





LISHEEN MINE // ÁR TIONCHAR THIMPEALLACHTA

Our Impact // Lisheen Mine Sustainability Report 2005



#### **OUR MISSION**

#### **Anglo Base Metals Division**

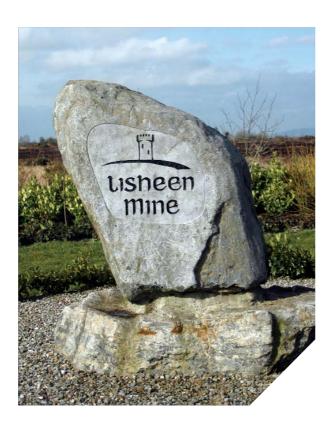
Anglo Base's vision is to build the most valuable and respected base metals business in the world.

We are committed to achieving long-term, sustainable growth in shareholder value by:

- » Finding, acquiring, developing and operating long-life, low cost base metal businesses;
- » Building strong and mutually beneficial relationships with our customers, suppliers, partners and host governments;
- » Respecting the environment and the well-being of our employees and contributing to the sustainable development of the communities in which we operate; and
- » Creating a work environment that promotes integrity, teamwork, continuous improvement and innovation and encourages people to perform at their best.

#### Lisheen Mine

We take pride in responsibly and profitably producing quality concentrates together.





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Measurement	Value
Site Fatalities	0
Lost Time Work Injuries	11
Total Tonnes Mined (including non-economical rock)	1,696,455
Ore Treated (tonnes)	1,460,854
Lead Concentrate produced (tonnes)	33,910
Zinc Concentrate Produced (tonnes)	298,545
Number of Environmental Measurements Taken	720,000
Number of Environmental Complaints Received	13
Electricity Usage (MWhr)	124,652
Air Quality (% compliance with Licence Conditions)	100%
Noise and Vibration (% compliance with Licence Conditions)	99.6%
Surface Water Quality (% compliance with Licence Conditions)	96.8%
Sponsorship Spending (Euro)	16,500
Annual Payroll Costs (Euro)	16,300,000
Annual Training Spending (Euro)	420,000



We are pleased and proud to present our first annual report on Sustainable Development, entitled "Lisheen: Ár Tionchar Thimpeallachta".

Ireland today faces, more so than ever before, a range of environmental and social challenges and we recognise and acknowledge our obligation to meet these challenges, to act responsibly and to minimise the negative impacts of our operation. We therefore regard sustainable development as a fundamental principle underpinning all our business dealings and as a basis for our business management. We also believe in maintaining a balance between economic results, social responsibilities and protection of the environment.



Progress has and continues to be made in all these areas by the Lisheen Mine team and some of the most recent achievements are highlighted below:

- » Our Safety Management System remains accredited to level 8 of Det Norske Veritas's International Safety Rating System;
- » Our Safety and Occupational Health Management System was accredited by the National Standards Authority of Ireland to the internationally recognised OHSAS 18001 standard;
- » Our Environmental Management System was re accredited by the National Standards Authority of Ireland to the internationally recognised ISO 14001 standard;
- » Our Human Resources System was re accredited by Foras Aiseanna Saothair (FÁS – Training and Employment Authority) to the Excellence Through People standard.

The Visible Felt Leadership and the reporting of near miss initiatives introduced during the year to enhance safety awareness appear to have been well received and have been incorporated into our Safety Management System. We did however, record eleven lost time injuries in 2005; the challenge remains for us to improve on this and then to continue working at the Lisheen Mine without recording any lost time injuries. This is firmly within our control and many sections of the operation have been lost time injury free since the commencement of operations in 1999.

We are also extremely pleased to have completed our first socio economic assessment of our impact on our surrounding community. Many of our stakeholders participated in this process and we were delighted with their comments – both negative and positive. The results of this assessment will be incorporated into our Community Engagement Plan targeted for 2006, where we will endeavour to address many of the concerns raised.

Whilst there will be many challenges facing the business in the future, we believe that Lisheen Mine has the team, the dedication and the will to meet these challenges and to demonstrate our commitment to sustainable development in all our activities.

We invite you to read this report and would be pleased to receive any comments that you may have – our contact details can be found on the back cover of the report.

Cyril Boucher General Manager



#### **ANGLO AMERICAN PLC**

Anglo American plc is a world leader in mining and natural resources. Our operations span the globe from North and South America to Africa, Europe and Australasia, taking in operations in more than sixty countries. The company is subdivided into eight divisions, namely: (1) AA Platinum, (2) AA Gold, (3) AA Diamonds, (4) AA Coal, (5) AA Base Metals, (6) AA Industrial Minerals, (7) AA Paper & Packaging and (8) AA Ferrous Metals and Industries.

The Anglo American Corporation was founded in 1917 by Sir Ernest Oppenheimer to exploit the gold mining potential of the East Rand in South Africa. In 1926, Anglo American became involved in the diamonds industry through becoming the largest shareholder in De Beers. Through the 1920s and 1930s, Anglo American began to play a crucial role in the establishment of industrial operations such as Boart Products, a world innovator in mining and drilling, as well as moving into the coal industry. During the late 1940s and 1950s, Anglo American's focus was directed at the development of the South African goldfields. The success of these mines catapulted the Company to the forefront of the international mining industry. In 1961 the first major Anglo American investment outside southern Africa took place in Canada. This was followed up in the early 1970s with operations in Latin American and the founding of the Minerals and Resources Corporation (later Minorco). In 1998 Anglo American announced that it would combine with Minorco, to form Anglo American plc with its primary stock-exchange listing in London.

## **ANGLO AMERICAN & SUSTAINABILITY**

#### Good Citizenship: Our Business Principles

In 2002 we established a set of corporate principles to serve as a guide for doing our business worldwide. This policy – "Good Citizenship: Our Business Principles", drives how all parts of our business is conducted, everywhere<sup>1</sup>.

'Good Citizenship' outlines our principles and 'code of conduct' in relation to 'sustainable development'<sup>2</sup> and our company's responsibilities regarding all our stakeholders<sup>3</sup>, including such areas as: Integrity and Ethics, Employment and Workers' Rights, Corporate Citizenship and Safety, Health and Environmental Management.



- 1 You can download this document at our website: www.angloamerican.co.uk/ corporateresponsibilty
- 2 'Sustainable development' was defined by the UN Bruntland Commission in 1987 as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.
- 3 'Stakeholders' is a term used to describe all people affected by, or interested in the operations of our company or products. The term usually encompasses: employees and workers, neighbours, shareholders and investors, suppliers, business partners and regulators.

We continue to make every effort to incorporate these principles in our day-to-day activities and, for this reason, our 'Good Citizenship' policy is made available to investors, employees, clients and suppliers, as well as government agencies, non-governmental organizations and the communities in which our operations are situated.

## **CASE STUDY 01**

Anglo American plc has recently received the UK's Business in the Community first International Award. The award focussed explicitly on the role of companies in supporting development in Africa. The company's entry benchmarked its initiatives against the 'Millennium Development Goals' and were built around the commitments featured in Anglo's 'Good Citizenship' Business Principles. The entry featured, in particular, its work on HIV/AIDS, community engagement, local

business development initiatives, community social investment, training, involvement in good governance initiatives and partnerships, such as the Business Trust in South Africa.

The judging panel included representatives from the International Business Leaders Forum and the UK Department of Trade and Industry, who described Anglo as being a 'pioneer in understanding both the social and business imperatives of their operations.'

Our sustainable development principles are increasingly becoming a greater part of how we make business decisions, both at Group level and within all our companies. Our principles are:

- » Running profitable businesses in a responsible and ethical way;
- » Providing jobs in safe and healthy environments;
- » Ensuring that we are efficient and innovative in using natural and other resources;
- » Minimising our environmental impact;
- » Conserving and helping to promote nature and biodiversity<sup>4</sup>;
- » Contributing to the responsible development of society around us; and
- » Being honest and fair in the way we discuss matters with our stakeholders.

Anglo American and its subsidiaries, including Lisheen Mine, have had a long-running tradition of involvement in our communities and investment in our neighbourhoods. We have always had a management objective, at Lisheen Mine, of seeking to provide good returns to our shareholders, while shouldering our fair share of social and environmental responsibilities.

4 'Biodiversity' is the abundance of different plant and animal species found in an environment

## **CASE STUDY 02**

We do not accept or endorse any activities within our companies which would affect our good reputation, and the reputations of our employees. To formalise our commitment to running an ethical business, in 2004, there is a system within the company, worldwide, called "Speak-up". This system enables and encourages our employees to report any unethical or unsafe practices at any of our sites by contacting an independently-run centre via a FREEPHONE number (or by internet or fax). Through the use of this procedure, it is hoped to remove dishonesty and unethical conduct from our company, and secure the safety and health of our employees. We anticipate that this system will also help us in protecting both the environment and our investors. If you are interested in this project, you can find more information at www.anglospeakup.com



#### **ANGLO AMERICAN IN IRELAND**

The Lisheen Mine is part of the Base Metals Division of Anglo American plc. Anglo Base Metals produces copper, nickel, zinc, lead, niobium, molybdenum and mineral sand products (titanium slag, rutile, zircon and pig iron) from its operations. The corporate offices of Anglo Base Metals are located in London, Johannesburg, Santiago and Sao Paulo. Anglo Base Metals has interests in 16 operations in seven countries: Brazil, Chile, Venezuela, Namibia, Peru, South Africa, as well as Ireland.

The Lisheen Mine has yielded Europe's largest zinc and lead discovery of the last 15 years. Located near the village of Moyne in Co. Tipperary, Ireland, the world class zinc/lead deposit is expected to produce nearly 5 million tonnes of zinc and lead concentrates over the estimated 14-year life of the mine. The deposit is located in the Rathdowney Trend (a geological feature), which stretches 40 kilometres between the towns of Abbeyleix and Thurles. The region is a broad plain drained by the Rossestown and Drish rivers (tributaries of the River Suir), which flow into the Irish Sea at Waterford.

Exploration of the Rathdowney Trend during the late 1960s and early 1970s identified some traces of lead and zinc, although the first significant discovery was not until 1984 at Derrykearn. Following the discovery of the Galmoy deposit in early 1986, Ivernia was granted prospecting licenses covering Lisheen and other areas. Over the subsequent two years surveys identified the target area for a drilling programme, and work commenced in 1990.

The Lisheen zinc lead deposit was discovered in 1990 by a joint venture of Ivernia West plc and Chevron Mineral Corporation of Ireland (CMCI). In 1994 CMCI's interest was acquired by Minorco SA, which subsequently merged with Anglo American Corporation of South Africa in 1999 to form Anglo American plc.

In 2003 Anglo American plc acquired the remaining shares held by Ivernia West plc and The Lisheen Mine became a wholly owned subsidiary of Anglo American plc.

The mining operation, as we know it was constructed in the late 1990s, and the commercial operation commenced in 1999.

## WHAT WE DO

The underground mine is accessed via a 1.5 km long tunnel, which slopes gradually downwards, from the surface to a depth of 200 metres below surface. The tunnel is over 6 metres wide and 5 metres high. The underground facilities include water pump stations, mobile equipment workshops and warehouses as well as the main crusher station. The ore is extracted using three mining methods; room and pillar, drift and fill and open stoping.

The fully mechanised underground operation consists of drilling and blasting activities, loading and hauling of the fragmented rock to the underground crusher, where the ore is broken into smaller fragments and then brought to the surface on an enclosed conveyorbelt. The ore is stored on surface in an enclosed stockpile and from there is fed to the process plant.

In the process plant the ore is further broken down in the milling circuit, from there it passes to the flotation cells where the zinc and lead are separated from the host rock and concentrated.

The watery mixtures (slurries) containing the concentrated zinc and lead are thickened and filtered (removal of water) into a granular material which is our final product – zinc and lead concentrates. The ore when mined underground has an average grade of 12% zinc and 2% lead and this is concentrated to 58% zinc and 64% lead in the process plant. These products are loaded onto specially designed trucks for transport to Cork Port from where they are transported to various smelters across Europe and the USA for further processing into metal. At this stage the concentrates are smelted to 100% zinc and 100% lead.



Rock containing lead and zinc from the underground crusher travelling from beneath the enclosed stockpile to the process plant.

#### FACTS ABOUT ZINC

- Zinc is the fourth most common metal in use, trailing only iron, aluminium and copper in annual production.
- Zinc is used to galvanise steel to prevent corrosion.
- Zinc is used to parkerise steel to prevent rust and corrosion.
- Zinc is used in alloys such as brass, nickelled silver, typewriter metal, various soldering formulas and German silver.
- Zinc is the primary metal used in making American pennies since 1982.
- Zinc is used in die casting notably in the automobile industry.
- Zinc is used as part of the containers of batteries.
- Zinc oxide is used as a white pigment in watercolours or paints, and as an activator in the rubber industry. As an over-the-counter ointment, it is applied as a thin coating on the exposed skin of the face or nose to prevent dehydration of the area of skin.

  It can protect against sunburn in the summer and windburn in the winter. Applied thinly to a baby's nappy area (perineum) with each nappy change, it can protect against rash.

  As determined in the Age-Related Eye Disease Study, it's part of an effective treatment for age-related macular degeneration in some cases.
- Zinc chloride is used as a deodorant and can be used as a wood preservative.
- Zinc sulphide is used in luminescent pigments such as on the hands of clocks and other items that glow in the dark.
- Lotions made of calamine, a mix of Zinc-(hydroxy)-carbonates and silicates,
- Zinc metal is included in most single tablet over-the-counter daily vitamin and mineral supplements. It is believed to posses anti-oxidant properties, which protect against premature aging of the skin and muscles of the body. In larger amounts, taken as zinc alone in other proprietaries, it is believed by some to speed up the healing process after an injury.
- Zinc gluconate glycine and zinc acetate are also used in throat lozenges in an attempt to remedy the common cold.

## **FACTS ABOUT LEAD**

- Lead is a major constituent of the Lead-acid battery used extensively in car batteries.
- Lead was used as a pigment in Lead paint for white as well as yellow and red colours.
- Lead is used as a colouring element in ceramic glazes, notably in the colours red and yellow.
- Lead was used for plumbing in Ancient Rome and water mains and service pipes up until the early 1970s.
- Lead is used as projectiles for firearms and fishing sinkers because of its density, low cost and ease of use due to relatively low melting point.
- Lead is used in some candles to treat the wick to ensure a longer, more even burn.
- > Lead is used in shielding from radiation.
- Molten lead is used as a coolant, for example, in lead cooled fast reactors.
- Lead glass is comprised of 12-28% lead. It changes the optical characteristics of the glass and reduces the transmission of radiation.
- Lead is used as electrodes in the process of electrolysis.
- Lead is used in solder for electronics.
- Lead is used in high voltage power cables as sheathing material to prevent water diffusion into insulation.



The view of the Derryville Tailings Management Facility taken from the top of our new Backfill Plant.

The rock, from which the zinc and lead has been removed in the process plant, is called 'tailings' and half of this is pumped back underground (together with a binder) to fill the mined out areas. The other half is pumped to a lined impoundment on Derryville Bog, which you will know as our 'Tailings Management Facility'. This facility has been built to the highest international standards under the close scrutiny of the Environmental Protection Agency. (To whom we report four times a year on the management of this facility.)

#### LISHEEN MINE AND SUSTAINABILITY

Since receiving permission to mine at Lisheen, we have made every effort to design the operation to the highest environmental, health and safety standards. By law, our mine must operate in compliance with strict environmental standards and limits. These standards and limits are enforced by the Environmental Protection Agency and specified, for us in our Integrated Pollution Control (IPC) Licence (you can download a copy of our licence at the EPA website<sup>5</sup>).

Lisheen was the first mine in Ireland to obtain such a Licence, which strictly regulates all aspects of air, water, waste, noise and vibration. There is much more detail on these aspects of our operations in the Chapter on 'Environment', from page 36.

We implement our corporate sustainability principles in a number of ways, through our management systems, but also in disclosure of our performance to stakeholders. Stakeholders can openly assess our performance through scrutiny of reports and data, which are openly displayed at our Environment Centre, and our noticeboards throughout the site. The Environment Protection Agency, at their Wexford office, maintains an independent file on our Environmental performance, which is also openly available. We report our independently audited financial performance regularly, through the Anglo American website, and also contribute our data to the Anglo American Sustainability Reports, which are published annually. If you want to examine these reports, they can be found at our corporate website.

In January 2006 our first SEAT (Socio-Economic Assessment Toolbox) Report was published. This is an initiative developed by Anglo American plc which is applied to sites worldwide to help build close relationships with the communities in which we work. You can see how some of the other company sites worldwide have reported in this way at our website.<sup>7</sup>

There will be more details about this particular project throughout the report.

- 5 www.epa.ie/licensing/ipclicensing/searchforanipclicence/
- 6 www.angloamerican.co.uk/ corporateresponsibilty/publications/
- 7 www.angloamerican.co.uk/corporate responsibilty/socialresponsibilty/seat/

#### **MANAGEMENT SYSTEMS**

A number of independently audited or verified management systems are in place at Lisheen, which we feel further demonstrates commitment to a decent, quality business.

We have independently certified Environmental Management (ISO 14001) and Health & Safety Management (OHSAS 18001) systems in place at this point. The Lisheen Mine has also achieved The International Safety Rating System (ISRS) Level 8. In 2006 it is intended to integrate these into a single Environment, Health & Safety management system, which will result in a more complete and thorough public reporting system.

The Lisheen Mine is also audited annually and accredited with the "Excellence Through People" Award which is Ireland's standard for Human Resources & Training.

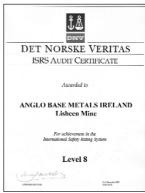
## **CASE STUDY 03**

Excellence Through People' is awarded in recognition of achieving and maintaining the operation of a personnel management system which aims to achieve excellence through the training, development and involvement of its workers. It is fully supported by employers, Trade Unions and the Government. It was set up to encourage development of employees to full potential so as to maximize their contribution to the specific needs of an organization and to show recognition for organizations that have achieved this aim. It is a measured programme, which is audited on an annual basis.









Certificates, clockwise from top left: ISO 14001; Excellence Through People; OHSAS 18001; & ISRS Level 8.



#### **ADDING VALUE TO SOCIETY**

The Lisheen Mine is a commercial business with an important place in the local economy in North Tipperary. In light of this, we undertook a socio-economic assessment of our business in 2005, using the Anglo American Socio-Economic Assessment Toolbox, which has been applied to its businesses worldwide (if you are interested in examining this model, please look at our website<sup>8</sup>).

This socio-economic assessment, demonstrated that in 2005, Lisheen Mine contributed a significant sum to the local economy, through: (a) salaries of employees and contractors, (b) payments for goods and services to local businesses, (c) contributions to local charities and events, and (d) taxes and rates to Tipperary North Riding County Council. This sum equated to over €19M in 2004. From CSO statistics (www.cso.ie), the size of the local economy in Tipperary North (in 2001) was approximately €928M, so it can be seen that our operations account for approximately 2% of the local economy. Allied to this direct economic contribution, Lisheen Mine procured, in total, over €63M in goods and services, mostly within Ireland, and contributed a further €8.4M to the Irish Exchequer in taxes and royalties.

#### THE IRISH ECONOMY

Value added is the measure of Lisheen Mine's total contribution to economic output in Ireland's economy and is calculated using the formula:

Value Added = Operating Profit<sup>9</sup> + Employee Costs + Depreciation<sup>10</sup> and Amortisation<sup>11</sup>

Based on 2004 company accounts, value added amounted to €42.9 million.

## **EMPLOYMENT**

We are a direct employer of 339 employees at the mine, 86% of whom live within the local community (a further 13% live within 40 km of our operation).

Our employees all receive, as part of their employment conditions:

- » An annual medical examination.
- » Access to a Sick Pay Scheme.
- Entitlement to become members of 'The Lisheen Mine Pension Scheme' to which the company makes a contribution of 5% of the employees' basic salaries.
- 8 www.angloamerican.co.uk/corporate responsibilty/socialresponsibilty/seat/
- 9 Operating Profit is a company's earning power from its operations, calculated as earnings before subtraction of interest payments and taxes
- 10 Depreciation is an accounting term meaning loss of an asset's value over a period of time, because of age, wear, or market conditions.
- 11 Amortisation is another accounting term meaning the reduction of the value of an asset by dividing its cost over a period of years.

Furthermore, in relation to development of skills, around 7,000 hours of training (not counting 'on-the-job' training), at a cost of €300,000, was provided to workers in 2004. All contractors also receive training in Safety, Health and Environment on the site.

#### **SUPPLIERS**

Indirectly, through sub-contracting and service provision, our business is responsible for a further 129 jobs. We prioritise local suppliers and contractors where it's practical to do so in a relatively small local supply pool, though our industry often requires very specialized equipment/supplies which are not available locally.

We will have mentioned, in previous pages, about Anglo American's 'Good Citizenship: Our Business Principles' (you can download or view this document at www.angloamerican.co.uk). This policy states that 'We seek mutually beneficial long term relationships with our customers, business partners, contractors and suppliers based on fair and ethical practices'. We are careful to apply these principles to our suppliers and contractors; all our suppliers are required to share our commitment (formally, as a condition of supply and contract) to these principles of good stewardship and ethical behaviour. In the history of our operation at Lisheen, there have been no terminations of either suppliers or contractors for non-compliance with the Business Principles.

#### **INFRASTRUCTURE**

Prior to the initiation of our mining operation, we undertook a major investment in local infrastructure, in compliance with our planning conditions, including the upgrading of a major road (linking with the N8), the construction of a Tailings Management Facility (to protect the local surface water and groundwater quality) and the careful screening of our facility (to avoid landscape impacts).

Furthermore, the Moyne Group Water Scheme (MGWS) was upgraded to ensure a continuous supply of potable water to the local community. Water quality is regularly monitored and is up to the standards required by law. It has been noted that there remains some concern in the community about the quality of this water supply; we are confident that these issues are being addressed by the MGWS committee.

## **LOCAL INVESTMENTS**

We screen requests for sponsorship and funding through our Sponsorship Committee, whose spending in 2005 was €16,500. Our contributions, in 2005, extended to, among others:

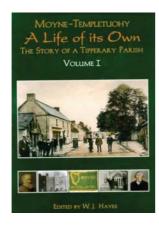
- » Rotary Club
- » Templetuohy GAA Club
- » Thurles Musical Society
- » Local schools
- » Local clergy
- » Templeree committee
- » Moyne Voluntary Housing Association

Other community initiatives which did not involve direct financial contribution are:

- » Environmental awareness through 'Environmental Schools Competitions'.
- » The use of our own facilities to run computer courses for the local community.
- » Participation in work experience programmes for pupils of local schools.

## **CASE STUDY 04**

The Lisheen Mine was the main sponsor of the publication of 'A Life of its Own', a history of the parishes of Moyne and Templetuohy. This included a donation over three years of €8,000, plus the use of research information at the start of the mine project.





## **SOCIO-ECONOMIC ASSESSMENT, 2004**

The main objective of this study was to build on (or initiate) constructive relationships between our Company and the local community. Our managers are using the results of this process to understand fully the impact made by Lisheen Mine on the lives and well-being of the communities surrounding us. We will also use the results of the study to deal with, as best we can, the negative issues raised by the community in a professional way.

To summarise why this study was carried out:

- » To identify what the main environmental and social concerns the local community had, and which were the most important to them.
- » To ascertain how the community considered the way issues of concern were handled at the moment, and how they could be improved.
- » To use the information gathered to improve community relations.
- » To collect information for this report, and for our company's worldwide report.
- » To see if there were things we were doing particularly well that our sister-sites could repeat in other parts of the world.

During this study a lot of people were engaged, mainly in the four categories listed (if you want to see a list of the groups/organizations who contributed to the study, etc., please refer to **Appendix 1**):

- » Neighbouring Communities
- » Community Based Organisations
- » Local Businesses & Associations
- » National and Regional Authorities

The study identified both positive and negative aspects of our operation. The positive aspects were:

- » Employment: Some contributors noted that the most positive impact was the creation of employment in the area with additional opportunities for local contractors and businesses to supply services to the mine.
- » Financial Investment in the Local Community: The community were appreciative of the sponsorship of community activities, particularly sporting events and schools, together with donations to charities.

- Economic Growth: The participants acknowledge that: (i) mining operations have contributed to prosperity in the area through provision of jobs and regular incomes to some households that previously relied solely on farming, (ii) the mine has provided employment for local people who otherwise would have had to leave the area, and (iii) there has also been a positive impact on small businesses locally.
- Improvements in local services and infrastructure: The majority of people in the community believe that the mine, through investment in the Moyne Group Water Scheme, has improved the water supply in the area, and recognise the positive impact of the improvement of the local road infrastructure.
- **Land drainage:** The community acknowledges that drainage of land, due to the lowering of the water table, made the land easier to farm successfully.
- Communication: Some members of the community commented positively about the communication of the mine's management team with the local community in particular in meeting with, and responding constructively to, the local people on issues such as blasting and vibration. More generally, those interviewed seemed to agree that s ystems for dealing with complaints were good and Lisheen Mine's 'open door' policy was welcomed.

However, there were also some negative comments about the impact of the mine, and areas where improvements were sought were also outlined in the project, including:



Surface drill rig for drilling exploration holes.

- » Land Issues: The local community has three main issues in relation to the lands owned by or surrounding the mine; (i) some people feel that they have not been as well-compensated for exploratory drilling as others, (ii) the community feels that the value(s) of their properties has dropped or not grown as it should have, as a result of being close to the mine, and (iii) a number of people are unhappy about the unavailability of access to land owned by Lisheen Mine.
- » Drinking Water Quality: In spite of the fact that the improvement of drinking water supplies has been noted as a positive impact, there are some in the community who feel that the operation has had a negative effect on drinking water quality, mainly in relation to the taste and visual appearance of the water.

- » Surface Water Quality: Some people interviewed expressed concerns that the quality of the water in local water courses had deteriorated making the water unsafe for farm livestock.
- » Blasting: Though the community has acknowledged that the effects of blasting have not been as severe recently, there remains a concern that noise from blasting is causing nuisance and disturbance, particularly at night. Vibration due to blasting is also a concern, and some worry has been expressed about the impact on the structures of local properties.
- » Air Pollution: The community perceives that there are dust-deposits forming on vegetation and cars due to emissions from return air shafts at the mine. The main concern is in relation to information about to the quality of the discharged air.

These issues are dealt with in more detail on pages later on in this report.



Underground drilling of the ore body.



#### **OUR EMPLOYEES**

The Lisheen Mine's commitment to the working conditions, performance, professional development and job satisfaction of employees is driven mainly by corporate policies as described in previous chapters, especially 'Good Citizenship: Our Business Principles', other policies and values statements (see our corporate website<sup>12</sup>) and Management Systems.

We want to attract and maintain a professional workforce that is the best at doing their jobs. Our commitment to our employees is that: (a) we will treat them with respect and consideration; (b) we will invest in their development; and (c) we will ensure that their careers are not limited through discrimination. We maintain a two-way 'channel of communication' with employees – this helps them contribute as best they can, and allows employee and company to understand and appreciate each others' needs.

We recognise that our employees are those mainly responsible for creating our products and they are what make our mine work commercially. The company tries to provide opportunities for personal and professional development. In doing so, we hope to count on people who are skilled, proud and enthusiastic about their jobs, and who understand how their work and their company contributes to society.

Lisheen is accredited with the "Excellence Through People" Award which is Ireland's standard for Human Resources & Training. It is awarded in recognition of achieving and maintaining the operation of a personnel management system which aims to achieve excellence through the training, development and involvement of its people.

As stated previously, the mine has a stated policy of employing local people. In 2005 the total value of our payroll was in the order of €16.3 million.

#### **ORGANISATIONAL CLIMATE SURVEY**

In 2004 Anglo American Base Metals performed its first worldwide Organisational Climate Survey. The purpose of the climate survey was to give employees the opportunity to share their opinions in an open and honest way, thereby creating opportunities for 'improving the existing climate'.

The Lisheen Mine received a tremendous rate of response of 98% for this survey. Following on from this project, 'focus forums' have been set up in each Department, with a view to meeting regularly on issues of concern, and putting action programmes in place.

<sup>12</sup> www.angloamerican.co.uk/corporate responsibilty/publications/publications/

#### **EDUCATION AND TRAINING**

Lisheen is committed to a comprehensive training and development programme, covering all employees. It is intended to provide conditions for the professional and personal growth of our employees. Through this policy, we want the company to have a competitive advantage in business through having the very best people.

## **CASE STUDY 05**

Up to two years of training is required to qualify as one of our skilled miners. Our focus, in training, is to ensure the miners' abilities to contribute to the mine's operations and to afford them promotion opportunities where it is possible for us to do so. We use our own experienced training instructors and programmes to build up core skills in our workforce for the life of the mine. Other employees, such as electricians, fitters and mechanics are also trained on-site, sometimes with the assistance of equipment suppliers.

In 2005, €420,000 was spent for the provision of training for employees at the mine. All contractors also received training in Safety, Health and Environment associated with the operation. This practice was continued in 2005, with further Safety, Health and Environment training provided for employees. Additional first aid training was provided after a request from the employees. This first aid course was held on site after normal working hours by a qualified first aid instructor.

The company encourages relevant further study on the part of its employees. A number of Lisheen employees are currently being assisted in gaining relevant tertiary qualifications through payment of third level fees and study leave.

## **DIVERSITY AND DISCRIMINATION**

Our local policy on recruitment is based on "best fit" for the position advertised regardless of social, ethnic, or gender background. All vacancies are advertised internally and all external recruitment advertising states that "Lisheen is an equal opportunity employer".

We do not have an active local 'Diversity and Discrimination' programme in place, but are committed by legislation to the Employment Equality Acts, 1998 and 2004, which outlines a comprehensive Code of Practice for all employers operating in Ireland, to which the company rigidly complies.

There are a number of forums in place at the mine for employees to highlight any issues of concern to them, including:

- » Communications forum;
- » Disciplinary and Grievance procedures;
- » Speak-Up campaign; and
- » Trades Unions procedures.

## **HEALTH AND SAFETY**

Mining is potentially a hazardous occupation, and as employers our very first priority is to provide a safe environment in which to work. The need for a safety system to prevent injuries has always been recognised as a necessary and important part of business at Lisheen Mine. Safety in relation to our system, is defined as 'control of injuries and occupational diseases, as well as property damage, fires and explosions'. Our Safety Management System is also structured to allow a 'loss control approach' which means also addressing: (a) production losses (waste of final product), (b) poor work and product quality and (c) damage to the environment.



Safety is a primary concern of our policies in this area, including 'Good Citizenship: Our Business Principles', our Safety, Health and Environment (SHE) Policy and systems, and our Golden Rules for Safety and OTTO – Zero Tolerence Target Zero. These principles and policies are fully disclosed to employees, suppliers and third parties.

## CASE STUDY 06: Lisheen Golden Rules for Safety

These rules set out by Lisheen Mine are non-negotiable. The rules cover six areas of health and safety concern: 1) Working in Confined Spaces, 2) Working at Heights, 3) Energy and Machinery Isolation, 4) Surface Vehicle Safety, 5) Mining Operations and Ground Conditions, 6) Lifting and Material Handling. All employees are required to be trained and fully competent, prior to performing these types of work. Employees are required to assess changes in their surroundings, and to check the suitability of their work-equipment. Employees are also expected to, at all times, adhere to these rules.

To ensure we achieve the aims of our safety policies, the requirements of the international Occupational Health and Safety series (OHSAS 18001) have been integrated into our Management System. These requirements assist an organisation to control its health and safety risks and improve its performance. The safety of employees and partners who work at our facilities is seen as an aspect to be greatly valued. Our OHSAS system is independently audited and verified for its effectiveness annually – this is carried out by the National Standards Authority of Ireland (NSAI).

As well as having the OHSAS 18001 management system in place, The Lisheen Mine also has in place the International Safety Rating System (ISRS) audited and accredited by Det Norske Veritas<sup>13</sup>.

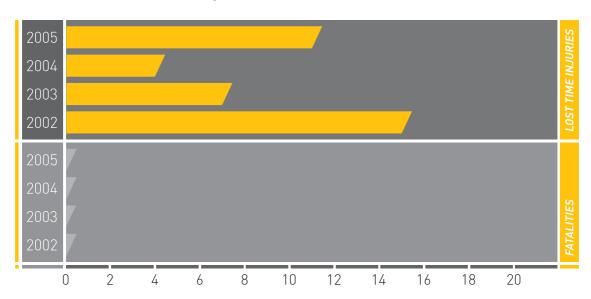
## **CASE STUDY 07**

In April 2005, DuPont Safety Resources visited The Lisheen Mine for a fortnight to assist in the renewal of our 'Visible Felt Leadership' (VFL) programme as an initiative for improvement of health and safety performance at the site. VFL is a programme for proportionally increased visits to operational areas (the least safe areas, statistically), and for focusing on observing 'day-to-day' attitudes to safety. It is also known as "OTTO" (from the corporate slogan "Zero Tolerance – Target Zero"). A total of 65 employees took part in the VFL training. Management and supervisors are committed to conduct one VFL per week.

<sup>13</sup> Det Norske Veritas are an independent foundation, with headquarters in Oslo, Norway, with the objective of safeguarding life, property and the environment and a leading international provider of services for managing risk.

2005 was a year of mixed fortunes with regard to health & safety. Although thankfully we had no fatalities, 'lost-time injuries' increased on the previous year, up from 4 in 2004 to 11 in 2005. All 'lost-time injuries' are systematically investigated and remedial actions are developed to prevent re-occurrence. Records of our health and safety performance are freely available for viewing in our Environmental Centre, and on SHE Noticeboards throughout the site.

## Data on Fatalities & Lost Time Injuries, 2002 to 2005



## **CASE STUDY 08**

An analysis of all injuries and incidents recorded in 2005 has shown that most of our accidents or incidents occur in mining operations and in lifting and material handling activities. However there has been a significant reduction in the number of accidents related to manual handling in comparison to previous years. We attribute this, in part at least, to the introduction of a manual handling risk assessment system which came into being during 2005. Refresher training for all employees and contractors will be run again in 2006 which it is hoped will help to further reduce the number of manual handling accidents at the site.

<sup>14</sup> A 'lost time injury' is defined as 'a work related injury/illness where the affected person is unable to complete the next shift'.

'Planned Task Observation' (PTO) is another very important safety programme employed at the mine. This involves a supervisor observing an employee carrying out a 'critical task' according to a procedure in order to ensure that the employee is performing the task in a safe and efficient manner.

Recommencement of near miss reporting began in May 2005 with each employee issued with a 'Near Miss Report Book'. This initiative is designed to give employees the opportunity to report 'near misses' in a proactive way and has provided us with the information to develop 'indicators' to measure progress in improving health and safety in the operation. 'Near Miss' Report "Post Boxes" are located throughout the mine site to simplify the reporting process. 636 'near misses' were reported in 2005 at the mine. Our 'Rewarding Innovative Ideas' (RII) scheme also continues to be a positive source of good ideas for improving safety.

## **CASE STUDY 09**

Mine Rescue Competition - the International Annual Mine Rescue Competition was hosted at the Mine during October 2005. Five teams participated in the competition, four from Ireland and one from the United Kingdom. The Lisheen Mine Rescue Team won the overall competition, best team captain and was awarded first place in the first aid competition.



Some members of the Lisheen Mine Rescue Team 2005.

- 15 A 'critical task' is one which has a high risk of injury to a person if the safe procedure for that task is not followed.
- 16 A 'near miss' is an event or situation that could have resulted in an accident, injury or illness, but did not, either by chance or through timely intervention.

#### **OUR NEIGHBOURS AND OUR COMMUNITY**

'Good Citizenship - Our Business Principles' clearly defines what we consider to be our responsibilities with respect to all our stakeholders – including our neighbours and our local community. This means encouraging a greater degree of communication with our stakeholders and putting measures in place to improve our contribution to the localities where we operate.

The Lisheen Mine continues to establish a tradition of community involvement and social investment.

One of the recommendations of the socio-economic study undertaken in 2005, was that we improve on our Community Engagement Plan (CEP). Development of this plan (CEP) is underway and will be published and initiated in 2006. Our broad objectives, in relation to this plan, are to communicate openly and honestly with the community when there are issues arising from the mine that might affect them, and also to put in place a mechanism where it is easier for the community to bring issues of concern to our attention. We were concerned that a number of negative issues raised during the SEAT process were very much factually incorrect perceptions. It is our intention that rectifying these perceptions, as well as dealing with other concerns, will be addressed in the CEP.

The CEP will be based on the guidelines contained in the Anglo American 'Good Citizenship: Our Business Principles'. You can see how the process of formulating the policy will happen, if you read the policy document, or visit the corporate website [www.angloamerican.co.uk].

Our employees and their families are key stakeholders and we want to keep a regular two-way flow of information and communication, in order to keep them informed about how the business is performing, and to understand their needs in relation to us. Accordingly, employees are actively engaged to discuss and debate issues of relevance and importance to the working of the mine through a number of media, including:

- » Weekly newsletter 'The Lisheen News';
- » Employee Monthly Communication Meetings;
- » Weekly departmental meetings;
- » Weekly management meetings;
- The Focus Groups attended by cross sectional representation of the workforce;
- » The Lisheen Mine Safety, Health and Environment (SHE) Diary (published annually);
- » Safety meetings (managerial and departmental).

#### **CONTRIBUTION TO COMMUNITIES**

Our objective of promoting well-founded relationships with our neighbours is based on the belief that our mine will be more successful if the company can positively contribute to the development of the communities, in which we are based. We want to involve our neighbours in issues that may affect them. Furthermore, we want our support of community projects to reflect the priorities of residents and to demonstrate our commitment to sustainable development.

We will continue to report on how our contribution to local, social and economic development is working. Our SEAT process discussed earlier will be the mechanism to assess these investments.

## **MINE CLOSURE**

Following the SEAT report, one of the big issues of concern to the local community is that of mine closure. As a key employer in the locality, we too are concerned about what will happen, when it is no longer viable to run a successful business in this location. We fully acknowledge that there is anxiousness amongst our neighbours and the local communities to be more informed, in advance, about the consequences of the inevitable closure of the mine.

Anglo American provides all its sites with the processes that it needs to plan for mine or facility closures – most of the products extracted by the company are from finite resources, and thus we must plan for closure in nearly all our operations worldwide. Our policy is that these issues should begin to be addressed many years before closing is anticipated. We know that key issues must be addressed relating to closure including:

- » What will happen to Lisheen employees who lose their jobs through closure?
- » What will happen to Lisheen local business partners?
- » What will be the impacts on neighbouring communities?
- » Who should Lisheen work with to plan for the future?
- » Can other employment opportunities be encouraged?

We have already begun work on a 'mine closure programme', though it is expected that the mine will be fully operational until 2014. This programme will fulfill all the requirements of the AA plc recommendations. We have had interactions, in relation to closure, with: (a) the planning authorities (Bog Zone planning, a condition of this being that the public were invited to raise objections), and (b) the Mine's Environmental Monitoring Committee represented by members from the Southern Regional Fisheries Board, the Dept. of Communications, Marine and Natural Resources, the EPA and the North Tipperary County Council. We have also commenced with interactions with experts and advisors in this regard.

We will communicate information about this important issue, in the near future, to our local communities, through the usual forums and media.



Society is dependent upon natural resources and ecological systems, which form the basis of life. Our business is based on the extraction and processing of such resources, and thus our business depends on our natural environment.

'Good Citizenship: Our Business Principles' recognises the need to eliminate or minimise the impacts of our operations on the environment. Accordingly, we insist on the adoption of 'best practices' wherever we operate. Our independently accredited environmental management system contributes to environmental improvements by:
(a) identifying the aspects of company activities that could affect the environment,
(b) evaluating these impacts and (c) putting in place control measures to reduce or remove these impacts.

From the start of our operation, we have been keenly aware of the delicate balance of the surrounding environment, and have taken it into consideration in our facility design and procedures. Substantial resources have been committed to environmental monitoring and management over the life of the mine, to-date. The Lisheen Mine is designed and operates to the highest international environmental standards.

As mentioned previously, we are the first mine in Ireland to obtain an IPC Licence, regulated by the EPA 1997. The licence aims to eliminate or minimise the risk to the environment posed by potential pollutants, and covers air, water, waste, noise and vibration.

#### From EPA Website

A system of Integrated Pollution Prevention and Control (IPC) licensing came into effect in Ireland on 12 July 2004. The primary aims of IPC licensing are to prevent or reduce emissions to air, water and land, to reduce waste and to use energy efficiently. The IPC system (replacing the IPC system) is the licensing regime applicable to certain industrial activities in Ireland. Since 2002, any person or company involved in certain large-scale or complex industrial processes with significant polluting potential were required to have an IPC licence. Since the commencement of IPC Licensing in 1994, the EPA had processed 675 applications and granted 624 IPC Licences by July 2004.

We have four full-time employees carrying out environmental monitoring, all of them highly qualified environmental scientists. There is also a Safety, Health and Environment (SHE) co-ordinator, who reports to the Risk Manager, supervising the activities of the environmental scientists. We have also recently recruited a PhD water specialist to assist in improving environmental performance.

Each month, some 60,000 environmental quality readings are taken at various points on the site. Air and water quality are measured, as well as noise and vibration levels in the vicinity of the mining operation. The quality and ecological<sup>17</sup> status of surface water<sup>18</sup> and groundwater<sup>19</sup>, soil and vegetation is also regularly monitored. These readings are stored in our purpose-built Environmental Centre, where they can be scrutinised by any member of the public. The Environmental Centre also houses a 'state-of-the-art' laboratory where samples of water, air and soil are tested using the latest analytical equipment. The environmental data collected at the mine site is regularly submitted to the EPA and is available for public inspection at EPA Headquarters, as well as on-site.

#### AIR QUALITY AND AIR EMISSIONS

The local community has informed us, through the socio-economic assessment (SEAT) toolbox, that good air quality is one of the main advantages of living in the Lisheen area, and that air pollution would adversely affect the local community, employees and livestock in the area.

Our environmental management systems, along with the requirements of our IPC Licence require that we undertake a rigorous air quality monitoring programme, in relation to: particulates (dusts), hydrogen sulphide, sulphur dioxide, nitrogen dioxide, carbon dioxide, lead, zinc, arsenic and cadmium. We are pleased to report, that for 2004 and 2005, as a result of the control mechanisms in place, there has been 100% in compliance with our IPC Licence Limits in relation to air quality.

#### **GREENHOUSE GASES & CLIMATE CHANGE**

Climate change is a concern for us all, and as a large user of energy, we feel that we have a particular responsibility to reduce our use of energy, which includes energy generated on site, as well as energy drawn from the electricity grid.

In 2004 and 2005, from generating energy on site we emitted the following levels of 'greenhouse gases' to atmosphere, all of which were in compliance with our IPC Licence requirements.

- 17 'Ecological' means anything related to natural plant or animal life.
- 18 'Surface Water' refers to natural water in lakes, rivers, streams and drains that might be affected by the mine.
- 19 'Groundwater' refers to the water table, usually occurring close to ground surface, but also including deeper water tables in the bedrock under ground and soils.

#### **ENERGY USAGE**

The energy usage figures for 2004 and 2005 are tabulated below.

Energy Consumption	Unit	2004	2005
Light Fuel Oil	M3/yr	1,120	1,319
Natural Gas	M3/yr	83	80
Electricity	MWhr/yr	119,589	124,652

In relation to further reducing our greenhouse gas emissions, we are currently in negotiations to develop 'clean' energy on our site, through the installation of wind-turbines. These negotiations are at an early stage, but we will report regularly on progress in the usual media and forums.



Backfill binder used at Lisheen Mine is specially treated to reduce Greenhouse gas emissions.

#### WATER USE AND WATER IMPACTS

We make every effort to minimise new water use, and any impacts associated with effluents, as we are well aware that water is an important resource locally. Water remains a significant resource, in terms of use and water management plans have been developed by each department to establish targets to optimise water management and to ensure adequate monitoring of this most important resource.

We undertake very regular monitoring of surface water at three locations, for reporting to the EPA: (1) An internal monitoring point from the discharge of the water treatment plant, (2) the Drish River, and (3) the Rossestown River. The water quality is monitored for a number of parameters including: (a) zinc, (b) lead, (c) ammonia, (d) sulphate, (e) BOD<sup>20</sup>, (f) COD<sup>21</sup>, (g) suspended solids and (h) dissolved oxygen.

There have been some non-compliances in 2005 in relation to water quality, but they are dominated in relation to two issues namely: (1) Dissolved Oxygen in the Rossestown River, and (2) the impact of Ammonia from the Tailings Management Facility.

## Dissolved Oxygen (DO) in Rossestown River

The level of dissolved oxygen in the discharge to the Rossestown river is low. The mine has installed a weir at the discharge which has resulted in increase levels of DO and will continue with further trials to improve these levels

#### Ammonia at the Internal Monitoring Point

The predominant source of ammonia is natural groundwater entering the mine. We are in compliance for ammonia levels in the discharges to both rivers. The issue relates to the ammonia levels at an internal monitoring point. Investigations were conducted by consultants on behalf of Lisheen and showed that due to low concentrations of ammonia in the relatively high volume of water, the treatment options are very limited. We are in communication with the EPA in relation to this matter.

We are pleased to report that our water use has now been cut so significantly that it is not necessary to use the public water supply, at all, in our industrial processes. Our main development is in the reuse and recycling of process water.

Furthermore, a water crew was re-established by the mine in October 2005 to implement the actions set out in recently developed water management plans.

## **NOISE AND VIBRATION**

We monitor environmental noise as part of our IPC obligations - this is undertaken regularly at three off-site noise sensitive locations. We are pleased to report that there have been no non-compliances recorded in relation to the strict limits imposed by the EPA in 2005.

We also monitor vibration during all our blasting events, as recorded in the table below. As you can see, there have been a very small number of non-compliances with our strict IPC licence limits; we have been in compliance well over 99% of the time. Of our 15 non-compliances, 12 happened during daytime – though we are pleased at our level of success in this regard, we will aim to reduce this as much as is possible.

We carried out a study on the effects of our vibration in 2005, and the results of this study are available in our Environmental Centre and in our EPA file.

20 BOD is Biological Oxygen Demand.

21 COD is Chemical Oxygen Demand.

Approx. No. of blasting events	3600
No. of readings above the trigger level of 0.6mm/s	480
No. of licence exceedences	15
Percentage of compliance	99.58

#### **WASTE MANAGEMENT**

A dedicated Waste Officer is responsible for the management of waste. This includes correct segregation into different waste streams and final disposal or recycling.

All waste that leaves site whether hazardous or non-hazardous is transported and disposed of by fully approved licensed contractors in accordance with the IPC licence.

For the purposes of simplifying the waste management process new tenders were sought for both hazardous and non-hazardous waste. This process saw the amount of contractors reduced to two main contractors, one for non-hazardous waste and one for hazardous waste. The new arrangements with the hazardous contractor have provided for the more regular shipment of waste from site thus avoiding any possible build up of materials. The arrangements for dealing with commercial mixed waste have also been changed from the previous open skip method to a closed compactor which has significantly reduced the instances of wind blown refuse on site.

Our most significant waste stream is mine tailings (non-economical rock mined). Tailings are deposited in the Tailings Management Facility which is a fully licensed disposal site which is regulated under strict conditions of our IPC license.

In 2005, 448,326 tonnes of tailings were disposed of in the TMF. This is a 62.5% reduction on the 2004 figure due to the new Backfill Plant. Backfilling is a method of combining processed tailings with cement and pumping this underground to fill the mined out voids to permit secondary mining to take place. It is a licensed condition that the mine must recycle approximately 51% of its tailings as backfill in the underground voids.

#### **BIODIVERSITY**

Anglo American recognises that ecosystems support all life in a variety of ways; this is reflected in our Policy and Specific Guidelines, in which we commit to the sustainable use of natural resources and to comply with the Convention on Biological Diversity<sup>22</sup>.

We are similarly committed to promoting biodiversity in our area of operations, as reflected in the examples below.

## **CASE STUDIES 10-12**

## Derryville Island

Overburden material (mainly soils) was removed from 120 acres of the Derryville Island and was used in raising the Tailings Management Facility impoundment walls. Derryville Island was subsequently rehabilitated into areas of grassland and small wetlands, and has since become inhabited with local flora and fauna. Works of this kind were also carried out in the Carrighill Borrow area. This area was also fully reinstated and is now rich in biodiversity, similar to Derryville Island.

#### Killoran House

An area of 57 acres was planted with hardwoods adjacent to this part of our property.

#### Adjoining Peatlands

Most of the Lisheen Mine property adjoins commercially harvested peatlands (Bord na Móna). Lands marginal to this area are partially afforested with predominantly indigenous species of trees and shrubs. These have largely been preserved where possible. These areas are the principal habitat for pheasant, hares, rabbits and other native birdlife.

#### **MINE CLOSURE**

The main physical environmental issue related to mine closure is the long term management of our Tailings Management Facility and its potential environmental impact on groundwater. A comprehensive 'Mine Closure Plan' (relating solely to the environmental impacts of closure) was a requirement of our IPC Licence. A copy of this plan is available for scrutiny is in place at our Environmental Centre or in our EPA File. The 'Mine Closure Plan' in question addresses the issues of rehabilitation, aftercare of the mine and the Tailings Management Facility, and requires extensive monitoring of the pond, even after closure. It is expected that the pond could eventually become a local wildlife habitat. Prior to confirmation of the IPC Licence, and a legal requirement of our permission to operate, we put in place a financial bond to allow for the rehabilitation of the mine and the Tailings Management Facility following our closure.

## PRESERVATION OF LOCAL HERITAGE

During the environmental baseline study and the subsequent mine construction phase, various archaeological features were recorded near the proposed Tailings Management Facility. Following consultation with the Department of Arts, Culture and the Gaeltacht's heritage services, it was decided that a significant amount of mitigation

22 Signed by 150 government leaders at the 1992 Rio Earth Summit, the Convention on Biological Diversity is dedicated to promoting sustainable development. Conceived as a practical tool for translating the principles of Agenda 21 into reality, the Convention recognizes that biological diversity is about more than plants, animals and micro organisms and their ecosystems - it is about people and our need for food security, medicines, fresh air and water, shelter, and a clean and healthy environment in which to live.

work was required to record and preserve these features. A team of 25 archaeologists, including specialists in peat morphology, palynology, archaeology and paleo-environmental disciplines, conducted on-site research into the development of the raised bog system during the early prehistoric period. Their research involved recording the range, variety and date of archaeological activity that took place on the site during a period of time centred on the Bronze and Iron Ages i.e. approximately 1700 BC to 600 AD.



Aerial photograph of the Tailings Management Facility (TMF) on the Derryville Bog.

During construction, archaeologists were present at all site clearance and stripping operations. Any items of archaeological significance that were found were extensively studied and preserved. The completed archaeological study was submitted to the Department of Arts, Culture ant the Gaeltacht and is now held on record in the National Museum.



## **RECOGNITION AND AWARDS**

During the period 2002-2005 we have received, among others, the following recognition and awards:

## Related to management system performance/improvements

Organisation/InstitutionScope and PeriodRecognition/AwardFÁS/NDPNational, 2002-2005Excellence Through<br/>People Award

## Related to economic performance and quality

Institute Europe

Organisation/InstitutionScope and PeriodRecognition/AwardGreat Place To WorkNational, 2003Best Companies To

Work For Award (Placed in the top 50 companies to work for in Ireland)

## Related to performance in Safety, Health and Environment

Organisation/Institution Scope and Period Recognition/Award Anglo Base Metals International, 2003 Award Anglo Base Metals for Excellence in Safety (most improved Lost Time Injury Frequency Rate) National, 2001-2002 Health & Safety Authority Good Neighbour Award Det Norske Veritas International, 2005 International Safety Rating Standard Level 8 National Standards Authority of Ireland National/International, 2005 ISO 14001 OHSAS 18001 National Standards Authority of Ireland National/International, 2005

## **OBJECTIVES AND TARGETS FOR 2006**

Safety

Certification Maintain OHSAS 18001 certification

**Fatalities** ZERO fatalities

**Lost Time Injuries** Reduce to ZER0

**Behavioural Safety** Investigate a Behavioural Safety Process and

implement identified action plans

Integrated SHE (Safety, Health &

Environment) Systems

Implementation of an integrated operational

level SHE system

Health

**Certification** Maintain OHSAS 18001 certification

Occupational Management System Develop and implement an OH programme

managed at departmental level with support from

the SHE department

SHE Statistics Develop and implement an OH statistical recording

and analysis programme

Environment

**Certification** Maintain ISO 14001 certification

Use of Natural Resources Implement water management program

Climate Change Review feasibility study on the benefits of wind energy

as an alternative energy source with a view to

progression of the project

Mine Closure Implement mine closure program

# **APPENDIX 1: SEAT Report – Consulted Parties**

Stakeholder Category	Reason for Consulting (AFFECTED PARTIES)	Represented by
Neighbouring Communities	Directly affected by operations of The Lisheen Mine because of their close proximity	Neighbouring households and businesses
Stakeholder Category	Reason for Consulting (INTERESTED PARTIES)	Represented by
Community Based Organisations	Partnership-support community based organisations	Moyne Group Water Scheme Rotary Club Moyne History Club Thurles Marketing Group Moyne National School Templetuohy National School
Local Businesses & Associations	Businesses in close proximity and representatives of businesses that provide a product or service to the mine	Cooleeney Cheese Thurles Chamber of Commerce John Gleeson Auctioneers
Stakeholder Category	Reason for Consulting (AUTHORITIES)	Represented by
National/Regional Level	Responsible for policy & legislative changes/ Non-government organisations	Dept. of Communications Marine & Natural Resources National Parks and Wildlife Service Environmental Protection Agency Southern Regional Fisheries Board Health & Safety Authority Tipperary North County Council Fáilte Ireland Teagasc Bord Na Móna Coillte Teoranta Irish Peatland Conservation Council Shannon Development Geological Survey of Ireland Port of Cork Company

## **Contact Details**

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## **Feedback**

We would sincerely welcome any feedback on this report from our readers, be they positive or negative comments. To demonstrate our commitment in this regard, we pledge to donate a sum of €10 for every written feedback we receive in relation to this report to the North Tipperary Hospice Movement.

## **Acknowledgements**

This report has been prepared by The Lisheen Mine, with the assistance of Patel Tonra Ltd (www.pateltonra.com) and Obsessive Convulsive Design (OCD) (info@obsessiveconvulsive.com).

We wish to thank all employees and participants for their contributions.