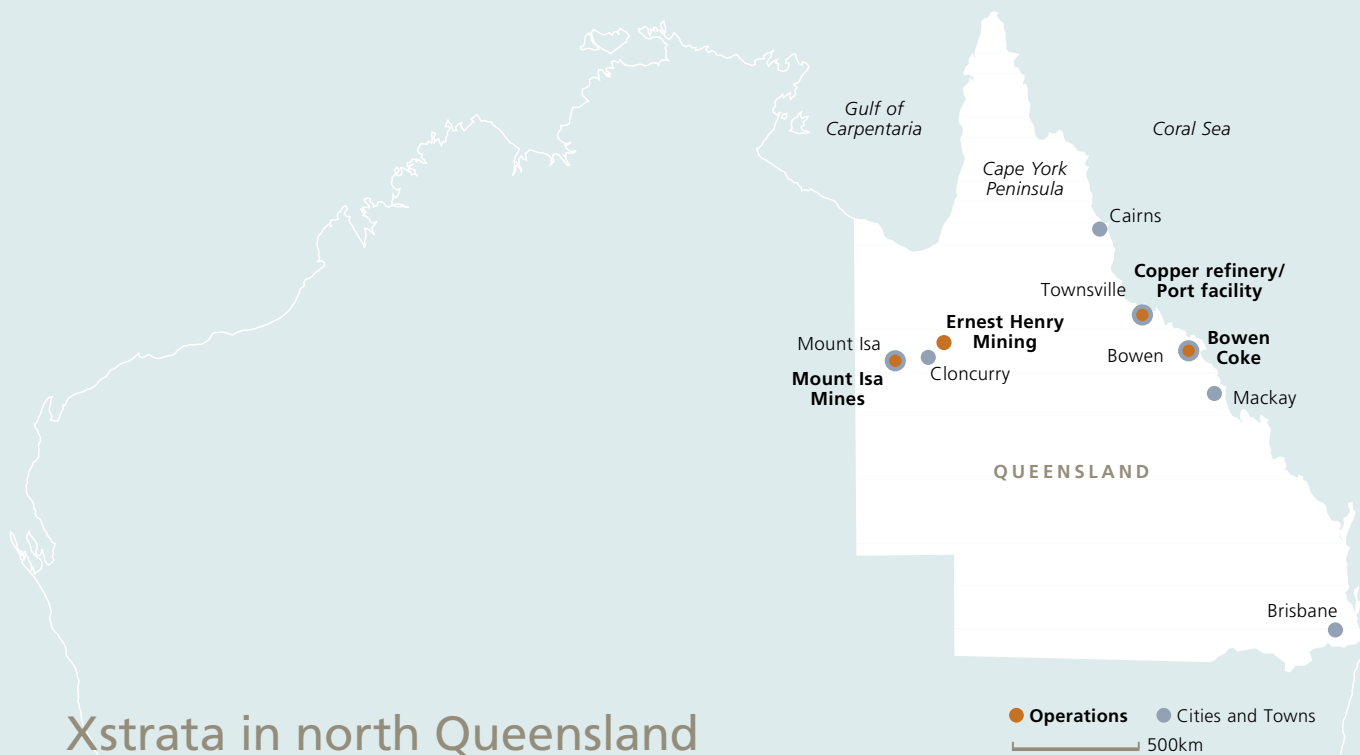
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Xstrata in north Queensland

Xstrata's north Queensland operations comprise the Mount Isa Mines Limited copper and zinc-lead operations, Ernest Henry Mining Pty Ltd, the Townsville copper refinery and port operations and Bowen Coke.

For further information about our operations visit www.xstrata.com/prod_copper.php.

Xstrata's operations provide major benefits to the communities in which they operate and to the wider north Queensland region, from the employment they provide, the local businesses they support, the Government taxes and charges they pay and the community support they provide.

- Employment for 3,770 people, including contractors
- An annual wages bill of \$220 million, most of which is spent in north Queensland
- More apprentices and youth trainees in north Queensland
- Over 500 new full time jobs created in north Queensland in 2004
- \$248 million spent on purchasing regional goods and services
- \$50 million paid to Governments in taxes and charges
- \$31 million paid in rail freight charges to Queensland Rail
- \$97 million spent on power and water charges
- \$3.2 million paid in annual rates to local councils; and
- Over \$1.4 million to be paid for community partnerships, company donations, sponsorships and community contributions each year from 2005.

■ XSTRATA COPPER BUSINESS OBJECTIVES

Xstrata Copper is focussed on achieving:

- Zero harm to our people
- Continual and sustainable improvement in our environmental performance
- Continual improvement in the value of our business and the capabilities of our people
- Cost competitiveness throughout the commodity cycles
- Consistent, reliable performance of our plant and equipment at maximum metal production capacity, and
- Value creation through continuous improvement and the implementation of common key systems.

■ XSTRATA PLC

Xstrata maintains a meaningful position in six major international commodity markets: **copper, coking coal, thermal coal, ferrochrome, zinc and lead**. The Group's operations and development projects span four continents and seven countries: Australia, South Africa, Spain, Germany, Argentina, Peru and the UK.



Chief Operating Officer's Message

At Xstrata we are constantly striving to improve our safety and environmental performance and to increase the level of social involvement in our local communities.

We recognise that this is only possible by adopting business practices that are economically, socially and environmentally sustainable and transparent and by working in partnership with our employees, customers, local communities and other stakeholders.

Our first Sustainability Report for Xstrata's north Queensland operations details our performance in these areas during 2004 and early 2005. This coincides with a period of transformation across our north Queensland operations where we are delivering significant and sustainable performance improvements and improved profitability. In 2004, we also committed to \$115 million in major new projects and created over 500 new full time jobs.

Sustainability highlights for this period include:

- A 40% improvement in our safety performance with no fatalities;
- Completing a new mining plan for Mount Isa Mines including development of the Black Star zinc-lead open pit mine;
- Replacing naphtha with coal seam gas at the Townsville copper refinery to reduce greenhouse gas emissions;

- Launching the \$4 million, three year Xstrata Community Partnership Program in North Queensland in December 2004; and
- A commitment to triple our north Queensland apprenticeship intake over the next three years and create more traineeships, bursaries and scholarships to help address the skills shortage in the mining industry in the region.

In 2005, we will work towards further safety improvements and continue to foster a culture of safety improvement at all of our operations, further improve our environmental management systems and performance, develop detailed closure plans and deliver measurable benefits from our community partnerships.

We also plan to go one step further in our sustainability reporting by producing site reports for each of our operations in north Queensland. We would welcome any feedback you may have about this report. Please email comments to nqsustainability@xstrata.com.au or write to me at Xstrata Copper, PMB 6, Mount Isa, QLD 4825.

A handwritten signature in blue ink that reads "Barry Grant".

Barry Grant
Chief Operating Officer –
North Queensland Copper



Our approach to sustainable development

■ ENDURING VALUE – A FRAMEWORK FOR SUSTAINABLE DEVELOPMENT

Xstrata Copper is a signatory to *Enduring Value – the Australian Minerals Industry Framework for Sustainable Development*. This framework was developed and launched by the Minerals Council of Australia (MCA) in October 2004 to give practical effect to the International Council on Mining and Metals (ICMM) sustainable development principles.

The key role of *Enduring Value* is to translate the Principles of Sustainable Development into practices that ensure industry operates in a way that meets community expectations and maximises the long-term benefits to society by effectively managing Australia's natural resources.

As a signatory to *Enduring Value*, Xstrata Copper's obligations include progressive implementation of the ICMM Principles and Elements, public reporting of site level performance at least annually and assessment of the systems used to manage key operational risks (using either internal or external assessment as appropriate).

Further details about *Enduring Value* are available at www.minerals.org.au/enduringvalue.

For Xstrata, sustainability is about caring for the environment in all stages of mining and metal production; efficient and responsible use of resources, including energy, water and land; keeping our employees safe and healthy; improving services and facilities in communities where our employees and their families live; helping these communities to build the capacity to sustain themselves as vibrant, self-reliant centres; and providing our shareholders with a superior return on their investment in our business over the long term.

Scope of this report

This is the first sustainability report published by Xstrata's north Queensland operations. The report details the health, safety, environment and community performance of Mount Isa Mines, Ernest Henry mine, the Townsville copper refinery, Townsville port operations and the Bowen Coke works from 1 January 2004 to 31 December 2004.

Until October 2004 all of these operations were managed by Xstrata Copper, one of Xstrata's four global commodity businesses. Management of the Mount Isa zinc operations and the Bowen Coke works was undertaken on behalf of Xstrata Zinc. Since October 2004, Xstrata Zinc has assumed management of these assets.

The report should be read in conjunction with the Xstrata Sustainability Report 2004 (available at <http://www.xstrata.com/hsec.php?s=2>) and the Ernest Henry mine 2004 Community Report.

In 2006 Xstrata in north Queensland will produce sustainability reports for each of its operations.

A glossary of terms used in this report can be found on the inside back cover.



Health and Safety

■ KEY CHALLENGES

Employees at Xstrata's north Queensland operations work in a wide variety of environments. Each of these work environments presents different health and safety hazards. The major health and safety hazards that Xstrata is working to address to ensure the health and well being of employees at its north Queensland operations are:

- Falls of ground and mobile equipment fires in the underground environment;
- Occupational hygiene exposures: noise, dust, lead, arsenic and other heavy metals;
- Long term employment in physical roles contributing to degenerative musculoskeletal conditions;
- Working in hot environments; and
- Working with molten metal and other molten materials.

■ OUR SAFETY PERFORMANCE

Fewer injuries and no fatalities

Significant improvements in health and safety were accomplished in 2004. Xstrata's north Queensland operations incurred no fatalities and the number of Total Recordable Injuries was 40% lower than in 2003, exceeding the operations' target of a 20% reduction.

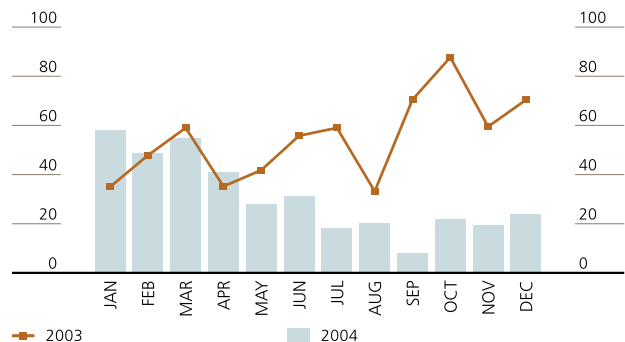
New safety innovation awards

An innovation award program will be implemented in 2005 to encourage employees to identify effective means to control risks in the workplace. Recognition will be given at departmental, area and divisional levels with the high achievers nominated for both Queensland and National safety innovation awards.

Identifying high risk roles and tasks

During 2005, an occupational therapist will review the Mount Isa Mines historic injury records to provide information on potential over period of time type injuries and practical and achievable risk reduction strategies for these high risk tasks and roles.

Total recordable injury frequency rate
Xstrata north Queensland copper and zinc operations



All of Xstrata's north Queensland operations achieved Total Recordable Injury Frequency Rates that were lower than those targeted for 2004.

⚠ Mount Isa Mines X41 copper mine serviceman Robert Kupke fits his cap lamp in preparation to go underground at the start of his shift. Cap lamps and personal protective equipment are regularly tested to ensure they remain effective in protecting and assisting employees in the workplace.

HEALTH AND SAFETY TARGETS

2004 Target	Performance	2005 Target
All copper and zinc operations in north Queensland		
Zero fatalities	✓ Achieved	Zero fatalities
20% reduction in TRIFR compared to 2003	✓ Achieved 40% reduction	20% reduction in TRIFR on 2004
Implement the Positive Attitude Safety System (PASS) at all Xstrata Copper NQ operations	→ To be completed in 2005	Complete PASS introduction
Implement a risk based ground assessment system for mining areas at Mount Isa Mines and Ernest Henry mine	✓ Achieved	Complete toxicity and hygiene risk reduction program
Identify methods to reduce injury risk from manual handling activities	✓ Achieved	Introduce workplace safety innovation awards

✓ target achieved
 ✗ target not achieved
 → target partially achieved

The Positive Attitude Safety System (PASS)

The Positive Attitude Safety System (PASS) is a communication and performance monitoring system that is driven by each workgroup. PASS provides a forum to raise and discuss safety-related issues in a positive and consultative environment and ensures actions identified are tracked and implemented.

The system has achieved success in improving safety performance at Xstrata Copper’s Ernest Henry mine and will be introduced to the remaining Xstrata north Queensland operations during 2005.



« Hasting Deering Supervisor Trevor Seedwell talks to a crew member via radio during a Positive Attitude Safety System (PASS) meeting for the Ernest Henry mine maintenance crew. PASS has helped the mine improve its safety performance and is being rolled out at other Xstrata north Queensland operations in 2005.

OCCUPATIONAL HEALTH AND WELLBEING

Safeguarding the health of our employees

Lead in the workplace

Employees at Mount Isa Mines who work in areas where there is a risk of lead exposure, such as the lead smelter, lead-zinc concentrator, lead mine and George Fisher mine, undertake regular blood screens to monitor the levels of lead in their blood. During 2004, more than 6,000 such tests were performed.

In Australia, the National Occupational Health and Safety Commission (NOHSC) prescribes that employees with blood lead concentration levels of 50µg/dL or greater must be removed from working in areas where there is risk of lead exposure until their blood lead concentrations are below 40µg/dL.

Mount Isa Mines has an internal removal level of 40µg/dL, 20% lower than the prescribed standard. The company does not allow employees to return to the area of lead risk until their lead in blood levels fall below 30µg/dL. The north Queensland operations will lower the medical removal level for lead in blood lead to 38µg/dL by December 2005 and 35µg/dL by December 2006.

Workplaces that have a risk of lead exposure continue to have strict work protocols to reduce occupational risks to employees and the risk of lead being taken into the community. These measures include mandatory showering on completion of shift and work clothes being laundered by the company rather than at home (a Clean In Clean Out policy), mandatory washing before meal breaks, bans on facial hair and no smoking policies.

During 2004, two instances occurred of an employee exceeding the internal exposure standard of 40µg/dL.

Health and Safety



« Townsville copper refinery Machinery Equipment Operator Pat Kopittke at the anode scrap machine control panel. Safety performance at Xstrata's Townsville operations has been steadily improving over the last five years. Injury frequency rates have more than halved over this period of time.



» Townsville copper refinery Chemical Plumber Richard Gilmore is kitted out with personal protective equipment including safety glasses, gloves and helmet, before beginning work on the tankhouse electrolyte system.

Lead in the community

Due to the high natural mineralisation of the Mount Isa district, lead occurs naturally in the community. To ensure Mount Isa community members have the opportunity to have their blood lead levels monitored, Mount Isa Mines funds a free community blood lead testing program through QML (Queensland Medical Laboratories).

Occupational hygiene monitoring and risk reduction

Xstrata has comprehensive occupational hygiene monitoring programs in place across the north Queensland operations.

During 2004, over 2,000 individual occupational hygiene samples were collected and analysed at Mount Isa Mines alone. These samples provide a means to monitor employees' exposure to occupational hygiene hazards and ensure our hazard control strategies continue to be effective.

These samples included:

- More than 600 inspirable dust samples;
- More than 350 respirable dust samples;
- More than 950 occupational noise exposure samples; and
- More than 120 radiation dose-badge samples.

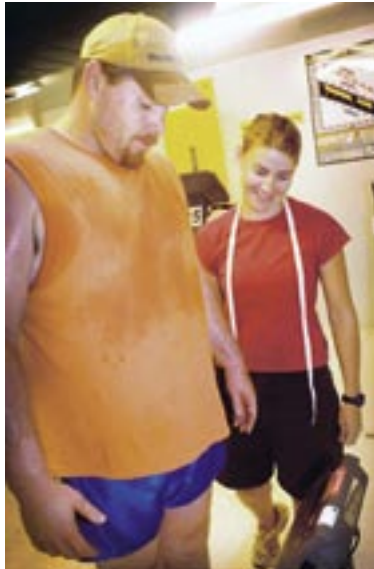
During 2005, the Mount Isa Mines occupational hygiene team and the departmental safety advisers will complete two separate occupational hygiene risk management programs. The first is a series of hazardous substance management audits in each department that will address the storage, use and disposal of hazardous substances. The results of these audits will also provide information for the development of a toxicity reduction program to identify and trial alternative, lower risk products to replace hazardous substances in use.

The second is a noise risk reduction strategy. Operational departments will implement noise risk reduction strategies identified and suggested in the detailed noise surveys conducted during 2004 by an external noise management consultant.

Fitness for work

During 2004, a number of education and awareness programs were run to encourage employees to maintain healthy lifestyles and to help them identify and manage any issues that may compromise their health and their safety at work and at home.

One of these was the 'Waist-Dump' program run by the Healthy Lifestyle Coordinator at Ernest Henry mine. The 'Waist Dump' challenge is designed to encourage employees to achieve and maintain a healthy weight. Over 100 employees volunteered to participate in the 2004 challenge. The Ernest Henry management team provided additional incentive to participants with a promise to donate one dollar to the Royal Flying Doctor Service for every kilogram lost during the program. Another 'Waist Dump' challenge is planned for 2005.



« Ernest Henry mine Mining Technician Mark Trimble (left) weighs in at the start of the mine's 'Waist Dump' challenge healthy lifestyle program with the help of Wellbeing Coordinator Julieanne Lalor. The program helps participants improve their health by losing weight, learning to eat well and exercising.

Members of the Ernest Henry »
Emergency Response Team train regularly to ensure they are ready for any accident or emergency that may occur at the mine.



At Mount Isa Mines the Periodic Health Assessment Program continued during the year with 318 employees completing a health assessment. The operation also participated in the public health awareness campaigns run through Queensland Health, such as Quit Week and Diabetes Awareness Week.



« Xstrata's employees in north Queensland attend regular safety meetings with their work teams to ensure hazards in the workplace are identified and addressed. Here Ernest Henry mine employees participate in such a meeting.

Working in Heat

Mount Isa Mines' working in heat committee continued to meet during 2004. The committee includes management, employee and union representatives, safety and health professionals and mine ventilation engineers.

The committee coordinates programs in the Mount Isa Mines underground operations to ensure the risks of working in heat are minimised or eliminated. Another key focus of the committee is to ensure the working in heat protocols are adhered to and regularly updated to meet or exceed industry best practises.

At Mount Isa Mines no heat-related illnesses were reported by underground employees during 2004.

EMERGENCY PREPAREDNESS

Our Emergency Response Teams

Both Ernest Henry mine and Mount Isa Mines have emergency response teams consisting of employees from all areas of the operations. These dedicated employees undertake constant emergency response skills training in addition to their day to day jobs and are on standby to respond to accidents or emergencies on their mine sites.

In 2004 the Ernest Henry Emergency Response Team placed third at the annual Queensland Resources Council Mines Rescue Challenge held in Townsville. The team won the Vertical Rescue event, the Leadership Award and, for the fifth year in a row, the Pre-Hospital Care Award. Both teams will compete in the Mine Rescue Challenge again in 2005.



Environment

■ KEY CHALLENGES

Xstrata’s key environmental management challenges in north Queensland are:

- Minimising emissions from the Mount Isa smelters and managing their impact on the community;
- Managing the environmental impacts that are the result of decades of industrial operations at Mount Isa Mines and at the Townsville copper refinery, port and Bowen Coke;
- Maximising the efficiency of fresh water use at all sites and increasing the percentage of water recycled; and
- Managing stormwater runoff at Mount Isa Mines.

■ ENVIRONMENTAL COMPLIANCE

How Xstrata is meeting its legislative obligations in north Queensland

Regulatory Interaction

In 2004, Mount Isa Mines submitted a new mining plan for 2005–2009 to the Queensland Government’s Department of Natural Resources and Mines. The plan included development of the Black Star zinc-lead open pit mine, incorporating strategies for the management of blasting, dust, waste rock deposition and stormwater run-off; and programs to assess impacts of current and historic operations on the Leichhardt River and where necessary reinvestigate remediation activities.

During the year Xstrata Copper conducted an environmental investigation into groundwater and soil contamination at the redundant evaporation ponds at the Townsville copper refinery. Investigations are now complete and a plan is being developed to remediate historic contamination at the site.

Xstrata also reported to the Queensland Government’s Environmental Protection Agency (EPA) on the progress to date of the implementation of the statutory stormwater environmental management program for the Townsville copper refinery.



« Environmental Advisor Paul Taylor takes a water sample from the sediment pit at the Townsville Copper Refinery. During 2004, the refinery focussed on storm water management and remediation of historical groundwater contamination.

■ EMISSIONS TO AIR




Monitoring, reducing and managing the impact of our emissions on the environment and local community

The control and reduction of impacts of emissions from our mining, minerals processing and smelting operations on the community and environment of Mount Isa is a major aspect of environmental management at Xstrata’s north Queensland operations.

⚡ Environmental Technician Raelene Green takes a water sample from the production evaporation channel at Ernest Henry mine. The mine is working to reduce fresh water consumption in the concentrator (at rear).

ENVIRONMENTAL TARGETS

2004 Target	Performance	2005 Target
Mount Isa Mines		
Complete implementation of Panel Assessment Study (PAS) recommendations	→ Contact made with various institutions to develop research proposals	Complete implementation of PAS recommendations
Complete Mining Plan	✓ New Mining Plan submitted to Queensland Government	
Install real time sulfur dioxide monitors in copper and lead smelter stacks	→ Installed in lead smelter	
Gap analysis and action plan for Environmental Management System (EMS)	✗ Audit against ISO14001 planned for 2005	EMS to be compliant with ISO14001
Continue greenbelt development	✓ Achieved	Update closure planning and liability estimation
Reduce energy consumption by 5%	✗ Total energy usage for 2004 4% above 2003 use	
		Implement Total Waste Management Strategy
Ernest Henry Mining		
Prepare final rehabilitation and decommissioning plan	→ Planning begun, to be continued in 2005	Complete detailed closure plan
Establish tailings rehabilitation trial	✗ Not achieved	Begin tailings dam rehabilitation trial
Gap analysis and action plan for EMS	✓ Achieved. Completed external audit of compliance against ISO14001	EMS to be compliant with ISO14001
Raw water consumption less than 520l/t of ore treated	✗ Not achieved	Raw water consumption less than 520l/t of ore treated. Construct three additional monitoring bores
More than 76% of environmental incidents reported by non-environmental personnel	✓ Achieved	
		Review current waste rock dump designs
Townsville copper refinery		
Implement EMS to ISO14001 standards	→ Audit against ISO14001 planned for 2005	Develop groundwater management plan
Implementation of the approved Environmental Management Plan (EMP)	→ Progress report submitted to EPA in November 2004	Implement stormwater environmental management plan
Prepare final rehabilitation and decommissioning plan	→ Planning begun, to be continued in 2005	Complete detailed closure plan
Commence groundwater remediation	→ Investigations completed. Planning commenced	Complete and implement groundwater remediation plan
Bowen coke works		
Prepare final rehabilitation and decommissioning plan	→ Planning begun, will continue in 2005	Complete detailed closure plan
Reduce dust impacts	→ Impacts investigated and revegetation and screening works carried out	Develop further options for reducing emission levels
Townsville port operations		
Improve stormwater management	✓ Achieved	Consolidate and monitor stormwater improvement
Investigate and remediate groundwater contamination	→ Commenced planning and investigation	Delineate extent of contamination and develop remediation plans for implementation in 2006
Prepare final rehabilitation and decommissioning plan	→ Planning begun, to be continued in 2005	Complete detailed closure plan
All copper and zinc operations in north Queensland		
		Prepare a greenhouse challenge agreement and complete energy audits

 target achieved
  target not achieved
  target partially achieved

Environment



« Trainee Air Quality Controller Andrew Kovacs (left) and Air Quality Controller Gordon Teague (right) monitor weather conditions and sulfur dioxide levels in the Mount Isa environs from the Mount Isa Mines Air Quality Control Centre. The controllers use this information to direct the operations of the company's smelters to ensure emission levels in Mount Isa remain within the company's environmental licence limits.

Regular dust monitoring at 33 sites » around the Ernest Henry mine shows that levels are well within regulatory requirements. Here mine Environmental Technician Raelene Green checks a dust collector next to the mine's primary stockpile.



Monitoring and reducing emissions to air

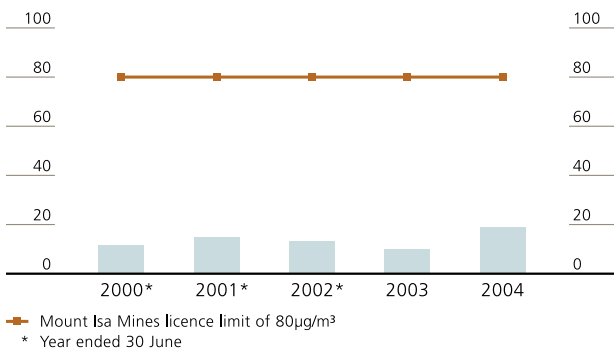
At Mount Isa, a comprehensive monitoring program measures total emissions from and the mines and their impact on the community. During the year continuous in-stack monitoring of sulfur dioxide emissions from the lead smelter stack began. This will increase the accuracy of total emissions measurement and assist in improving the effectiveness of the company's Air Quality Control system.

Two new continuous dust monitoring stations were installed at Station Street and at the Mount Isa RSL Club in October 2004 to measure dust emissions from the Black Star open pit mine. Regular monitoring of blast vibration and noise levels are also undertaken. Results gathered to May 2005 suggest mining activities at Black Star have had negligible impact on air quality, noise or blast vibrations experienced in the community.

The potential for emissions to air from materials handling activities at Mount Isa Mines was reduced in 2004 when several open air areas used for stockpiling and blending concentrates were permanently decommissioned.

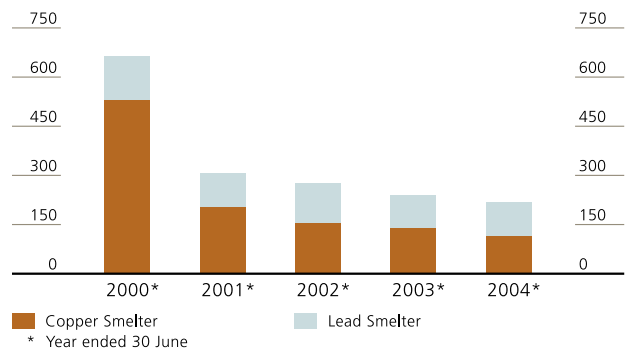
The Ernest Henry mine conducts monitoring of dust emissions from its activities. Dust deposition rates are measured monthly at 33 gauges located within a 15km radius of the mine. Monitoring showed that dust levels were highest around the mine site; however, outside these areas dust levels remained well below regulatory requirements. Data on dust monitoring at Ernest Henry can be found in the annual Ernest Henry Mine Community Report.

Average annual ground level sulfur dioxide concentrations $\mu\text{g}/\text{m}^3$ – measured in the Mount Isa community



Average annual ground level sulfur dioxide levels in the Mount Isa community increased in 2004 due to more westerly winds.

Total annual sulfur dioxide emissions Tonnes ('000s) – Mount Isa Mines operations



Increased capture of copper smelter gases by the WMCF acid plant reduced total sulfur dioxide emissions from the Mount Isa Mines operations for the fourth consecutive year.

Emissions to air from the Townsville copper refinery are also monitored. During six-monthly monitoring of the refinery stack emissions in June 2004 non-compliances with the licence conditions were revealed. These were associated with venting from a refinery filtration system. The refinery has since made engineering changes to reduce emissions and testing in November 2004 confirmed compliance with licence conditions. Investigation of the impact of the activities of the Bowen Coke works on air quality in Bowen was completed during 2004. A review of data showed that while Bowen Coke was a source of particulate emissions, ambient concentrations measured at the nearest sensitive receptors were below Queensland's EPP goal.

The Panel Assessment Study

The Panel Assessment Study (PAS) into the impact of sulfur dioxide emissions from the Mount Isa Mines smelters was established by Mount Isa Mines in cooperation with the Queensland EPA in 1997. A panel of scientific experts, community, government and company representatives commissioned studies, held public meetings and sought feedback from community members on the issue.

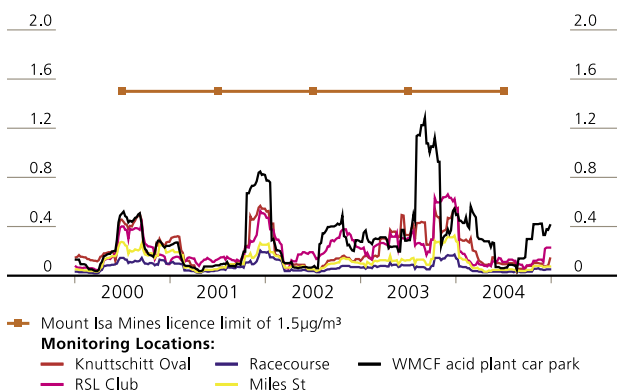
In 2001 the panel released a report that gave recommendations on the steps Mount Isa Mines should take in regard to the emissions. Several years have now passed since the commissioning of the WMCF acid plant in Mount Isa, which has reduced emission rates from the copper smelting operations by up to 85%.

Mount Isa Mines is now working to complete implementation of the panel recommendations, which include a number of studies which will be completed in 2005 with reports provided in 2006. These include looking for signs of recovery in affected



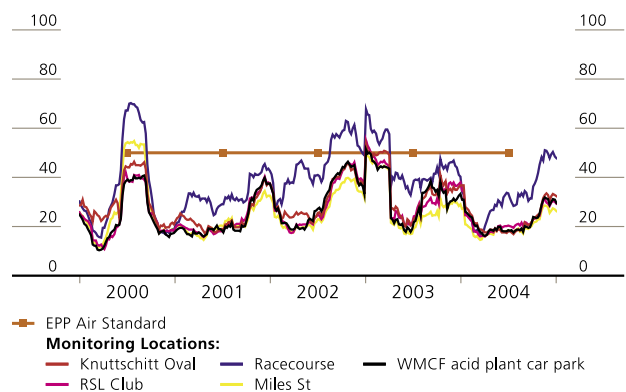
ecosystems, investigating personal exposure to sulfur dioxide in the community, improving the air quality control system, repeating a community health and perceptions study and investigating additional sulfur dioxide capture options at the smelters.

Ambient lead-in-air concentrations
 $\mu\text{g}/\text{m}^3$ – 90-day average, measured in the Mount Isa community



The ambient lead-in-air concentrations in Mount Isa decreased, which is consistent with increased capture of lead emissions from the copper smelter by the WMCF acid plant.

Ambient PM₁₀ (dust)-in-air concentrations
 $\mu\text{g}/\text{m}^3$ – 90-day average, measured in the Mount Isa community



Ambient dust (PM₁₀) concentrations measured in the Mount Isa community were mostly below the EPP Air standard for 90 day average, although this is not a licence condition for Mount Isa Mines. Peak events were caused by dust storms and weather conditions that brought more dust to the wider region.

Environment



« Mount Isa Mines Senior Environmental Advisor Frank Boyes checks the river water sampler at Moondarra Crossing on the Leichhardt River. The sampler measures the river flow rates and takes samples that are analysed to ensure contaminants from the mine are not entering local waterways.



The Ernest Henry mine is investigating » ways to increase the storage capacity of its tailings dams and ways to allow for their progressive rehabilitation. Here mine Environmental Technician Raelene Green downloads data from an evaporation monitor at the tailings dam.

■ SURFACE AND GROUNDWATER MANAGEMENT

Minimising our impact on natural resources

A network of dams and pumping systems controls stormwater runoff in operational areas at Mount Isa Mines to prevent water being released from the mine. During 2004, six instances of water leaving the mine site due to excessive rainfall or pump failure were reported to regulatory authorities. Maintenance procedures were modified to reduce the likelihood of recurrence. In 2005 an additional water holding dam will be built to increase on-site stormwater storage capacity.

Groundwater is pumped from the Ernest Henry mine pit to allow mining to occur. This water is reused in the mine's operations.

Ground water levels and quality are measured at 72 bores surrounding the mine (up to 50km away) to measure the impact of the mine on the local water table. In 2004 water quality was consistent with pre-mining benchmarks and drawdown of groundwater levels was localised to within 15km of the mine pit as was accepted in the mine's Environmental Impact Assessment. Additional monitoring bores will be drilled in 2005. Monitoring data is published in the annual Ernest Henry Mine Community Report.

During the year a safe storage area for sediment dredged from the Townsville port was constructed. As the sediment contains traces of copper and other contaminants, the storage facility at the port was lined with clay to prevent leaks and the sediment was treated to raise its pH and stabilise potential contaminants.

During the year, Xstrata Copper also worked to address the problem of metal contamination and low pH in groundwater at

the port caused by many years of storing and loading mineral products. Progressive clean up and sealing of disturbed areas will help prevent further contamination occurring. Stormwater monitoring systems were also improved (see case study).

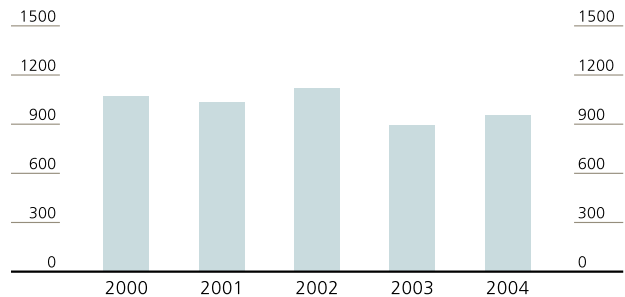
■ WATER USE

Reducing water use and increasing water recycling to make our operations more sustainable

Fresh water consumption at Mount Isa Mines reached a low of 15ML per day in January 2004 following a concerted conservation program during 2003 in response to dry conditions. However, water use then increased during 2004 due to increased production. By the end of the year consumption had stabilised around 20ML per day.

The Ernest Henry mine continued to minimise its use of fresh water from Lake Julius by using groundwater pumped from the pit and dewatering bores.

Fresh water usage
l/t of ore mined – Mount Isa Mines



Mount Isa Mines reduced fresh water usage during drought conditions in 2003. Usage increased in 2004 due to increased production but was still below 2002 usage levels.



« Environmental Adviser Paul Taylor takes a sample from Stuart Creek near the Townsville Copper Refinery. The refinery's stormwater environmental management program includes sediment monitoring to assess impacts of historical stormwater releases on local creeks.

» The Ernest Henry mine's trial rehabilitation of the north waste rock dump is progressing well; an annual fauna survey found native animals living in the rehabilitated area. Here mine Environmental Technician Raelene Green checks the ground temperature of a trial rehabilitation site to determine the chemical stability of the waste rock.

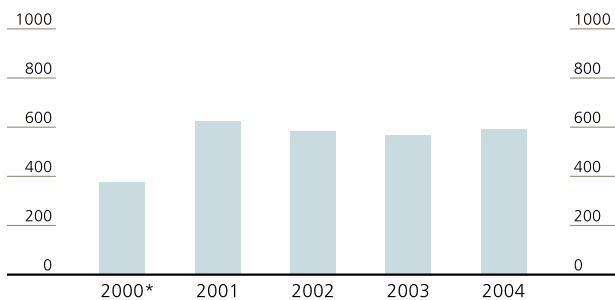


■ ENERGY AND GREENHOUSE

Ensuring efficient energy use at our operations and reducing our greenhouse gas emissions to help prevent climate change

During 2005 Xstrata's north Queensland operations will recommence participation in the greenhouse challenge. Participation has been stalled due to restructuring of the company following Xstrata's acquisition of MIM Holdings Limited in 2003. The Greenhouse Challenge is a joint voluntary initiative between the Federal Government and industry to abate greenhouse gas emissions. The Townsville copper refinery will participate in a trial of the Federal Government's mandatory energy efficiency assessments in 2005. During 2004 the refinery boilers were converted to coal seam gas instead of naphtha and fuel oil. The furnace is being converted during 2005. The conversion will significantly reduce carbon dioxide equivalent emissions by approximately 3,000 tonnes.

Energy usage
Gj ('000s) – Mount Isa Mines operations



* Does not include all gas consumption

■ BIODIVERSITY

Careful environmental management protects biodiversity at and around our operations

The biannual wet season fauna survey was conducted in March 2004 at Ernest Henry mine. This survey contributed to the current data available on species within the local area and assists in identifying species that show the success of rehabilitation programs.

Several species of mammals, reptiles and birds were found at the trial rehabilitation area on the north waste rock dump. These include a Stripe Faced Dunnart, Long Tailed Planigale, Delicate Mouse, Stimsons Python and other small reptiles. Fauna and flora surveys will be conducted on an annual basis to collect additional data.

In March 2005 the first of two surveys of fish and macro invertebrates in waterways surrounding Mount Isa was carried out. A specialist environmental group assessed the abundance, diversity and health of aquatic fauna in Lake Moondarra, Lake Julius, Rifle Creek Dam and the Leichhardt River. The survey will be repeated in October 2005 and the results will be reported in the 2006 Mount Isa Mines Sustainability Report.

In its 2001 report the Panel Assessment Study reported on the impact of sulfur dioxide emissions from the Mount Isa smelters. The report concluded that ecosystems within 15 kilometres downwind from the smelters have undergone measurable change, either as a direct or indirect result of sulfur dioxide emissions. During 2005 flora and fauna to the west of the smelters (downwind) will be surveyed to look for signs of recovery in ecosystems, which may be a consequence of reduced emissions following the WMCF acid plant commissioning in 2001.

Environment



« Ernest Henry mine Environmental Technician Raelene Green checks the moisture level in the mine tailings dam. During 2004 the tailings dam design was modified to increase storage capacity to hold life of mine tailings.

Mount Isa Mines Environmental Adviser » Alex Reid inspects native trees planted to rehabilitate land at the edge of the Mount Isa Mines lease. The land is being rehabilitated to form a green belt, which will create a buffer zone between the company's operations and the community.

■ MINE CLOSURE AND REHABILITATION

Leaving a legacy we can be proud of – planning for eventual mine closure and rehabilitation of our north Queensland sites

Xstrata is committed to ensuring that its north Queensland operations can one day be decommissioned in an ordered and environmentally responsible way.

Careful planning is needed to manage the environmental, social and financial risks associated with the eventual future decommissioning of operations such as Mount Isa Mines and Ernest Henry. Therefore, a full-time environmental planning engineer was appointed in 2004 to develop closure plans for all of Xstrata's north Queensland operations.

Waste rock from the new Black Star zinc-lead open pit mine at Mount Isa is being used to cap redundant tailings dams at Mount Isa. Waste rock characteristics were examined as part of the impact assessment and planning for the new mine

and their suitability for capping was confirmed. In this way, the waste rock from the mine can be used to enhance the progressive decommissioning and rehabilitation of historic mine related disturbance.

In 2005 Mount Isa Mines will dismantle the fluo-solids roaster at the copper smelter and demolish the old mill and crusher plant.

At Mount Isa, work continued on the development of the greenbelt during 2004, with the acquisition, demolition and revegetation of several properties along the eastern boundary of the operations.

■ WASTE

Reducing waste from our operations and managing it responsibly

General waste

At the Ernest Henry mine trials were initiated in 2004 to separate different types of refuse for better management and recycling. The project is continuing in 2005.

At Mount Isa Mines a waste management company has been employed to develop a total waste management strategy. At the Townsville copper refinery an integrated waste management contract was established. This will drive improvements in waste management practices at both sites.



« Mount Isa Mines Engineering Manager Terry O'Neill (right) and Moltoni Adams Group Project Manager Russell Pettit inspect the demolition of the fluo-solids roaster, a redundant plant at Mount Isa Mines. The demolition is part of the company's strategy to progressively rehabilitate its operations.



Tailings

The Ernest Henry mine tailings dam design was modified and a new permanent dam wall built to reduce the surface area required to store the life of mine tailings from 660ha to 410ha. The tailings dam design and condition is inspected annually by registered dam engineers as required by the mine's tailings dam licence. Improvements to the long term tailings placement strategy will be investigated in 2005 and 2006 to ensure the best use of storage capacity of the current dam and to allow for progressive rehabilitation during the life of mine.

At Mount Isa Mines, several new internal walls were installed in the tailings dams and the gravity outflow was modified during 2004 to extend the life of existing tailings disposal facilities by 10 years.

■ ENVIRONMENTAL RISK

Our Environmental Management Systems – working to achieve the highest standards of environmental management

Work on a gap analysis detailing improvements needed for Xstrata's north Queensland operations to achieve the international standard for environmental management ISO14001 began in 2004. ISO14001 specifies a framework of control for an environmental management system against which a third party can certify an organisation.

During the year a new group procedure regarding preparation of closure plans and assumptions to be used in cost estimates for rehabilitation provisions was also developed. This procedure is being progressively implemented across the operations in 2005.



Senior Operator Bob Griffin takes water samples from a sump at the Townsville Port. In 2004 Xstrata upgraded its environmental monitoring system at the port and undertook a major capital works program to ensure contaminants were not escaping from the operations into the environment.

■ CASE STUDY: STORMWATER MANAGEMENT AT THE TOWNSVILLE PORT

In 2002 Xstrata Copper embarked on a substantial capital works program to minimise the potential for products to contaminate stormwater that could be released from the company's operations at the Townsville Port. The major items in the project completed in 2004 included:

Sealing of the western yard

The sixth and final stage of a large upgrade project to seal areas in the port operations was completed in September 2004. This action prevents stormwater from infiltrating through the soil and instead captures runoff and directs it to containment sumps. Work on this project started in June 2004 and included the removal of some contaminated soil before laying bitumen in the area and realigning and relaying the rail. The new stormwater sump increases the area's storage capacity during rainfall, decreasing the likelihood of off site contamination.

Wash down pad upgrade

A wash down pad located at the rear of the facility was resealed and painted during August and September 2004. This area is used for vehicle wash down and maintenance. The sealing repaired cracks in the concrete, decreasing the potential for seepage into the soil and groundwater and maximising recovery and retention of wash down waters.



Social Responsibility

■ KEY CHALLENGES

The key social responsibility challenges for Xstrata's north Queensland operations are:

- Delivering meaningful community partnerships as part of the Xstrata Community Partnership Program in North Queensland to improve facilities and services in the north Queensland communities where Xstrata operates and where our employees and their families live;
- Encouraging fuller participation of local indigenous communities in the economic activities of Xstrata's operations through jobs, training and business opportunities;
- Engaging with local communities to assist them in their understanding of Xstrata's operations, to understand the community's needs and to develop trust, open two-way communication and foster cooperation;
- Addressing the skills shortage in the region; and
- Helping local communities to build capacity to develop alternative industries in preparation for a time in the future when mining and minerals processing may no longer be such a significant contributor to local economies.

With a long term business strategy targeting sustainable improvements in current assets and further growth of the organisation, Xstrata recognises the need to help develop the skills of current and potential future employees in north Queensland. Xstrata also recognises the need to engage with local communities to discuss issues of concern, to understand their needs and to share information. The company is also committed to fostering opportunities for the wellbeing of the north west Queensland communities in which it operates and where its employees and their families live.

■ CORPORATE SOCIAL INVOLVEMENT

Engaging with local communities and fostering opportunities to ensure their wellbeing

Community partnerships and support

During 2004 a new Social Involvement Plan was developed for the north Queensland operations. Central to this plan is the new Xstrata Community Partnership Program in North Queensland that was launched in December by Queensland Minister for State Development and Innovation and Member for Mount Isa Tony McGrady.

The program will contribute \$4 million to community initiatives within the areas of enterprise and job creation, education, environment, social and community, health and arts and culture between 2005 and 2007.



« Xstrata Copper Chief Executive Charlie Sartain (left) and Queensland Minister for State Development and Innovation and Mount Isa MP Tony McGrady at the launch of the Xstrata Community Partnership Program in North Queensland in December 2004 at Mount Isa. The program will contribute \$4 million to community partnerships in the region from 2005 to 2007.

To ensure the program addresses the areas of greatest need in the north Queensland communities where our employees live and work, Xstrata undertook a review of our existing community programs and support and conducted an extensive social audit and community needs assessment in the region in mid 2004.

⌘ George Nemo (left) and Josh Willetts (rear) are employed in Mount Isa Mines' indigenous training program, a partnership with local training organisation MIGATE (Mount Isa Group Apprenticeship, Traineeship & Employment Inc.).



« The Xstrata Community Partnership Program in North Queensland is helping students from Bowen State School become involved in two innovative environmental programs – caring for local beaches, and discouraging the use of plastic bags that can kill marine life.

Townsville State High School students »
 Reece and Jeremy check a wind ventilator is working correctly. The Xstrata Community Partnership Program in North Queensland is a partner in the EnergySMART schools program that is taking science, maths and technology learning outside the classroom at the high school and at Oonoonba State School.



■ SOCIAL RESPONSIBILITY TARGETS

2004 Target	Performance	2005 Target
All copper and zinc operations in north Queensland		
Develop a social involvement plan	✓ Achieved: Xstrata Community Partnership Program in North Queensland launched	Achieve Xstrata Community Partnership Program in North Queensland objectives
Publish divisional sustainability report in 2005	✓ Achieved	Publish site sustainability reports in 2006
Engage with local community stakeholders to familiarise them with the transformation of the NQ operations under new management	✓ Achieved	
		Conduct community attitude survey in Mount Isa, Cloncurry, Townsville and Bowen
Mount Isa Mines		
Conduct community consultation and engagement on proposed Black Star open pit mine	✓ Achieved	
Expand the Mount Isa Mines indigenous training program to include training and work in the transport division	✓ Achieved	95% of indigenous trainees to complete training modules Introduction to boiler making to be added to indigenous training program
Develop new scholarships and bursaries to help local youth access education and training	✓ Achieved	Raise awareness of and award first round of scholarships and bursaries.
Expand apprentice intake to help young local people to access training and jobs	✓ Achieved: annual intake to grow from 24 in 2004 to 50 in 2005	Further expand apprentice intake to 60 in 2006
		Develop a system to stream suitable indigenous trainees into apprenticeships
Ernest Henry Mining		
Publish 2003 Ernest Henry Community Report	✓ Achieved	Publish 2004 Ernest Henry Community Report
Exploration		
Engage with the Native Title Groups that are affected by our operations and identify areas of mutual concern	✓ Achieved: cultural heritage training and employment identified as the areas of concern	Conclude the first phase discussion with Native Title Groups
		Establish cultural heritage awareness training courses for field staff
		Increase the number of indigenous people employed as field staff

✓ target achieved
 ✗ target not achieved
 ➔ target partially achieved

Social Responsibility

The results of this research were used to confirm the continuing suitability of Xstrata’s existing community programs and to identify areas where additional emphasis from Xstrata in partnership with Government and community groups could really make a difference.

The result was 34 new partnerships with government and community organisations. For more information on the program visit: www.xstrata.com/reports/doc/xcu_hsec_community_partnership_program_2004.pdf.

In addition to the new Xstrata Community Partnership Program in North Queensland, Xstrata will spend more than \$460,000 in 2005 in Mount Isa, Cloncurry, Townsville and Bowen on sponsorships, donations and other community support initiatives including:

- Founding sponsor of Mount Isa Rotary Rodeo;
- Major sponsor of Cloncurry Merry Muster;
- Major sponsor of the unique Outback at Isa tourism attraction at Mount Isa. Contributions include working and heritage equipment such as an historic headframe and underground drill rigs used to mine the Hard Times Mine;
- Donations to welfare, health care, education, sporting, culture, environmental, indigenous and arts initiatives; and
- Major sponsor of the Mount Isa Mining Expo.

Community engagement and communication

Community engagement and communication activities conducted during 2004 included:

- Quarterly community information sessions in Mount Isa, and an annual session in Cloncurry to share information on the company’s operations with community members and allow them to ask questions;
- Regular meetings are held with key local stakeholders in Townsville, Cloncurry and Mount Isa to discuss emerging issues, facilitate cooperation between the company and the community and resolve any problems;
- Extensive community engagement through key stakeholder and community briefings from April to June 2004 about the proposed Black Star zinc-lead open pit operations in Mount Isa;
- Weekly site tours of Ernest Henry mine by local visitors in conjunction with community tourism group;
- Regular surface tours of Mount Isa Mines for local visitors in conjunction with the community tourism centre;
- Representation on local committees and membership of community development organisations in Mount Isa and Cloncurry;
- Regular tours of operations by school children, members of the local communities, business and service club groups and university students;

- Company newsletters are produced by Mount Isa Mines, Ernest Henry and the Townsville operations and are delivered to members of the local communities; and
- Ernest Henry mine produced and distributed the 2003 edition of its annual Community Report.

These activities will continue during 2005. In May 2005 a community perception survey was carried out in Mount Isa, Cloncurry, Bowen and Townsville. The results of this survey will be used to develop an action plan to address issues identified by the survey. Results of the survey and the actions Xstrata will take to address issues raised will be communicated to key stakeholders and members of the local communities from July 2005.

Community complaints

Mount Isa Mines operates a community information telephone line to receive complaints and provide feedback to callers from the company’s 24-hour Air Quality Control centre. The centre monitors ambient sulfur dioxide levels in the town and directs operations of the Mount Isa Mines smelters and the WMCF acid plant. Xstrata’s other north Queensland operations also record and act upon community complaints.

No.	Operation	Description	Action Taken
111	Mount Isa	Sulfur dioxide emissions in the community	Complainant advised of Air Quality Control status and about any action being taken
4	Mount Isa	Noise	Complaints investigated and noise reduced if the source was due to Xstrata’s operations
4	Mount Isa	Blast/vibration	Discussed with complainants
1	Bowen Coke	Smoke and fumes	Source investigated and problem solved
1	Mount Isa	Smell	Investigated and was not from Xstrata’s operations
1	Townsville copper refinery	Weeds intruding into neighbouring properties	Weeds removed
1	Mount Isa	Derelict house owned by Xstrata an eyesore	House demolished and area rehabilitated



« Ernest Henry mine Senior Environmental Advisor Jane Yelland (right) meets with some of the mine's neighbours. The mine shares the results of its environmental monitoring programs with neighbouring pastoralists.



» Apprentice Mechanical Fitter and Turner Michael Woods at work at the Townsville copper refinery. During 2004 Xstrata made substantial commitments to expanding its apprenticeship and other training programs in north Queensland.

Working with the indigenous community in north Queensland

Xstrata continues its engagement with various indigenous groups and traditional owners across north Queensland. Xstrata is party to a number of agreements with indigenous groups, including the Kalkadoon, Mitakoodi, Waluwarra, Waanyi and Indjilandji-Dithannoi people.



« Mount Isa Mines trainee George Nemo (right) receives a special commendation in the Corporate Leaders for Indigenous Employment Awards for promoting successful work pathways for indigenous people in north-west Queensland from Employment and Workplace Relations Minister The Hon. Kevin Andrews (left) in Canberra.

In keeping with these land use agreements Xstrata works closely with traditional owners throughout all stages of the exploration process and maintains an open dialogue with the indigenous people of north Queensland on a range of issues relating to mining activities, employment opportunities, environmental issues and other important issues relating to health, educational opportunities and cultural awareness.

In 2005 it is anticipated that cultural awareness programs will resume at Mount Isa Mines giving indigenous people the opportunity to share their rich cultural heritage with Xstrata employees and the Mount Isa community.

The Ernest Henry mine has begun working with local indigenous people to identify new opportunities to provide

training, employment and business opportunities for local indigenous people. Previously the mine had contracted a transport company that was a joint venture between an aboriginal group and two other businesses to transport mine concentrates. This venture trained and employed 36 indigenous people over its seven year life until the contract expired.

■ OUR PEOPLE

Creating a fair and supportive workplace and fostering the skills of current and future employees

Training local people for careers in the mining industry

One of the real challenges Xstrata (and much of Australian industry) currently faces is the ability to attract and retain suitably qualified employees. Xstrata believes it has an important role to play in helping to address this issue in a manner that supports the north Queensland communities in which it operates.

In north Queensland Xstrata is working with the community to create a pool of skilled employees through these programs:

- Apprenticeship Program
- School Based Workplace Training
- Graduate recruitment and development
- Vacation Employment
- Scholarship Program.

These programs involve partnerships with schools and TAFEs in the region. The company is also working with the Queensland Resources Council (QRC) to develop a Queensland Minerals and Energy Academy in partnership with Education Queensland.

Social Responsibility

Apprenticeship Program

Xstrata Copper runs one of the largest apprentice programs in north west Queensland, and spends around \$5 million per annum in salaries. The program will be expanded in coming years as follows:

- 38 new apprentices in 2004
- 60 new apprentices in 2005
- 80 new apprentices in 2006.

The company also employs at least 10 adult apprentices a year from our existing workforce.

School Based Workplace Training

In 2004 Xstrata began a program in north Queensland, in partnership with the two Mount Isa high schools, to provide meaningful pathways to work or further education for students.

The program starts with students in Years 8 and 9 being introduced to the mining industry. Work experience begins in Year 10 and involves:

- A work shadowing program whereby students spend time in up to five work areas;
- An on the job work experience program of two to six weeks at work, and one day a week at TAFE for job competency training;
- Mentoring and career guidance; and
- School uniforms jointly badged with the school crest and Xstrata logo.

Work experience continues in Years 11 and 12 with the aim being to sign up students into School Based Apprenticeships or Traineeships. Each year, 10 merit based \$1,000 bursaries will be awarded to students. Participants also gain formal qualifications that can be accredited to a traineeship, an apprenticeship or a tertiary qualification.

Some 30 students joined the workplace training program in 2004. In 2005, 80 more Mount Isa students joined the program. The program will be expanded through the greater north west Queensland region through the Cloncurry State School and a selected Townsville based facility.

Mount Isa Mines' job-first approach achieves success in indigenous employment and training

Mount Isa Mines runs an innovative indigenous training program in partnership with local training organisation MIGATE, which uses a job-first approach to provide jobs and training for disadvantaged local indigenous people. See the case study on this page for more details.



« Mount Isa Mines indigenous trainee Mark Kenafack. The company's training program has achieved success by offering permanent full-time employment, mentoring and training in horticulture and machinery operation to local indigenous people.

■ CASE STUDY: JOBS AND TRAINING FOR INDIGENOUS PEOPLE

In 2001, Mount Isa Mines expanded its employment and training of indigenous people to provide opportunities to those within the indigenous community who had not historically been able to gain employment within the mining industry.

A partnership with a local training organisation was formed to employ and train people to perform building maintenance and gardening work at the mine and at several other company properties in Mount Isa. Following its initial success, the program was expanded to include further positions and training in the mine's transport division and for field staff in the company's exploration group working in north-west Queensland.

The program aims to provide employment opportunities for disadvantaged indigenous people. It employs one indigenous trainee supervisor and seven trainees at the mine. The program is modelled on a "job-first" approach whereby employees are placed in full-time permanent positions, instead of a 12-month traineeship. The mine trainees receive nationally accredited training in horticulture and in operating machinery such as trucks and loaders, forklifts and elevated platforms as part of their employment. The employees then have the opportunity to compete on merit for higher remunerated positions that recognise their increased work responsibility. The completion rate for these courses by the trainees is 96%. In total 15 trainees have participated in the program and 12 have gone on to find other full-time permanent work in the mining industry or the local community. Former trainees now work as truck drivers in the Black Star open pit mine, in the George Fisher underground mine, as truck and loader operators in the mine's transport division, as fork lift operators in the mine's supply area and for local contractors.

The success of the Mount Isa Mines indigenous training and employment program was recognised in 2005 when one of the program employees, George Nemo, and Xstrata received a special commendation in the Federal Department of Employment and Workplace Relations' Corporate Leaders for Indigenous Employment Awards for promoting successful work pathways for indigenous people in north-west Queensland.

Glossary

AQC – Air Quality Control centre

the centre monitors sulfur dioxide emissions and weather conditions and directs the operations of the Mount Isa Mines smelters to control sulfur dioxide concentrations within license limits.

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 a part. These include diversity within species, and of ecosystems.

Closure Plan

A formal document detailing a costed conceptual outline of how the operation will be closed, taking into account the options available to deal with prevailing social and environmental issues.

DI – Disabling Injury

calculated as Lost Time Injuries plus Restricted Work Injuries (LTI + RWI).

DIFR – Disabling Injury Frequency Rate

Disabling Injury Frequency Rate = DI x 1,000,000/hours worked.

EMS

Environmental Management Systems.

EPA

Environmental Protection Agency.

EPP air goal

Maximum levels for air quality indicators to be progressively achieved as part of achieving overall Environmental Protection Policy objectives.

Fatality

A death resulting from an occupational injury or disease/illness and identified within the reporting period.

Gj

Gigajoules (a thousand million joules).

Greenhouse gas

Any gas that absorbs infra-red radiation in the atmosphere causing the warming of the earth’s atmosphere.

HSEC

Health, safety, environment and community.

ISO

International Standardisation Organisation.

ISO14001

The International Standardisation Organisation’s standard for environmental management systems.

LTI – Lost Time Injury

An occupational injury or disease that results in days away from work on any rostered shift subsequent to that on which the injury occurred. A fatality is also recorded as an LTI.

LTIFR – Lost Time Injury Frequency Rate

Lost Time Injury Frequency Rate = LTI x 1,000,000/hours worked.

ML

Megalitres (1 megalitre = 1,000,00 litres or 1,000 kilolitres).

µg/dl

Micrograms per decilitre.

µg/m²/day

Micrograms per square metre per day.

NOHSEC

National Occupational Health and Safety Commission.

Particulate emissions

Controlled discharges from stacks containing microscopic solids in the form of dust or smoke.

PAS

The Panel Assessment Study into the impact of sulfur dioxide emissions from the Mount Isa Mines smelters – established by Mount Isa Mines in cooperation with the Queensland EPA in 1997.

PASS

Positive Attitude Safety System.

PM₁₀

Particulate matter less than 10 microns in size.

Raw water

Untreated water extracted from groundwater, dams or rivers.

Recycled water

Recycled water is water:

- that has been used at least once in a process within the operation or at another operation; and
- that would otherwise be part of a waste stream; and
- if not re-used, would require the input of raw water.

Rehabilitation

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

RWI – Restricted Work Injury

An occupational injury or disease that results in a person being physically or mentally unable to perform all or any part of his/her normal assignment during any rostered shift subsequent to that on which the event occurred.

SO₂

Sulfur dioxide.

Social Involvement Plan

A plan produced by each Xstrata commodity business to set out engagement with local communities detailing the range of initiatives to be undertaken and the resources, financial and otherwise, dedicated to this area of the business.

Tailings and tailings dams

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.

TRI – Total Recordable Injuries

a measure that includes:

- Lost Time Injuries (including fatalities)
- Restricted Work Injuries (RWI); and
- Medical Treatment Injuries (MTI).

TRIFR – Total Recordable Injury Frequency Rate

Total Recordable Injury Frequency Rate = (LTI + RWI + MTI) x 1,000,000/hours worked.



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