

MINERA ALUMBRERA

Sustainability
Report 2015



MINERA ALUMBRERA
YMAD - UTE

A GLENORE MANAGED COMPANY

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From the very beginning, Minera Alumbrera has adopted a business approach aimed at sustainable development with a view to foster social and economic development while at the same time protecting the environment.

As one of the first large-scale miners in Argentina over the past 18 years of mining operations, we have learnt, improved and enhanced our practices, processes and programmes as well as our relationship with stakeholders in line with the continuous improvement cycle that ends with the publication of this Sustainability Report.

This report has been prepared in line with the Core In Accordance Option under the Global Reporting Initiative (GRI) G4 Guidelines, the world's most widely used sustainability reporting framework.

Minera Alumbrera has been supporting the United Nations Global Compact (GC) since 2004. This voluntary initiative is based on 10 universal principles that foster organisational responsibility. With this report, we submit our Communication on Progress, reporting on our endorsement to the GC's Ten Labour, Human Rights, Environment and Anti-Corruption Principles, including our progress during the reporting period, in line with the advanced level guidelines.

Background

During 2015, the global mining industry has been adversely affected by a number of unfavourable macro-economic events in China, the dropping oil prices and the revaluation of the US dollar, as a result of the new market approach aimed at cash preservation.

As to the dropping commodity prices, capital expenditure by major miners has slowed down. At the local level, this scenario led us to redesign our business plan to ensure positive results into the future and ongoing production in line with the expectations.

The professionalism of our people allowed us to face the downturn while at the same time ensure ongoing production through cost-savings and production efficiency management strategies, in spite of the growing concern over the declining prices.

Although Bajo de la Alumbrera is in the final stage of the project life, this economic scenario adversely affects the operations and brings about changes to our forecasts, which are continuously updated.

We have been preparing for mine closure from project inception, including foreseeable technical, monitoring and environmental programmes in addition to the social aspects that entail significant challenges for Minera Alumbrera. To this end, strong efforts have been made to develop a social programme for our key stakeholders, namely: our people, local communities and our suppliers. We are aware that we have a major challenge ahead –i.e. to be the first large-scale mine to be closed down - and we are gearing up for the test.

Throughput

Bajo El Durazno (BED) mining operations started during 2015 with very good results. BED is situated 4 km away from Bajo de la Alumbrera. BED ores have been integrated into Alumbrera's production process to ensure additional reserves during a period in which Alumbrera was unable to feed the plant due to operational restrictions to ore access.

The challenge of combined operations has been successfully attained and resulted in high performance levels. The production of 61,800 tons of fine copper was completed in line with the budget, though with average ore grades lower than expected, but with very good flotation recoveries at the concentrator facility.

The processing of very low grade stock material was a milestone since recoveries were above standard. It should be noted that BED development entailed our own engineering programmes in compliance with the highest environmental and process benchmark standards in the world.

A word from our General Manager

Safety, Environment and Community Management

During 2015, we achieved our “zero-fatality” goal although some safety challenges remain ahead since four lost-time incidents have been recorded. This meant that the goals set for 2015 in terms of other recordable rates have not been attained. As a result, a number of communication, safe work, employee training, behavioural-based safety programmes have been implemented to ensure awareness and to provide additional tools. We are fully confident that the initiatives put in place will improve our performance in the short term.

DURING 2015 THE GOALS SET IN TERMS OF WATER, POWER AND FUEL REQUIREMENTS HAVE BEEN ATTAINED. LARGE AMOUNTS HAVE BEEN SPENT TO IMPROVE OUR PROCESS WATER RECYCLING SYSTEM AND THUS ENSURE ADDITIONAL WATER FOR REUTILISATION.

The air, water, soil, biodiversity and archaeological monitoring programmes scheduled for the reporting period have been undertaken. The quality of our sampling processes has been certified under the ISO 9001 Standard. No anomalies have been identified as a result of the monitoring programme jointly undertaken with the competent regulators.

The ongoing Environmental Management certification under the ISO 14001 Standard enables us to maintain outstanding environmental performance throughout the operations, at all three jurisdictions involved in the process.


The major infrastructure works developed by Alumbreira had a significant impact on neighbouring communities. The Andalgá and the Aconquija hospitals, the Santa María sports centre and the refurbishment of the maternity ward at Belén Hospital have been fully commissioned. These facilities are now available to and serve around 100,000 local people.

Future outlook

Two significant steps have been taken during 2015 by the global community: one is the launching of the United Nations Sustainable Development Goals which set the foundation for environmentally sustainable, socially inclusive, fair economic development, and number two is the Climate Change Summit in Paris where world leaders agreed to achieve sustainable development and growth through low carbon technologies. These initiatives will bring significant changes affecting businesses. As part of the Glencore Group, we are committed to take an active role in such development process, by pursuing and reinforcing our efforts through a sustainable and inclusive approach.

We are aware that economic and financial challenges will continue to have an impact on the mining industry. However, we remain strongly committed to the goals set in terms of health, safety, environment, human rights and community development in line with the cost savings programme required for this stage.

Our strong management approach is based on capitalising the lessons learnt in the past years, which will help us face the challenge of operational closure through joint work with local communities and the government.



Raúl Mentz
Minera Alumbreira General Manager

► Minera Alumbra

We are committed to fostering a sustainable management of our business as part of our responsible mining approach.

We aim at strengthening local social development and economic growth with permanent results that go beyond the life of the mine.

Operator conducting monitoring activities in the flotation room at the Concentrator Plant.

Key sustainability data for 2015

ECONOMIC CONTRIBUTION	2013	2014	2015
Division revenue	\$ 616,892,881	\$ 882,246,600	\$ 506,400,346
Division EBIT	\$ 143,735,837	\$ 145,923,689	\$ -344,319,616
Employee salaries and benefits	\$ - 38,382,102	\$ 45,692,242	\$ 57,343,406
Royalties and taxes	\$ 209,889,753	\$ 315,609,888	\$ 166,015,217
Corporate Social Involvement	*\$ 4,064,870	\$ 3,364,830	\$ 2,447,099
Apprenticeships, scholarships and training	\$ 284,788	\$ 502,920	\$ 288,846

CORPORATE GOVERNANCE AND ETHICS	2013	2014	2015
Total value of financial and in-kind contributions to political parties	0	0	0
Percentage of security personnel trained in human rights	100%	100%	100%
Percentage of suppliers and contractors screened on human rights	0	0	0

OUR PEOPLE	2013	2014	2015
Total workforce	2,488	2,385	1,953
Permanent employees	1,440	1,396	1,252
Full-time contractors	1,048	989	701
Total employees under collective agreements	952	969	875
Percentage of employees hired from local area	47.6%	50%	52.53%
Fatalities	0	0	0
Total Recordable Injury Frequency Rate (TRIFR)	0.66	1.06	1.69
Lost Time Injury Frequency Rate (LTIFR)	0.16	0	0.75
Disabling Injury Severity Rate (DISR)	13.45	0	67.65
Health and safety prosecutions	0	0	0
Health and safety fines	0	0	0
Occupational illnesses	0	0	0
Average hours of training per employee	232 hours	131 hours	60 hours

OUR COMMUNITY	2013	2014	2015
Community complaints	2	0	0
Community resettlement	0	0	0

ENVIRONMENT	2013	2014	2015
Direct energy use	865,822,900 kWh	846,673,421 kWh	852,427,903 kWh
Total energy use	898,017,854 kWh	852,235,000 kWh	855,631,393 kWh
Total water use	24,506,878 m ³	23,451,000 m ³	22,588,089 m ³
Total water recycling and reutilisation	64,562,000 m ³	62,324,000 m ³	59,040,298 m ³
Direct greenhouse gas emissions (CO ₂ equivalent per million tonnes moved)	1.78	1.71	1.92
Total greenhouse gas emissions (CO ₂ equivalent per million tonnes)	-	-	Not reported
Sulphur dioxide stack emissions	-	-	Not reported
Land disturbed	63.52 ha	65.82 ha	65.59 ha
Land rehabilitated	0 ha	2.72 ha	6.42 ha
Category 3 incidents	0	0	0
Category 4 incidents	0	0	0
Category 5 incidents	0	0	0
Prosecutions	0	0	0
Fines	0	0	0

About Minera Alumbraera

BAJO DE LA ALUMBRERA IS A COPPER, GOLD AND MOLYBDENUM SURFACE MINE SITUATED IN NORTHWESTERN CATAMARCA, ARGENTINA AT AN ALTITUDE OF 2,600 METRES ABOVE SEA LEVEL. MINERA ALUMBRERA HAS BEEN OPERATING THE BAJO DE LA ALUMBRERA MINING PROJECT SINCE 1997.

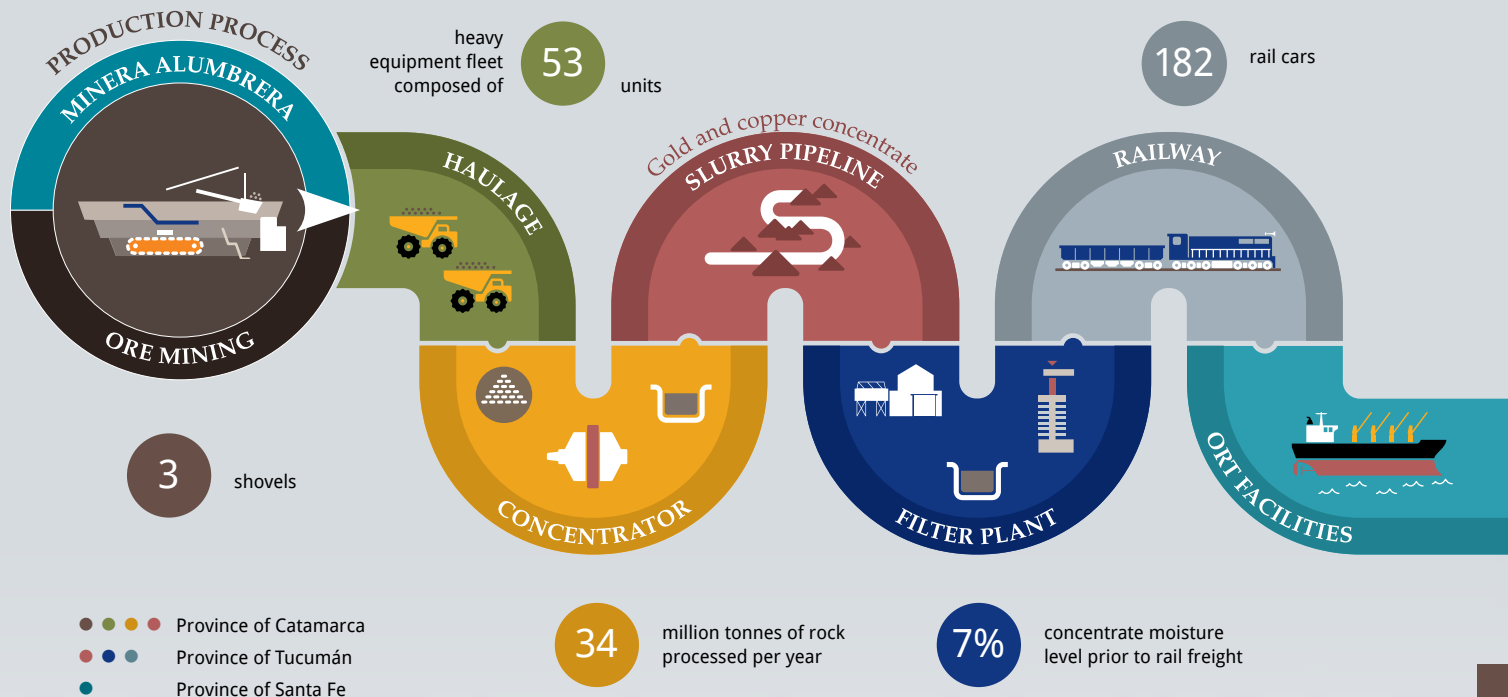


MINERA ALUMBRERA

Ores mined	copper, gold and molybdenum
Location	<ul style="list-style-type: none"> - Open pit: Province of Catamarca, Argentina - Filter plant: Cruz del Norte, Province of Tucumán - Alumbraera Port: Puerto General San Martín, Province of Santa Fe
Manpower	1,953 direct and indirect employees
Shareholders	<ul style="list-style-type: none"> - GLENCORE PLC, having a: 50% interest and project operator - GOLDCORP, having a: 37,5% share - YAMANA, having a: 12,5% share
Sponsor	<ul style="list-style-type: none"> - Yacimientos Mineros de Aguas de Dionisio (YMAD), an interstate corporation that owns the deposit. - Ownership: 60% provincial administration of Catamarca and 40% National University of Tucumán - YMAD has entered into an unincorporated joint venture with Minera Alumbraera to mine the deposit - Entitled to 20% share in Minera Alumbraera profits before tax.

PERFORMANCE INDICATORS FOR 2015

Throughput
246,923 tonnes of copper and gold concentrate
21,219 troy ounces of dore gold
1,730 tonnes of molybdenum
Exports: \$501 million
Employees: 1,252 workers
Royalties: \$8.7 million
Salaries: \$57.3 million
Fiscal revenues: \$110.8 million
Fiscal revenues at the provincial level: \$13.8 million
Total contribution to the Argentine economy: \$452.1 million



Ore is mined from the open pit using four electric shovels and is hauled to the Concentrator Plant using a fleet of 53 220-tonne haul trucks. The concentrate slurry containing copper, gold and silver is pumped using water through a 317 km long and 175 mm diameter slurry pipeline across the Nevados del Aconquija mountains up to the Filter Plant in Tucumán.

Electricity is supplied from El Bracho power station situated in Tucumán using a 220 kW, 200 km long powerline to the mine site in Catamarca.

At the Filter Plant, concentrate is dewatered to obtain a drier product having 7% moisture level.

Then, it is railed through Nuevo Central Argentino railway using Minera Alumbra trains to our port facilities in Puerto General San Martín, Santa Fe. Concentrate is then shipped to international markets.

Minera Alumbra's molybdenum facility was commissioned in 2008 and such product is trucked and exported to Chile.

Gold is recovered both in concentrate and as dore gold using physical gravitational methods. Then, it is refined in international facilities to obtain a final product. Due to the geology of the deposit, ore is segregated from waste rock through a

gravitational process in centrifugal pumps, by introducing air as small bubbles, alcohol and frothers. Ores gather on the surface of the air bubbles due to its lower specific gravity and then overflow into large vessels.

No cyanide, mercury, chromium, arsenic or lead is used for or involved in ore processing at Minera Alumbra operations. Our concentrates are sought in international markets for their chemistry free from the above substances. Although cyanide is not used in Minera Alumbra process, it may be used in an environmentally-responsible way, as in other industries (i.e. pharmaceutical, plastics, chemical) safely for human health.

About Glencore

Glencore is a leading integrated raw material producer and trader worldwide. It trades in and distributes physical commodities sourced from third party producers as well as its own production. It also provides financing, processing, storage, logistics and other services to commodity producers and consumers.

Glencore is a major producer and marketer of more than 90 commodities. Glencore operations comprise around 150 mining, metallurgical, oil and agricultural assets, supported by a global network of more than 90 offices situated in over 50 countries. Glencore employs around 160,000 people including contractors.



METALS AND MINERALS

These businesses include copper, zinc and lead, nickel, ferroalloys, alumina & aluminium and iron ore production and marketing. We have interests in both controlled and non-controlled industrial assets that include mining, smelting, refining and warehousing operations.



ENERGY PRODUCTS

These businesses cover industrial and marketing activities for coal and oil, including controlled and non-controlled coal mining and oil production operations, and investments in strategic handling, storage and freight equipment and facilities.



AGRICULTURAL PRODUCTS:

This business is focused on grain, edible oils, oilseeds, cotton and sugar. It is supported by both controlled and non-controlled storage, handling and processing facilities in strategic locations.

Uses of copper

Having a hot shower, driving a vehicle, chatting over your mobile phone, using your computer or a hair dryer, turning on your hi-fi, cooking on your electric cooker are some day-to-day activities that would not have been carried out, unless copper had been discovered.

The copper that we produce is vital to our modern society and is used extensively in energy generation and distribution, building products and electronic equipment. With its growing use in green technologies, anti-microbial applications and its ability to be recycled, copper is playing an important role in ensuring future sustainability.

This semi-precious bright red metal is usually found in powerlines and connectors, wires, chips, pipes, engines and electrical equipment, smart phones, TV sets, musical instruments, keys, locks, knobs and hand rails.

Anti-microbial properties

From the early Roman Empire, copper utensils have been used to store water and also in cookware, given its capacity to prevent the propagation of illnesses. Later, scientists began to understand how copper's antimicrobial properties could be harnessed to provide additional benefits.

In 2008 the United States Environmental Protection Agency registered more than 270 different copper alloys thus recognizing the antimicrobial effectiveness of copper touch surfaces for protecting public health. The following conclusions have been drawn:

- Copper alloy touch surfaces reduce microbial propagation due to its inherent ability to kill 99.9% of bacteria within two hours.
- Copper helps reduce hospital-acquired infections by 58% at intensive care units.

Essential for life

Copper is essential for the growth and development of our bones, tissues, brain, heart and other organs of our body. It is involved in the development of the red cells in blood, in the absorption of iron and zinc, the enzyme and protein synthesis and release in human beings.

Agricultural applications

Copper also inhibits fungi that affect vegetable growth (mostly seeds, fruit and wheat). Therefore, many agrochemicals now include various copper-based compounds. Moreover, copper sulphate prevents seed development risks.

Copper-based fungicides are essential throughout the world. Currently, copper formulae are used to kill fungi in crops as well as in the wood, paint and textile industries.



Cu in Food

Cu is found in fish as well as in seafood, meat (such as liver), whole grain, nuts, raisins, legume and chocolate.

Other food containing copper includes cereal, potatoes, peas, red meat, mushrooms, some green vegetables and fruit such as coconut, papaya and apples. Tea, rice and chicken have relatively low Cu content. However, they provide reasonable levels of copper since they are generally eaten in large quantities.

Related developments

Fabric and other materials have been developed using patented technologies using a highly anti-microbial compound: copper oxide. Thus, linen –including sheets, panties and curtains manufactured out of impregnated fabric can reduce the high rate of lethal infections caused by bacteria, fungi and microbes.



Pure Copper

Refined copper is shipped as copper cathodes, rods, sheets or bars.

Through extrusion, drawing, straightening, forging, smelting or atomisation methods, copper rods, bars, tubes, sheets, strips, cast pieces, dust and other shapes are obtained. Copper and alloys are then shipped to manufacturing facilities as raw materials for consumer products.



Environmentally friendly

Copper supports global sustainability:

- It is 100% recyclable. It is estimated that 2/3 out of the 550 million tons of copper mined since 1900 is still in use.
- The copper recycling process requires 85% less resources than the primary processing. This is equivalent to 100 million MWh annual power savings and 40 million tons of CO₂.
- 9 million tons of copper are recycled per year. 35% of the global copper demand is satisfied out of recycled copper.
- Copper improves product efficiency by reducing CO₂ emissions into the atmosphere.



Zn alloys

Copper may be combined with other elements to form alloys such as brass, bronze, copper-nickel and copper-nickel-zinc.



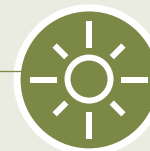
Renewable energies

Since copper is known to conduct electricity, it plays a major role in the renewable energy system.

The outstanding electrical and heat conductivity properties and the negligible environmental impact of copper satisfy clean energy requirements.



The operation of a 2MW wind turbine requires 5 to 12 tons of copper.



Photovoltaic energy results from the transformation of solar light into electricity.



A 2.5 kW residential photovoltaic energy generation facility may require up to 12 kg of copper.



Copper is used in grounding systems, protection equipment, wires, engines, generators, transformers as well as in the electrical and electronic components of clean electricity generating facilities.

Capital expenditure in clean energy sources amounted to \$211 million in 2012.

Main Copper-requiring Sources of Sustainable Energy



WIND POWER SYSTEMS



PHOTOVOLTAIC SYSTEMS



HYDRAULIC POWER SYSTEMS



BIOMASS SYSTEMS

Advantages of sustainable energy for the society

- REDUCES CO₂ EMISSIONS
- NATURALLY RENEWABLE
- REDUCED POLLUTION

Renewable energy such as wind and solar energy help mitigate global warming since it reduces greenhouse gas emissions.

Greenpeace research showed that renewable sources will be able to satisfy 50% of the global power requirements for 2050.

In 2010, these sources accounted for 19.7% of the global power matrix.

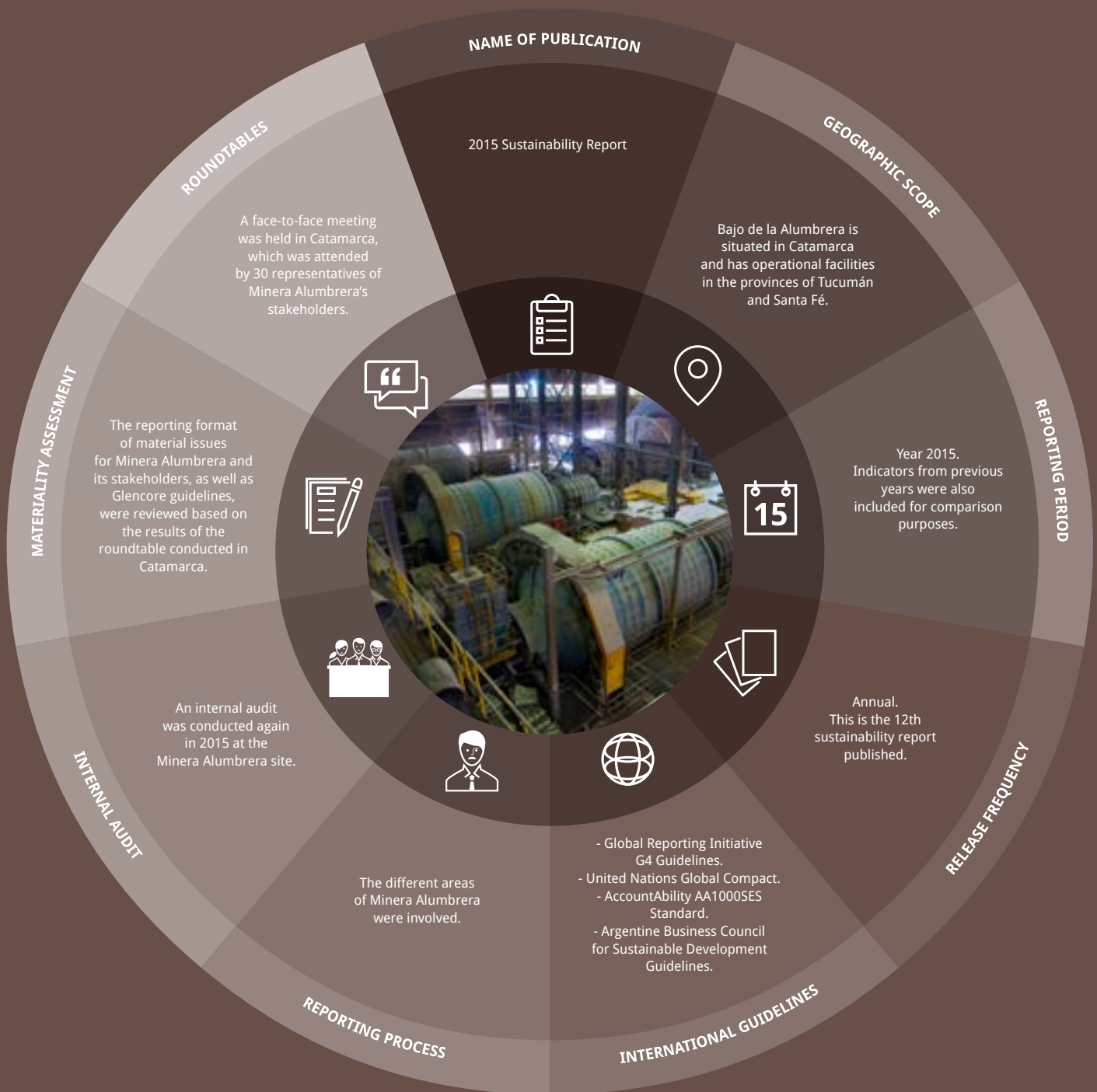
COPPER IS REQUIRED IN ORDER THAT RENEWABLE POWER SYSTEMS GENERATE AND CONVEY ELECTRICITY WITH THE UTMOST EFFICIENCY AND THE LEAST ENVIRONMENTAL IMPACT.

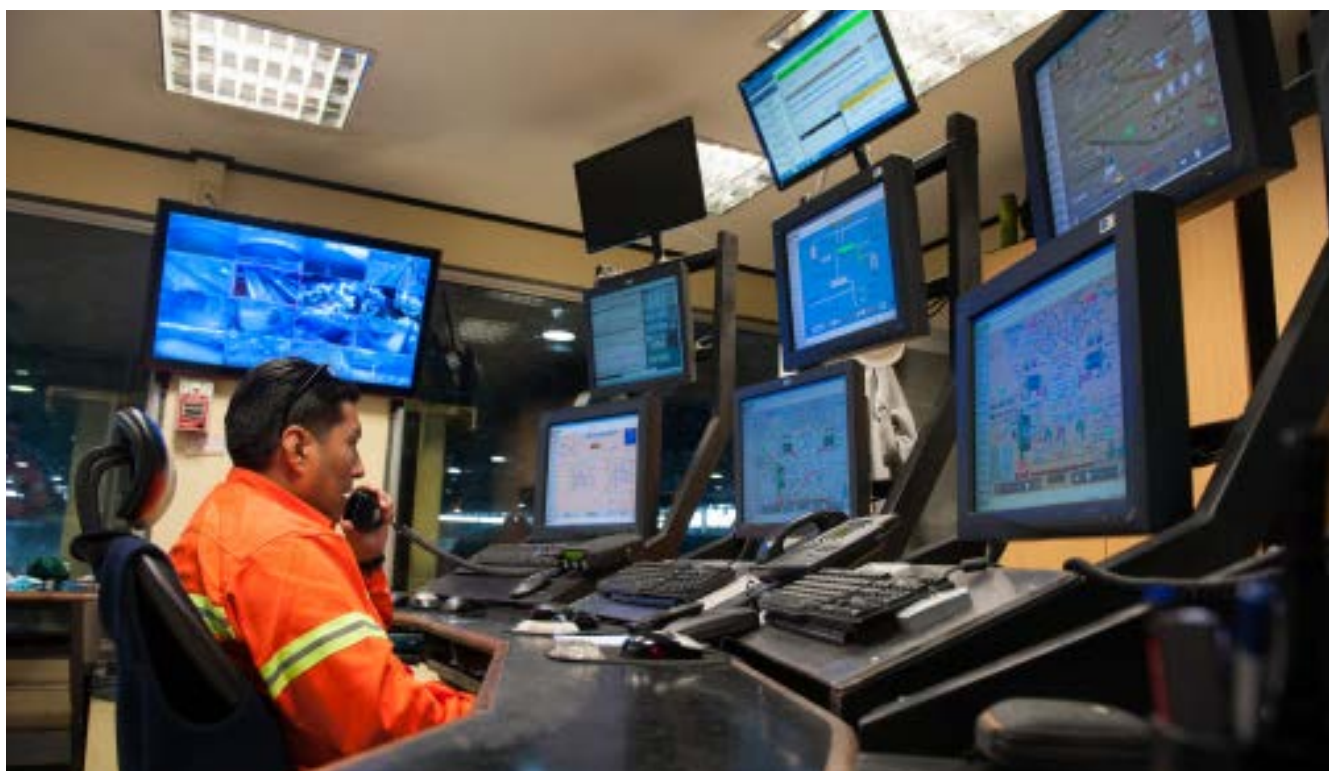
Source: <http://www.antimicrobialcopper.com/es.aspx>
<http://www.procobre.org>

About this report

Scope

This is the 12th Sustainability Report of Minera Alumbrera which features our economic, social and environmental performance programmes and initiatives in Argentina.





Roberto Gaspar of Concentrator Management conducting monitoring activities from the control room.

Through this publication we seek to annually report on the way we operate, while meeting our stakeholders' expectations.

THE INFORMATION REPORTED INCLUDES MINERA ALUMBRERA'S OPERATIONS DURING 2015 AND RESULTS FROM PREVIOUS YEARS FOR COMPARISON PURPOSES.

All monetary values are expressed in Argentine pesos unless otherwise stated.

International standards

This report was prepared in accordance with procedures and measurement models of Glencore plc, our parent company. It is also based on internationally renowned sustainability standards:

- **Global Reporting Initiative (GRI)¹**

Again this report was prepared following the GRI G4 Guidelines applying the core 'in accordance' option and the GRI Mining and Metals Sector Supplement.

- **United Nations Global Compact Principles²**

This report also features the Communication on Progress 2015 (COP), in its advance level, through which we report our compliance with the 10 Principles of the United Nations Global Compact on human rights, labour practices, environment, and corruption prevention.

- **Engagement Standard (AA1000SES)³**

During the stakeholder engagement roundtable, we used the AccountAbility AA1000 Stakeholder Engagement Standard (AA1000SES).

- **Argentine Business Council for Sustainable Development (CEADS)⁴**

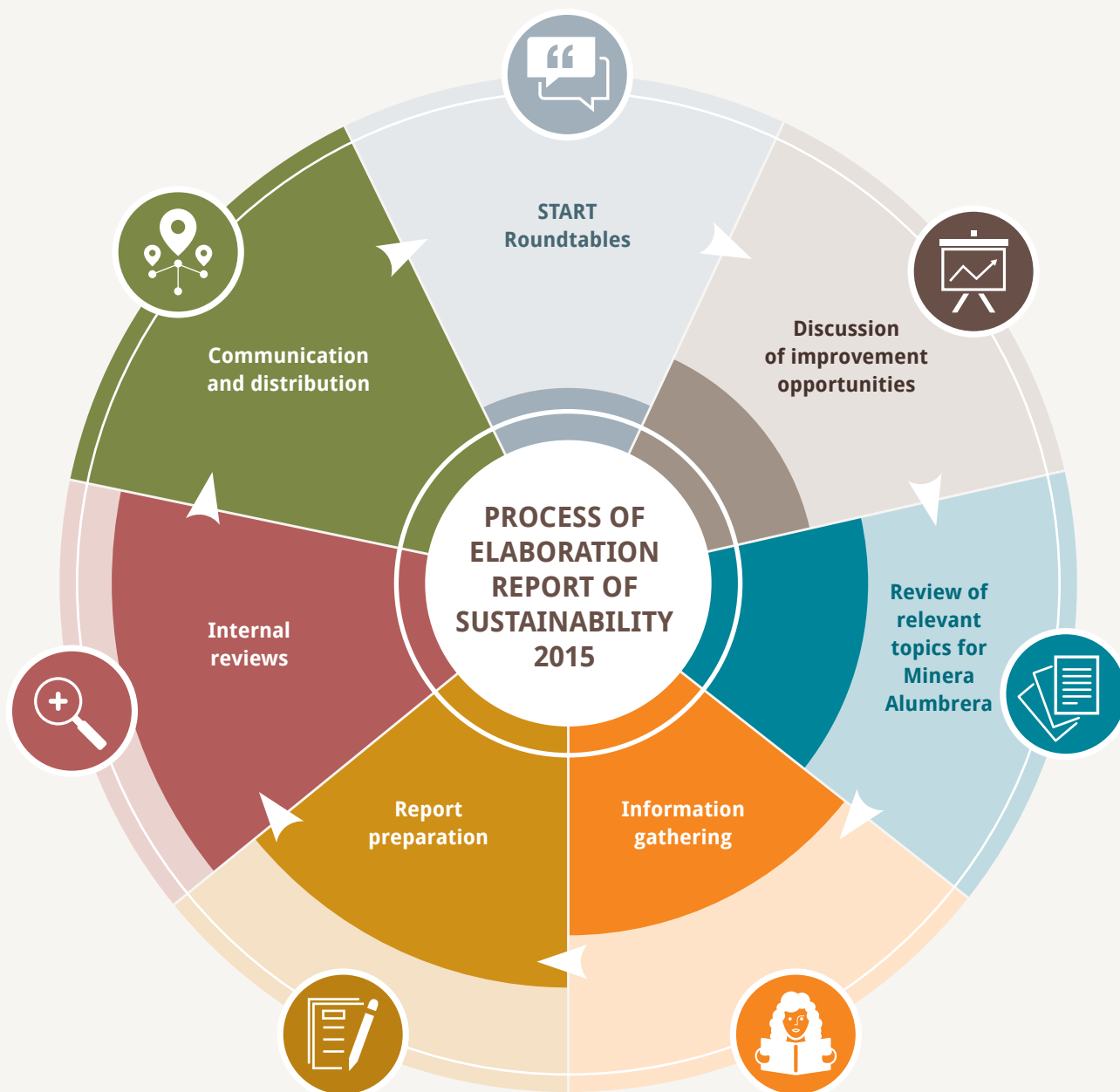
The guidelines recommended by this business association, which fosters economic progress based on environmental protection and social development, were also taken into consideration.

¹ For more information, go to www.globalreporting.org.

² For more information, go to www.unglobalcompact.org.

³ For more information, go to <http://www.accountability.org/standards/index.html>.

⁴ Local branch of the World Business Council for Sustainable Development (WBCSD).



Reporting process

The different areas of Minera Alumbra participated in the reporting process, following the international guidelines and procedures stated above.

In order to facilitate its dissemination to all stakeholders, the report is published in the following formats and languages: 100 printed summaries in Spanish and their translation into English. Both versions are available online at www.alumbra.com.ar. It is also available at the United Nations Global Compact website.

Although the report was not externally verified, Minera Alumbra was internally audited by Deloitte on behalf of Glencore in November 2015. The relevant audit findings include the sustainability integration into Alumbra's day-to-day activities and long-term strategy, biodiversity monitoring initiatives, stakeholder engagement and environmental management, managerial commitment, and implementation of corporate guidelines. Although the data gathering processes were well-regarded for their robustness and reflection of results, the audit showed some opportunities to continue improving the indicator systematisation.

Materiality assessment

In late 2014, a Materiality Assessment⁵ was performed to define the topics that are material to both Minera Alumbra and its stakeholders and thus to identify the most relevant contents to be included in our sustainability reports, based on the principles set out by the GRI G4 Guidelines:

- Stakeholder inclusiveness
- Sustainability context
- Materiality
- Completeness

The goal of this analysis was to review a list of relevant topics defined in previous years in order to continue reflecting key issues that may influence the decisions of our stakeholders while addressing significant impacts caused by our organisation.

The material topics were reviewed and defined based on the process set out by the GRI G4 Guidelines.

PROCESS FOR THE IDENTIFICATION OF MATERIAL TOPICS IN ACCORDANCE WITH THE GRI G4 GUIDELINES



⁵ Discussion of those aspects that reflect the organisation's significant economic, environmental and social impacts; or that substantively influence the assessments and decisions of stakeholders.

In late 2015, the material topic review stage started based on the results of the new roundtable conducted in Catamarca and Glencore sustainability guidelines. As a result, the "Transparency and Anti-Corruption" topics will be presented as part of the Minera Alumbra sustainable development framework. Also two new topics were added and considered to be highly relevant by stakeholders, namely "Economic Contribution" and "Mine Closure." Although these two topics have been reported on, they were included in the specific list of material topics for Minera Alumbra, as shown below.

⁶ For more information on the roundtable conducted in 2015, see the section below.

MATERIAL TOPICS FOR MINERA ALUMBRERA



HUMAN RIGHTS

We respect human rights in our relations with employees, contractors, business partners and local communities.

- No discrimination
- No child labour
- Freedom of association
- No forced labour
- Occupational health and safety
- Grievance mechanisms
- Security actions



OUR PEOPLE

We foster staff development through teamwork, ongoing training, a healthy workplace, growth opportunities and a good work environment.

- Improvements in the selection and recruitment of workforce from neighbouring communities
- Employee training and development
- Encouragement of and respect for workforce diversity
- Analysis of work environment
- Improve staff professionalism and employability
- Labour relations with trade unions



ENVIRONMENT

We aim at minimising impacts of our operations and promoting initiatives to foster global climatic conditions.

- Environmental management system: conservation, monitoring, risk management and remediation
- Water and effluent management
- Improved use of natural resources
- Land use.
- Biodiversity.
- Greenhouse gas emissions and mitigation actions
- Use of materials and their footprint
- Waste management
- People and materials transportation impact management
- Investment in the use and research of future technologies and alternative energies



ECONOMIC CONTRIBUTION

We seek to contribute to the creation of improvement opportunities in our region, through a stream of social and economic benefits generated by mining operations for the communities in our impact area.

- Overall contribution to the Argentine economy
- Economic benefits for Catamarca
- National, provincial and municipal tax revenues.
- YMAD profits.
- Mining royalties and their secondary distribution in Catamarca.



VALUE CHAIN

We seek to bring social and economic benefits to our stakeholders through programmes and actions leading to an increased and sustained involvement of local participants in our value chain.

- Local job creation
- Promotion of local production activities with comparative advantages
- Promotion of local vendors
- Partnership with local authorities to apply revenues derived from mining operations to develop sustainable activities



HEALTH AND SAFETY

We take a precautionary approach to ensure the health and safety of our employees and the community.

- Safety Leadership Development Programme Hazard and Potentially Hazardous Activities (PHA)
- Management
- Training on attitudinal issues
- Occupational illnesses prevention at the workplace
- Learning from high potential incidents
- Training on road safety for employees and local residents



COMMUNITIES

We intend that our social expenditure in the local communities bring benefits to the entire production chain, strengthens social development and economic growth with long-term permanent results.

- Engagement with stakeholders
- Partnership with civil society organisations and the public sector
- Community programme and large infrastructure works
- Development of the local culture, health, education and social aspects
- Creation and assessment of sustainable production projects.
- Site visits.



MINE CLOSURE

We are committed to responsible mine closure based on a plan that contemplates the integration of socio-economic and environmental variables and constructive dialogue with our stakeholders.

- Strategy and plan.
- Communication and engagement.
- Socio-economic aspects.
- Environmental aspects.



Stakeholder representatives sharing their views on the 2014 Sustainability Report in Catamarca.

Roundtable

In 2015 our stakeholders were invited again to participate in a face-to-face roundtable in order to gather their opinions, constructive feedback and expectations regarding the 2014 Sustainability Report to improve future editions.

To this end, the AA1000 Stakeholder Engagement Standard (AA1000SES), the first world-class stakeholder engagement standard developed by AccountAbility, was used to integrate engagement processes into our business strategy and practices.

The meeting was held in Catamarca and was attended by our key stakeholders' representatives, Minera Alumbra leaders and an external facilitator who served as moderator. Through individual and group exercises, participants assessed the 2014 Sustainability Report, pointing out some strengths and identifying improvement opportunities.

2015 ROUNDTABLE TECHNICAL DATA SHEET

• Place and date:	15 th of September in Catamarca
• Number of participants:	30
• Stakeholders represented:	Suppliers, government, universities, community, mining chambers and associations, employees and journalists.
• External facilitator:	ReporteSocial
• Methodology:	Focus group, group activities and individual surveys, AA1000SES Engagement standard.

► 100%

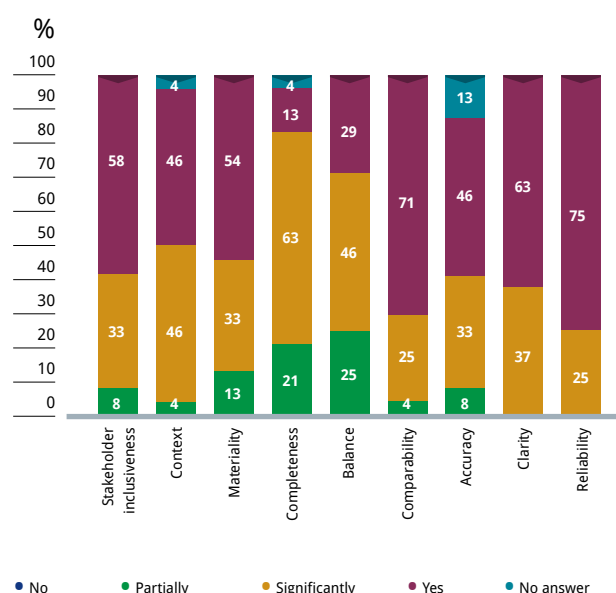
of respondents stated that the report was 'quite' and 'very' helpful to know Minera Alumbra's commitment to **SUSTAINABILITY**.

"THE DATA PROVIDED BY THE REPORT IS RELEVANT, ACCURATE AND HAS GREAT IMPACT ON THE ENVIRONMENT" SAID A **ROUNDTABLE** PARTICIPANT.

First, participants considered whether the Report clearly showed stakeholder inclusiveness, whether the information was presented considering the broadest sustainability context in the industry, whether it showed topics that are material for Minera Alumbra and its stakeholders (materiality) and whether it was complete enough, and they also examined the quality of the information.

While reliability, clarity and comparability of the information were the highest rated criteria, improvement opportunities were identified for balance, completeness and materiality, showing an expectation that we continue working to provide relevant and complete information about topics of interest for key stakeholders.

2014 Report Assessment



Source: Minera Alumbra

STRENGTHS AND WELL-REGARDED ASPECTS OF THE REPORT

► 100%

of participants were satisfied with the Roundtable and expressed their interest in participating again in new meetings in the **future**.

“THE ONGOING EMPLOYEE AND CONTRACTOR TRAINING STANDS OUT AND IS EXPLAINED CLEARLY” SAID A **ROUNDTABLE** PARTICIPANT.

PRESENTATION AND CONTENTS

- A complete and easy-to-read report and instructive charts and tables.
- Relevant, accurate data with great impact on the environment.
- GRI G4 Guidelines use.
- Good writing, clarity, in-depth examination of topics and technical aspects.
- Inclusion of observations made during the previous roundtable.

SUSTAINABLE DEVELOPMENT AND TRANSPARENCY

- Minera Alumbrera manager in the community.
- Face-to-face engagement and perception surveys conducted annually.
- Definition of sustainable development goals and commitments.
- High transparency level, topic discussion and positive cultural change.
- Focus on human rights (right to work and job security).
- Clear presentation of our economic contributions and mining royalty distribution.

Participants valued the roundtable and Minera Alumbrera’s continuous efforts to organise this meeting and willingness to listen to stakeholder feedback. Throughout the meeting, participants pointed out the following positive aspects of the 2014 Sustainability Report and Minera Alumbrera’s management.

HUMAN RESOURCES AND CHAIN VALUE

- Clear information about employee and contractor training and education.
- Increase in Catamarcan workforce hiring.
- Discussion of occupational health and safety.
- “Value Chain” chapter and information about local purchasing and import replacement.

ENVIRONMENT

- Compliance with international standards and development of new proposals for potential scenarios.
- Adherence to global plan and recertification under international standards.
- Wildlife and vegetation study, energy use and water recycling and effluent management.

SUSTAINABLE COMMUNITIES

- Active presence of Alumbrera in inland towns and willingness to meet local education needs.
- Minera Alumbrera’s sustainable development expenditure in hospitals, schools and the community in general.
- Teacher training in Andalgala, Belén and Santa María made available regionally by the funds contributed by Minera Alumbrera.

Expectations and improvement opportunities

“The next report should include a chapter especially devoted to Mine Closure, instead of including this content across different chapters, and should develop the human aspect more in depth”, according to a roundtable participant.

Mine closure was the most relevant topic raised among all participants. Although they valued the mine closure information contained in the report, all stakeholders said that they expected Minera Alumbrera to further examine this topic, explaining in

more detail the plan for the next few years, considering both the environmental and socio-economic aspects, in a chapter especially devoted to mine closure.

The main opportunities and expectations identified during the roundtable are shown below. They were summarised and grouped by topic. The table also includes the response of Minera Alumbrera to stakeholder suggestions, depending on their area of competence, to continue improving the examination of these topics in its reports.

IMPROVEMENT OPPORTUNITIES	RESPONSE BY MINERA ALUMBRERA
Commitment to Sustainable Development Set goals and targets (expenditure in communities, involvement of Catamarcan employees, local purchasing, etc.)	Minera Alumbra includes goals and targets regarding its sustainable development commitment. Based on stakeholder expectations, these goals and targets are reviewed to analyse the inclusion of new variables.
Show control and monitoring activities conducted by regulators.	Control and monitoring activities conducted by regulators are mentioned throughout the report (see "Environment" and "Mine Closure").
Include the results of previous Perception Surveys in a comparative manner to show the evolution of community opinions about mining operations.	The Perception Survey was not conducted in 2015. Therefore, the 2014 Survey results are mentioned in a few chapters of this report, as well as the actions taken by Alumbra to meet community expectations.
Transparency and Anti-Corruption Continue delving deeper into this topic and foster good practices in other institutions, such as schools, municipal organisations, NGOs, and clubs, to contribute to a cultural change in the communities impacted by mining operations.	The "Transparency and Anti-Corruption" chapter explains the compliance and ethical behaviour framework that all Minera Alumbra employees and contractors must follow, while fostering a culture of compliance and ethical behaviour in society.
Include in this report how royalties paid to YMAD are spent and give advice and make arrangements to monitor the use of mining royalties.	We aim to provide transparent information about our revenues and taxes and provincial royalty payments. Although it is not our duty to know and monitor how profits and mining royalties are spent, we promise to communicate the concerns of our stakeholders to the relevant entities.
Human Rights Continue reporting to the community about our Human Rights approach, while helping promote a cultural change.	In the "Human Rights" chapter, we expressed our commitment to respect the dignity, fundamental freedoms and human rights of our employees and contractors, the communities where we live and work, and everyone impacted by our operations.
Continue addressing community requirements.	We respond to requirements and concerns through various channels, including visits to the operational site, our website and presence in social networks, our representative in local communities, roundtables and meetings with stakeholders. For more information, see the "Commitment to Sustainable Development" chapter.
Employment and Value Chain Provide information about the decline in employment levels to be experienced by Minera Alumbra from now on until 2019.	The "Our People" chapter explains how the approaching mine's end of life will impact on employment and the topic is further discussed in the "Mine Closure" chapter.
Include a chart broken down by place of origin of the senior staff (managerial level), focusing on the area close to the mine, and information about the training and career development plan to increase the number of local workforce in senior positions.	The "Our People" chapter includes a chart broken down by place of origin of the senior staff, focusing on the area close to the mine, and the various programmes implemented to foster the employability of our employees.
Inform the main categories of goods and services purchased by Minera Alumbra country-wide and province-wide.	The "Value Chain" chapter outlines the main categories of goods and services purchased domestically and the items purchased from local suppliers from the PLA.
Environment Include further details of monitoring activities conducted with regulators.	The "Environment" chapter provides details of the environmental monitoring activities completed.
Provide information to the communities about our environmental impact and performance in a simpler language, with fewer tables and more images.	The language, data and images of the "Environment" chapter were revised in order to present Minera Alumbra's performance in a manner that is more easily understandable by various audiences.
Train the communities to take part in reforestation projects.	In the "Legacy to the communities" section of the "Environment" chapter, the involvement of local communities in the reforestation project is explained.
Further explain the topic of water since it is unclear how water is used by Minera Alumbra, how water is recycled, and the amount of freshwater used, and provide data of its water footprint.	The data used was reviewed and the calculation of our water footprint is explained in the "Environment" chapter.
Set up a laboratory identical to the University of Tucumán lab, integrating the topics of water and mining, together with the University of Catamarca.	Freshwater is a unique and limited resource, and the area where we conduct our operations is dry. Therefore, we take steps to limit water use as much as possible by reclaiming water used in ore processing, thus replacing freshwater use. Although we have not set up any lab in those universities, and we are not planning to do it at this stage, our water management and use commitment is explained in the "Environment" chapter.
Take advantage of our powerline to help the Hualfin town have a decent electricity supply connection.	Power in Hualfin is supplied via the Belén town. At Minera Alumbra we have multiple channels to listen to the needs of the communities and thus contribute to their sustainable development. However, Hualfin residents have not raised any concern regarding power supply.
Encourage site employees to use water rationally and to replace the use of disposable items.	Waste management is a part of the annual training provided by Minera Alumbra to its employees, contractors and visitors. Waste sorting at the workplace is a part of our daily culture. We have recycling programmes in place which are explained in depth in the "Waste" section of the "Environment" chapter.
Community Strengthen the relationship with higher education institutions to contribute to the educational and cultural development of the communities, finding course of studies at higher education levels that offer job opportunities in the mining industry and empower the local workforce.	In addition to technical skill development, leadership, health, safety and environment training programmes, two higher education courses have been delivered since 2012 to foster employability of our employees after mine closure. They are the Mining Technical Studies and the Food Technical Studies courses. For more information, go to the "Our People" chapter.
Continue with our education initiatives delving deeper in various educational expenditure aspects in the region where Minera Alumbra operates. Those initiatives seek to further develop school management skills, requalify teachers who lacked the opportunity to continue receiving training, promote regular meetings to observe the different levels of progress, and encourage trained teachers to provide training in other regions.	The "Mine Closure" chapter explains in detail the Educational Improvement Plan implemented in Catamarca since 2006.
Promote a sustainable sports project for local young people.	The "Sustainable Communities" chapter explains the work carried out to build a sports centre in Santa María to encourage local young people to play sports.
Communication and Engagement Strengthen our communication with neighbouring communities and expand the scope of our publications and information to reach all our stakeholders, communities and media across the country to improve their dissemination for informative purposes and make mining operations known.	The "Commitment to Sustainable Development" lists the stakeholder communication channels.
Show the work completed in areas close to the mine, particularly in Andalgalá, reporting on how our sustainable development commitments are met and expanding the knowledge about mining operations.	The "Commitment to Sustainable Development" chapter reports on the work completed in areas close to the mine to promote sustainable development, including Andalgalá.
Organise more visits to the site to make it known to the public.	The "Commitment to Sustainable Development" chapter explains site visits.
Mine Closure Delve deeper into this topic giving a detailed explanation of our future plan, considering both environmental and socio-economic aspects in a chapter specifically devoted to mine closure.	This report includes a chapter specifically devoted to Mine Closure, where the specific stakeholder expectations about this topic are addressed and Minera Alumbra's plan is explained.

With every edition of our Sustainability Report, we seek to report to our stakeholders in a systematic and transparent manner. This is a continuous improvement process based on the feedback of our key stakeholders, which we will continue improving in the next editions.

If you have any questions or comments about this report, please contact us at informe2015@glencore.com.ar



Commitment

We do not tolerate any form of discrimination.



Diversity

We seek to reflect the diversity of the communities in which we operate in our workforce.



Freedom

We respect the freedom of association and collective bargaining.



Respect

Respect for fundamental freedoms and human rights.



Training

We comply with the Voluntary Principles on Security and Human Rights which are reinforced by risk assessments and the training received by the security staff.



All our Asset Security Staff received training on human rights.



► 100%

of our security staff have been trained on corporate policies on human rights aspects inherent to mining operations, our Code of Conduct and Harassment Policy.

We are committed to protecting the environment and the natural landscape surrounding the mine deposit and neighbouring communities in a responsible way.

Commitment to sustainable development

Our approach

We seek to manage our business successfully through a sustainable development approach, protecting our people and their environment. In our strategy we prioritise sustainability integration while focusing on operational efficiency.

Our management approach is committed to creating economic, environmental and social value in order to ensure the long-term viability of our site and the communities where we operate.

The principles of Sustainable Development (SD) are integral to our business model and guide our daily decision-making.

Our management model is based on Glencore's corporate guidelines and values, as well as on Minera Alumbra's culture

developed by engaging with stakeholders and integrating our human resources, environmental, occupational health and safety, community relations and corporate governance practices across our operations. This is a comprehensive approach that covers all areas coordinating the production process.

We take into consideration the impacts of our operations, as well as the risks and opportunities involved in each area of performance.

SUSTAINABILITY PILLARS

A sustainable management approach comprises the entire production process and balances economic, environmental and social aspects. We expect to build a corporate culture at the workplace with sustainability values that transcend our business.



HEALTH

Become a leader in the protection of our people, while contributing to the wellbeing of communities.



SAFETY

Maintain our leadership in workplace safety, eliminating fatalities and injuries.



ENVIRONMENT

Investigate and implement the best environmental practices, minimising any environmental impacts from our operations.



COMMUNITY AND HUMAN RIGHTS

- Foster the growth of the communities closest to our operations through programmes that improve the local people's economic, social and professional skills.
- Respect and protect human rights in our impact area.
- Support employee inclusion and diversity.

GCP framework

Our approach to sustainability is embodied by Glencore Corporate Practice (GCP). This consists of three tiers: Values, Code of Conduct and Group Health, Safety, Environment and Community (HSEC) policies. The GCP is supported by Alumbreira's operational policies, created to meet its specific needs, with compliance determined by performance monitoring and assurance.

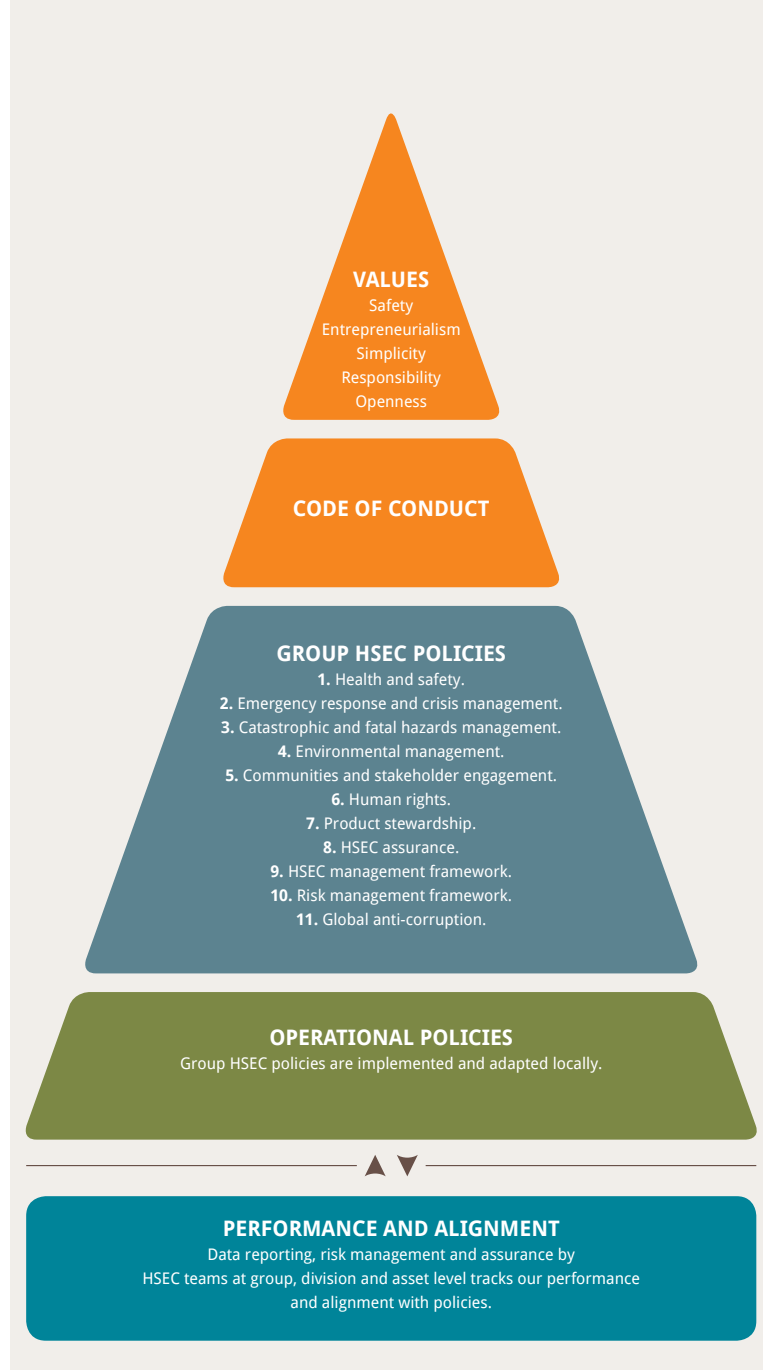
THE GCP REPRESENTS OUR COMMITMENT TO UPHOLD GOOD BUSINESS PRACTICES, TO APPLY SUITABLE STANDARDS AND POLICIES TO OUR ACTIVITIES AND TO MEET OR EXCEED APPLICABLE LAWS AND EXTERNAL REQUIREMENTS.

Our Values reflect our purpose, our priorities and the fundamental beliefs by which we conduct ourselves. They define the work modality, regardless of location or role.

Our Code of Conduct defines the essential requirements of our values and sets out the standards we require our people to meet and fully understand.

Our Group HSEC policies detail our management processes and procedures, which are integrated into corporate decision-making processes.

The GCP is supported at the operational level by individual policies pertaining to local risks. We monitor our performance using a global database and via a full assurance process at both Group and asset level.



Daniel Andreola, Mine Operations Supervisor, and Enzo Faedda, Safety Advisor, supervising road opening tasks in the road to Bajo el Durazno.

OUR VALUES



SAFETY

Our first priority in the workplace is to protect the health and well-being of all of our people. We take a proactive approach to health and safety; our goal is continuous improvement in the prevention of occupational disease and injuries.



ENTREPRENEURIALISM

Our approach fosters the highest level of professionalism, personal ownership and entrepreneurial spirit in all our people while never compromising on their safety and well-being. This is important to our success and the superior returns we aim to achieve for all our stakeholders.



SIMPLICITY

We aim to achieve our key deliverables efficiently as a path to industry-leading returns, while maintaining a clear focus on excellence, quality, sustainability and continuous improvement in everything we do.



RESPONSIBILITY

We recognise that our work can have an impact on our society and the environment. We care profoundly about our performance in relation to environmental protection, human rights and health and safety.



OPENNESS

We value open relationships and communication based on integrity, co-operation, transparency and mutual benefit, with our people, our customers, our suppliers, governments and society in general.

Code of Conduct

The Code of Conduct guides our values and seeks to ensure that the aspirations embodied in our values are reflected in our daily actions and decisions and in our corporate culture.

EVERYONE WORKING FOR GLENCORE, REGARDLESS OF LOCATION OR ROLE, INCLUDING TEMPORARY AND PERMANENT EMPLOYEES, MUST COMPLY WITH THE CODE AND GLENCORE POLICIES.

We expect managers, supervisors and leaders to communicate our Values and the Code to their teams and proactively identify, assess and discuss relevant issues with them, as well as to implement appropriate risk mitigation controls.

The Code sets out the behaviour expected of all our employees in the conduct of business and to raise concerns, while defining the priority of health and safety management, work environment, respect for human rights, liaison with the community, environmental protection, engagement with stakeholders, regulatory compliance and production quality and safety.

Together, our Values and this Code (including the underlying policies and the associated operational management procedures for sustainability) represent our commitment to upholding responsible business practices.

The revised and updated Code was distributed to our employees in 2015. All Alumbra employees were evaluated on their knowledge and compliance with the Code of Conduct policies in 2015 through an e-learning platform, as well as other tools for those employees who do not have regular access to a computer.

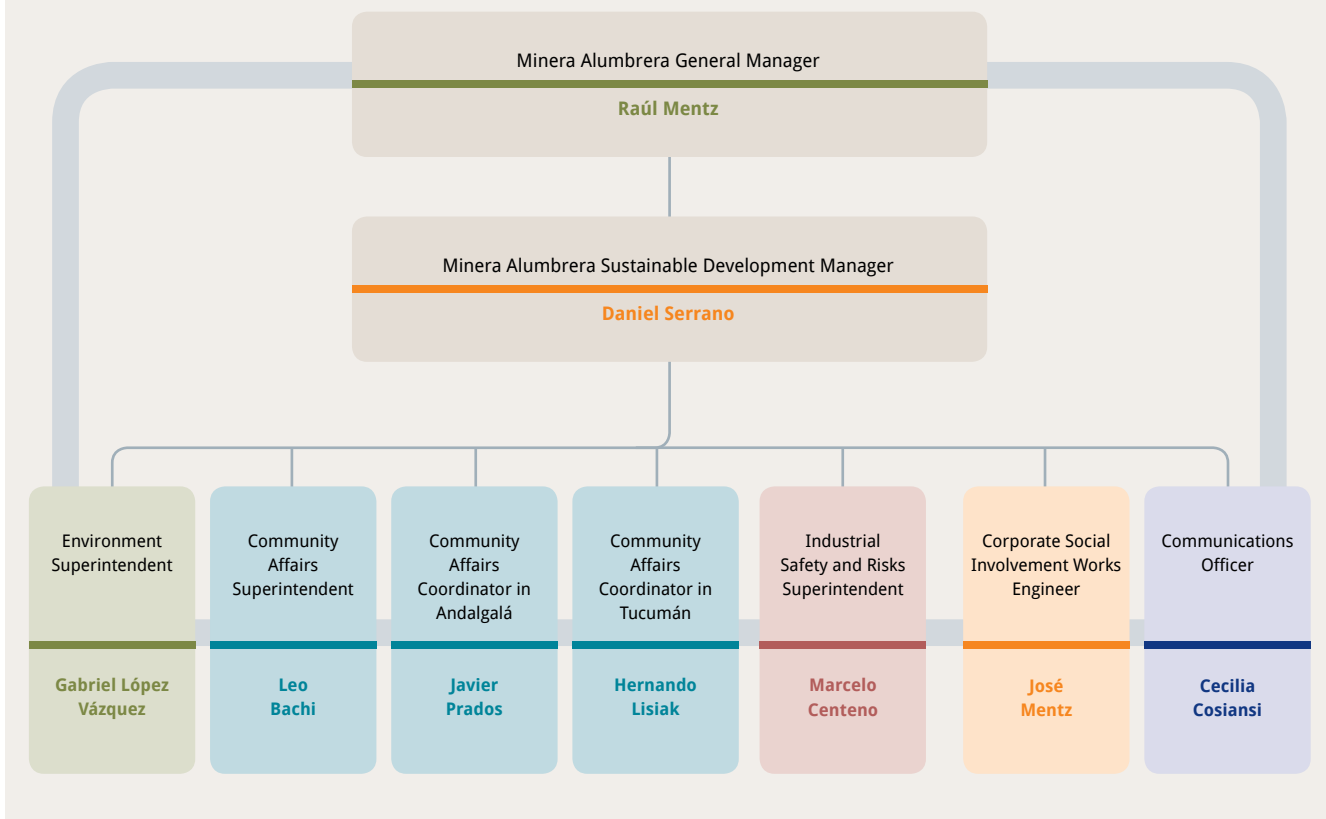
Board HSEC Committee

The Board HSEC Committee sets our strategic direction for sustainability activities and oversees the development and implementation of strategic HSEC programmes.

The committee comprises four individuals, including our Chairman and Chief Executive Officer (CEO) and is chaired by a nonexecutive director. It meets during each Board meeting to review progress in the delivery of Group HSEC strategy, our dashboard of key performance indicators (KPIs), significant HSEC issues and material HSEC risks, and examine major or catastrophic incidents.

In the event of a fatality or major/catastrophic incident, the committee receives detailed reports from management of the relevant operation on the event, actions taken and investigations.

MINERA ALUMBRERA'S SD ORGANISATIONAL STRUCTURE



Sustainability team

The Group sustainability team provides guidance and thought leadership. It develops and implements HSEC policies and improvement programmes, and establishes HSEC assurance processes. It also reviews the sustainability aspects of our Code of Conduct and revises them as necessary and records and reports progress against Key Performance Indicators.

Oversight and ultimate responsibility for our Group HSEC strategy, the GCP framework and its implementation across the Group rests with our senior management team.

IN 2015, THE PERFORMANCE OF ALL ALUMBRERA EMPLOYEES, INCLUDING THEIR SUSTAINABILITY GOALS, WAS EVALUATED.

Sustainability risk management framework

Our goal is to develop and maintain a sustainability risk approach to identify, assess, address and oversee risks across the Group via a structured management framework in order to meet the Code of Conduct requirements on this subject.

This is a crucial responsibility of the Board HSEC Committee whose role is to assess and oversee sustainability risks associated to our operations.

We identified risks –particularly those with major consequences– and managed them proactively and efficiently in order to create and protect value, ensure continuous improvement across our business and allow the senior management to make informed decisions.

Alumbrera has protocols in place to respond to hazards that may cause fatalities¹.

The implementation of the Safe Life Protocol under the “Safe Work” Programme focused on fatal risks and the identification of catastrophic hazards is part of the foundations of the Group HSEC assurance process.

¹ For more information, go to the “Health and Safety” chapter.



23 Mining Geology major students of the Exact Sciences School of the University of Buenos Aires visited the Bajo de la Alumbrera deposit to address theoretical topics through field practices.

ENGAGEMENT WITH STAKEHOLDERS

Interpersonal communication

We engage with our stakeholders² to build significant and long-term relationships. We are committed to communicating regularly, openly and transparently with our employees, contractors, customers, suppliers, investors, associations, governments, and surrounding communities, among others.

Engagement enables robust relationships to be built, based on trust and cordiality, which help maximise the value contributed to the communities and minimise the negative social impact.

We undertake fact-based, timely and constructive communication across a wide range of issues. Our decision-making process is supported by our engagement with stakeholders.

At Minera Alumbrera, we undertake the following commitments with each of our stakeholders:

STAKEHOLDERS	SUSTAINABILITY COMMITMENTS
INVESTORS	Maximise the return on investment, while leading the copper industry. We are committed to open corporate management practices.
CUSTOMERS	Deliver our products, which are essential for progress, in a reliable and continuous manner.
EMPLOYEES	Promote a respectful, flexible and efficient organisation through professional development and the fulfilment of mutual duties.
SUPPLIERS	Promote a fair selection process that reflects our values and policies.
GOVERNMENT	Strictly adhere to and enforce the laws and support the professional management of efficient regulatory agencies to accomplish their mission.
TRADE UNIONS	Support responsible organisations that strive for employee welfare.
COMMUNITIES	Provide growth opportunities through training, employment and health, production and education improvement programmes.
MINING CHAMBERS AND INDUSTRY ASSOCIATIONS	Support their actions so that they represent and act on the needs of the entire mining industry.
NGOS AND RELATED ORGANISATIONS	Liaise with organisations that strive for improved social, technical and institutional development at the regional and country-wide levels.
MEDIA	Provide accurate and thorough information, through ongoing regular discussions.
UNIVERSITIES	Encourage fruitful exchange for students in courses directly or indirectly related to the mining industry and promote academic studies that may provide reliable data to the community.

² Stakeholders are those directly or indirectly associated to our operations. Accountability, influence and closeness to Minera Alumbrera are what define the stakeholders.

Community Transparency System

The Community Transparency System was created to meet community needs, through enhanced engagement with businesses and governments, in order to improve their negotiation skills through open discussions.

This is a social management tool that empowers local people while strengthening civil society through the development of social and technical capabilities. Since this improves their communication skills and knowledge, it helps mitigate conflict.

Conflict is a part of the natural human behaviour. Therefore, training is needed to manage conflict. We understand that socio-environmental issues bring a lot of tension which should be managed and transformed into joint and supportive efforts.

When socio-environmental conflict arises and there are no tools to manage it, some companies deny the conflict and refuse to listen to activists. In turn, some environmental groups, feeling powerless by the refusal to listen to them, adopted an extreme way of thinking and even refused any form of dialogue. Instead of demanding a sustainable production and coexistence, they want the elimination of the other (either that the company leaves or that the environmental activists are arrested). This vicious circle leads to violence. However, there is a way to create "proposal-based ecology" that offers an alternative with participatory inclusion.

When we first told environmental activists about the possibility of having a roundtable meeting with Minera Alumbra executives, they thought that it was impossible and that it was even harder that the company would agree to it. The Alumbra representatives thought that activists would not agree.

From the beginning we realised that not only communication skills and techniques should be developed in the community, but also that the Minera Alumbra executives should receive training on social relations and engagement. We found a team with enormous human quality, which took concepts and strived to put them into practice.

The first meetings had a very heavy emotional burden which prevented any productive discussion, but both parties acted maturely to reach a middle ground.

In September 2013, EcoConciencia invited both parties to sign an agreement. A few local residents and environmental activists from Concepción signed an agreement under which they promised to seek the truth and to respect others, under the motto "Yes to reason, no to pressure". In turn, Minera Alumbra committed to transparency and recognised it as an essential engagement value.

There are many examples of how the Community Transparency System was productive for Alumbra and the environmental activists. Everybody wins by working together and turning conflict into socially-helpful energy.

Lic Rodolfo Tarraubella
President of Fundación EcoConciencia

Engagement with Concepción residents

Since 2012, we have been participating in roundtable meetings with residents and environmental activists from Concepción, Tucumán province, which is an interesting opportunity to get closer and learn about and address the concerns of part of the community through face-to-face discussion.

Meetings are moderated by Fundación EcoConciencia and deal with matters of interest for the community relating to Alumbra operations, including water quality, urban waste treatment, slurry pipeline operation and maintenance, economic benefits of mining operations, and tailings dam construction, among others.

TRUST IS FUNDAMENTAL TO HUMAN RELATIONSHIPS AND IT HAS HELPED STRENGTHEN THE BOND BETWEEN LOCAL RESIDENTS AND MINERA ALUMBRERA. DURING EACH MEETING, SPECIFIC ISSUES AGREED UPON IN ADVANCE ARE ADDRESSED AND MINERA ALUMBRERA PRESENTS INFORMATION OR INVITES LOCAL RESIDENTS TO FIELD VISITS.

The engagement process maintained over three years has obtained very good results which may be illustrated by two specific community-driven initiatives.



After the water level rise in March 2015, members of the Concepción Sustentable group and Minera Alumbra managers inspected the works carried to restore the North ravine of the Medinas River in the slurry pipeline route.



Case



Water testing

Fundación EcoConciencia submitted, on behalf of the community, a request to the State Environmental Department of Tucumán to test the water of Concepción. Local residents feared that mining operations may have negatively impacted on water quality. Arrangements were also made for the National University of Tucumán to participate taking water samples in December 2015.

The Minera Alumbrera Water Laboratory technicians sampled the same spots sampled by said Department. The Alumbrera lab results, which were delivered to Fundación EcoConciencia in late December 2015, showed that water was potable based on the measured standards (metals).

During the first quarter of 2016, the Mining Department will submit the reports to the Concepción Neighbours Assembly.



Case



Concepción residents' community overseeing

Twenty six representatives of different organisations and of the Concepción Sustentable group visited the Bajo de la Alumbrera site in September 2015, under the coordination of Fundación EcoConciencia.

After over two years of meetings with social leaders from Concepción, we engaged in a respectful dialogue and built mutual understanding channels.

Visitors had the opportunity to see all facilities and processes involved in the deposit in order to understand the entire production process –from mining to the end product– to see first-hand the operational process.

They visited the nurseries where plants are grown for the revegetation activities contemplated under the mine closure plan and they even travelled along the slurry pipeline from Concepción to Andalgalá. Some leaders of this group had previously visited the Filter Plant in Tucumán.

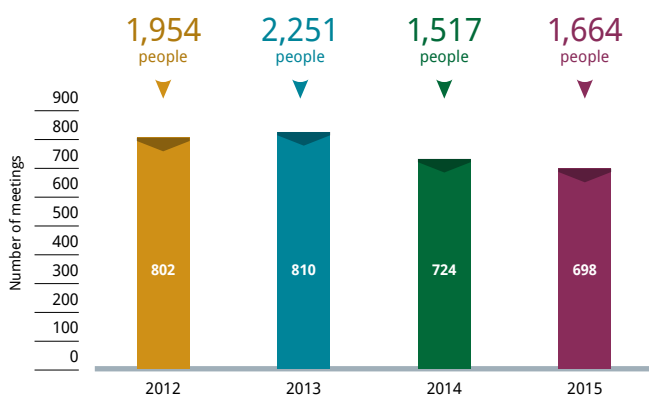
In addition to the technical visit across the areas, they spent the night at the site, where they became aware of the life led by employees at the campsite and they even met neighbours from their town.

Communication management

Alumbrera has representatives living in Andalgala, Belén, Santa María (Primary Impact Area), San Fernando and Tucumán. Our local offices in those towns allow local residents to submit their projects, raise concerns and engage with Alumbrera leaders.

During 2015, our representatives held 698 face-to-face meetings with local stakeholders, including local authorities, neighbours' committees, irrigation boards, hospital directors, teachers and local residents in general.

Meetings with stakeholders, 2012-2015

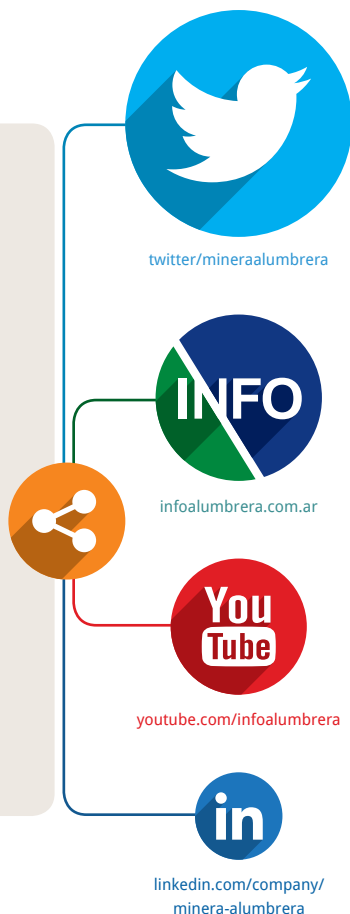


Source: Minera Alumbrera

Other communication tools rely on the use of the media, social networks or specific publications.

In Catamarca we distribute magazines relating to our Community Programme. Two annual editions are published in Catamarca and included in El Ancasti newspaper.

Our website also facilitates engagement between Minera Alumbrera and stakeholders through the queries received via the website. Since 2010, we have been using social networks to engage in the dynamic far-reaching discussions made available by this computer tool through the following channels:



Students walking around the flotation room at the Concentrator Plant during a site visit.

Site visits

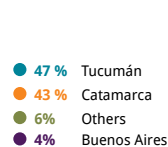
As part of our social commitment and open doors policy and ongoing engagement with our stakeholders, Minera Alumbrera had visitors all year round from various organisations. The goal of the visit around the site's main operational areas is that stakeholders learn more about our production process and our environmental protection and employee safety management actions.

Visits are tailored according to the place of origin and concerns of each group. It should be noted that professional technicians who work at these areas escort the visitors group explaining the process and answering their questions.

► 1,382

visitors were welcomed at the site in 2015.

Visits by province in 2015



Source: Minera Alumbrera



Cristina Carrizo, Senior Environment Engineer, supervising revegetation works.

Challenges of the mining industry in Argentina

The mining industry faces growing challenges, i.e. to contribute with production and provide supplies in a sustainable manner, while protecting the environment where we live and the people in it.

This production activity creates job and socio-economic development opportunities in regions far away from the cities, where fewer stable and genuine job options are available. In addition, it contributes innovation and development through the use of new technologies applied to production.

Also through international guidelines and standards that guide mining businesses we have been implementing good practices in the last few decades which prompted a sustainable management model for the development of modern mining operations.

However, Argentine society raises a series of issues about the mining sector that cannot be ignored. The industry has multiple areas to be improved and social and environmental commitments and obligations to fulfil. If the mining industry seeks to regain its position as a growth booster across the Argentine territory, then we must improve our ability to listen and accomplish a successful dialogue with the community.

We must ensure that our country meets the highest quality standards and environmental and safety laws and regulations, similarly to other more developed regions of the world.

The Argentine mining industry has great geological potential to become a regional growth booster. We understand that there are not only economic expectations, but also that society expects modern, efficient and sustainable mining operations that take into consideration and prioritise the social opinion.

Therefore, we will continue working to turn mining operations into a regional growth alternative that generates quality jobs and growth for small and medium size businesses (PyMEs), in line with sustainability standards.

CHALLENGES OF THE MINING INDUSTRY

OPPORTUNITIES

ENVIRONMENTAL IMPACTS	Strengthen our commitment to the protection of the environment.
REGULATOR MONITORING	<ul style="list-style-type: none"> - Intensify monitoring activities. - Strengthen technical skills of the public administration. - Communicate the results of monitoring activities. - Citizen participation.
ENGAGEMENT WITH SOCIAL PARTICIPANTS	<ul style="list-style-type: none"> - Strengthen methods leading to unity through constructive discussions. - Build trust that enables a fluid discussion with the ability to listen. - Greater involvement in the different mining development stages.
BENEFITS FOR THE COMMUNITY	Support the growth of communities in the vicinity of the projects through the use of mining royalties and private social investment.
TRANSPARENCY	Promote and work under international standards to create a culture of transparency in the management of our operations.
CONTRIBUTION TO ECONOMIC DEVELOPMENT	<ul style="list-style-type: none"> - Create benefits for the socio-economic development of neighbouring communities that promote sustainable growth opportunities in mining regions. - Empower the value chain through training and the teaching of good practices. - Increase human capital based on lessons learned about work-related activities, work modalities and large company processes.
SAFE AND SAFETY	Develop ongoing training programmes that help improve safety rates at the deposits.

César Luján, Supervisor
at the Molybdenum Plant



Compliance

Our goal is to maintain a culture of compliance and ethical behaviour and ensure compliance with the laws and regulations.



Transparency

Glencore is a signatory of the Extractive Industries Transparency Initiative.



Bribery and Corruption

Our Anti-Corruption Policy sets out rules and guidelines which relate to the prevention of bribes and other forms of corruption.



Corporate Governance

Our corporate governance management processes take into consideration our Principles and Values, based on ethics and corporate responsibility.



Public Policy

We engage in public discussion and participate in shaping legislative bills drafting concerning areas that may affect our operations under the highest ethical standards.



Raising Concerns

Our managers and supervisors must prevent, identify and report any breach of the law or our corporate policies.

Governance and compliance

We seek to maintain a culture of ethical behaviour and compliance throughout our site that exceeds the legal and regulatory requirements. We are based on a regulatory framework that supports and monitors guideline compliance by all our employees and contractors.

Compliance

Everyone who works for Minera Alumbraera must comply with the laws, regulations and best practice guidelines applicable in the jurisdictions where we operate. We will not knowingly assist any third party in breaching the law or participate in any other criminal, fraudulent or corrupt practice in any country.

WE SEEK TO ATTAIN SUCH A BEHAVIOURAL CONDUCT THROUGH TRAINING PROGRAMMES AND STRONG LEADERSHIP SUPPORTED BY INTERNAL POLICIES, PROCEDURES AND CONTROLS.

Compliance Programme

The Programme includes various policies, manuals and guidelines developed and applied by different areas. At Minera Alumbraera, we have a compliance coordinator who manages the implementation of this programme and supports our employees.

Compliance documents are made accessible to employees via our Intranet or the local compliance coordinator. Employees must confirm their awareness and understanding of our compliance requirements every year.

Our permanent and temporary employees, directors, officers as well as contractors must comply with the applicable laws and regulations and the corporate compliance policies that apply to their duties. Our managers and supervisors are responsible for ensuring that employees understand and comply with the policies.

Transparency

We support transparency in the distribution of revenues by the government as a way of fighting corruption and allowing for an equitable redistribution. At Glencore, we support the Extractive Industry Transparency Initiative (EITI) to increase transparency in the payments made by extractive companies to governments¹.

No financial or in-kind contribution has been provided to political parties or individuals.

We comply with the Argentine laws and regulations and we do not tolerate any incident of bribery or fraud committed by our employees or those engaged or paid to represent us, including consultants, contractors or advisers. We take immediate and serious action against those responsible, irrespective of length of service or position.

Bribery and corruption

Glencore has a Global Anti-Corruption Policy in place that sets out the rules and guidelines on the prevention of bribery and other forms of corruption. It applies to all employees, business partners and associates and is available at the Alumbraera website.

Glencore has established a Business Ethics Committee (BEC) which reviews and develops policies and assesses procedures. There is also a BEC Sub-Committee that meets to address reputational issues as well as third-party due diligence.

We will not assist any third party in breaching the law in any country, nor pay or accept bribes, or participate in any other criminal, fraudulent or corrupt practice. We strive to prevent any misconduct through strong leadership and robust internal policies and procedures, which contain our clear position that offering, paying, authorising, soliciting or accepting bribes is unacceptable.

¹ Information about royalties, taxes or other payments to governments made by Minera Alumbraera in 2015 is available in "Our Economic Contribution" in this report.



Copper and gold concentrate is transported by railroad to Puerto General San Martín, Santa Fe Province, to be shipped to international refineries.

We constantly monitor corruption risks and allow the participation of the internal auditing and compliance areas, if required.

Finance employees receive induction and ongoing training on disciplinary action, bribery and corruption prevention, money laundering, confidential information and conflicts of interest.

At Minera Alumbraera, we comply with the Argentine laws and regulations. Since the onset of our operations, no suspicious activities or significant monitoring weaknesses that could facilitate fraud or cause it to go undetected were identified.

Glencore is a member of the Partnering Against Corruption Initiative (PACI), based on a commitment to zero tolerance towards bribery, which implements practical and effective anti-corruption programmes.

Corporate governance

Our corporate management processes in place take into consideration our Principles and Values, based on ethics and corporate responsibility through compliance with the highest transparency standards.

We are committed to achieving the highest corporate governance standards, which we believe are vital to obtaining shareholder value and integral to ensuring compliance with our values and Code of Conduct.

The Board of Directors is Glencore's highest governing body. It is led by seven directors, out of which six are non-executive directors.

Glencore has separate Board committees responsible for overseeing our audit, compensation, appointment, and health, safety, environment and community (HSEC) activities and reviewing the overall sustainability performance of our business. Individual committees review the results of independent audits of sustainability performance and the management strategies and action plans.

Management team

Minera Alumbraera is a privately owned company mainly funded and operated by the Glencore Group, having a 50% interest, as well as Canadian Goldcorp and Yamana Resources, having a 37.5% and 12.5% interest, respectively.

Minera Alumbraera is managed by a Board composed of four regular members, executives of the shareholder companies, one of them being the chairperson, who is an executive at Glencore.

The Board sets the company strategic guidelines and holds at least four meetings per year to review business performance with all shareholders.

Directors receive no financial compensation directly from Minera Alumbraera.

Prior to taking up office at the Board, directors must sign a Declaration of Conflict of Interest stating their position in the parent company and its ownership interest (percentage) in Minera Alumbraera. Therefore, they are regarded as interested parties in the agreements entered into between Minera Alumbraera and the parent company or any of its affiliates.

In 1994, Minera Alumbraera entered into an unincorporated joint venture (UTE) agreement with Yacimientos Mineros de Aguas de Dionisio (YMAD) to mine the Bajo de la Alumbraera deposit. YMAD, which owns mining rights, is composed of the Catamarca provincial administration and the National University of Tucumán. The YMAD chairperson is appointed by the National Executive Branch.

The UTE Management Committee consists of eight members, three representing YMAD and five representing Minera Alumbraera, and is presided over by a chairperson. During YMAD meetings, this Management Committee approves Minera Alumbraera's annual plan and budget and follows up its actions.

Public policy

We build constructive relationships with municipal, provincial and national governments through regular engagement, either individually, together with other organisations or as members of a mining association.

We engage in public discussion and participate in shaping legislative bills concerning areas which may affect our business. In all cases we work meeting the highest ethical standards.

In line with our support to public policy initiatives, Minera Alumbrera is a member of or participates in the following mining associations and chambers:

Argentine Mining Chamber (CAEM):

A country-wide association representing miners and suppliers of the mining industry.

Association of Catamarcan

Miners (AEMCA): It represents mining companies from Catamarca.

Argentine Business Council for Sustainable Development (CEADS):

A local branch of the WBCSD global association led by CEOs from over 230 companies which seeks to link business and sustainable development.

Argentine Business Development

Organisation (IDEA): An organisation that contributes to the productive and competitive development of businesses and organisations for the integration of Argentina into the modern and developed world.

Catamarca Industrial Union (UICA): A major union company organisation representing industrial activities in Catamarca.

Fundación del Tucumán: A group of companies committed to regional sustainable development.

Tucumán Industrial Union (UIT): A major union-company organisation representing industrial activities in Tucumán.

Raising concerns

Our managers and supervisors must prevent, identify and report any breach of the law or our corporate policies. Glencore has a Business Ethics Committee (BEC) comprising senior representatives and two of our external counsel; it reports to Board Audit Committee.

The BEC meets at least twice a year. It develops and reviews our policies, guidelines and principles on business ethics, including the prevention of bribery and corruption. The policies and guidelines developed by the BEC are implemented across the site by our local Compliance departments.

Employees must raise promptly any situations in which the Code, its policies or the law appear to be breached with a supervisor or manager. Any concerns can be raised with the appropriate manager in Human Resources, Legal, Corporate Affairs, and Sustainability or senior management, or with the local Compliance contact.

Where a concern remains unresolved through local channels, it can be referred to other corporate channels via e-mail to CodeofConduct@glencore.com or raised anonymously via the 'Raising Concerns' form available at www.glencore.com/raising-concerns.

Since not everyone has access to the Internet, telephone numbers to raise concerns are made known to our people via notice boards. Calls are free and routed to a regional compliance contact who speaks the local language. The concern may be raised anonymously.

All queries raised via these 'Raising Concerns' channels are reviewed and assessed promptly.

EXTERNAL COMMITMENTS

HUMAN RIGHTS	International Labour Organisation (ILO) Declaration of Fundamental Principles and Rights at Work.
	United Nations Guiding Principles on Business and Human Rights.
	Universal Declaration of Human Rights
	Voluntary Principles on Security and Human Rights.
TRANSPARENCY	Extractive Industry Transparency Initiative (EITI).
	Global Reporting Initiative (GRI)
PROGRESS ON SOCIAL, ECONOMIC, ENVIRONMENTAL, AND HEALTH AND SAFETY INITIATIVES	International Council on Mining and Metals (ICMM).
	United Nations Global Compact.



Commitment

We do not tolerate any form of discrimination.



Respect

Respect for fundamental freedoms and human rights.



Diversity

We seek to reflect the diversity of the communities in which we operate in our workforce.



Freedom

We respect the freedom of association and collective bargaining.



Training

We comply with the Voluntary Principles on Security and Human Rights which are reinforced by risk assessments and the training received by the security staff.



All our Asset Security Staff received training on human rights.



► 100%

of our security staff have been trained on corporate policies on human rights aspects inherent to mining operations, our Code of Conduct and Harassment Policy.

Human rights

We uphold the dignity, fundamental freedoms and human rights of our employees, contractors and the communities in which we live and work and others affected by our activities.

Respecting human rights is fundamental to Glencore and Minera Alumbraera operations. Glencore has a Human Rights¹ policy in place that guides our fundamental commitment to human rights. The policy was developed in accordance with the Universal Declaration of Human Rights, the International Labour Organisation (ILO) Declaration of Fundamental Principles and Rights at Work, the Equator Principles, and the United Nations (UN) Guiding Principles on Business and Human Rights.

As stipulated in our Code of Conduct, we uphold the dignity, fundamental freedoms and human rights of our employees, contractors and the communities in which we live and work and others affected by our activities. We ensure that key human rights impacts are embedded in our internal risk assessment processes.

WE DO NOT TOLERATE ANY FORM OF WORKPLACE DISCRIMINATION, HARASSMENT OR PHYSICAL ASSAULT, OR ANY FORM OF CHILD, FORCED, OR COMPULSORY LABOUR.

We seek to reflect the diversity of the communities in which we operate in our workforce. We respect the rights of our employees and contractors, including the freedom of association and collective bargaining.

At all our assets, regardless of their location or function, we expect our employees to avoid complicity in human rights abuses, and to uphold relevant international standards. We operate grievance mechanisms that are also accessible to our stakeholders².

No human right violations were reported through formal complaint mechanisms or other channels at Minera Alumbraera.



Employees have a suitable and comfortable work environment, where they can also rest and enjoy the movie theatre, gym, sports centre and recreational room.

¹ <http://www.glencore.com/assets/who-we-are/doc/Human-Rights-Policy-2015-Sp.pdf>

² For more information, go to the "Commitment to Sustainable Development" chapter.

**THE FOLLOWING ARE THE KEY HUMAN RIGHTS ISSUES
TO BE CONSIDERED AT MINERA ALUMBRERA:**



LABOUR

- Right of our employees and contractors to fair compensation and equal pay for equal work.
- Freedom of association
- Safe and healthy workplaces.
- A discrimination-free workplace.



SECURITY

- The action of security service providers that protect our people and assets.
- The action of public security forces which operate within our operational areas during the execution of their duties.



COMMUNITIES

- The impact that our operations may have on communities (including disputes over the use of land and mineral resources).
- The impact on culturally sensitive resources.
- Access to resources and economic benefits.



Daniel Etcheverry, Coordinator of Railroad Activities at the Alumbreira Port Facilities in Santa Fé province.

Training

It is crucial that we ensure the protection of our people and our assets. We recognise potential human rights risks in connection with security practices, especially in challenging environments. Therefore, our security procedures are aligned with the Voluntary Principles on Security and Human Rights³. These procedures are reinforced by risk assessments and incident reporting mechanisms, as well as training for our security staff and contractors.

All our Asset Security staff, i.e. 35 employees, received training on human rights in 2015. The course is delivered by trainers of the Human Rights Division of the State Department of Tucumán. Training topics include the origin of human rights, the Argentine Constitution, equality of rights, the basics of International Law and Criminal Procedural Law, labour relations principles, indigenous peoples as well as the duties, bans and powers of security staff.

100% OF OUR SECURITY STAFF HAVE BEEN TRAINED ON CORPORATE POLICIES ON HUMAN RIGHTS ASPECTS INHERENT TO MINING OPERATIONS, OUR CODE OF CONDUCT AND HARASSMENT POLICY.

Value chain

All procurement contracts between Minera Alumbreira and our contractors working at the site include terms and conditions under which each contractor agrees to submit evidence of their employment arrangements.

Minera Alumbreira's contract owners check that contractors pay in a timely and proper manner the correct amounts of salaries, social security contributions and Workers' Compensation Insurance (ART) charges; that employees do not work longer than the permitted working hours; and that contractors provide basic safety training.

Child and forced labour

We do not tolerate any form of child, forced or compulsory labour.

We comply with local regulations regarding legal work age. During 2015, our youngest employee and contractor was aged 18.

3 International tripartite engagement initiative established between governments, extractive sector companies and NGOs that serve as guidance for companies to maintain the safety of their operations, while respecting human rights and fundamental freedoms. Glencore joined this initiative in March 2015.

María Yapura from Belén, Catamarca, has been working as a mine operator at Alumbraera since 2000.



Employment

- Direct employees and contractors: 1,953
- Employment multiplier at national level: 7.4
- Employment multiplier at Primary Impact Area: 2.5



Origin

- 52% of employees are from Catamarca, 41% are from provinces of Northwestern Argentina and 7% are from other provinces of the country.



Gender

- 7% of employees are women.
- 67% of female employees are from Catamarca, 32% are from Northwestern Argentina and 1% are from other parts of the country.
- 71% of female employees are technicians and operators.



Employee benefits

- Higher education in food and mining studies.
- Transportation, first-class recreation and sports facilities and activities.
- Ongoing training.



Training

- 2,071 courses totalling 118,182 training hours.
- Training expenditure: \$288,790.
- 138 employees are taking the Food Studies or Technical Mining course on site.



Salaries

- Net salaries paid: \$57,343,405

Our people

We foster career development, accountability for safe work practices, and entrepreneurialism in our workforce. Our values are focused on trust, engagement, mutual respect, integrity and care for our people.

Our Human Resources approach is focused on employee development through ongoing training, growth opportunities, team work, competitive salaries, and safe and healthy workplace. We seek to be recognised as a leading and attractive miner to recruit and retain high-potential talent.

People are hired based on the skills and experience specifically required for the job in a discrimination-free manner.

Employment

In 2015, 1,953 Argentine nationals worked directly at the Bajo de la Alumbrera project, out of which 1,252 are employees on payroll and 701 are contractor employees working at the deposit.

This year our operations were developed in a context of the nearing end of mine life and the resulting reduction in overall activities. Particularly, copper concentrate volume was 38% lower than the previous year and, consequently, direct jobs at the deposit declined by 18.1%. Voluntary retirement has been offered by Alumbrera and many employees have agreed to this option.

The decline in the number of jobs was more significant for contractors, representing 29.1%, than for employees on payroll, representing 10.3%, in comparison with previous year levels.

Our employment multiplier at the national level is 7.4¹. This includes the impact on employment of the demand for Alumbrera commodities and services, and the multiplying effects on the successive links of the productive chain, as well as the effects of other inflows of revenues that our project contributes to the Argentine economy (employee salary spending and public expenditure owing to tax revenues generated).

Total direct jobs from 2012 to 2015



Source: Minera Alumbrera

In this report the impact on employment was estimated comparing a scenario with the project versus one without the project and, therefore, the significance of all revenue inflows contributed by Alumbrera to the economic system is considered and described in the "Economic Contribution" chapter. By 2015, the multiplier was adjusted to the new scenario of declining sale revenues, profits and taxes paid by the project to tax authorities, where the ratio between total project revenues and direct employment is lower since revenues decreased more than direct jobs.

In spite of any changes in employment levels in the project -associated to the end of mine life- the number of employees is still higher than in the early years. Employment level in 2015 was 70% higher than in 1998.

¹ In certain mining impact studies, impact calculation is restricted to the first component referring to inter-sectorial relations (by supplies and services demand) and then the estimated multiplier is nearly 5.

BREAKDOWN OF EMPLOYEES BY CATEGORY/ROLE AND AGE GROUP, 2015

CATEGORY					EMPLOYEE AGE BY POSITION							
	2014		2015		2014				2015			
	Nº of people	%	Nº of people	%	< 30	30-40	41-50	> 50	< 30	30-40	41-50	> 51
Managers	12	1%	12	1	0	0	8	4	0	0	5	7
Superintendents	42	3%	40	3	0	16	15	11	0	10	18	12
Senior/Senior Supervisors	93	6.7%	78	6	0	37	39	17	0	26	35	17
Analysts/Supervisors	169	12%	152	12	8	77	59	25	8	61	56	27
Assistants/Junior Analysts	70	5.0%	57	5	18	27	19	6	13	22	15	7
Technicians	46	3.3%	38	3	10	16	18	2	8	15	11	4
Workers	964	69.1%	875	70	187	449	226	102	175	388	222	90
Total	1,396	100%	1,252	100	223	622	384	167	204	522	362	164

Over the 18 years of life of the project, our number of employees has increased and their qualifications and skills have improved through ongoing training. In addition, Minera Alumbrera has continuously encouraged the hiring of women and local workforce.

Since the commissioning of the Bajo el Durazno deposit, in the last two years Minera Alumbrera has hired 50 workers from neighbouring communities. Additionally, there has been an ongoing expenditure in training and improvement of work conditions, including both job training for Alumbrera operations and higher education for employees to prepare them for future jobs in other career fields.

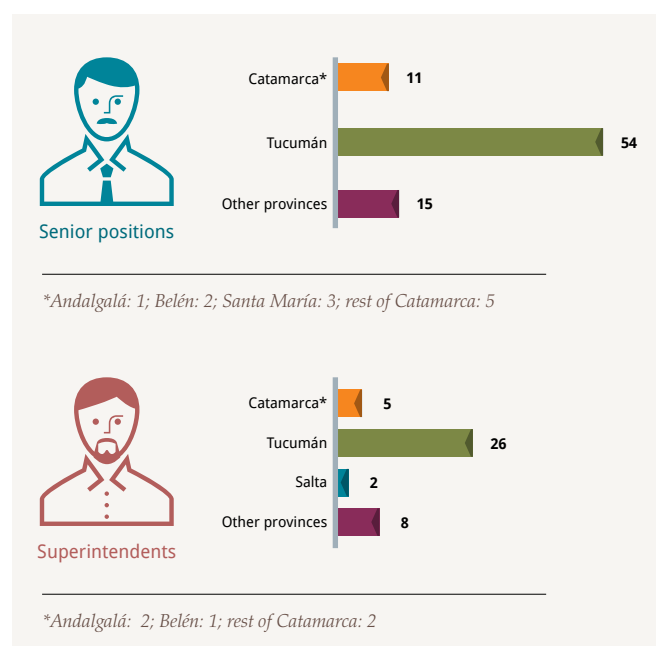
Therefore, Alumbrera's expenditure to increase human capital and improve job quality, promote local employment and increase the hiring of women help strengthen sustainable

development conditions while bearing in mind career prospects for our employees in the mining or other industries beyond mine closure.

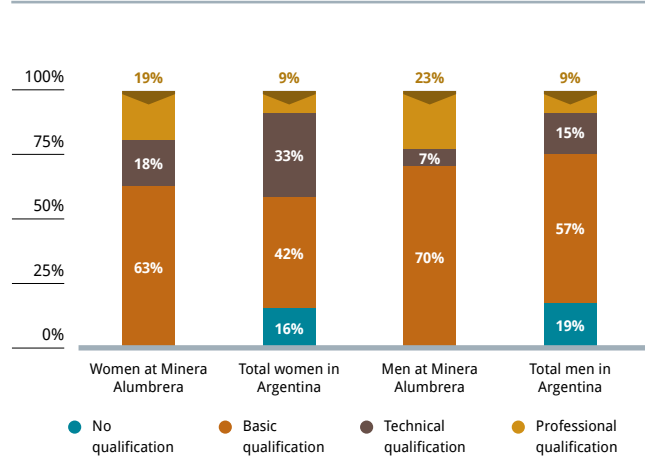
The breakdown of employees by level of qualification for the job shows that Minera Alumbrera's employees are relatively more qualified than the average employee in the Argentine economy. The outcome of this comparison can be observed for both genders. While 16% of women and 19% of men in Argentina work in jobs that require no work qualification, this rate is zero at Minera Alumbrera.

Regarding position that require professional qualifications, the number of professionals in the Alumbrera workforce doubles the number of professionals in the Argentine economy, which in the case of women is 2.6 times higher than for men.

Origin of senior employees



Breakdown of employees by level of qualification for the job. Comparison by gender between Minera Alumbrera (2015) and the Argentine economy (Q2 2014)



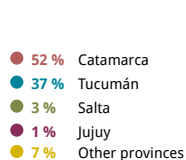
Sources: Minera Alumbrera and the Employment and Business Dynamics Observatory of the Argentine Labour, Employment and Social Security Department.

Origin

Minera Alumbra has developed an Employee Recruitment and Hiring Policy based on international principles and regulations of the International Labour Organisation, while upholding and complying with the applicable Argentine labour laws. Within this legal and human rights framework, there is the fundamental principle of no discrimination in employee selection by reason of age, gender, beliefs, and origin, among others and ensure equal opportunities for all individuals who wish to be part of our company.

Although the place of residence is not a condition to hire potential employees, under the Equal Job Opportunity principle Minera Alumbra is committed to prioritise local talents who meet the requirements and have the skills desired for each job, based on their qualifications and experience.

Breakdown of employees by province of origin, 2015



Total: 1,252 employees

Fuente: Minera Alumbra

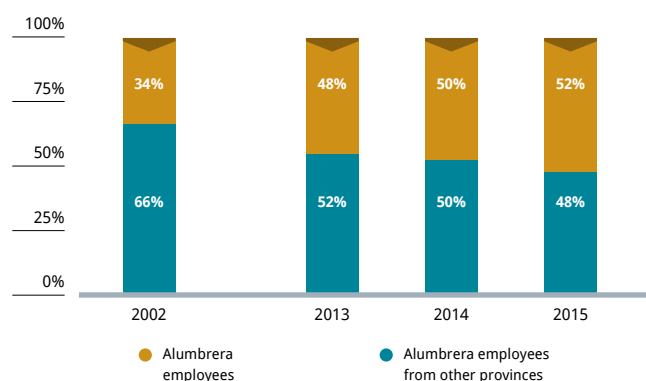
Despite the reduction in workforce in 2015, the number of Catamarcan employees has increased throughout the life of the project. In 2002, 34% of all our employees were from Catamarca, while that number grew to 52% in 2015 (654 employees).

IN OTHER WORDS, FOR EVERY 100 MINERA ALUMBRERA EMPLOYEES, 52 ARE FROM CATAMARCA.

As a result of our local hiring promotion efforts, a relative growth was reported again in 2015 in the number of employees hired by Alumbra from the PIA. In 2012, employees from districts in the vicinity of the deposit represented 33% of the total workforce, while PIA employees represented 39% of the total workforce in 2015.

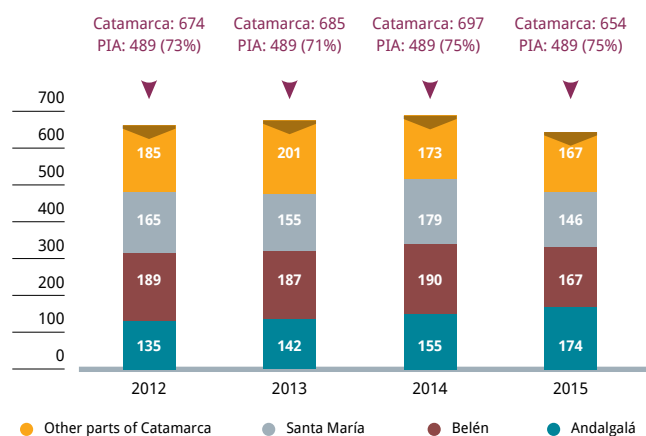
Although the Alumbra manpower from the three districts is approximately proportional to the total population of those jurisdictions, a relative growth in the percentage of employees from Andalgalá was observed this year.

Percentage of employees from Catamarca for 2002 and 2012-2015



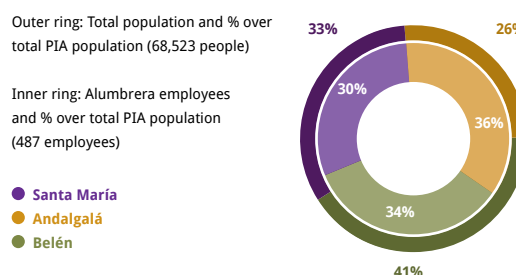
Source: Minera Alumbra.

Breakdown of employees from Catamarca by district. Number of employees and percentages for 2012-2015.



Source: Minera Alumbra.

Breakdown of PIA employees and total PIA population by district, 2015 (employees) and 2010 (population)



Source: Minera Alumbra and National Census of Population, Households and Housing (2010).



María José Castellano, a chemist, analysing water quality samples at the Filter Plant lab in Tucumán.



Mine operator Ramona Reales driving one of the 53 large trucks that go into open pit.

Gender

Minera Alumbrera supports and participates in the Mining Development Foundation (FUNDAMIN)'s Women Committee, which seeks to stress the importance of the role of women in mining operations by leading the way and facilitating and implementing actions that allow for an equitable workplace, through discussions and learning of good practices.

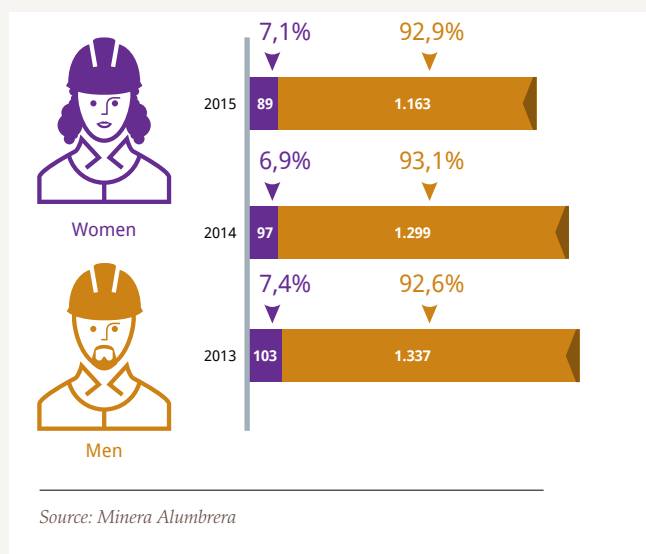
Its mission is to create a space for ongoing discussion through the organisation of a countrywide Forum of Women Working in Mining Operations where to share experiences and contents that strengthen the role of women in these operations.

Its main goal is to strengthen the growth and participation of women in the mining industry.

Since 2010, a forum dealing with contents associated to its goals, including strengthening the identity and leadership of women at work, improving the quality of life of women at the workplace, generate a nationwide discussion about the role of women in the mining industry, has been held annually.

In 2015, 89 women worked at Minera Alumbrera, representing 7.1% of our total workforce. Although the number of female employees decreased in absolute terms by 9 in 2015 in comparison with the previous year, their relative percentage in the total workforce was higher.

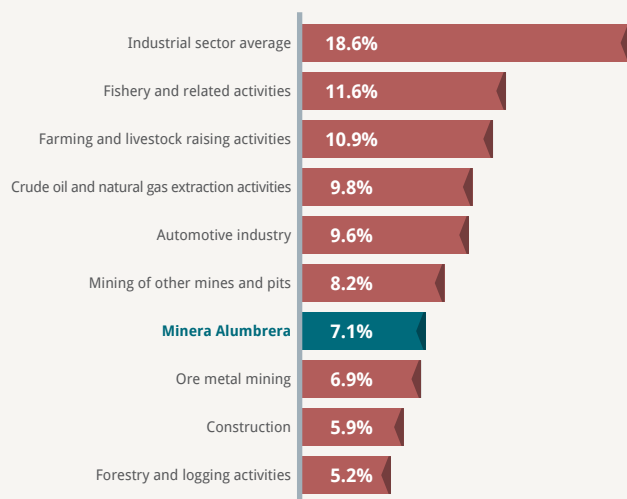
Breakdown of employees by gender, number and percentage of women and men for 2013-2015



2 Last officially published data for the second quarter of 2014.

The percentage of women at Minera Alumbraera is slightly above the average female employee rate in the Argentine ore mining industry of 6.9%². However, this percentage of female employees is still lower than in other primary sector activities and the average rate applicable to the industrial sector.

Percentage of females in jobs: female employee rate by economic activity and in Minera Alumbraera



Source: Minera Alumbraera (2015 data) and the Employment and Business Dynamics Observatory of the Labour, Employment and Social Security Department (Q2 2014).

99%

of Alumbraera's female employees are from Northwestern Argentina, out of which two thirds are from Catamarca.

This percentage has increased steadily from 54% in 2012 to 66% in 2015. In addition, the breakdown of Catamarcan employees by gender shows that the relative percentage of women from Catamarca is higher than in the total workforce (7.1%).

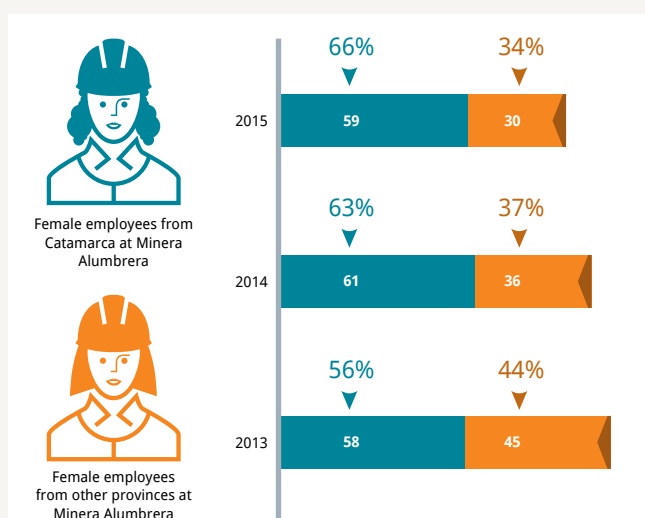
Regarding the PIA, 37 female employees reside in Andalgalá, Belén or Santa María, representing 42% of the total female workforce. In spite of the changes made in the total workforce, the percentage of women from the PIA rose from 38% to 42% against the previous year level.

While 70% of Alumbraera's male employees are operators, 63% of women belong to this group. In contrast, the percentage of women in the group of technicians is relatively higher than that of men. Out of the total male employees, 3% of men are technicians while 8% of women fulfil this role. By 2015, there were no female managers and there is only one female superintendent.

BREAKDOWN OF EMPLOYEES BY PROVINCE AND GENDER, 2014

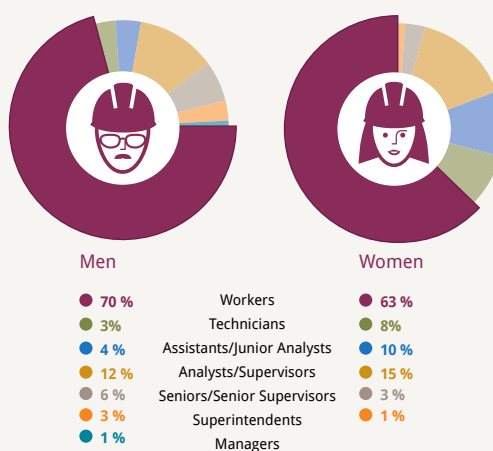
Location	2014			2015		
	M	F	Total	M	F	Total
Catamarca	636	61	697	595	59	654
Tucumán	500	30	530	435	26	461
Salta	45	3	48	32	2	34
Jujuy	20	1	21	19	1	20
Other provinces	98	2	100	82	1	83
Total	1,299	97	1,396	1,163	89	1,252

Percentage of female employees from Catamarca and total female employees each year (2012-2015)



Source: Minera Alumbraera

Breakdown by gender and role at Alumbraera, 2015



Source: Minera Alumbraera

Education and training

In 2015, 2,071 courses were taught totalling 118,182 hours of training and an expenditure of \$288,790.

KEY PROGRAMMES

Leadership Development Programme: This is a company programme for employees in strategic and supervisory positions to learn skills to perform their work effectively.

Industrial hygiene and safety: Safe behaviour, equipment operation, electrical hazards, work at heights.

Environment: ISO 14001 Management System, environmental issues identification, waste management.

Technical competencies: Hoisting, welding, and fork-lift truck operation certifications.

Higher education courses: Food Studies and Technical Mining Studies.

Our long-term development strategic goals include training programmes for local professionals. Improving the employability of our human resources is a priority among our end of mine life related goals. A higher level of training of local residents could increase their income and have an impact on the social and cultural level of the population since they could share what they learned in their home town and thus avoid migration processes.

Higher education courses

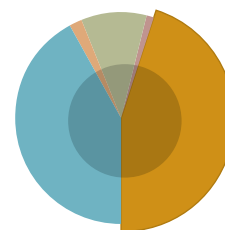
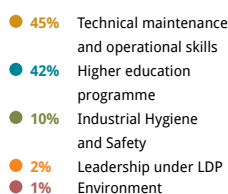
After the success of the High-School Completion Programme under which 108 employees obtained their high-school diplomas, two higher education courses were launched in 2012 with 200 students enrolled.

Developed under the Mine Closure Plan, the courses were selected by employees themselves, who valued the opportunity to be trained and be ready for their job exit.

They are the Food Studies course delivered by the Tucumán Education Department and the Technical Mining Studies course delivered by the National University of Catamarca. These three-year training courses were launched in 2012.

These two courses continued during 2015 with 138 employees enrolled. Classes are delivered on site after working hours in a setting designed and equipped for the class. To this end, the temporary campsite was remodelled in order to set up an exclusive building for the "Minera Alumbra Education and Training Centre". It has two classrooms where the courses are delivered that include all the required amenities and technology. There is also a kitchen-classroom with all supplies, appliances and utensils for practical classes.

Breakdown of hours of training by course subject, 2015



Total: 118,182 hours

Source: Minera Alumbra



In 2015, \$ 288,790 were spent on employee training programmes totalling 118,182 hours of training.



Food Studies students at a practical class of the course delivered for site employees as part of the Social Closure Plan.

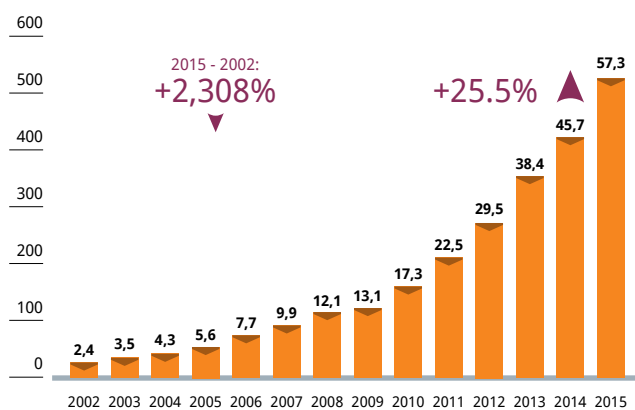


Employees have varied menus offered at the canteen. The service is certified under ISO 22,000 that guarantees food quality and safety.

Salaries

The net monthly salaries paid by Minera Alumbraera in 2015, excluding social security payments and contributions, totalled \$ 57,343,405. This is 25.5% above previous year levels. Salaries nominally increased 2,308% from 2002 to 2015.

Evolution of annual net salary paid by Alumbraera in millions for 2002-2015



Source: Minera Alumbraera

The amount paid as social security payments and contributions totals \$33.1 million in this period. Therefore gross salary payments made by Alumbraera total \$ 90.5 million.

The net average salary is \$3,817 and the gross average salary is \$6,022 per month.

Considering their net average salary, Minera Alumbraera employees are ranked among the highest paid groups in the Argentine economy. For example, such average remuneration is 5.8 times the adjustable minimum living wage, and 2.4 times the average salary of registered private sector employees in the Argentine economy³.

³ As of September 2015, it was \$ 1,600 according to the Argentine Labour, Employment and Social Security Department.

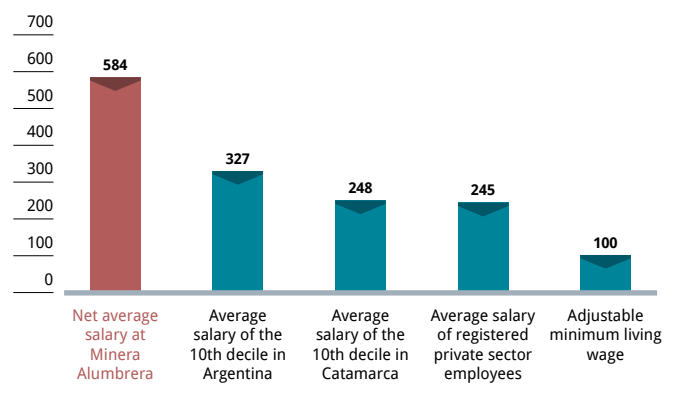
The average monthly salary of a Minera Alumbraera employee, excluding social security contributions, is 80% higher than the average salary earned by 1.5 million of the highest paid employees in the country. Additionally, it is 2.4 times the average salary of the first decile (average salary of 10% of highest income earners) of Catamarca city employees.

► **39.9%**

was the Minera Alumbraera average salary increase against previous year levels.

This is slightly higher than the relative increase in the adjustable minimum living wage of 37.7% and in the average salary of registered private sector employees of 31.3%.

Salaries paid by Minera Alumbraera vs. other pay scales, 2015 Base= adjustable minimum living wage = 100



Sources: Argentine Statistics and Census Institute (INDEC), the Labour, Employment and Social Security Department (MTEySS), and Minera Alumbraera. The INDEC data (10th decile salaries) corresponds to Q2 2015. Private sector salary as of September 2015 and minimum wage as of December 2015.



► 875

unionised employees in 2015.

Safety advisors Daniel Escalante and Enzo Faedda.



► 2015

No strikes were reported at Minera Alumbra

Environmental Officer Cinthia Romina Arias testing samples at the Filter Plant lab.

Labour relations

At Minera Alumbra, our workforce consists of unionised employees involved in mining operations who are subject to the Collective Bargaining Agreement of the Argentine Mine Workers Association (AOMA) and non-unionised employees consisting of clerical employees, supervisors, professionals and managers, among others.

Out of a total of 1,252 employees on payroll, unionised employees totalled 875 in 2015. Not every employee is a union member since, pursuant to the applicable Argentine laws, it is a personal decision of the employee in which Alumbra cannot interfere.

We respect the liaison that has been established with the industry guild as well as with central and regional trade unions to develop operational improvements and thus ensure world-class mining operations. We are committed to the development of work practices that foster mutual respect and encourage employee involvement and commitment.

LABOUR RELATIONS ARE A MAJOR RESPONSIBILITY IN MANAGING OUR HUMAN CAPITAL. WE STRIVE TO ESTABLISH DIRECT LIAISON BETWEEN OUR EMPLOYEES AND MANAGEMENT TEAMS, SUPPORTED BY HONEST, EFFECTIVE AND ONGOING COMMUNICATION, EASILY ACCESSIBLE INFORMATION AND MUTUAL TRUST.

We communicate with our people in advance of potential changes in the organisation, such as acquisitions, mergers or the closure of operations to ensure a smooth transition. The minimum notice term varies in line with operational requirements and, in some cases, it has been established in the relevant Collective Bargaining Agreement.

In fact, in 2015 meetings were held with the entire workforce to explain our production status as well as the general guidelines applicable to mine closure.

There is commitment of both parties (union and Minera Alumbra) to maintain the social peace in the resolution of conflicts and to communicate appropriately to address matters of mutual interest. Therefore, regular meetings are held between internal union representatives and the Minera Alumbra ones. In 2015, numerous meetings were held to prepare the new Collective Bargaining Agreement which will be effective during 2015-2018 and which provides for improvements for the benefit of employees.



CAMPSITE



SPORTS



GYM



SMALL SCREENING ROOM



PUB



RECREATION



TRANSPORTATION



CANTEEN

Benefits

COMPANY BENEFITS ARE ROLLED OUT EQUALLY TO ALL WORKERS, WHETHER THEY ARE PERMANENT OR CONTRACT, FULL-TIME AND PART-TIME EMPLOYEES, IN ORDER TO ENSURE FAIR TREATMENT AND AVOID EMPLOYMENT DISCRIMINATION IN STAFF HIRING CONDITIONS.

There were 28 part-time employees in 2015.

In order to ensure that these conditions are met, Minera Alumbrera has a Fair and Equal Treatment Policy in place. Accommodation, canteen and transportation services are guaranteed to everyone.

We provide a suitable resting environment. Accommodation facilities consist of 550 rooms at the permanent campsite and additional 720 rooms at the temporary campsite.

Modern and comfortable sports and recreation facilities are available at the site. Our sports centre includes football, volleyball, basketball and hockey fields, as well as paddle and tennis courts. It also has a gym, a small screening room, a pub and recreation room, including pool billiards, ping pong and table football tables and video game consoles.

At the gym, two fitness instructors give spinning, aerobicing and cross fit classes to employees. In addition, they teach training routines to athletic and overweight people, among other daily activities.

Employee recreation services are provided by a company from Andalgalá. There are also laundry services and three barbecue areas. All these services are cost-free.

Employees are transported by bus to and from Andalgalá, Belén, Santa María, and the capital cities of Catamarca and Tucumán by two Catamarcan companies. In-house transport services are provided by a bus company from Santa María.

Our caterer has maintained its ISO 22000 Certification since 2010. This management tool guarantees food quality and safety.



Employees attending theoretical classes of the Food Studies course delivered on site.

Maternity and retirement

Minera Alumbrera complies with the Argentine Employment Contract Law and Collective Bargaining Agreement regarding maternity protection, ensuring that all our female employees return to work under the prior work conditions after their maternity leave.

In addition, female employees who work at the site are benefited with an extended paid leave prior to childbirth as from the second trimester of pregnancy.

► 10

En 2015 hubo 10 casos de maternidad, de las cuales 6 mujeres volvieron a sus tareas.

Minera Alumbrera has no employee retirement programme. However, support is provided to retiring employees including counsel on retirement programmes, temporary health coverage and miscellaneous professional advice, as applicable.



Management system

We rely on prevention, suitable equipment and tools, and self-care



Performance

Below our main target, that is 0 disabling injury incidents. Incidents occurred during the execution of simple or mechanical tasks



Risk management

Total risks identified in the different operations under Glencore's Risk Management Corporate Framework were reviewed and updated



Joint health and safety committee

This consulting committee is made up of union and Alumbreira's representatives. New committee at Alumbreira Port Facilities



► LTIFR

2015 = 0.75 vs. 2014 = 0

► TRIFR

2015 = 1.69 vs. 2014 = 1.06



Training

Through the online and personal training platform we are working in the dissemination of "Safe Work" programme protocols



Occupational health

Compliance with the Annual Programme of Risk Agent Monitoring in all our areas. 30 studies were performed to check working conditions



While world-class companies averaged 5.1 incident per million hours worked, in 2015, Alumbreira reached 1.69 in the same period



Emergency practices

58 Alumbreira's brigaders spent 192 hours at the training site

Mine Site Operations Supervisor, Daniel Andreola, monitoring heavy equipment.

Occupational health and safety

The health and wellbeing of the people working at Alumbrera is a non-negotiable priority for the Human Resources management, reflected in our values and strategic objectives.

Protecting our people's safety and keeping a safe and injury-free working environment is the maximum priority. We are committed to achieving leading practices in the mining industry in terms of our staff's Health and Safety. For this reason, we always comply with legal requirements.

For safe operations, we need to have not only suitable technical equipment but also to make staff take the right decisions to avoid damages, injuries and diseases related to the workplace.

Health, Safety and Risk Management practices are ruled by obligatory policies, standards and procedures applied to all employees and contractors.

Our management is committed to the implementation of these standards and procedures, and also to ensuring that support systems are duly implemented.

We establish Health, Safety and Risk Management goals and performance is strictly monitored, measured and reported on an on-going basis.

Our employees and contractors are committed to understanding and complying with safety procedures and to promptly reporting any circumstance that may represent a threat for themselves, other people, our facilities, the environment and the nearby communities.

Joint committee

Within the framework of Alumbrera's safety plans and strategy and, based upon the terms of the Collective Bargaining Agreement, Minera Alumbrera has a consulting Joint Health and Safety Committee. Monthly meetings are held to review different health and safety situations involving our employees. For instance, improvement opportunities, corrective measures, safety inspections, equipment quality, etc.



Training of rescuers in abseiling techniques.

The activities of this Committee must comply with Argentine laws related to occupational health and safety.

ALL ALUMBRERA'S UNION AND NON-UNION WORKERS ARE RESPONSIBLE FOR THEIR OWN SAFETY AND THAT OF THEIR WORKMATES AND FOR THE EQUIPMENT THEY USE TO WORK.

► In 2015

a Joint Committee was formed at Alumbrera Port Facilities, in the province of Santa Fe.

During such period, as in previous years, no penalties or fines have been imposed on Minera Alumbrera for the violation of any Argentine laws and rules related to health and safety.

Our 2015 performance

► 15%

In 2015, there were 297 incidents, 15% fewer than in 2014.

► 32%

On the other hand, vehicle-related incidents dropped by 32% and there was 10% fewer safety observations compared to 2014.

Despite all our efforts, in 2015, performance was below our main goal that is 0 disabling injuries.

There were 4 labour incidents with injuries which prevented workers from continuing with their usual activities. Our Disabling Injury Frequency Rate (DIFR) was 0.75 compared to 0 in 2014.

If we consider such 4 incidents with Time Lost Injuries, our Disabling Injury Severity Rate (DISR) was also higher than in 2014. In 2015, the DISR was 67.65 compared to 0 in 2014.

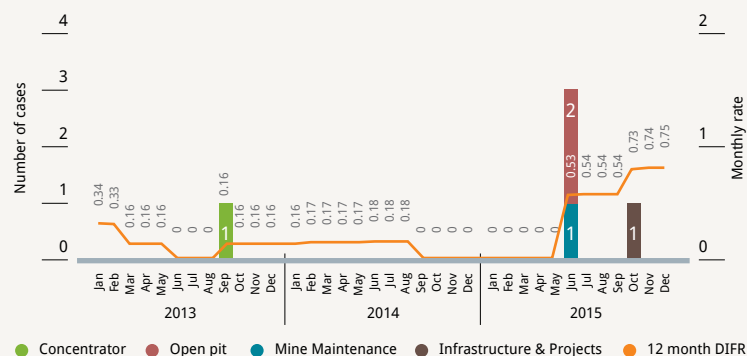
Regarding the Total Recordable Injury Frequency Rate (TRIFR) in 2015, our performance was below expectations. They amounted to 9 compared to the 5 estimated in 2014, which included the 4 disabling injuries previously mentioned. The TRIFR was 1.69 compared to 1.06 in 2014.

1 Incidents resulting in fatalities and occupational injuries or diseases which generate time lost in one million hours worked. Classification based upon the British Occupational Safety and Health Administration.

2 The days lost due to incidents resulting from fatalities and occupational injuries or diseases, which generate time lost in a million hours worked. Classification based upon the British Occupational Safety and Health Administration.

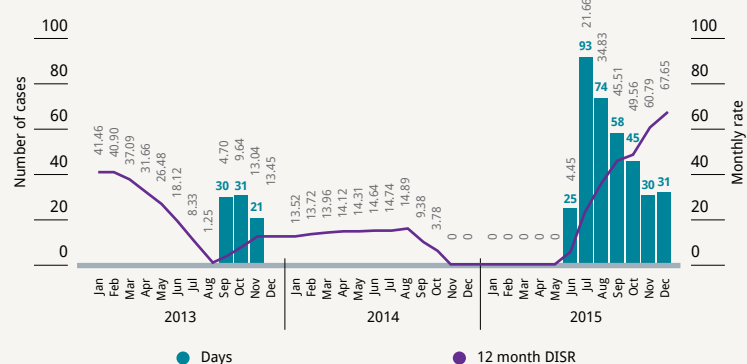
3 Incidents resulting from fatalities and occupational injuries or diseases which generate time lost, and incidents resulting in medical treatment, in a million hours worked. Classification based upon the British Occupational Safety and Health Administration.

DIFR – 2013-2015



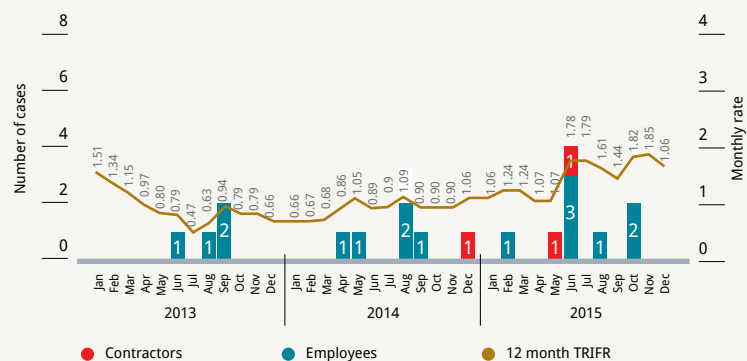
Source: Minera Alumberrera

DISR – 2013-2015



Source: Minera Alumberrera

TRIFR – 2013-2015



Source: Minera Alumberrera



Flotation Mechanical Maintenance performed at the Concentrator, no repetitive movement risks have been detected.



Through 30 studies in different areas, the right preventative measures were evaluated to avoid health risks to employees.



Backhoe operator's position was monitored to check working conditions at the Tailings Dam.

Occupational health

Minera Alumbrera is committed to managing all the resources required to encourage and ensure the highest physical, mental and social wellbeing of employees and contractors.

Based on the standards of the International Labour Organisation, the World Health Organisation and Argentine laws on occupational health, all work-related health problems are preventable.

Based upon the foregoing, at Minera Alumbrera we keep on fostering different preventative strategies as in previous years. In 2015, in addition to the development of our Annual Risk Agent Monitoring Programme across the whole organization, we developed a strong campaign to analyse the working conditions and environment in different sectors of Minera Alumbrera's operations.

The studies performed were based on three different aspects:

- The physical load and muscular, physical and mental efforts required to perform a specific activity.
- The environment where a specific activity is performed.
- The specific working conditions.

This was implemented in different environments:

- **Concentrator:** operation and mechanical and electrical maintenance activities at the site.
- **Mine Maintenance:** mechanical and electrical maintenance of heavy, light and service equipment.
- **Mine Site:** loading, haulage, drilling and service equipment operation.
- **Human Resources and Site Services:** building maintenance equipment operation.

After 30 studies, the following was established:

- No risk situations due to the execution of repetitive movements and/or forced actions of upper and lower limbs.
- Suitable safety measures and protective elements.
- No situations which might lead to labour fatigue.

Analysis teams were made up of Alumbrera's Medical Service directors, safety advisors of different areas and workers interviewed.

IN 2015, ALUMBRERA'S WORKERS AND CONTRACTORS WERE INCLUDED IN THE ANTI-FLU VACCINATION CAMPAIGN. OVER 900 PEOPLE HAVE BEEN VACCINATED.

Safety leadership

During 2015, we continued with the Safety Leadership Development Programme, intended for employees and contractors. It is intended to reinforce the capacity of the participants to develop their essential communication and interaction skills. Next year, new training modules will be added.

Issues included the useful tools to become a good leader, a review of the goals to be achieved, a revision of basic preventative tools and the commitment of leaders to their implementation. 10-hour training courses are held four times a year. They are attended by superintendents, supervisors and Category 1 workers with work team leadership roles.

In order to achieve safety leadership, it is necessary to work in risk management on a daily basis, apply the best practices and provide training to both employees and contractors. This is a priority not only for Minera Alumbraera but also for the mining sector, at the domestic and international level, and has the same importance as productivity.

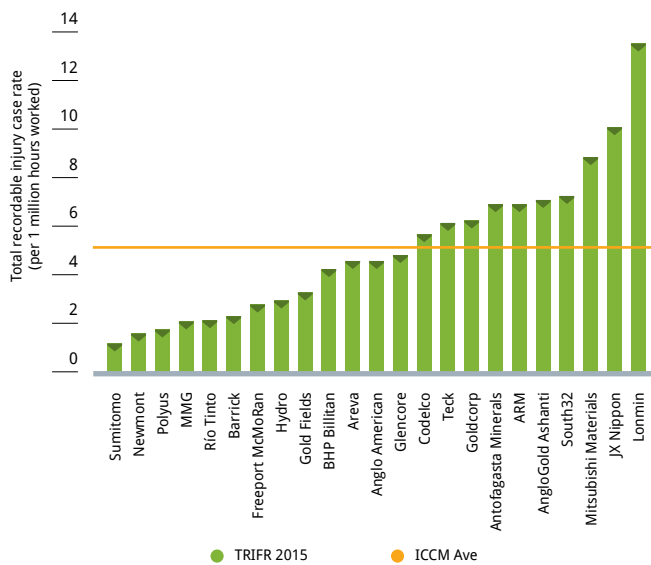
This sustained commitment during 18 years of operations renders Minera Alumbraera into a national leader. Domestic comparison is difficult because measurement methods are different from those generally used in the world's mining industry.

In Chile, a country with a long-lasting mining tradition, the incident frequency rate in the last years dropped up to 2 incidents per million hours worked, as per the preliminary data of the Sernageomin (National Service of Geology and Mining). Alumbraera is below such rate.

Internationally, we are well ranked in safety management issues, compared to world-class miners (market leaders because of their size and history).

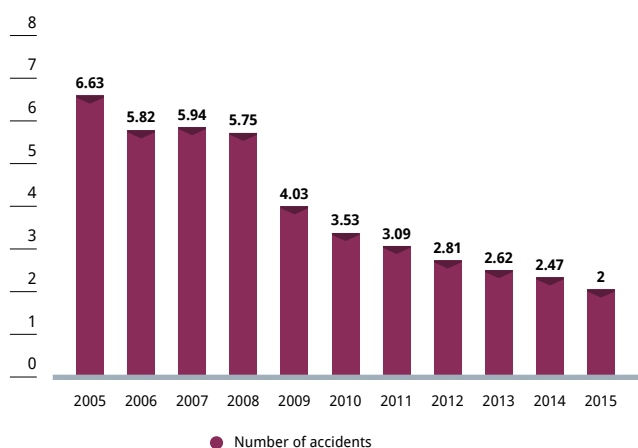
According to the International Council on Mining and Metals (ICMM, in English), made up of world-wide miners, the average published for 2015 amounts to 5.1 incidents per million hours worked. Alumbraera averaged 1.69 during such period.

Accident Frequency Rate in the Mining Industry. 2005 - September 2015



Source: ICMM and Minera Alumbraera

Accident Frequency Rate in the Mining Industry - 2005. September 2015



Source: Sernageomin, Chile government.

Risk management

Risks are identified and monitored through the Risk Management Corporate System. Risk management entails proactive support to prevent injuries resulting from High Potential Risk Incidents (HPRI), Potentially Hazardous Activities (PHA) and Critical Incidents (CI).

In 2015, the risks identified in the different operations of Minera Alumbraera were reviewed and updated according to Glencore's Risk Management Corporate Framework and the Risk Matrix suitable for Minera Alumbraera's operations.

4 http://www.sernageomin.cl/pdf/mineria/estadisticas/accidentabilidad_Minera/Estadistica-de-accidentabilidad-Minera-Tercer-Trimestre%202015.pdf

5 The International Council on Mining and Metals (ICMM) is an organization led by executive directors of the mining industry engaged in sustainable development. ICMM gathers worldwide leading mining and metals companies, as well as regional, national and commodities associations.

The Risk Management Procedure was also updated. We keep on working on the evaluation of the effectiveness of major risk critical controls.

South America Glencore's Copper Division Safety Forum was held at Alumbraera in 2015. It was a 2-day event where the leaders of Health, Safety, Environment and Communities (HSEC) analysed joint strategies and initiatives on safety management, visited operating areas and exchanged good practices. This was a highly enriching experience and showed the commitment of every Glencore's business to continuously improving their safety performance.

Training

Different aspects of our safety management are based upon definitions included in ISO 3100, OSHAS 18001, the best international practices promoted by the ICMM and the national laws in force.

Beyond the standards, procedures and equipment, keeping a safe behaviour is a daily effort which requires every worker's awareness and personal commitment. One of the key objectives is to increase self-care, proper decisions and the accountability of everybody in accident prevention.

For this reason, in 2015, through Alumbraera's online training platform – apart from the traditional methods for those not having access to the system- we keep on working in the dissemination of Life-saving Protocols of the "Safe Work" Programme implemented by Glencore at their operations: work at heights, energy blocks, electric shock risk, light vehicle driving inside and outside the mine site, lifting activities and crane work.

THANKS TO THE ONGOING PREVENTION AND CONTROL MEASURES, NO OCCUPATIONAL DISEASES HAVE BEEN RECORDED.



Fire attack drill by brigaders.

Emergency Practices

In the period under review, 6 new persons joined the 58-member Brigade and were distributed in different areas and work shifts.

The whole group was trained in First Aid and CPR practices, fire attack, rescue in confined areas, vehicle rescue, abseiling and descent with ropes.

Training was organised by Alumbraera Fire Brigade which instructed new brigaders to pass all processes. Training involved 192 hours during the year.



Biodiversity

We aim at protecting biodiversity through programmes involving revegetation using native species, relocation of cardon cacti, reforestation and monitoring of vegetation and wildlife.

- Biodiversity programmes
- Revegetation: The Revegetation Plan in areas affected by our operations supplements the waste dump and tailings dam cover programme to rehabilitate land upon mine closure.
- Reforestation with carob trees: 5,900 seedlings grown in flowerbeds and 500 in the rustification area, ready to be transplanted to the land.
- Cardon cacti rescue: 347 cardon cacti were rescued and replanted.



Training

104 training courses on environmental issues were delivered to 980 attendees on site.

Energy

In 2015, the direct use of energy amounted to 852,427,903 kWh



Waste

In 2015, total waste amounted to 5,504 tonnes



Water

Water use was minimised and, for such purpose, we increased the amount of process water reclaimed. In 2015, the total average use of water at the concentrator plant was 2,588 l/s, out of which 716 l/s were freshwater.
Water footprint of concentrate: 108.34 l/kg lower than water used by some agricultural activities in the area.



GHG Emissions

We are developing programmes to capture or mitigate GHG emissions and increase the rate of energy obtained from renewable or low-carbon energy sources.



Air

There are 5 monitoring stations at Bajo de la Alumbrera and 3 in the nearby communities.
- PM10 concentration: below the reference value of 150ug/m³ set out in Law 24585.
- Lead concentration: below the reference value of 1.5 ug/m³.
This confirms our good performance and protection of the environmental conditions of nearby communities.

Environmental performance

Our commitment to the environment relies on a policy focused on the efficient use of natural resources, the mitigation of any impacts caused by our site which could affect the environment, biodiversity preservation, waste reduction, land rehabilitation and mine closure planning¹.

We are committed to protecting, in a responsible way, the environment and the natural landscape surrounding the deposit and the neighbouring communities, where most of our employees and their families live.

OUR EFFORTS ARE FOCUSED ON SUSTAINABLE DEVELOPMENT THROUGH SPECIFIC OBJECTIVES, PROGRAMMES AND FINANCIAL RESOURCES.

We have a precautionary approach, meaning that even in the absence of scientific evidence that environmental degradation is occurring or will occur, we take action to mitigate this possibility. If environmental incidents do occur we determine the cause and take immediate action to remediate and prevent a recurrence.

This careful daily work relies on an environmental management system certified by ISO 14001 standard². This system monitors operations at the mine site and in external facilities, such as the Filter Plant in Tucumán, the concentrate transport by railway and loading at the San Martín port facilities in Santa Fe.

Within the framework of responsible work under international standards, we also have a Quality Management System (ISO 9001) for water or soil sampling, valid for all sites where we operate.

In 2015, we met the requirements of the competent regulator regarding environmental monitoring activities, just like we did throughout the life of the project, and also complied with requests and commitments stated in the last Environmental Impact Statement, which included mining activities at the Bajo El Durazno deposit.

The Environmental Impact Report of Bajo El Durazno was updated and then approved by the Mining Department of Catamarca.

Likewise, the chemical laboratory at the Filter Plant, where Minera Alumbrera performs water and soil monitoring tests, renewed its certification under IRAM 301 (ISO 17025) for the fourth time in a row until 2020.

Main Environmental Permits renewed in 2015:

- Effluent generation and discharge (DP2 Canal).
- Hazardous waste generation and final disposal (Catamarca – Tucumán – National Government).
- Pathological waste generation and final disposal (Catamarca).
- Mandatory Environmental Insurance in compliance with Argentine Environmental Law 25675.

IN 2015, NO PENALTIES OR FINES WERE APPLIED BY THE COMPETENT REGULATOR IN CONNECTION WITH ENVIRONMENTAL PERFORMANCE.

Environmental Leaders

Environmental initiatives carried out by environmental leaders have had good results since the team was created in 2013. This work team is made up of representatives of different operational areas who provide environmental support through the dissemination of sustainable practices, resolution of usual problems, monitoring of environmental risks and verification of compliance with environmental observations. No incidents higher than Category 1³ have been reported in the last 6 years.

► In 2015, there were **923**

observations related to environmental protection.

¹ For more information about this programme, see the "Mine Closure" chapter.

² Recertification of the Environmental Management System was obtained by late 2014 and will be valid until 2017, and includes two external audits per year.

³ Category 1: Negligible environmental impact with no environmental damage, which does not need to be reported to any regulatory agency. It does not cause any impact. No impact. Incident categories range from 1 to 5, with a gradual escalation of the impact, damage and required remediation.

Training

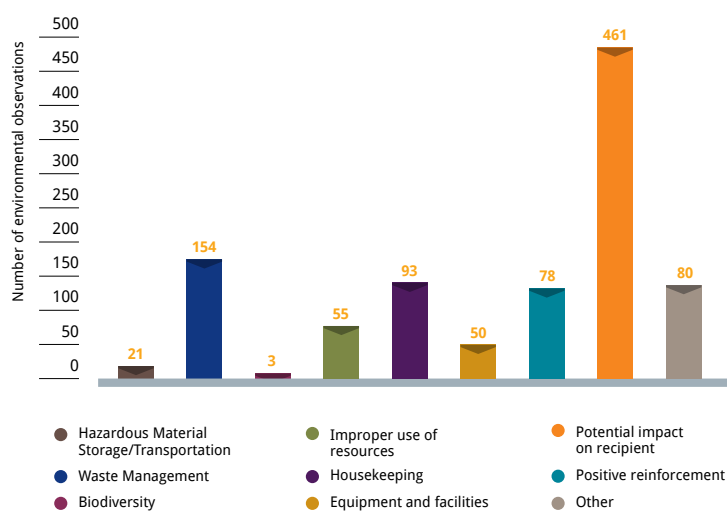
The environmental training programme for employees, contractors and visitors seeks to communicate our environmental policies across work areas.

During 2015, 104 training courses were delivered with the attendance of 980 people. The courses dealt with waste management, safe work, spill management and prevention, environmental aspect identification, biodiversity, certifications, environmental observations, and archaeological heritage, among other things.



This improvement developed by the environmental leaders is a used oil recovery system operated using a closed circuit to facilitate oil cleaning and to avoid the use of new oil.

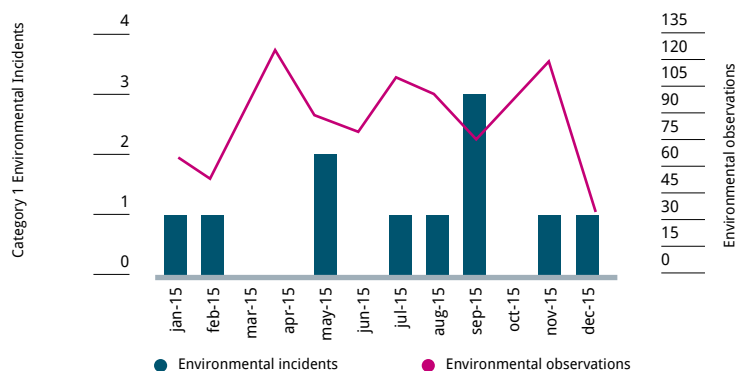
Environmental observations. 2015



Source: Minera Alumbra

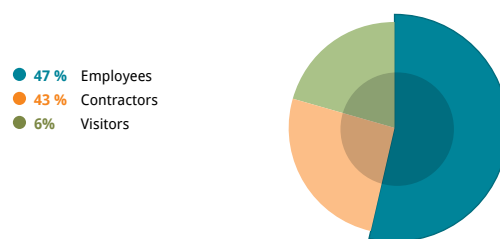
Environmental observations are proactive tools that help prevent environmental incidents. The greater the number of observations detected, the lower the potential risk of occurrence of serious incidents.

Proactive indicators in 2015



Source: Minera Alumbra

Targeted trainees. 2015

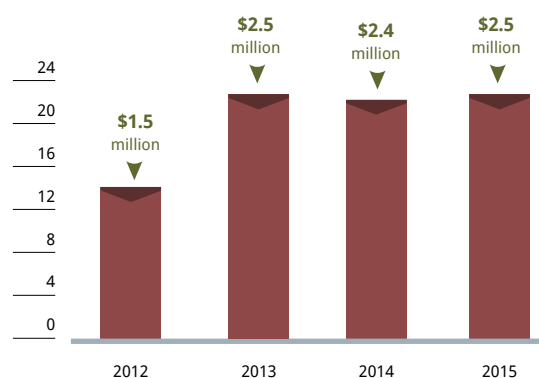


Source: Minera Alumbra

Expenditure

Minera Alumbra spent \$22.9 million on environmental initiatives, including programmes, training, monitoring, capital expenditure, permits, and consulting services.

Environmental expenditure in million Pesos. 2012-2015



Source: Minera Alumbra



Turdus chiguanco photographed during our seasonal biodiversity monitoring activities in 2015.



Philibertia gilliesii is one of many species dwelling in the Vis Vis River area.

BIODIVERSITY

Site operations may potentially disturb the ecological habitat. At Alumbraera, we seek to mitigate any potential consequences through environmental programmes, such as revegetation using native species, relocation of “cardon” cacti recovered from operational areas or reforestation, in addition to monitoring activities to prevent impacts on the water, soil and air beyond the boundaries of the mining concession.

At Minera Alumbraera, we strive to protect biodiversity through local vegetation and wildlife monitoring activities in the Bajo de la Alumbraera area, for which no previous survey records are available. Thus we also make a contribution to the global scientific community by identifying local species⁴.

Upon mine closure, the area allocated to biodiversity management plans will be approximately 1,400 hectares. All these areas are being evaluated to identify the process and methods for land rehabilitation and mine closure⁵.

Our guideline is a forestation policy that prioritises a sustained management of native forests, while avoiding the introduction of exotic species.

No species in the International Union for Conservation of Nature (IUCN) Red List or the Argentine conservation list have been observed in the operational areas and no activities are being conducted in protected areas inhabited by local vegetation and wildlife.

⁴ For instance, we published “A Guide to Bajo de la Alumbraera Native Vegetation” and “A Guide to Bajo de la Alumbraera Vertebrates.”

⁵ For more information about this issue, see the “Mine Closure” chapter.

WE UNDERSTAND BIODIVERSITY AS THE VARIETY OF LIFE FORMS DEVELOPED IN A NATURAL ENVIRONMENT, INCLUDING PLANTS, ANIMALS, MICROORGANISMS AND THEIR GENETIC MATERIAL.

Biodiversity Programmes

• Carob tree forestation

In 2015, carob tree seedlings were grown at Minera Alumbraera’s greenhouse. At present, there are 5,900 seedlings in flowerbeds and 500 in the rustification areas, ready to be transplanted.

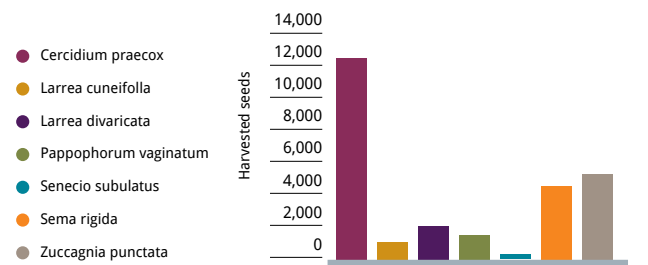
Seeds are stored in Minera Alumbraera’s site-based Germplasm Bank. These banks are also called “genetic resource centres” and they bring future benefits for humankind and the environment since they are sources of diversity.

Since 2010, seeds of native species, including carob trees, have been stored and germinated at this bank to be used in areas to be revegetated. During the reporting period, 40 kg of carob tree pods have been threshed and scarified⁶ to obtain 10,000 seeds. These seeds are planted in pots and then are placed in flowerbeds for germination before being planted in the ground.

⁶ To make shallow cuts or incisions in the outer coat of seeds to enhance the intake or outpour of certain liquids.

THE SITE-BASED SEED HARVESTING LEVEL WAS LOW DUE TO SCARCE RAINFALL DURING THE ANNUAL HYDROLOGICAL CYCLE.

Harvest 2015

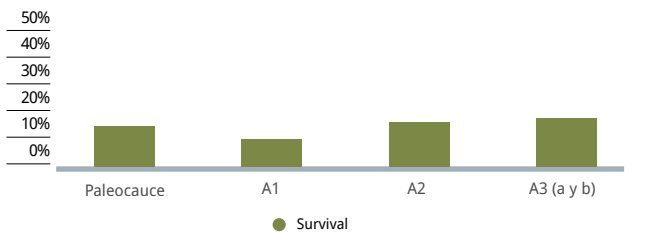


Source: Minera Alumbreira



Communities have received carob tree seedlings grown in our greenhouse.

Survival rate of carob trees in site-based plantations. 2015



Four areas identified for planting purposes at the mine site.

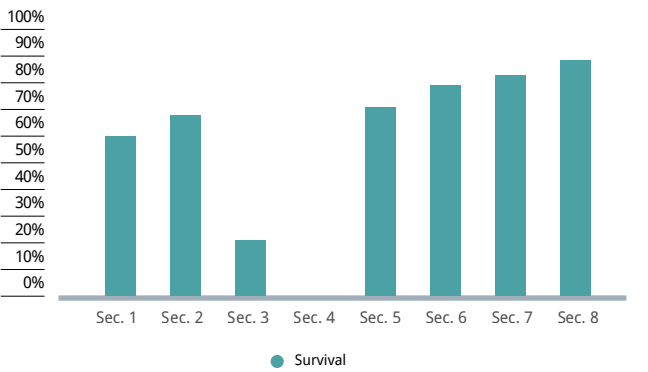
Source: Minera Alumbreira



Cardon cacti replanting in an area near the heliport.

In our site-based plantations, a high death rate of plants, mainly as a result of summer floods, was observed. These plants are planted in these areas precisely to reduce water erosion. Considering these results, new areas for plantation will be chosen.

Survival distribution per sector in Campo Arenal. 2015



Source: Minera Alumbreira



100 new carob tree seedlings were planted in Campo del Arenal in 2015.

Community Legacy

Throughout Alumbra's life, efforts were made to recover the culture of trees by planting trees to improve the mine site and local landscape, while enhancing nearby forests.

Local farmers voluntarily planted trees in their own lands under the Carob Tree Management Model. This initiative will allow forest grazing systems and pastureland to be incorporated leading to stable populations at low maintenance costs.

In 2015, carob tree seedlings grown in our greenhouse were provided to the communities.

► 1,600

seedlings for Belén, Catamarca.

► 1,200

seedlings for Santa María, Catamarca.

► 500

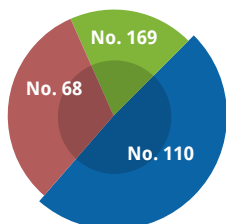
seedlings for Quilmes, Tucumán.

• Cardon cacti rescue

During 2015, we continued rescuing and replanting 347 cardon cacti. Our efforts were particularly focused along access roads in the Bajo el Durazno deposit. The survival rate of cacti will be assessed after a full cycle is completed in 2016.

Rescued Cacti Species. August 2015

- 49% Denmoza Rhodacantha
- 32% Gymnocalyaium Hyboplerum
- 19% Trichocereus Atacamensis



Source: Minera Alumbra



Collection of seeds of native species for the Germplasm Bank.



All planted cacti were marked. Cacti are 50 to 120 cm tall.



Cacti are removed from operational areas and replanted in areas suitable for the plant needs, after staying for a while at the greenhouse.



Yellow billed teals observed during biodiversity monitoring activities in 2015.

Biodiversity Monitoring

Any potential and actual impacts on the ecosystem should be known in order to take preventative management measures and corrective actions to address early alerts and restore the impacted areas. Thus, we work to ensure the long-term presence of vegetation and wildlife, water quality and availability, and the natural functioning of the ecosystem in the Bajo de la Alumbra area of influence.

It is essential to study biodiversity and to establish a connection between terrestrial and aquatic communities and the physical and chemical variables of water and its seasonal variations, and to identify species whose conservation must be prioritised.

Monitoring activities consist of the search, identification and survey of mammals, amphibians, reptiles, birds, limnology, fish and native vegetation to obtain indexes of abundance. These activities are carried out by a group of biologists from different national universities. The Mining Department of Catamarca and the Mining Department of Tucumán are also involved to certify work methods.

IN 2015, BIODIVERSITY MONITORING ACTIVITIES WERE CONDUCTED DURING THE WINTER AND SUMMER UNDER ISO 9001. THE DIVERSITY OF IDENTIFIED SPECIES IS SIMILAR TO THAT OF PREVIOUS STUDIES, WITH THE HIGHEST PEAKS IN WINTER AND OFF-PEAKS IN SUMMER.

MONITORING RESULTS

- **Plants:** 127 species and 34 botanic families. The richest site was the Vis Vis Canyon with 69 species during the summer.
- **Phytoplankton:** 29 genera and 36 species of algae of 4 divisions.
- **Zooplankton:** 19 species and 179 individuals.
- **Reptiles:** 6 species of 3 genera.
- **Birds:** 71 species, 6 of which are classified as "vulnerable" at the national level.
- **Mammals:** 18 species in the entire area of the deposit, including 14 native and 5 exotic species.

DISTURBED*, REHABILITATED AND REVEGETATED AREA IN HECTARES. 2015 AND 2003-2015.

		2015	2003 - 2015
REHABILITATED LAND	Alumbra Waste Dumps	3.01	79.02
	Bajo el Durazno Waste Dumps	3.41	3.41
	Tailings Dam	0	1.75
REVEGETATED LAND	Tailings Dam	0	1.75
	Waste Dumps	0	10.52
DISTURBED LAND	Bajo de la Alumbra	0	77.86
	Bajo de la Alumbra Waste Dumps	0.26	235.23
	Tailings Dam	20	734
	Bajo el Durazno Deposit	19.74	25.88
	Bajo el Durazno Waste Dumps	25.59	25.59

*Disturbed Area: Area altered by action of mining operations, either by excavations as is the case of the open pit, or in-fill as in the case of waste dump disposal.

Total rehabilitated areas	Total revegetated areas	Total disturbed areas
84.30 ha	12.27 ha	1,098.26 ha

Ecoefficiency Indicators

In 2015, water, energy and diesel fuel consumption levels were as planned, as shown by our full compliance with ecoefficiency indicators.

Production Consumption

Performance Indicator	Unit of measurement	Target 2013	Target 2014	Target 2015	Result 2013	Result 2014	Result 2015	Ecoefficiency % 2013	Ecoefficiency % 2014	Ecoefficiency % 2015
Freshwater	l/t milled	642	670	683	634	661	683	33	33	33
Recycled water	l/t milled	1696	1600	1600	1600	1761	1785	-	-	-
Energy	GJ/milled	0.083	0.085	0.093	0.084	0.086	0.096	33	33	33
CO ₂ eq	t CO ₂ /k t moved	1.78	1.84	1.92	1.72	1.80	1.83	33	33	33
								100%	100%	100%

● Better than budget + 5%

● In line with budget +/- 5%

● Worse than budget -5%



At the Filter Plant located in Tucumán, concentrate is dewatered and water is tested in accordance with provincial regulations.

WATER MANAGEMENT AND USE

Freshwater is a unique scarce natural resource that is essential for life and for production activities. The area where we operate is dry and water availability is limited. Therefore, we restrict water consumption as much as possible by increasing the amount of reclaimed process water while replacing freshwater use⁷.

• Water withdrawal

Freshwater used for our operations is supplied by the Campo del Arenal aquifer, in Santa María district, Catamarca. Water is withdrawn from eight deep wells and pumped through a 21-km water pipeline to the mine site, where it is stored in a freshwater dam.

The impact caused by water extraction from the aquifer is restricted to the southwest of the basin. It does not affect the Santa María River flows, located 40 km to the northeast of the Alumbraera well field.

In the west edge, the Campo del Arenal aquifer borders the Los Nacimientos River basin, the headwaters of Belén River. Geophysical studies and drilling activities have shown the limited connection between the two basins, so an impact caused by the extraction of groundwater from the Campo del Arenal aquifer on the flow of Belén River is ruled out.

Mathematical models are developed and updated to confirm that our operations do not affect water availability for neighbouring communities. These models are also used to develop predictive analyses to know the aquifer recovery times. People from neighbouring communities use water from the wells drilled in the upper aquifer, whereas Alumbraera extracts water from the deep aquifer, meaning that water availability is not affected.

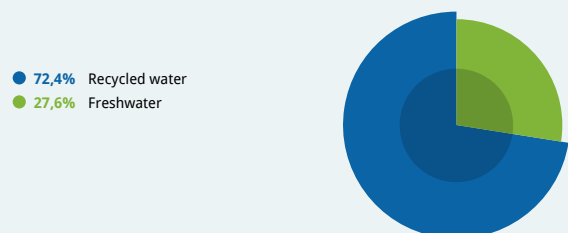
This basin is recharged by surface water flows from neighbouring hills and by rainfall water.

Water use improvement

Process water is not discharged into local rivers or aquifers downstream the site. The only water that exits this closed processing circuit is water contained in the concentrate pumped through the slurry pipeline, which represents 2.5% of total freshwater.

Significant amounts of water are evaporated –since this is a dry area with low rainfall levels–, but are replaced by freshwater from Campo del Arenal. The highest evaporation level occurs in the area of the tailings and freshwater dams. Approximately 70% of the water used in concentrate processing is recovered through the pumpback system.

Percentage of fresh and recycled water. 2015



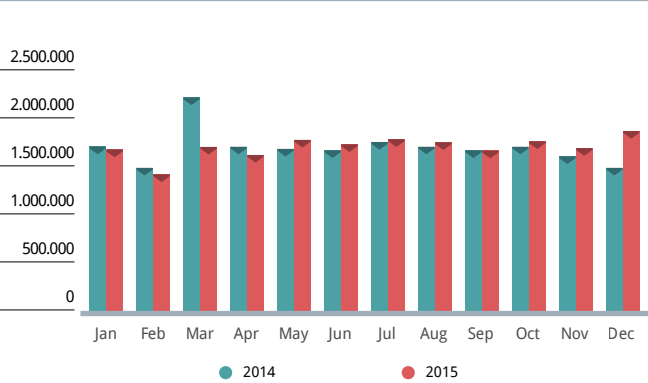
Source: Minera Alumbraera

⁷ Water used for the first time in the production process.

The water recovery system is monitored every day, while the extracted freshwater volumes and the aquifer groundwater levels are measured every month.

The water recovery system efficiency is evidenced by regular pumping volumes.

Reclaimed Water - 2014-2015 in m³



Source: Minera Alumbraera



New pumps installed at the drainage collection pond.

Water in the communities

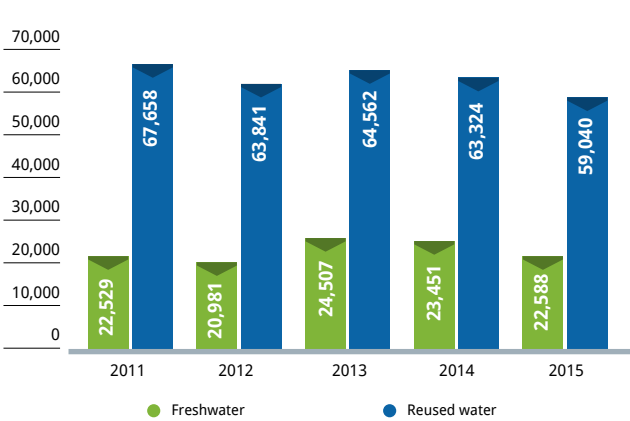
Although water availability in the communities is not compromised by our water use in processing activities, we cooperate with local residents by supplying drinking water for their cattle upon request. In addition, we perform annual maintenance of groundwater wells used to withdraw water for cattle. We also perform occasional maintenance works of drinking water sources for the communities.

Water consumption

Minera Alumbraera total water requirements totalled 2,588 l/s in 2015, including 716 l/s of freshwater. The water use level permitted by the Mining Department of Catamarca is 800 l/s.

This shows a decline compared to 2014 levels, mainly due to the lower amount of ore milled. In turn, the availability of recycled water increased due to the installation of a new pipeline that transports recycled water to the pumping tower.

Water consumption in m³ from 2011 through 2015

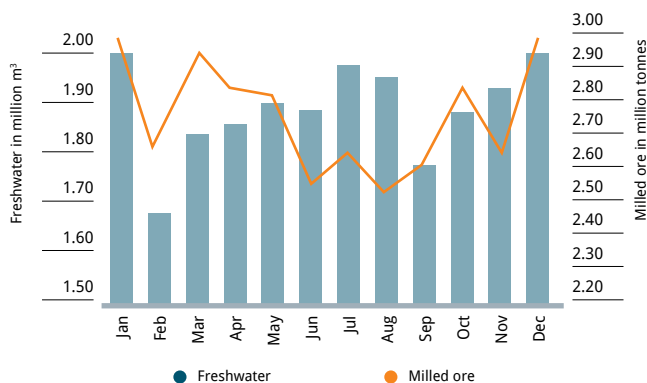


Source: Minera Alumbraera

WATER VOLUMES USED IN PROCESSING ACTIVITIES IS CHANGEABLE. FRESHWATER REQUIREMENTS FOR MILLING PURPOSES VARY THROUGHOUT THE YEAR DUE TO THE VARIABLE VOLUME AND CHARACTERISTICS OF ORE FROM THE BAJO EL DURAZNO DEPOSIT.

In 2015, freshwater requirements were lower due to the higher availability of water at the tailings dam pond as a result of rainfall. During the rest of the year, free water on the surface evaporated affecting water availability at the tailings dam for reutilisation purposes.

Freshwater consumption and milled ore. 2015



Source: Minera Alumbra

Water Footprint

In 2014, we determined the water footprint of our copper concentrate. This is useful to compare the amount of water used to produce one product unit with the amount of water used by other industries in the area.



► 14,431 l/kg

Olive Oil



► 1,782 l/kg

Refined sugar



► 108,34 l/kg⁸

Concentrate

Farming water requirements in Catamarca are estimated at 0.5 l/ha. The cultivated area is approximately 160,000 ha, meaning that estimated water requirements for Catamarca exceed 80,000 l/s. In contrast, Minera Alumbra uses 0.96% of the total water required locally for farming activities¹⁰.

⁸ This value shows water lost to evaporation.

⁹ Catamarca charges a water fee based on the estimated water use requirements set out by law since groundwater used by local crops is not measured. Minera Alumbra pays a water charge. For more information, see the "Our Economic Contribution" chapter.

¹⁰ Theoretical exercise on average water requirements for average soybean production.



Water monitoring activities at the tailings dam drains.

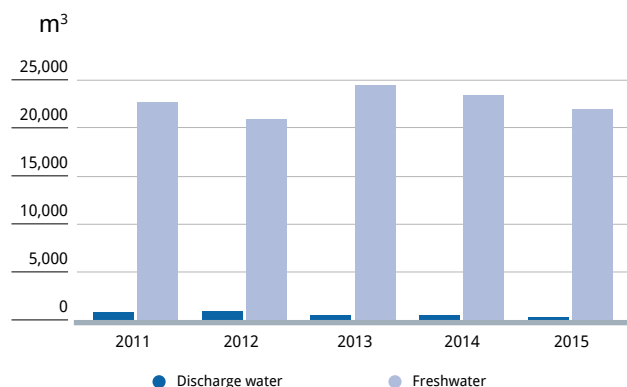
Discharge

Copper and gold concentrate is pumped through the slurry pipeline with added water from the mine site to our Filter Plant in Tucumán, where it is dewatered. Pumping water is treated prior to discharge into the DP2 canal.

IN 2015, WATER DISCHARGES CONTINUED DECREASING SINCE 2011 DUE TO THE IMPROVEMENTS MADE AND THE RECLAIMED PROCESS WATER TREATED IN DIFFERENT PROCESSES AT THE FILTER PLANT.

During this period, effluent discharges met the standards required under Resolution #30 from the Catamarca Mining Department, like in previous years of our operation.

Freshwater use and discharge into DP2 from 2011 through 2015



Source: Minera Alumbra

CLIMATE CHANGE

Our mining and processing operations have significant energy requirements. Since fossil fuels facilitate energy availability, it is necessary to reduce emissions and to be more efficient in our production and energy use. Therefore, contingency cost for carbon is included in our financial models, which helps us reduce our greenhouse gas (GHG) footprint.

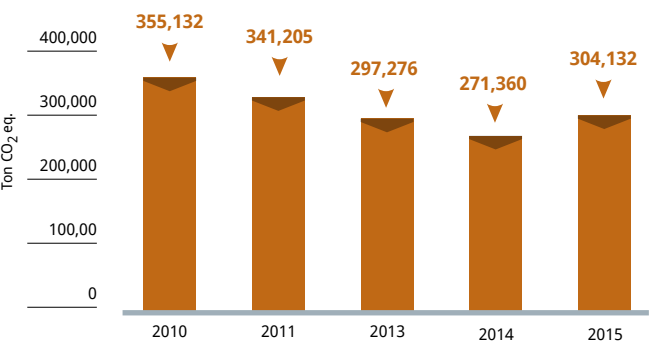
We are developing programmes to capture or mitigate GHG and increase the rate of energy obtained from renewable or low-carbon energy sources.

Alumbrera’s actions related to climate change include an annual inventory of emissions, the monitoring of environmental variables and the identification of sites where measures to reduce GHG may be implemented.

We prepared the emission inventory during two consecutive years with local consultants. Since 2013, it has been developed using international coefficients applied to a database of consumption levels at all Glencore operations. Thus, the evolution of Alumbrera’s carbon footprint is continuously monitored.

Alumbrera’s operating parameters and, consequently, its consumption levels, have remained unchanged over the last few years and therefore GHG emissions remain stable. The incorporation of the Bajo el Durazno deposit supplements Alumbrera’s production and, therefore, no significant change has been evidenced.

Alumbrera’s carbon footprint. 2010-2015



Source: Glencore group database



View of Campo del Arenal.

WE HAVE 3 WEATHER STATIONS WHICH RECORD ENVIRONMENTAL VARIABLES OF THE MINE SITE AND SURROUNDING AREAS. THIS ALLOWS US TO MONITOR ALL DATA AND RECORD THE POTENTIAL EFFECT OF CLIMATE CHANGE IN THE REGION.

In identifying ways to reduce GHG emissions, we aim to reduce electricity consumption (Scope 2) and fossil fuel consumption (Scope 1). In the latter case, we recorded direct CO₂ emissions resulting from the fuel used by rock haulage vehicles. Therefore, a fleet maintenance programme has been implemented to lower fuel consumption levels by planning short haulage cycles. In addition, oil is refiltered to extend its life.

Regarding electricity consumption, consumption levels depend on the type of material fed into the Concentrator Plant. The rock characteristics impact on the amount of energy used for grinding operations, which makes it difficult to reduce consumption in a planned and controlled manner. Hence, we prioritise the acquisition of energies from renewable sources (hydroelectrical).

11 GHG emissions have three scopes according to the GHG Protocol: Scope 1: direct emissions; Scope 2: indirect emissions; Scope 3: indirect emissions not controlled by the company.

ENERGY



Power supply:
202-km 220kV powerline.

The El Bracho power station is located in Tucumán province. The powerline is owned by Minera Alumbra. However, we have a surplus of electricity which is supplied to nearby towns.

To this end, the Ampajango transformer station was built in 2000 at km 128, El Desmonte town, which supplies power to Santa María town and the surrounding area.

Where once electricity was generated from diesel oil combustion, electricity is fully available and as a result economic productivity also improved. At present, the local monthly electricity requirement is 4,100 MWh.

Similarly, a transformer station was inaugurated at Km 77 in Taí del Valle, La Bolsa town, which also supplies power to El Mollar. This new power availability helped eliminate the existing thermal generation, thus reducing toxic and noise emissions. The local monthly average electricity requirement is 2,200 MWh.

At the end of the powerline, at Km 202, there is the Alumbra station located in Hualfin town, Catamarca, which supplies electricity to the entire project.

Our powerline and the associated transformers are operated and maintained by Transener S.A., under Minera Alumbra's supervision. Our power contractor has been certified under the ISO 14001 Environmental Management Standard, which is applicable to the above facilities.

Our powerline is subject to the Argentine Power Regulator (ENRE) Public Safety policies, including:

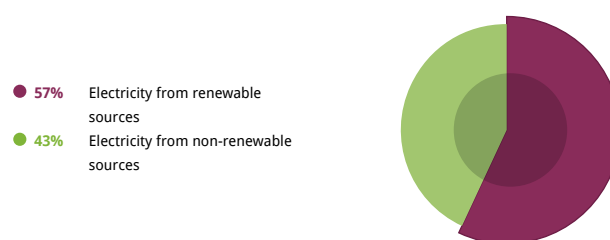
- Electromagnetic field measurements,
- Information sessions at schools close to the powerline,
- Signage installation, and
- Waste classification practices.

In 2015, our electricity requirements were not reduced due to the type of ore fed into the process from the Bajo de la Alumbra and Bajo el Durazno deposits, which required 1% more of energy although the milled material was reduced by 6%.

Electricity consumption vs. milled tonnes. 2015

	Electricity kWh	Milled Tonnes	Ratio kWh/Tonnes
JANUARY	69373906	2980709	23.27
FEBRUARY	63560359	2652336	23.96
MARCH	70462885	2954855	23.85
APRIL	69636628	2851800	24.42
MAY	73931619	2837393	26.06
JUNE	69542238	2528763	27.50
JULY	75781705	2670056	28.38
AUGUST	70974402	2523512	28.13
SEPTEMBER	70949661	2628011	27.00
OCTOBER	74805891	2839952	26.34
NOVEMBER	68825978	2706179	25.43
DECEMBER	74582630	2875260	25.94

Power requirements by source - 2015



Source: Minera Alumbra

Alumbra's direct electricity consumption level was

► **852.427.903 kWh** in 2015



Archaeological sites reported during the different stages of the mining project, particularly those found in the slurry pipeline or powerline area, are annually monitored.

AIR QUALITY

An air quality monitoring programme has been implemented since late 2010. This programme comprises eight stations, five of which are based at Bajo de la Alumbrera and three are situated nearby in the Hualfín, Los Nacimientos and Amanao towns. Two additional stations were added in the Bajo el Durazno site in order to obtain more data and improve the accuracy of the particle dispersion mathematical model.

Monitoring activities are conducted on a monthly basis by sampling of Particulate Matter smaller than 10 microns (PM10), Total Suspended Particulate Matter (TSP) and Settleable Particulate Matter (SPM), with a view to adjust operational controls while taking preventative and/or corrective action, as required.

The annual average concentration results show a similar trend as in previous years: PM10 was found to be lower than the applicable standard set out by Law 24,585 (150ug/m3), and in the case of air lead concentration –the only regulated standard– it was found to be significantly lower than the applicable standard (1.5 ug/m3). This confirms our good environmental performance and efforts to preserve local environmental conditions.

BASED ON THE PARTICLE DISPERSION MODEL, IT IS CONCLUDED THAT NO PM10 AND PTS CONCENTRATION LEVELS ARE DETECTED IN NEIGHBOURING TOWNS, WITH DUST GENERATED BY NATURAL EROSION BEING THE ONLY RELEVANT FACTOR.

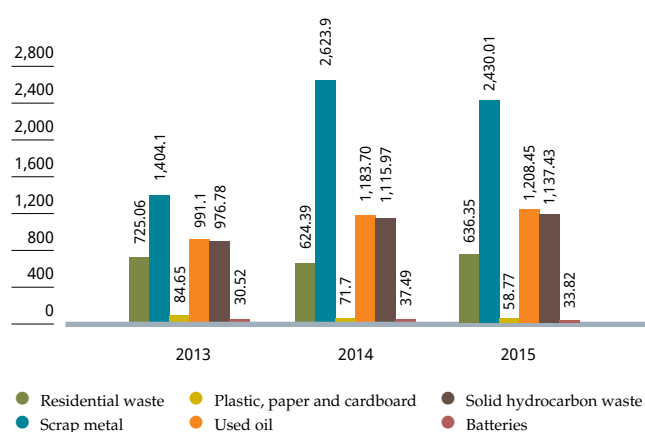
PM10 IN UG/M³ FROM 2011 TO 2015				
	2012	2013	2014	2015
Open pit	129	36	38	66
Amanao	56	25	20	24
Los Nacimientos	69	31	31	32
Hualfín	113	21	20	33

ANNUAL LEAD CONCENTRATION IN UG/M³ FROM 2012 TO 2014				
	2012	2013	2014	2015
Open pit	0.04 ug/m³	0.00646 ug/m³	0.0098 ug/m³	0.00054 ug/m³
Amanao	0.03 ug/m³	0.00050 ug/m³	0.0005 ug/m³	0.00047 ug/m³
Los Nacimientos	0.04 ug/m³	0.00050 ug/m³	0.0005ug/m³	0.00051 ug/m³
Hualfín	0.003 ug/m³	0.00051 ug/m³	0.0005ug/m³	0.00050 ug/m³

WASTE MANAGEMENT

At Minera Alumbraera, our waste management programme is a key component of our environmental management efforts, including the storage of any hazardous waste generated on site –oil, grease, hydrocarbon-soaked cloths–, transport and final disposal by a qualified contractor.

Total waste in tonnes for 2013-2015



Fuente: Minera Alumbraera

WASTE CLASSIFICATION AND DESTINATION

TYPE	WASTE	FINAL DISPOSAL
RESIDENTIAL 	Non-industrial waste generated in our daily life.	At an authorised waste dump at the mine site.
HAZARDOUS 	Used oil, grease, solid waste, hydrocarbon-contaminated soil, cans and batteries.	Final destruction by qualified operators.
INDUSTRIAL 	Scrap metal, wires, wood and tyres.	Melted for recycling purposes.
RECYCLABLE 	Paper, cardboard and plastic.	Donated to recyclers.

¹² The current one will cease operations in 2016.



Controlled urban solid waste dump.

• Residential waste

The construction of the new controlled Urban Solid Waste (USW)¹² dump was completed. We continue with our waste classification at the workplace initiatives and our material recycling programmes.

In 2015, every person generated an average of

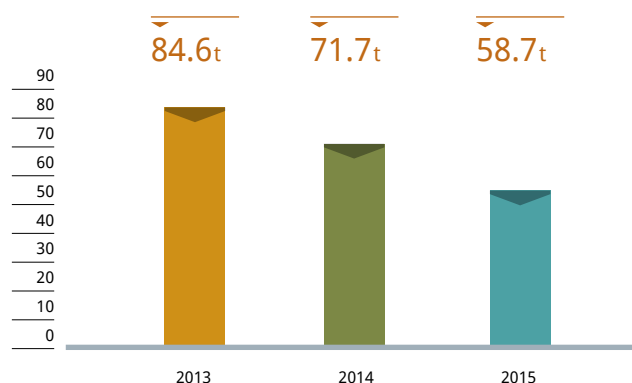
► **1.6 kg/day** of USW

• Paper, cardboard and plastic recycling

The selective collection of these materials helps preserve the environment. For every tonne of recycled paper or cardboard, 70% of water and 45% of electricity used to make traditional paper is saved.

Our initiative also helps raise funds to support the overall development of the Hospital Garrahan Foundation and Cottolengo Don Orione, charitable institutions situated in Tucumán, and to raise awareness about the use of these materials. In 2015 we donated 13,457 kg of paper, which saved 228 mid-sized trees from being cut down.

Paper, cardboard and plastic collection. 2013-2015



Source: Minera Alumbraera



Area where batteries are stockpiled prior to final disposal by a Catamarcan business.

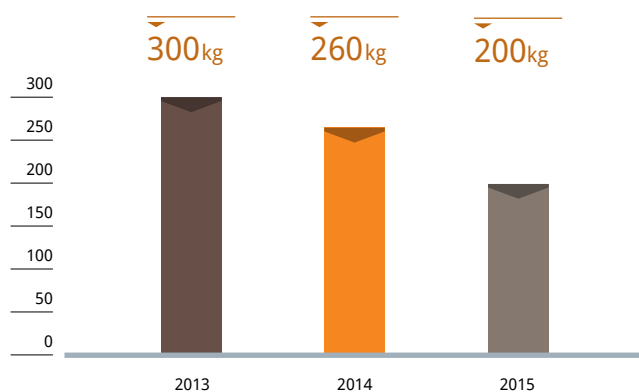
• Hazardous Waste

We generated 2,379.7 tonnes of hazardous waste in 2015. Waste transport and final disposal are performed by qualified contractors. This waste is used by local and national businesses for production activities as alternative fuels obtained through thermal destruction.

• Pathogenic waste

This is waste generated by the Health Care Service on site and it is managed as required by the competent regulator. 200 kg of waste were sent for final disposal in 2015.

Final disposal of pathogenic waste. 2013-2015



Source: Minera Alumbrera

13 It includes used oil, hydrocarbon-soaked solid materials and batteries.

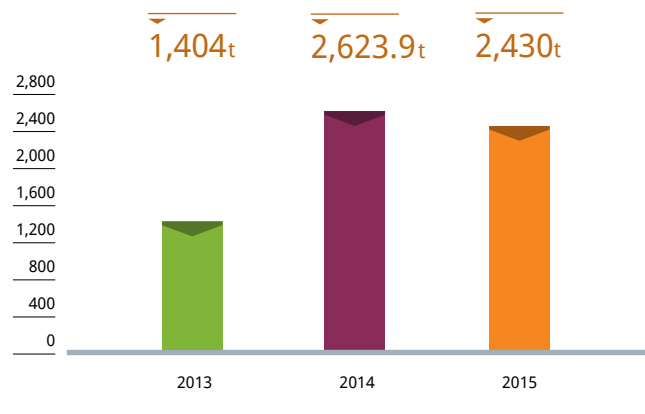
• Industrial Waste

In 2015, 2,430 tonnes of scrap metal were sent away for final disposal. After having been melted, it is turned into steel bars which are traded again.

Regarding electric and electronic waste, 7,180 kg were obtained in 2015 and sent to Buenos Aires for final disposal.

The amount of waste rock stockpiled at the site in 2015 was 45,731,604 tonnes, while 35 million tonnes of tailings were generated.

Scrap metal final disposal. 2013-2015



Source: Minera Alumbrera

MATERIALS USED IN 2015

SUPPLIES	UNITS	QUANTITY
Conveyor belts	Metres	3,027
Diesel fuel	Litre	61,957,639
Electricity	MW/h	852,557
Anfo explosives	Tonnes	10,889
Anfo Explosives -emulsion	Tonnes	7,992
Mill balls	Tonnes	19,398
Lime	Kilogramme	29,224,527
LPG	Litre	515,498
Lubricating oil	Kilolitre	2,478
Tyres - heavy vehicles	Units	358
Tyres - light vehicles	Units	789
Fuel	Litre	19,218
Xanthates	Kilogramme	0
Recycling material	Paper, cardboard, plastic	Sent to recyclers to be donated

IMPACT BY EMPLOYEE AND CARGO TRANSPORT. 2015

Employee transport (by road)	2014	71,882 km	17,920 l of diesel fuel
	2015	69,613 km	17,350 l of diesel fuel
Cargo ¹⁴	2014	10,804,800 km	34,575,360 l of diesel fuel
	2015	9,500,384 km	30,401,229 l of diesel fuel



At the General San Martín port facilities, Santa Fe province, concentrate is shipped to international refineries.

PRODUCT STEWARDSHIP

Through the distribution of its products, Glencore seeks to supply commodities at competitive prices that meet stakeholders' needs and add value globally, while reducing any risk associated to their use.

Therefore, Glencore ensures that its customers fully understand the properties of its products and works with regulators to encourage safe practices and an efficient use of products and technologies around the world.

OUR PRODUCTS HAVE MATERIAL SAFETY DATA SHEETS THAT PROVIDE RELEVANT INFORMATION ON PRODUCT CHEMISTRY, TOXICOLOGY RELATING TO HUMAN HEALTH AND THE ENVIRONMENT, HANDLING, STORAGE AND EXPOSURE AS WELL AS RECOMMENDATIONS TO MANAGE PRODUCT SPILLS AND DISPOSAL.

In addition, we inform our employees, contractors, customers and other stakeholders about potential hazards and product handling best practices.

No environmental incidents associated to concentrate or dore gold transport have occurred during 2015. No fines have been imposed for non-compliance with the laws or regulations concerning the supply and use of our products.

Minera Alumbrera's shipments are strictly monitored by AFIP (Argentina's Tax Authority) through the General Customs Department. In addition, each of our shipments is regularly tested to determine the concentrate's full chemistry in order to identify any potential changes in ore content. Throughout our 18 years of operations such change has never occurred. A growing demand for our products exists in international markets, given their metal purity.

14 Incoming general cargo (including spares, food, fuel, mill balls, lime, lube oil) from Buenos Aires, Santa Fe, Córdoba, San Luis, San Juan, Catamarca, Tucumán, Salta and Mendoza provinces, and Chile and Peru.



Key impact indicators

• Production

- 246,923 tonnes of copper concentrate
- 0.66 tonnes of dore gold
- 1,737 tonnes of molybdenum

• Employment

1,953 workers



• Production value

\$506.2 million, 44.7% lower than 2014

Cu

• Copper Price in the international market was 20% lower than in 2014



• Exports:

\$501 million.



• National tax revenues

- 2015: \$110.8 million
- Since the start of operations, Alumbraera paid \$2,2 billion

Mining royalties to catamarca

- 2015: \$13.8 million
- Since the start of operations, Catamarca received \$534 million



• Revenues paid to YMAP 2006-2015

\$559,675,309



• Total contributions from Alumbraera to the Argentine economy:

• \$452.1 million

Equivalent to:

- Monthly revenues of \$37.7 million
- Daily revenues of \$1.2 million

Aerial view of the Concentrator Plant thickeners.

Our economic contribution

Our business has led to employment and wealth generation in the region as well as to improvement opportunities for both companies and workers of the nearby communities during the 18-year life of the project.

CONTRIBUTIONS TO THE ARGENTINE ECONOMY

In addition to the direct benefits resulting from the engagement of local workers and suppliers, Alumbreira has contributed to the development of a work ecosystem relying on values such as efficiency, transparency, ongoing training and the sustainable development of existing communities, as well as the lessons learnt from regular discussions with our stakeholders.

This process even continues until the end of the mine life. As a result of mine closure, Minera Alumbreira, the value chain and other beneficiaries are facing certain technical restrictions resulting in lower production levels, in addition to lower prices of our products in the international market.

We believe that these restrictions pose a serious challenge to us, but they will not prevent us from setting the foundations for the local sustainable development.

Production

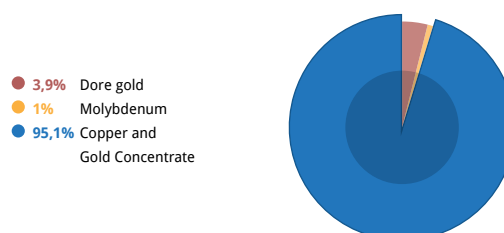
In 2015, Alumbreira produced 246,923 tonnes of copper and gold concentrate, 0.66 tonnes of dore gold and 1,737 tonnes of molybdenum.

The Gross Production Value (GPV)¹ amounted to \$506,204,233².



Trucks with 220 ton load capacity.

Breakdown of Minera Alumbreira's products in total production value. 2015



Gross
Production Value: **\$506.2** million

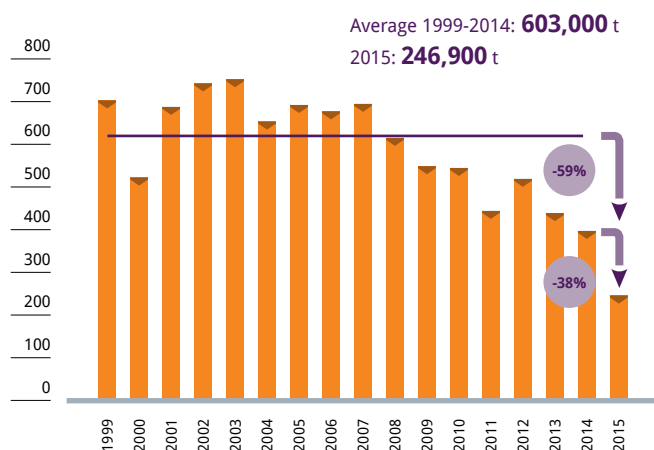
Source: Data provided by Minera Alumbreira

¹ GPV represents the value of the Alumbreira's total production at international prices.

² Since international prices are expressed in US dollars, the GPV in Pesos results from applying the Central Bank's average annual exchange rate = AR\$/US\$9.27.

Minera Alumbreira's current scenario features an imminent mine closure process. One major technical issue is the relative decrease of mining resources, that is, a lower amount of profitable ore per tonne of rock. In this regard, the concentrate production level dropped by 38% compared to the 2014 level.

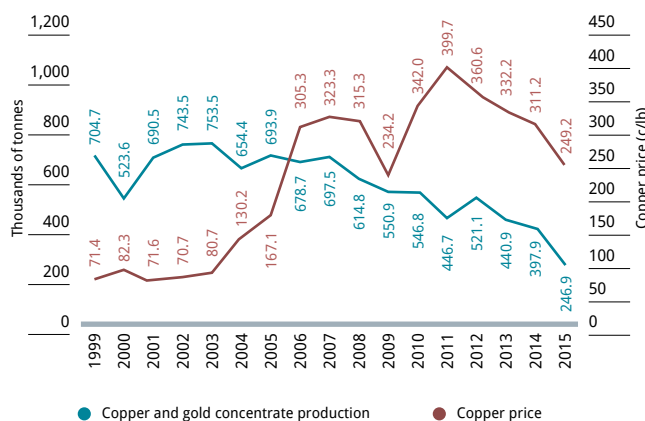
Production of copper and gold concentrate in Tonnes. 1999-2015.



Source: Minera Alumbreira

The decline of mining resources and the lower GPV also result from the lower prices of products. The copper price was 20% lower compared to that of 2014. This was mainly caused by a lower demand and the slowdown of the Chinese economy.

Copper prices vs. Alumbreira concentrate production. In thousand tonnes and cents per pound (1999-2015)



Source: Data provided by Cochilco and Minera Alumbreira.

Unlike other industries, miners cannot immediately respond to higher prices with an increase in production levels. These decisions take time or are technically unfeasible for an ongoing project.

This explains why Bajo de la Alumbreira's highest production level occurred at the start of operations in a low ore price scenario and why the project needs to be managed efficiently in order to sustain the business when prices decline.

Therefore, as a result of the decline in production volume and prices, the production level dropped 44.7% compared to 2014 and 62.7% in connection with the 2010-2014 average.



Tucumán's Filter Plant where concentrate is dewatered to reach a 7% humidity level.

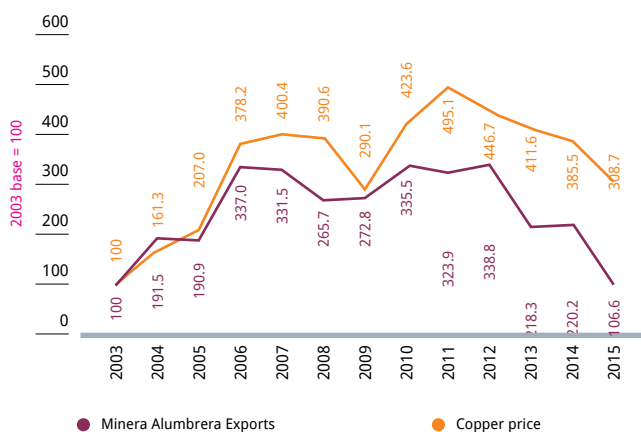


The concentrate is transported by Alumbra's railway to the General San Martín port facilities in Santa Fe.

Exports

In 2015, exports amounted to \$501,032,392, that is, 51.6% lower than in 2014. This was mainly caused by the decline in copper concentrate prices. The average price of concentrate per tonne was 53% lower than that of 2014.

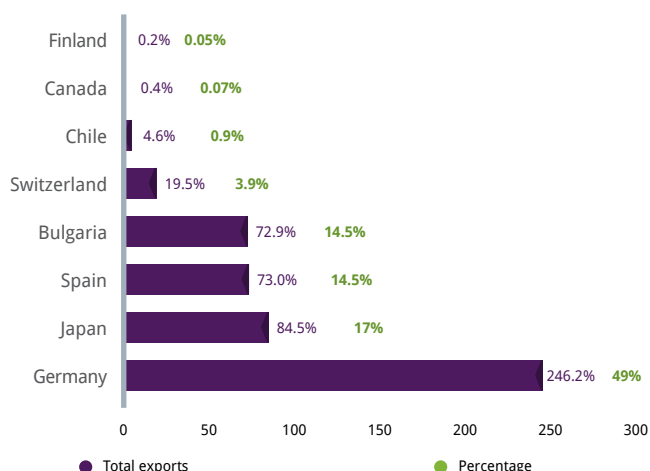
Copper prices vs. Alumbra exports. (2003-2015)



Source: Minera Alumbra

Minera Alumbra exported its products to eight countries. Copper concentrate was exported to Germany, Japan, Spain, Bulgaria and Finland, while dore gold was exported to Switzerland and Canada, and molybdenum to Chile.

Alumbra Export Destination – In million dollars and percentage of total exports. 2015

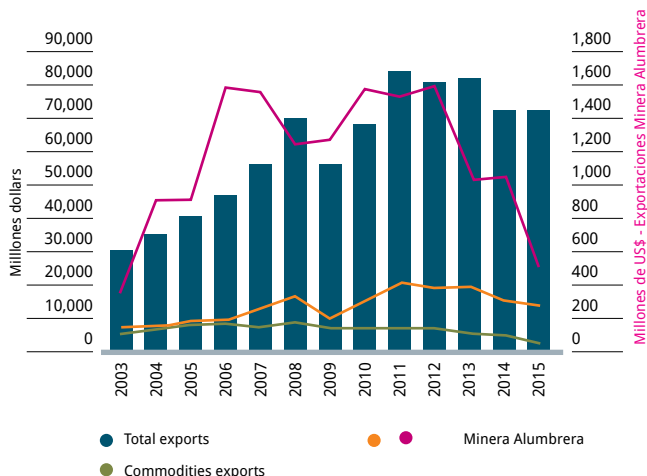


Source: Minera Alumbra

In 2015, Alumbra's exports represented 0.9% of Argentina's total exports³, 3.8% of commodities exports and 22.3% of oil and energy exports.

In turn, Alumbra's exports represented 16% of total Argentine mining exports estimated at \$3.123 billion⁴ in 2015.

Argentina's total exports. Commodities, oil and energy and Minera Alumbra in million dollars (2003-2015)



Source: Minera Alumbra

³ Argentine exports amounted to \$56.752 billion in 2015. Commodities exports totalled \$13.274 billion and oil and energy, \$2.250 billion (INDEC, preliminary data)

⁴ According to data provided by INDEC following Mercosur's Common Nomenclature (NCM). We included Section V (Mineral Products) exports except for chapter 27 (Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes) and we also included the tariffs of other sections which belong to the exports of gold alloy or gold bullion, lithium chloride and different forms of bentonite and borates.

Fiscal Revenues and YMAD's Profit Share

Minera Alumbrera's payments to government include tax and non-tax payments. The former include fiscal revenues from taxes, charges and contributions at the national level, while the latter consist of mining royalties and YMAD's profit share. YMAD (Yacimientos Mineros Aguas de Dionisio), a state and provincially-owned company, and Minera Alumbrera created an unincorporated joint venture to operate the deposit. 60% of such a company is owned by Catamarca province and 40% by the National University of Tucumán.

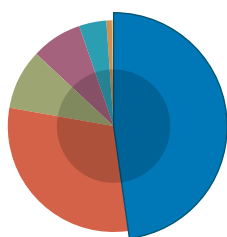
YMAD's profit share represents 20% and 30% of the Bajo de la Alumbrera and Bajo el Durazno⁵ net proceeds, respectively, and partially consists of non-tax provincial revenues. In 2015, YMAD's profit share amounted to \$ 1.01 million, totalling accumulated revenues of \$559,675,309 million.

Tax and non-tax revenues are a significant component of the added value or wealth generated by Alumbrera. Since the onset of our operations, Alumbrera has paid \$2,194.4 billion to the tax authority.

Minera Alumbrera's fiscal payments for 2015 amounted to \$ 1.027 billion, 56.5% lower than in 2014. Alumbrera's fewer sales – due to lower production levels- resulted in YMAD's lower profit share in addition to a reduction in export tariffs and the write-off of the accrued income tax⁶.

Direct fiscal revenues and YMAD's profit share from Minera Alumbrera 2015

- 47,9% Export tariffs
- 29,9% Social Security System (SUSS) contributions
- 9,3% Tax on diesel fuel
- 7,9% Provincial royalties
- 3,9% Mining easements and water charges
- 0,9% YMAD profit share
- 47,9% Others (real estate, automobile and turnover taxes and import duties)



Fiscal Revenues – 2015: \$110.8 million

Source: Data provided by Minera Alumbrera.

⁵ Bajo el Durazno is a copper and gold deposit located 4 km away from Bajo de la Alumbrera in the Farallón Negro District. At present, this deposit is undergoing its mining phase using Alumbrera's infrastructure. During 2013 and 2014, campaigns were carried out to explore the area with over 8,000 m drilled by local companies. In September 2014, Alumbrera and YMAD entered into an agreement to operate the Bajo el Durazno deposit.

Fiscal revenues⁷ represented 91.2% of such an amount and totalled \$101.1 million, a 35% reduction compared to the 2014 level.

MINERA ALUMBRERA CONTRIBUTIONS TO THE ARGENTINE ECONOMY – 2012-2015. IN MILLION DOLLARS⁸

DESCRIPTION	2013	2014	2015	Accumulated in 2012-2015
Income Tax	58.8	28.8	-	199.9
YMAD's profit share	54.8	80.5	1.0	166.5
Domestic goods and services	264.7	356.3	282.8	1168.3
Provincial royalties	15.9	20.5	8.7	65.5
Salaries	38.4	45.7	57.3	171.0
Contributions	19.4	24.6	33.1	92.1
Grants	2.9	2.2	1.1	11.4
Wealth tax	2.1	1.5	-	6.0
Mining easements and water charges	3.1	2.5	4.3	12.1
Tax on diesel fuel	4.4	6.5	10.3	24.1
Turnover tax	0.3	0.2	0.1	0.6
Miscellaneous charges	0.02	0.1	0.1	0.3
Import duties	0.02	0.02	0.03	0.1
Export tariffs	60.1	89.5	53.1	277.4
Total	524.8	658.9	452.0	2195.2

The ratio between tax collection and added value is an indication of our tax burden. The added value measures the wealth generated and, in the case of the mining project, it is the difference between the GPV and the purchase of goods and services.

Thus, the Bajo de la Alumbrera added value amounted to \$156.8 million in 2015. Therefore, fiscal revenues of \$110.8 million represented 70% of the added value generated by Alumbrera in 2015. Considering the above, Alumbrera's tax burden was higher than the historical average of the mining industry, which is close to 40%.

⁶ Alumbrera's profit share has not been enough to account for income tax.

⁷ The fiscal revenues accrued for 2015 include the income tax, Social Security contributions, wealth tax, import duties, export tariffs, provincial water charges, tax on diesel fuel, real estate tax, automobile tax and mining fee.

⁸ Values accrued and estimated corresponding to December 2015.



Grapevine plantations in Hualfín, 45 km from the mine site.

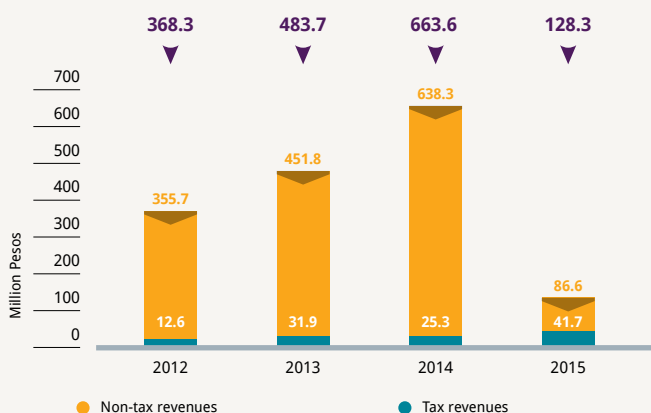
REVENUES TO CATAMARCA

• Tax Revenues

The revenues earned by Catamarca from Alumbra's operations mainly consisted of mining royalties, taxes (water charges, mining easements, turnover tax, real estate and automobile taxes) and YMAD profit share, as the province of Catamarca is one the partners of such a unincorporated joint venture⁹.

In 2015, tax revenues paid by the mining project to the province of Catamarca and YMAD –co-owned by the provincial government – amounted to \$13.8 million. Such revenues decreased by 80.7% due to a decline in YMAD's profits (\$79.5 million) and mining royalties (\$10.5 million).

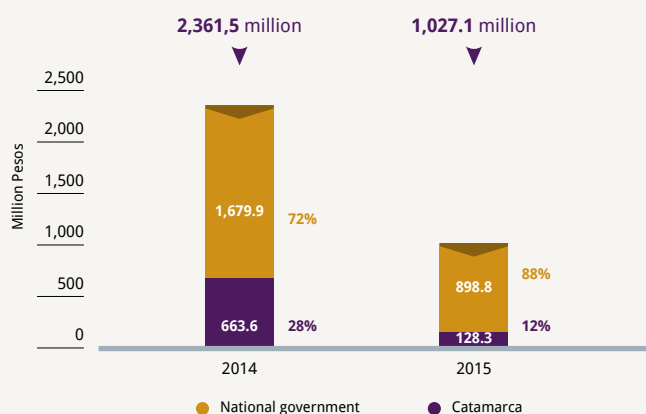
Provincial tax and non-tax revenues from Minera Alumbra for the 2012-2015 period. In million Pesos



Source: Minera Alumbra

Tax revenues accrued in 2015 by Alumbra amounted to \$110.8 million, 88% of which was allocated to the national government and 12% to Catamarca province. In contrast, 72% was allocated to the national government and 28% to Catamarca province in 2014.

Tax revenues from Minera Alumbra allocated to the national government and Catamarca province. 2014 and 2015. In million Pesos and percentage.



Source: Minera Alumbra

⁹ In this report, tax revenues refer to revenues earned by Catamarca province and those earned by YMAD.

¹⁰ We included 60% corresponding to Catamarca province.

¹¹ The national government includes the National University of Tucumán and other national universities receiving 40% of YMAD profits.

The decline of \$144 million in tax revenues directly generated by Alumbra in 2015 was due to a decrease in our sales revenues and profits, as stated above. This had a major impact on YMAD's profit share, income tax and export tariffs.

As a result of this reduction, there was a change in the distribution of revenues between the national government and Catamarca province. Since YMAD had been paid a substantial amount of profits in previous years, the reduction reported in 2015 had a lesser impact on tax revenues paid to Catamarca province than those paid to the national government.

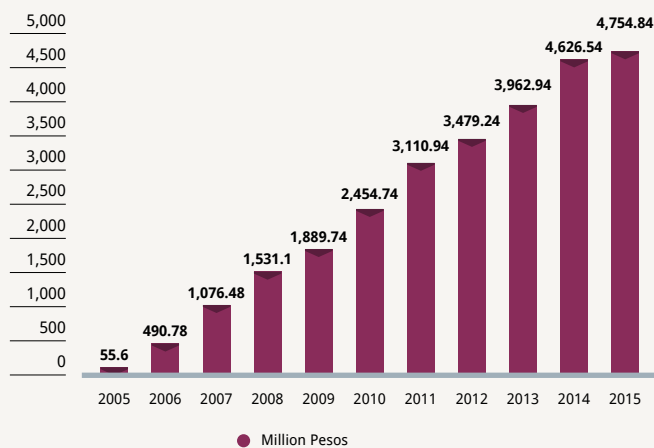
The share of tax revenues paid by the mining project with respect to Catamarca's total tax revenues (provincial taxes) is lower than in 2014. Our tax revenues payments in 2014 represented 69% of Catamarca's tax revenues, whereas they amounted to 9.7% in 2015.

Catamarca earned

► **\$513.0** million

in tax revenues over the last 10 years.

Provincial tax and non-tax revenues generated by Alumbra between 2005 and 2015. In million Pesos



Source: Minera Alumbra



Alumbra's port facilities in Santa Fe province.

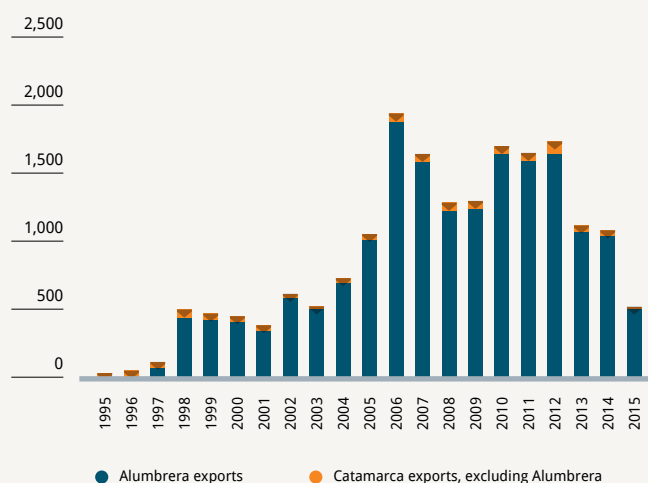
• Catamarca exports

Since the onset of our operations, Minera Alumbra exports were the main component of provincial exports, representing 96% since 1998.

According to the latest official data, Catamarca exports amounted to \$1.068 billion in 2014, out of which \$1.045 billion were Alumbra exports. Other exports included olives, sugar, vegetables and grains.

In 2015, as a result of the abovementioned decline of Alumbra exports, it is estimated that Catamarca exports will decrease in a similar proportion totalling \$523.8 million¹², out of which 95.6% are Alumbra exports. This data shows the significant contribution of our mining project to the internationalisation of Catamarca's economy.

Alumbra exports in the total value of Catamarca exports. 1995-2015. In million Dollars.



Source: Minera Alumbra

¹² No official data of 2015 exports at the time of preparing this report.

• Provincial Royalties

\$8.7 million out of the \$13.8 million¹³ of Catamarca tax revenues correspond to provincial royalties.

Mining royalties actually paid in 2015 pursuant to Provincial Law 5128¹⁴ show the extent of fiscal revenues contributed by Minera Alumbra to local towns. The decline in Alumbra's sales revenues seriously impacted on the municipal distribution of mining royalties.

The Primary Impact Area (PIA) towns have earned

► **\$57.2 millones¹⁵**

from mining royalties since 2004 up to date.

Despite the abovementioned reduction, royalties paid by Alumbra represent 96.2% of the total amount earned by the province; the rest is paid by Minera del Altiplano and Minera Maktub.

DISTRIBUTION OF MINING ROYALTIES IN CATAMARCA. IN DOLLARS. 2013-2015¹⁶

DEPARTMENT / TOWN	2013	2014	2015 (Q1, Q2, Q3 and OA, temporary)	Accumulated in 2004-2015
ANDALGALÁ	2.237.950	3.149.941	814.591	25,103.956
Aconquija	488.768	687.947	71.721	5.376.518
Andalgalá	1.749.182	2.461.994	256.672	19.241.240
BELÉN	2.237.950	3.149.941	814.591	25,103.956
Belén	785.968	1.106.259	115.332	8.645.800
Corral Quemado	161.357	227.111	23.677	1.774.941
Hualfín	290.933	409.492	42.691	3.200.308
Londres	226.257	318.459	33.201	2.488.855
Pozo de Piedra	160.013	225.221	23.480	1.760.170
Puerta de Corral Quemado	140.767	198.131	20.656	1.548.457
Puerta de San José	115.926	163.167	17.011	1.275.200
San Fernando	81.014	114.028	11.888	891.163
Villa Vil	275.715	388.073	40.458	3.032.865
SANTA MARÍA	583.754	822.093	211.794	6.599.675
San José	262.689	369.942	38.422	2.913.095
Santa María	321.065	452.151	46.960	3.560.169
Subtotal API	5.059.654	7.121.976	1.840.977	56.807.588
Rest of Catamarca towns	2.078.097	2.924.945	756.406	23.310.773
Total towns	7.137.751	10.046.921	2.597.383	80.118.361
Rest: Treasury and Promotion Fund	11.684.006	8.774.836	2.057.425	69.720.656
Royalties total	18.821.757	18.821.757	4.654.808	149.839.017

Contributions to the Argentine Economy

MINERA ALUMBRERA'S ANNUAL CONTRIBUTION TO THE ARGENTINE ECONOMY TOTALLED \$452.1 MILLION IN 2015, INCLUDING TAX REVENUES, PURCHASES AND WAGES.

This direct contribution represents monthly revenues of \$37.7 million and daily revenues of \$1.2 million to the Argentine economy.

Particularly, direct revenues from wages and local purchases have a significant indirect impact on the Primary Impact Area. Thus, 1,252 direct jobs represent 1,878 indirect jobs in other PIA companies. Therefore, we estimate an employment multiplier¹⁷ of 2.5 for the PIA, and a total of 3,130 (direct and indirect) jobs in this area.

Considering the impact of revenues on employment in Argentina, such impact is relatively higher at the national level than in the PIA, since there are more productive linkages and impacts on the different links of the value chain (suppliers of suppliers) located in different provinces. The impact on jobs created nationally is 8,045 jobs, representing a total of 9,297 jobs.

In a macroeconomic scenario of external crisis and foreign currency shortage, the Bajo de la Alumbra project has been beneficial to the Argentine economy as a source of US dollars inflow.

In 2015, the net inflow of foreign currency contributed by the mining project (sales inflow minus imports outflow) amounted to \$435 million.

13 This amount includes \$5,608,412 in royalties and \$3,131,595 in corrective payments for prior payments under a different interpretation between provincial government and Minera Alumbra regarding the inclusion of export tariffs as deductible expenses in the calculation of the pithead value.

14 Amounts published in the Official Gazette corresponding to the first three quarters of 2015 and the official assessment (OA) corresponding to the 4th quarter of 2012 and the 1st, 2nd and 3rd quarters of 2013.

15 It includes the 4th quarter of 2015.

16 The 2015 figures are provisional (since no official data for Q4 was available when this report was prepared); it includes the first three quarters of 2015 and the amounts of the Official Assessment corresponding to the provincial claim related to the method used to calculate royalties after the National Government established export tariffs.

17 For more information on the "employment multiplier", see Our People.



Best Practices:

We seek to transfer our policies on safety and health, environment, employment and corporate social involvement to our value chain.



Local Development:

We have a local Supplier Development Programme which promotes the growth of provincial and regional (Northwestern Argentina) companies.



Replacement of Imports:

Our purchases of local goods and services have increased.



Domestic Purchases:

► \$ 282.8 million

- \$81 out of \$100 were spent by Alumbra on domestic purchases.
- This represents monthly revenues of \$218.5 million for the Argentine economy.



Purchases from Catamarca suppliers:

They represent 10.6% of total domestic purchases of Alumbra.



Purchases in the Primary Impact Area:

They represent 71% of the total purchases from Catamarca companies.

- In relative terms, domestic purchases from Catamarca and PIA companies have increased in 2015.

The truck maintenance shop has been certified as a Caterpillar 5-star Contamination Control Facility. This involves lower safety risks and environmental protection.

Value chain

Throughout the 18 years of life of Bajo de la Alumbrera, we have implemented supplier development programmes and have been committed to the improvement of work and wealth generation processes in our value chain.

Value chain strengthening and sustainable development

Despite the imminent mine closure, Minera Alumbrera remains committed to sustainable development and continues taking actions to provide training and empower local suppliers and their workers. We trust that this contributes to the present and future development of the regional economy, beyond mine closure.

Therefore, supplier development has become a real opportunity to generate wealth for regional businesses and workers and also has improved sustainable development conditions by ensuring more human resources who have learnt different tasks, work methods and processes, always adhering to the highest standards and requirements of a world-class project.

Best Practices

Learning and implementing the best practices bring future possibilities to continue with our wealth generation initiatives with other mining projects or other value chains to which they might apply.

We work from top to bottom of our value chain to communicate behaviours which we believe may benefit many people to build a fairer society. At Minera Alumbrera we require our suppliers to strictly comply with labour laws, while we have also implemented express policies in order to encourage the adoption of good practices in the areas of health and safety, environment and human rights.

Thus, our suppliers meet high quality standards in each of these areas which increase the competitiveness of their goods and services in their respective markets. In turn, they can later empower other suppliers in their value chain to disseminate the lessons learnt.

► Health and Safety

At Minera Alumbrera, we maintain a healthy and injury-free work environment, comply with the applicable laws and incorporate the best practices.

► Environment

We require contractors to implement our Environment Management policy.

► Human Rights

- We effectively monitor compliance with trade union agreements and laws by our contractors.
- We require service suppliers to submit documents evidencing compliance with regulatory requirements.
- We encourage the hiring of local workforce.
- We also communicate our Fraud Control policy and do not tolerate any form of child labour, discrimination and corruption.



The Aconquija company provides transportation services to workers to and from the mine site.



Road monitoring at the Bajo el Durazno deposit.

Purchase of Goods and Services

IN 2015, MINERA ALUMBRERA PURCHASED GOODS AND SERVICES FOR \$3.229 BILLION. \$81.2 OUT OF \$100 WERE SPENT ON GOODS FROM ARGENTINE SUPPLIERS WHILE \$18.8 WERE SPENT ON IMPORTED GOODS. THUS, DOMESTIC PURCHASES TOTALLED \$2.621 BILLION IN 2015.

In 2015, the level of goods and services purchased by Minera Alumbrera decreased in line with the decline in our production levels since the project has started its final operational phase prior to mine closure.

For this reason, our production level decreased 38% in 2015 compared to the previous year level. The total goods and services purchased by Alumbrera, as well as the goods purchased domestically have nominally decreased by 21% and 20.6% respectively, compared to 2014.

Replacement of Imports

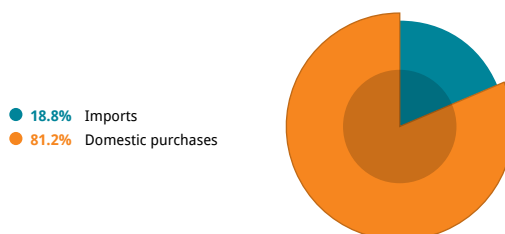
Over the years, Minera Alumbrera has become more and more integrated into the different production stages in the Argentine economy, where the purchase of domestic goods and services has become increasingly more important for job creation and wealth generation and distribution.

Due to the efforts made by Alumbrera through its supplier development programmes, as well as its involvement in related initiatives promoted by governmental agencies and different business chambers, there was a sustained increase in the replacement of imported goods by domestic supplies.

This steady increase in the share of domestic purchases meant direct benefits in employment and wealth generation and distribution, since it increases the economic activity both in the industrialised areas of Argentina and in Northwestern Argentina. Likewise, indirect benefits are created since these new suppliers also purchase from other companies.

During this period, purchases from domestic companies have increased in the total procurement of goods and services, from 81% in 2014 to 81.2%.

Breakdown of purchases per origin. 2015



Total: \$3.2286 billion

Source: Minera Alumbrera

The purchase of domestic goods and services represent monthly revenues of \$ 23.6 million in the Argentine economy or daily purchases for over \$ 0.8 million

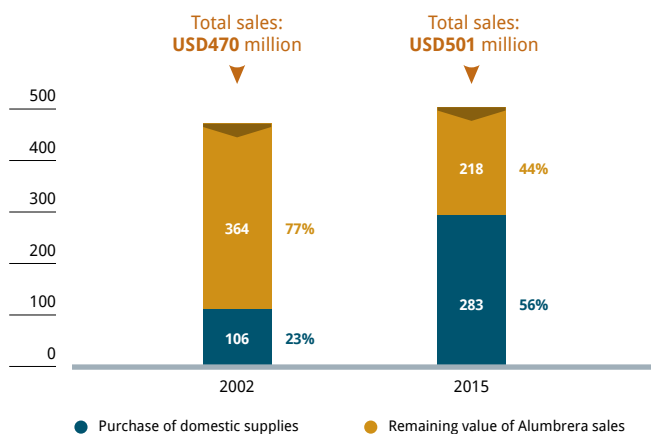
The outcome of Alumbrera's sustained supplier development and import replacement efforts can be clearly noticed if we compare the amounts of domestic and foreign goods purchased with our percentage of sales. In this regard, the purchase of domestic goods increased in absolute terms and also meant an increasingly higher percentage of sales revenues.



Omar Fuenzalida, mine operator from Santa María.

In 2002, Alumbraera purchased domestic goods for USD106 million, which represented 23% of our sales revenues. After implementing the abovementioned initiatives, our purchases of domestic supplies amounted to USD283 million in 2015, representing 56% of our sales revenues in that year.

Percentage of domestic supplies purchased by Alumbraera in total our sales. In US Dollars. 2002 and 2015



Source: Minera Alumbraera

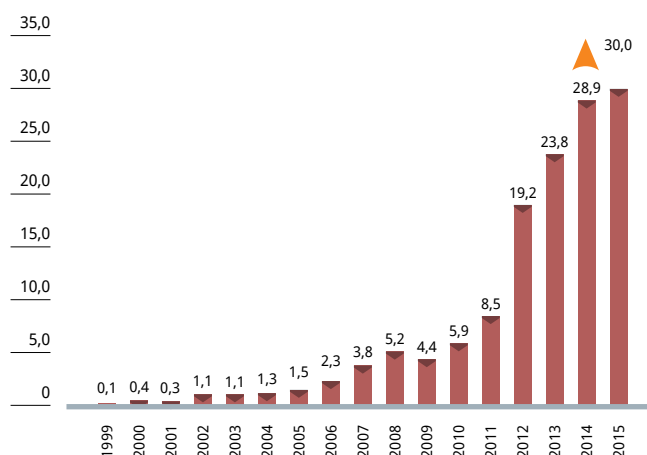
Purchases from Catamarca

Minera Alumbraera's purchases from Catamarca suppliers totalled \$278.5 million in 2015, which shows an increase in the relative share of purchases made in Catamarca compared to purchases in other parts of the country. In fact, our purchases from Catamarca suppliers represented 8.1% of Alumbraera's total domestic purchases in 2014, while they rose to 10.6% in 2015.

However, if we consider the effects of inflation, this amount has decreased in real terms, although it should be noted that such a decline has been lower than the decline in production and sales levels and the decrease in Alumbraera's total purchases of supplies.

THE LEVEL OF SUPPLIES PURCHASED BY ALUMBRERA FROM CATAMARCA SUPPLIERS HAS STEADILY INCREASED SINCE THE ONSET OF OUR OPERATIONS. OUR PURCHASES FROM LOCAL VENDORS TOTALLED \$950,000 (EQUIVALENT TO USD 950,000) IN 1999, WHILE SUCH AMOUNT GREW TO \$278.5 MILLION, THAT IS, USD 30 MILLION².

Minera Alumbraera's purchases from Catamarca suppliers. In Million Dollars. 1999-2015



Fuente: Minera Alumbraera

¹ Since Alumbraera sells products abroad (exports), sales are expressed in Dollars; for comparison purposes, we also expressed the purchase of domestic goods in Dollars for each year.

² Amounts are expressed in US Dollars for comparison purposes since there have been significant foreign exchange rate fluctuations during this period. Thus, purchases were approximately 33 times higher in US Dollars.



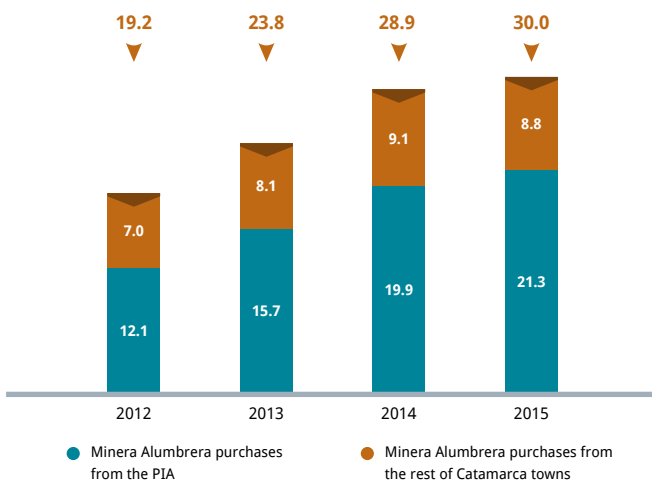
All employees are provided with accommodation, food and transportation services. The campsite has 1,270 rooms.

The positive results of the local supplier development programme can also be noted in the increase in Alumbreira's annual procurement from both Catamarca province and the PIA. In 2015, local procurement amounted to \$197,324,938 in the PIA. This amount represented 71% of Alumbreira's purchases from Catamarca, 7.5% of domestic procurement and 6.1% of Alumbreira's total domestic and foreign purchases of goods and services in 2015.

In 2015, the purchases of goods and services from the rest of Catamarca towns totalled

► **\$81 million**

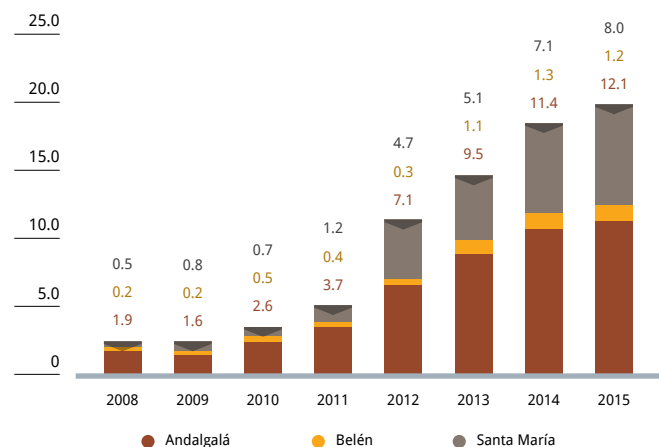
Supplied sourced from Catamarca.
In Million Dollars. 2012-2015



Source: Minera Alumbreira

In 2015, 57% of Alumbreira's purchases from the PIA were from Andalgalá, 37% from Santa María and 6% from Belén.

Supplies sourced from Andalgalá, Belén and Santa María.
In Million Dollars. 2008-2015



Source: Minera Alumbreira

In the near future, we will maintain our policy of encouraging and prioritising local procurement. However, the nearing mine closure will probably generate a lower demand for goods and services, due to the decline in production.









Monitoring of roads to Bajo el Durazno.

Goods and Services

Minera Alumbra's demand for goods and services mainly includes fuel, electric power, explosives, sea freight and tyres. These items totalled \$1.5 million in 2015 and represent 56% of our total domestic procurement.

Other goods and services purchased by Alumbra include lime, lubes, spare parts, surfactants, mill steel balls, food, vehicle maintenance, freight transport, transportation of staff, housekeeping, catering, security, and medical services, among others.

PURCHASES FROM DOMESTIC SUPPLIERS. MAIN GOODS AND SERVICES. IN PESOS. 2015.

CATEGORY	Pesos	% of domestic procurement
 Energy	65,088,149	23%
 Fuel	49,216,264	17%
 Explosives	19,291,594	7%
 Sea freight	14,478,884	5%
 Tyres	10,379,007	4%
 Other domestic supplies	124,355,632	44%
Total domestic procurement	282,809,529	100%

Source: Minera Alumbra

Alumbra's purchases of goods and services in the Primary Impact Area consisting of the towns of Andalgalá, Belén and Santa María include different categories. Local suppliers include single-person businesses as well as small to middle-sized businesses which have grown in terms of turnover, number of employees and physical assets, including machinery, tools and vehicles.

PURCHASES FROM LOCAL SUPPLIERS OF THE PIA

Logistics and transportation services

Shovel and vehicle maintenance

Freight transport

Food catering

Housekeeping

Civil works, assemblies and electric engineering

Health care

Waste collection

Garden maintenance

Stationary

Cleaning products

Shovel operation

Ironwork

Fire extinguisher maintenance

Security services

Industrial health and safety

Source: Minera Alumbra

We help preserve the local culture by supporting artisanal weaving. This is a small-scale roving spinning project developed in Londres, Belén, Catamarca province.



Management approach based on sustainable mining

We seek to have a socio-economic impact on the communities close to the deposit creating growth opportunities that transcend the life of the mine.



Primary Impact Area (PIA)

Communities
Andalgala, Belén y Santa María.

► 23%

These towns represent 23% of the Catamarca surface area.



Social expenditure focus

- Community Programme: health, education and production development.
- Large infrastructure works: health and education.



Since the onset of the mining project, Alumbrera has spent \$29.5 million in Sustainable Development (SD) programmes.

In 2015, \$2.5 million were spent in SD programmes, representing 0.5% of the project's output for that year.



Expenditure in PIA

ANDALGALÁ

- 2015: **\$1.3 million**
- 2012-2015: \$5.3 million

BELÉN

- 2015: **\$0.4 million**
- 2012-2015: \$2.7 million

SANTA MARÍA

- 2015: **\$0.5 million**
- 2012-2015: \$2.5 million



Infrastructure works completed in the PIA in 2015

- Santa María sports centre: \$0.65 million

- Andalgala Hospital: \$3.2 million

- Aconquija Hospital: \$1.1 million

- Remodelling of the Belén Hospital maternity ward: \$86.000

Sustainable communities

We focus on a sustainable mining approach that seeks a long-term impact, while sharing value and creating improvement opportunities for the communities close to the deposit.

Based on a responsible management approach, we foster the professionalisation of our employees, the protection of the environment and the development of neighbouring communities beyond the life of the mining project.

We understand that job creation, competitive salaries, career development, priority to local goods and services hiring are beneficial to the communities, but we also seek to go further and improve their standard of living.

Our programmes are the result of joint efforts between civil society, the government and Minera Alumbreira. This cooperation approach is based on the recognition of the skills and the leading role played by each local participant in managing the development process. Our accomplishments over the last few years prove that this work is carried out with responsibility, transparency and ongoing commitment by all parties involved.

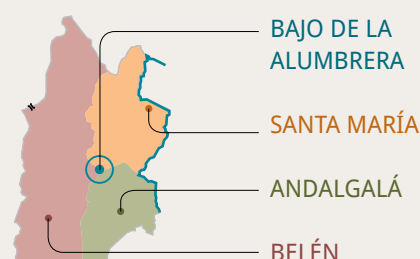
This community work revolves around the areas of health, education, production and social life in the Primary Impact Area (PIA).

Therefore, we further develop local production activities with potential, contribute to education in order to have an impact on present and future generations, and provide health services and assistance with the support of representative organisations and local governments.

In turn, we create direct benefits in the communities through infrastructure works for the local education, health, sports and social activities system.

WE ALSO INCORPORATED THE COMMUNITIES OF ANTOFAGASTA DE LA SIERRA, TINOGASTA AND SAN FERNANDO IN CATAMARCA, AND AMAICHA DEL VALLE, CRUZ DEL NORTE, CONCEPCIÓN IN TUCUMÁN AS WELL AS THE TOWNS ALONG THE PIPELINE ROUTE.

OUR EFFORTS ARE FOCUSED ON THE PRIMARY IMPACT AREA



► **68,523** inhabitants

between the three districts.

► **23,674** Km²

is the surface area representing 19% of the population.

► **23%**

is the percentage representing the total surface area of the province.

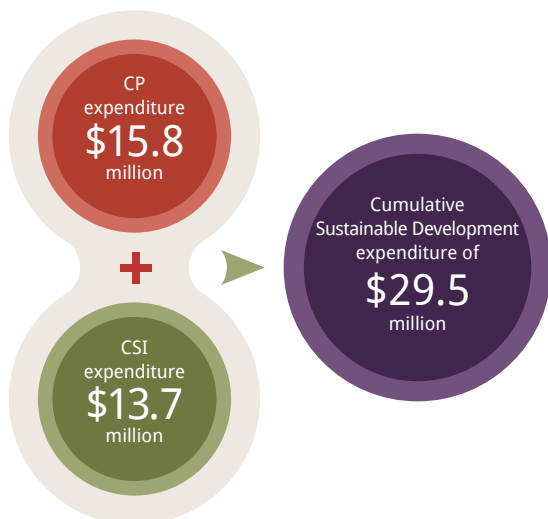
Sustainable Development Programme

Our social development actions are developed through two types of projects: the Community Programme (CP) projects and the Corporate Social Involvement (CSI) infrastructure works.

The former seeks to increase local human, social and cultural capital, while the latter, in addition, seeks to increase the local physical capital in the form of civil works and equipment and machinery set-ups¹.

Since the onset of our mining operations in 1998, our cumulative expenditure in infrastructure works and community programmes totalled \$ 29.5 million. In 2015, \$ 2.5 million were spent on sustainable development (SD) programmes, out of which 70% was allocated to CP projects and 30% was spent on CSI Programme works.

Cumulative sustainable development expenditure since the onset of our operations in million dollars for 1998-2015

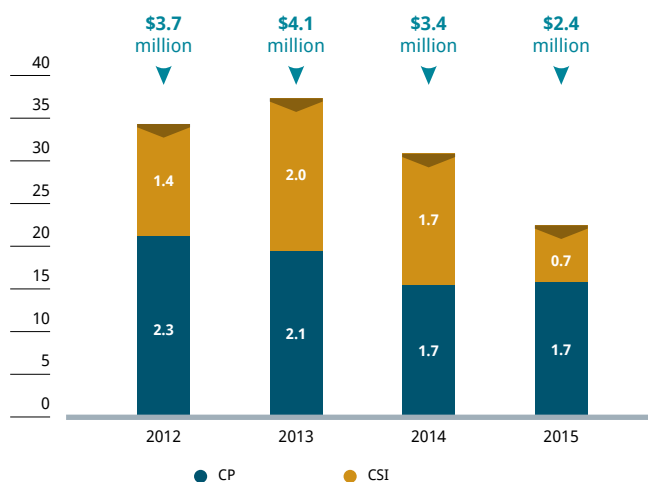


Source: Minera Alumbra

Total expenditure was 27.3% lower than in the previous year, particularly in infrastructure works. This is due to the age of the deposit, plus the major works carried out at each of the PIA districts, which are very important for those communities, including the Andalgá Hospital, the Aconquija Hospital, the remodelling of the Belén Hospital maternity ward and the Santa María sports centre. All these works were built by Alumbra as agreed with local authorities and delivered in 2015.

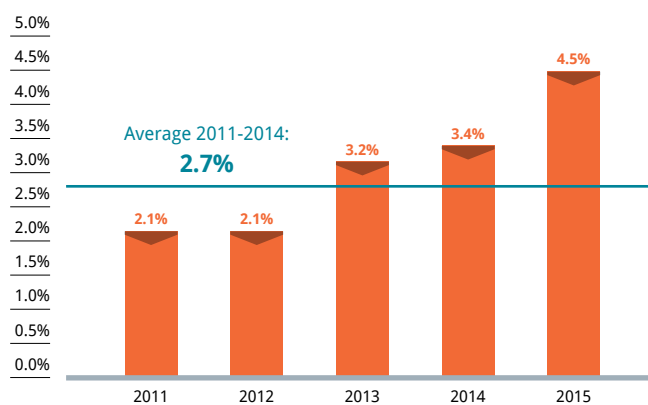
In spite of this expenditure decrease in absolute terms, the expenditure percentage over the annual project's output was higher in comparison with that of the last two previous years. While SD expenditure represented 2.1% of the output value in 2012 and 2013, it rose to 4.5% in 2015. This shows that regardless of the economic and financial difficulties faced by the mining sector and Alumbra, our commitment to the social capital is a priority and is materialised in specific works.

Sustainable development expenditure in million Dollars



Source: Minera Alumbra

Sustainable development expenditure stated as a percentage of the project's annual output for 2011-2015



Source: Minera Alumbra

¹ Although the concept of Corporate Social Involvement comprises all actions stated above, the CSI Programme as part of the SD actions specifically includes infrastructure works.

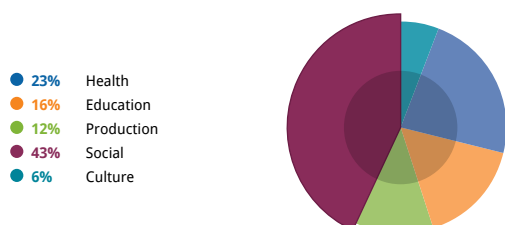


New plantations in Andalhuala, Santa María, under the walnut varietal re-engineering programme. Walnut is one of the main crops grown in Catamarca.

All projects, including infrastructure works as well as training activities, technical assistance and technological transfer contribute with and improve the health, education and economic system, cultural organisations, and infrastructure related to public works and services.

In 2015, Alumbrera spent \$1 million on education, representing 43% of the total amount spent on SD². \$0.6 million were spent on health to complete the new hospital in Andalgalá; \$0.4 million on social development initiatives, particularly on teacher training initiatives; \$0.3 million on projects to support farmers' associations, and \$0.1 million on cultural activities.

Breakdown of total sustainable development expenditure by area for 2015



Total: \$2,447,099

Source: Minera Alumbrera

Selection criteria

Community projects developed under the Sustainable Development Programme are the result of a process consisting of the following steps:

OBJECTIVE CONDITIONS FOR PROPOSALS TO BE SELECTED:

1. Identify problems and propose solutions from the community point of view.
2. Be developed by local groups and organisations.
3. Bring collective benefits that can be distributed fairly.
4. Improve the standard of living in a sustainable manner that goes beyond mine closure.
5. Be formally designed and planned to allow their assessment and monitoring.

As a general rule, this process is essentially managed from the beneficiaries point of view, meaning that problems are identified, prioritised and assessed based on the opinion of local people from the town where actions will be taken.

In order to know the opinion of beneficiaries, the following communication and feedback activities are carried out by Minera Alumbrera:

- Roundtable discussions with the participation of stakeholder representatives.
- Graphic and virtual media, such as the website and social networks.
- Informative bulletins.
- Annual sustainability report.
- Face-to-face and ongoing discussions with local residents.

The perception survey conducted in Catamarca is also a useful tool to learn about local needs, identify problems and assess community requirements regarding specific works. A few conclusions that support Alumbrera's SD expenditure decisions will be explained below.

² Social area expenditure includes the "Santa María Sports Centre, the cooperative support programme, landslide and flood support, technical counselling for social and production programmes and cooperation and partnership initiatives, drilling and water supply, and support to sports activities".

³ Data contained in this chapter was obtained from the Annual Perception Survey conducted by the National University of Tucumán in November 2014. 1,077 polls were conducted in the Primary Impact Area (PIA) –Santa María, Belén and Andalgalá– and in San Fernando del Valle de Catamarca.



Training and working capital provided to cumin farmers in Belén, Catamarca.

Sustainable development expenditure

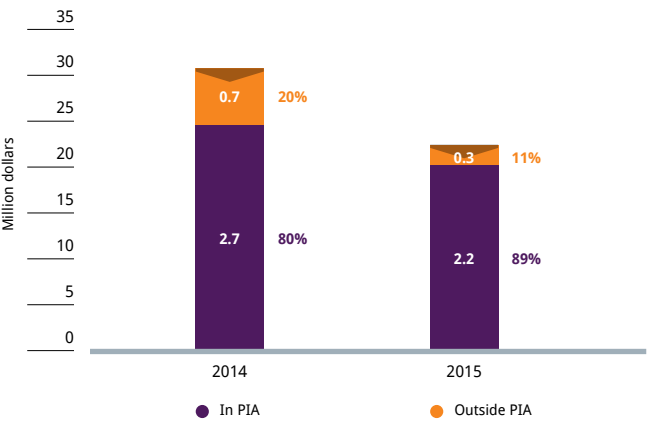
In 2015, our sustainable development expenditure in the PIA totalled \$ 2,187,878, representing 89.4% of Alumbreira’s total SD expenditure for that year, which was 10% higher than the previous year level.

The expenditure in PIA represented 29.5% of Catamarca’s Environment and Sustainable Development State Department budget, totalling \$ 7.4 million for 2015⁴.

In 2015, \$ 221,890 were spent on SD initiatives in Tucumán province, outside the PIA, representing 9.1% of the total expenditure, and \$ 37,331 in San Fernando del Valle de Catamarca, representing 1.5%.

Two thirds of the funds spent in the PIA, i.e. \$ 1.5 million, were allocated to the community development programme, while one third, i.e. \$ 0.7 million, was spent on infrastructure works under the Corporate Social Involvement programme.

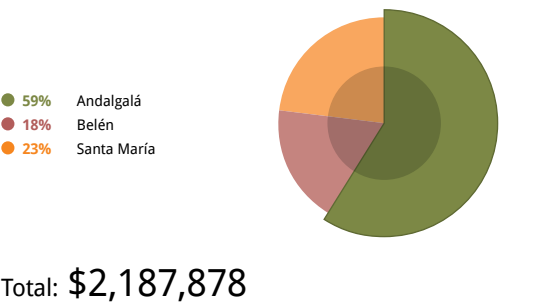
Alumbreira sustainable development expenditure by geographical area in million dollars and percentage. 2014 and 2015.



Source: Minera Alumbreira

Although our expenditure in the PIA has decreased 18% in absolute terms, the increase in our share in the total expenditure shows Alumbreira’s decision to prioritise actions and works in the three neighbouring districts.

Breakdown of sustainable development expenditure by PIA district, 2015



Source: Minera Alumbreira

Expenditure in Andalgalá is relatively higher due to the new hospital completion works. In general, fund allocation among the districts over the years has been relatively proportional to their respective population numbers.

4 Appendix: Breakdown of expenditure by jurisdiction and purpose, 2015, under extended term Law 5379; the amount also includes notional contributions.

SUSTAINABLE DEVELOPMENT EXPENDITURE IN:



ANDALGALÁ



The Andalgala Hospital was built by Alumbra and was inaugurated in 2015. It was one of the healthcare needs identified by the local community.

IN ANDALGALÁ LOCAL REQUIREMENTS ARE FOCUSED ON THE AREAS OF HEALTH AND EDUCATION, PARTICULARLY HEALTHCARE FACILITIES. IN ADDITION, PUBLIC AUTHORITIES ARE INTERESTED IN INCREASING INFRASTRUCTURE WORKS.

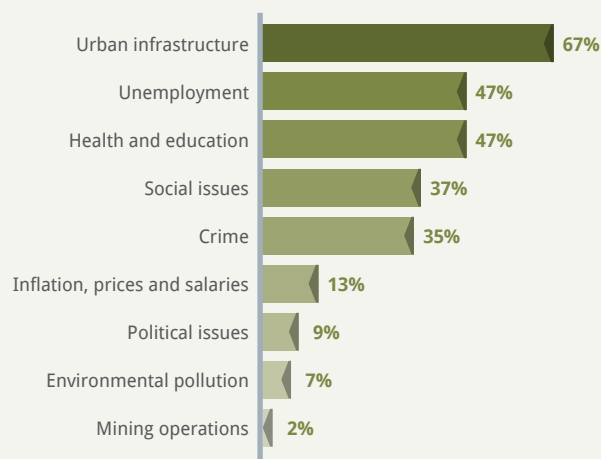
Minera Alumbra spent \$ 1,293,834 in the SD programme implemented in Andalgala district in 2015, totalling an accumulated expenditure of \$ 5,292,643 during the 2012-2015 period.

In line with the actions taken in the two previous years, expenditure in health initiatives stands out, particularly due to the completion of the new Andalgala Hospital "Dr. José Chain Herrera" (see the "Large infrastructure works in the PIA" table in page 91) which was inaugurated in June 2015.

The design and final project were developed by the Catamarca Health and Public Works Department with funds fully contributed by Minera Alumbra and YMAD UTE.

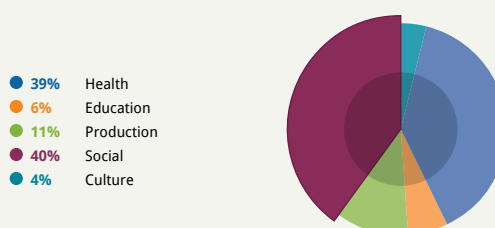
This is a very significant work that meets not only local healthcare needs –impacting on the western region– but also economic needs, since Alumbra's expenditure is 17% higher than the 2015 capital expenditure budget of the Catamarca Health Department.

Issues raised by Andalgala residents



Source: 2014 Minera Alumbra Perception Survey.

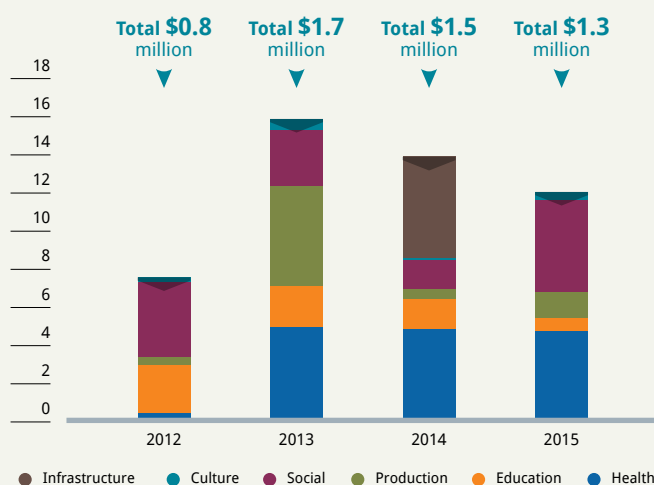
Breakdown of sustainable development expenditure in Andalgala by area, 2015



Total: \$1,293,834

Source: Minera Alumbra

Alumbra SD expenditure in Andalgala by area in million dollars, 2012-2015



Source: Minera Alumbra

SUSTAINABLE DEVELOPMENT EXPENDITURE IN:

**BELÉN**

Alumbrera's sustainable development expenditure in Belén totalled \$ 397,524 in 2015. Funds allocated to health and production initiatives increased against previous year levels. In the former case, \$ 86,317 were spent to refurbish the Belén Regional Hospital, a work that was inaugurated in December 2015.

THE COMMUNITY DEVELOPMENT PROGRAMME FUNDS ARE ALLOCATED TO TRAINING WHILE CAPITAL EXPENDITURE IS ALLOCATED TO ASSOCIATIONS OF FARMERS THAT GROW WALNUT, OLIVE, AROMATIC SEEDS AND GRAPEVINE CROPS.

Projects seek to strengthen partnership initiatives and to develop good practices relating to health management, crop varietal re-engineering and improvement of small farmers' household income.

Since the sustainable development programme was launched, Minera Alumbrera has supported regional production systems, particularly those related to small-scale projects. This resulted in the accumulation of physical capital, including tools, supplies and work materials, and human capital, in the form of training, through the completion of CSI programme works related to irrigation systems, among others.

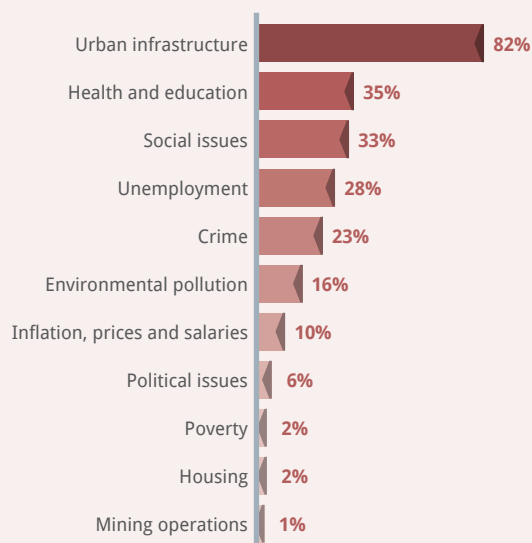
In addition, the programme has created favourable conditions to improve institutions that help the organisation of production and the interaction between the different stakeholders involved, in a sustainable way which also satisfies their objectives.

In the last four years several infrastructure works were carried out in this district, including the remodelling of schools and healthcare facilities, such as the Technical Education School, the paediatrics ward and the intermediate care ward in the local hospital, and the sports centre, among others.

Other farmer partnership projects also stand out, including the grapevine industrialisation project of the Hualfín winery, the aniseed and cumin farmer partnership initiatives, and the grapevine and walnut varietal re-engineering projects.

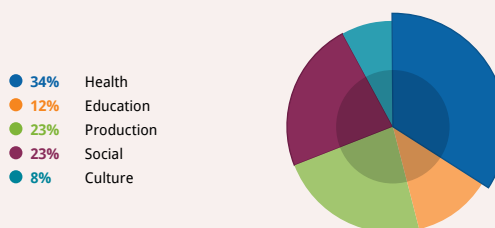
The accumulated sustainable development expenditure in Belén totalled \$ 2,706,692 between 2012 and 2015.

Issues raised by Belén residents



Source: 2014 Minera Alumbrera Perception Survey.

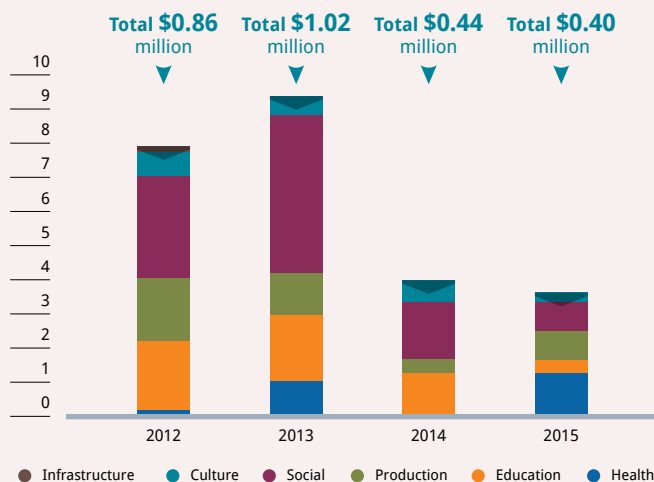
Breakdown of sustainable expenditure in Belén by area, 2015



Total: \$397,524

Source: Minera Alumbrera

Minera Alumbrera expenditure in Belén under the Sustainable Development Programme by area in million dollars (2012-2015)



Source: Minera Alumbrera

SUSTAINABLE DEVELOPMENT EXPENDITURE IN:



SANTA MARÍA



Santa María Sports Centre built by Alumbra under its Sustainable Development Programme.

One of the main issues raised in the Santa María district is the lack of urban infrastructure. Upon learning of these requirements and engaging with stakeholders and public officials, expenditure on infrastructure has increased.

In 2015, Minera Alumbra spent US\$496,520 in sustainable development initiatives in the district.

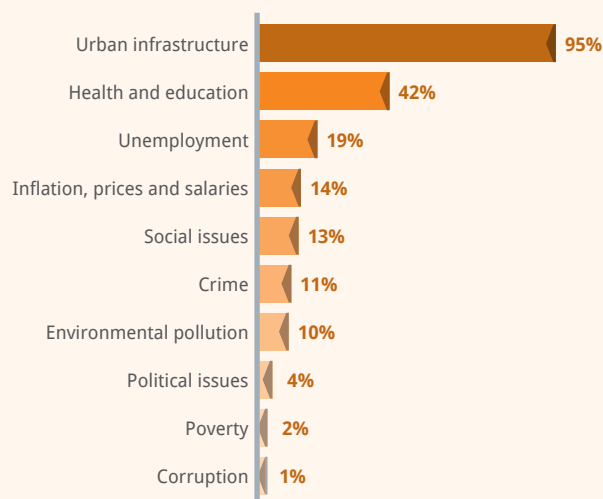
IN THE LAST TWO YEARS, EXPENDITURE HAS BEEN FOCUSED ON SOCIAL INFRASTRUCTURE, PARTICULARLY THE CONSTRUCTION OF THE SANTA MARÍA SPORTS CENTRE. THESE FACILITIES WERE INAUGURATED IN SEPTEMBER 2015 AND WERE FUNDED WITH \$0.65 MILLION CONTRIBUTED BY MINERA ALUMBRERA AND YMAD.

Since the expenditure during the second year of construction was significantly higher (44% of the total), funds allocated in 2015 decreased against the previous year level.

The sports centre facility (see informative chart "Large infrastructure works in the PIA" below), which was transferred to the municipal administration last August, is used for sports, including basketball, volleyball and roller skating, as well as social activities since it has a multi-purpose room for cultural events.

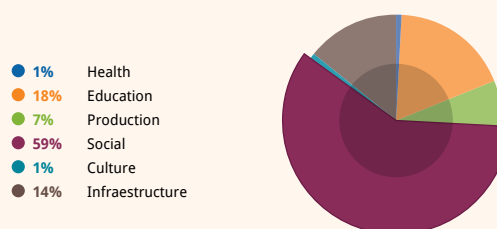
Alumbra's accumulated sustainable development expenditure in Santa María totalled \$ 2,545,839 in the last four years.

Issues raised by Santa María residents



Source: 2014 Minera Alumbra Perception Survey.

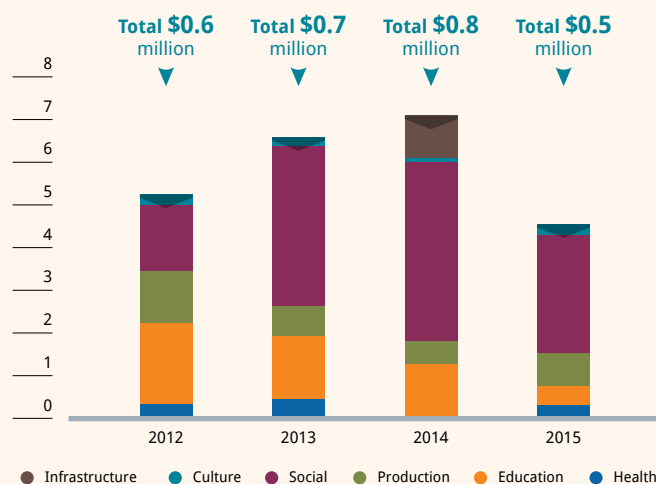
Breakdown of sustainable development expenditure in Santa María by area, 2015



Total: US\$496,520

Source: Minera Alumbra

Minera Alumbra expenditure in Santa María under the Sustainable Development Programme by area in million dollars (2012-2015)



Source: Minera Alumbra

Walnut growing

Walnut growing is one of the main activities developed in Catamarca province, but many plantations have reached the end of their useful life with very low production levels of no more than 600 kg per hectare. Plantations are affected by late frosts which regularly and significantly reduce their output.

Native walnut has very little economic value and is gradually becoming less competitive in an increasingly demanding market. Since they are old plantations, trees suffer from root diseases which result in little to no fruits.

Alumbrera's contribution included support to farmers to clean land lots and replace old trees for new Chandler walnut trees with high fruit yield and quality. This helps small farmers re-enter the market as walnut farmers and consequently improve their income in the medium term.

In addition, we encourage the organisation of farmers and technological transfer through the hiring of experts to provide farmer training and technical advice for projects.



ANDALGALÁ

BELÉN

Support was given to walnut growing activities during 2015 to different areas simultaneously, including 11 beneficiaries from Cándor Huasi, 10 from Piedra Larga and 9 from Norte Chico, including Pozo de Piedra, La Toma, Las Juntas and Las Barrancas in Belén district.

Our contribution in Las Juntas, Las Barrancas, La Toma and Pozo de Piedra consisted in reinforcing training on tree pruning, nutrition and pest control for farmers who received support in previous years and whose walnut trees are already yielding fruits.



SANTA MARÍA

In 2015, our support to the Santa María district farmers was reinforced and the numbers of planted lots increased and new lots were added. We supported 16 farmers from San José town, out of which 8 joined the programme this year.

In July, 1,000 Chandler seedlings were provided by Alumbrera for new plantations, adding to those existing in Yepes, San José, Andalhuala and Entre Ríos. It is estimated that 5 hectares were added to the cultivated areas in said towns.

Alumbrera also provided basic supplies.



- We encourage farmer organisation and technological transfer through the hiring of experts to provide farmer training and technical advice for the projects.
- Land lots and farming activities were assessed together with the project beneficiaries. Participants received training on general crop growing, including land ploughing, planting, nutrition and tree pruning.
- In early August, trees were pruned and training on the use of fertilizers and pest control was reinforced. In October, new seedlings started to grow.
- Thereafter, the crop maintenance process was supported every month and plant growing, irrigation, weed control, pest control and diseases were followed-up.

► 1,000

Chandler walnut saplings, a pollinator and agro-chemicals were provided in July.

► 99%

of success in planting activities in the two projects. Saplings grew normally and farmers received guidance on good health monitoring.

LARGE INFRASTRUCTURE WORKS IN THE PIA. 2015.

May
2015

Inauguration



ANDALGALÁ HOSPITAL

CHARACTERISTICS

Work start date:
October 25, 2012

Work completion date:
January 22, 2015

M² built: 3,675
Construction company:
Mogueta Constructora
of Catamarca

Manpower: 96 workers
at the peak of
construction works
From: Andalgala

STATUS

Completed and transferred to
the municipal administration

TOTAL EXPENDITURE

\$3.4 millones

Characteristics: 16 rooms with bathroom, intensive care unit, infirmary room, 2 operating rooms, x-ray room, delivery room and neonatology ward, 10 external medical offices, urgent care and emergency room, paediatric ward and vaccination room, pharmacy, meeting room for 90 people, laboratory and cafeteria.

CHARACTERISTICS

Work start date:
September 21, 2013

Work completion date:
July 2015

STATUS

Completed and
inaugurated

TOTAL EXPENDITURE

\$1.08 millones

M² built: 1,187
Construction company:
Brielu UTE of Andalgala

Manpower: 46 workers
at the peak of
construction works
From: Aconquija

Safety: No lost time
incidents were reported
in line with Alumbra standards

Beneficiaries:
More than 5,000 people

Characteristics: 5 hospitalisation rooms with 2 beds each and private bathroom, 6 external medical offices, pharmacy, clinical testing laboratory, x-ray room, children care room and vaccination room, delivery room, sterilisation room, urgent care and emergency room.

October
2015

Inauguration



ACONQUIJA HOSPITAL

September
4, 2015

Inauguration



SANTA MARÍA SPORTS CENTRE

CHARACTERISTICS

Work start date:
December 10, 2013

Work completion date:
August 2015

STATUS

Completed and
inaugurated

TOTAL EXPENDITURE

\$0.65 millones

M² built: 1,360
Construction company:
Servicios Generales
of Santa María

Manpower: 25 workers
at the peak of civil works
and 12 for the metallic
framework
From: Santa María

Safety: No lost time
incidents were reported
in line with Alumbra standards

Beneficiaries:
30,000 people

Characteristics: The main facility has an area for sports. It may be used as a multi-purpose room, basketball or volleyball court. It has appropriate lighting required by regulations for night sports activities. It has bathrooms, locker-rooms, administrative offices, and warehouse and ticket booth.

CHARACTERISTICS

Work start date:
May 4, 2013

Work completion date:
August 2015

STATUS

Completed and
inaugurated

TOTAL EXPENDITURE

\$86,317

M² built: 170
Construction company:
Vialmi of Andalgala

Manpower: 8 workers
at the peak of
construction works
Origen: Belén and
Andalgala

Safety: No lost time
incidents were reported
in line with Alumbra standards

Beneficiaries:
27,000 people

Características: 2 maternity hospitalisation room, 2 infirmary rooms, warehouse, bathrooms; sewage and sanitary facilities and electrical installation in all rooms, ceramic floors and wall tiles, paint and finish works. This is in addition to refrigeration equipment, furniture and recreation items.

December
2015

Inauguration

REMODELLING OF BELÉN HOSPITAL
MATERNITY WARD

 <p>Approach Mine closure focused on a sustainable management approach.</p>	 <p>Environmental aspect</p> <ul style="list-style-type: none"> • Mine closure plan is supported by environmental baseline data compiled throughout our operations. • Three main facilities must be considered: tailings dam, waste dumps and open pit. 	 <p>Social aspect</p> <ul style="list-style-type: none"> • Social baseline: Regular updates of the Minera Alumbrera Socio-Economic Impact Study. • Employees: Based on a survey, a specific Training Plan will be developed to continue with the plan launched in 2010 for the completion of high-school education. • Communities: Survey to determine growth potential opportunities in the region. • Suppliers: Contractor mapping in order to examine new hiring opportunities. • Communication plan: Report to different stakeholders in a transparent and timely manner. • Mine closure case: 2006-2015 Education Improvement Plan.
 <p>Challenge First large mining operation in Argentina to carry out an inclusive mine closure process.</p>	<p>• Goals:</p> <ul style="list-style-type: none"> - Physico-chemical stability of remaining facilities. - Protect human health and the environment during the mine closure process. 	
<p>Mine closure plan It includes goals, activity planning, allocated resources, background data compiled over 18 years of operations, and risk analysis.</p>	<ul style="list-style-type: none"> • Mine closure programmes - Tailings dam and waste dumps: covers to prevent Acid Rock Drainage, capping system, revegetation. - Open pit: physical stability and perimeter fencing. 	



Mine closure

The Bajo de la Alumbrera deposit is nearing its mine closure stage due to ore exhaustion as expected after 18 years of operations. Mine closure contemplates the environmental and social aspects integrated through a sustainable development management approach.

In order to obtain successful results, proper planning is required. Alumbrera started developing a work plan prior to the project commissioning, since the Environmental Impact Study was prepared and submitted in 1995.

This challenge that we are facing is unprecedented at this scale in the country and very few projects in the world had had the need to deal with social mine closure¹. In this journey, we have teamed up with a group of professionals from different fields, who are leaders for Alumbrera and society and will provide us with their technical and social insights.

In addition, we take note of our stakeholders' expectations through the Roundtable discussions conducted in Catamarca and the interpersonal relationships established by the Alumbrera representatives in each town.

With the definition of our goals, planned activities, resource allocation, the available information and the analysis of the risks to be faced, we implemented a responsible Mine Closure Plan which satisfies the planned scope.

Mine closure responsibility lies with the project operator, i.e. Minera Alumbrera. Although YMAD owns mining rights over the deposit, its involvement during this stage is the same as it has been throughout the life of the operation.

Minera Alumbrera will comply with legal provisions, while the competent regulators will require and monitor compliance with regulations.

The Catamarca province administration, through the Mining Department, is responsible for approving the Mine Closure Plan and carrying out monitoring activities during and after mine closure. At present, 9 specific mine closure monitoring programmes have been implemented by the relevant regulator. Regarding the final destination of industrial facilities –provided that they are not used to process ore from other deposits–, they will be dismantled while the remaining infrastructure will be made available to YMAD².



Alumbrera has a fleet of 53 heavy trucks to haul rocks to the Concentrator Plant.

¹ In countries with high mining development, employees have the possibility of being hired by other miners.

² Section 6.3 of the Unincorporated Joint Venture Agreement (UTE) entered into with YMAD states that "YMAD shall recover the right to fully dispose of the deposits with any affixed improvements, including buildings, tunnels, tailings (...) as well as its right to mine any remaining reserves."

RESPONSIBLE MINE CLOSURE PLAN

	Environmental aspect	Social aspect
GENERAL OBJECTIVES	Mitigate impacts caused by mining operations.	Gradually minimise the mine closure impact on employees, communities and value chain.
	Clean up industrial facilities and rehabilitate the remaining ones.	Support our stakeholders throughout this process.
	Prevent human health and safety risks.	Empower social organisations to manage the transfer of the social capital generated by Alumbreira to the Catamarca community.
	Ensure a safe site condition that poses no risk to human health or the environment.	Transfer the good practices implemented in corporate management to the community in order to help them pursue a better society.
SPECIFIC OBJECTIVES	Attain the physico-chemical stabilisation of the closed facilities in the long term.	EMPLOYEES: - Implement training programmes that improve their employability. - Provide guidance on social networking to allow new employment opportunities to arise.
	Restore the natural landscape of the site, while fostering the growth of local vegetation and wildlife.	COMMUNITIES: - Give support to improve resources already generated under the Community Programme, particularly the ones related to production development. - Help communities capitalize on the educational changes made in Catamarca under the Education Improvement Plan.
	Restore the area where the remaining facilities are located.	SUPPLIERS: - Promote local goods and services to other mining companies and industries in the region. - Work with the Catamarca government to promote and prioritise local suppliers.
	Protect the local wildlife and vegetation and implement safety mechanisms during mine closure.	
	Foster joint monitoring activities with local residents and regulators.	



Officer Juan Díaz and Senior Engineer Cristina Carrizo of the Environment area monitoring water at the Vis Vis Canyon.

Provision

Since the onset of our operations, Alumbreira has a provision to cover any mine closure related expenses. Environmental studies focused on the mine closure stage have been carried out since 2000. As those technical environmental and social studies move forward, this provision is turning into a final budget. This capital was partially allocated to gradual rehabilitation programmes while most of it will be used during the last year of operations.



Flamingos annually visit the tailings dam during their migration.



ENVIRONMENTAL ASPECT

During our 18 years of operations, we have gathered information on environmental variables which constitute a robust knowledge platform of biological, geological, hydro-geological, climatic, social and cultural data. The soundness of this information is based on these parameters being systematically monitored over this long period of time through audits by the Catamarca Mining Department, the competent regulator. This baseline reduces the level of uncertainty regarding the actions to be taken during mine closure and is the foundation for the preparation of the current Plan.

MONITORING OF CURRENT AND SUBSEQUENT ENVIRONMENTAL VARIABLES APPLICABLE TO MINE CLOSURE

PLACE	ENVIRONMENTAL VARIABLES	FREQUENCY
MINE SITE AND AREA OF INFLUENCE	Air quality	Monthly
ENTIRE AREA	Meteorological and climatic	Continuously
VIS VIS RIVER	Water quality	Quarterly
	Trace metals	Bi-weekly
RIVERS CROSSING THE SLURRY PIPELINE ROUTE	Water quality	Six-monthly
	Biological	Bi-annually
CAMPO DEL ARENAL	Groundwater levels	Monthly
	Surface water and groundwater quality	Quarterly
OPEN PIT	Water quality at main facilities	Monthly
	Slope stability	Continuously
ENTIRE MINING AREA	Biodiversity	Annually
	Archaeological heritage	Annually
WASTE DUMPS ³	Waste dump stability and temperature	Continuously

THREE MAIN FACILITIES TO BE CONSIDERED FOR MINE CLOSURE:

1. TAILINGS DAM



2. WASTE DUMPS



3. OPEN PIT

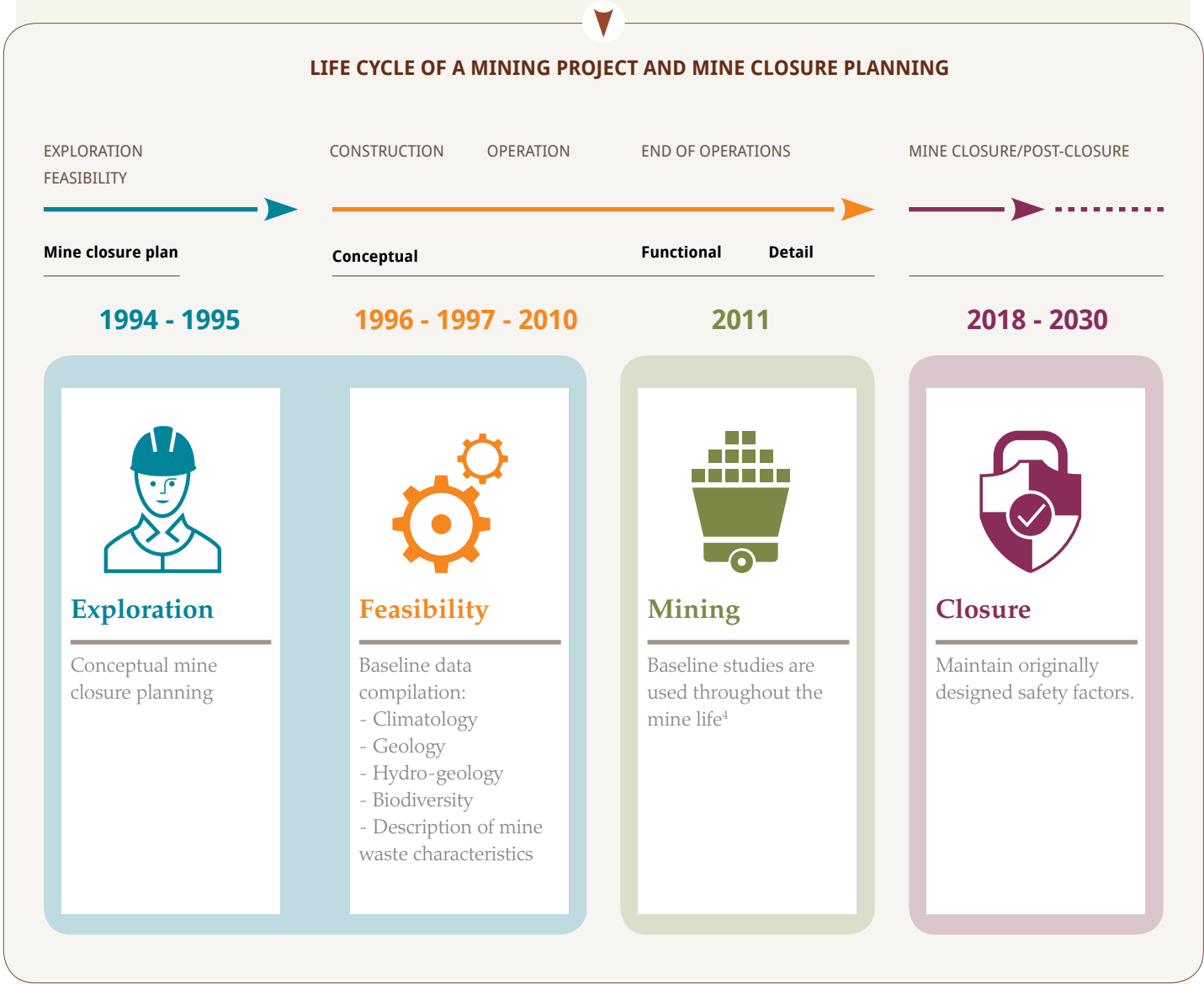
Challenge

Attain the physico-chemical stability in facilities that will remain at the site after mine closure. In their interaction with environmental factors they must not cause any impacts that entail a significant risk for human health and/or the environment.

³ Dump for mined waste rock.

Mine closure planning stages

The continuous mine closure planning has a conceptual vision of its different stages at the start of the project. As operations move forwards, the plan evolves and becomes more detailed when milestones, specific methodologies, monitoring and validation processes are included and integrated into the decision-making process throughout its stages.



Risk assessment is an essential part of the Mine Closure Plan development. Its importance lies in that its results will help define mine closure works, actions or activities focused on risk management in order to protect lives, human health and safety and the environment.

⁴ Mine closure planning is reviewed annually in accordance with the business plan.
⁵ Although it is part of the tasks currently performed at the site, it will become a mine closure activity upon the end of mining operations.
⁶ Rainwater flowing on the surface of a piece of land.

ENVIRONMENTAL CLOSURE PROGRAMMES

1. TAILINGS DAM

2. WASTE DUMPS

• Waste dump rehabilitation

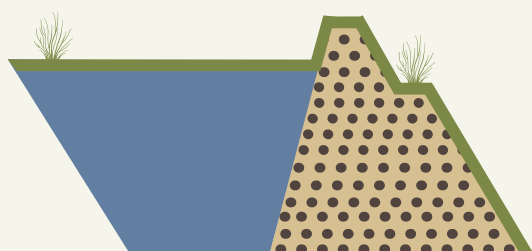
The phenomenon known as Acid Rock Drainage (ARD) is a natural reaction that occurs in waste dumps and tailings dam when sulphur-bearing materials interact with oxygen and rainwater. This may generate acid solutions over time.

The acid generating capacity of materials can be anticipated in order to plan preventive actions which will be monitored in the future through mine closure and post-closure monitoring activities. It can be either eliminated or prevented through a preventive programme.

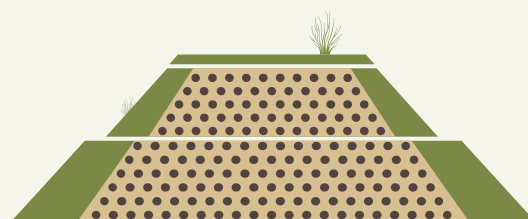
Preventive programme

Material capping:

Alumbrera developed a programme under which waste dumps and the tailings dam will be covered with inert material that prevents rainwater percolation. The covers have been tested multiple times in the field with excellent results. Their design is streamlined and updated using information from studies carried out in the last decade, during different seasons.



Surface cover and tailings dam slope



Surface cover and waste dump slope



Panoramic view of the tailings dam.

Pumpback system

The pumpback⁵ system is a facility located downstream the tailings dam which pumps water that runs out of the dam back into the production process to be reutilised thus improving freshwater use. In 2015, the drilling of two new pumpback system wells, one pumping well and one monitoring well, was planned and will be completed in 2016.

The system will remain fully operational during and after the mine closure stage until the water contained in process tailings for 8 to 10 years is drained.

In 2015, the final design for the tailings dam and waste dump closure started to be outlined. The entire dam area will be covered with inert material and revegetated with native species. This capping system acts like a sponge retaining moisture during the rainy seasons and releasing it to the air during the dry seasons, which prevents water from percolating into potential acid forming materials.

In addition, a final spillway will be built on the dam wall to ensure the drainage of excess rainwater, which will guarantee the physical stability of the facility after mine closure and run-off⁶ management.

• Capping system⁷

The cover type and thickness are subject to trials using inert rocks that in the future will be placed on the waste rock material of the tailings dam and waste dumps to prevent ARD generation.

During these pilot tests, the moisture retention, temperature, suction and quality of infiltration water are monitored at different depths in order to ensure the cover's chemical stability over time.

What does the cover do?

- It will store and subsequently release rainfall moisture thus minimising percolation into the material.
- It will help with dust reduction.
- It will help manage surface and slope erosion.
- It will provide a suitable substratum to plant native vegetation.

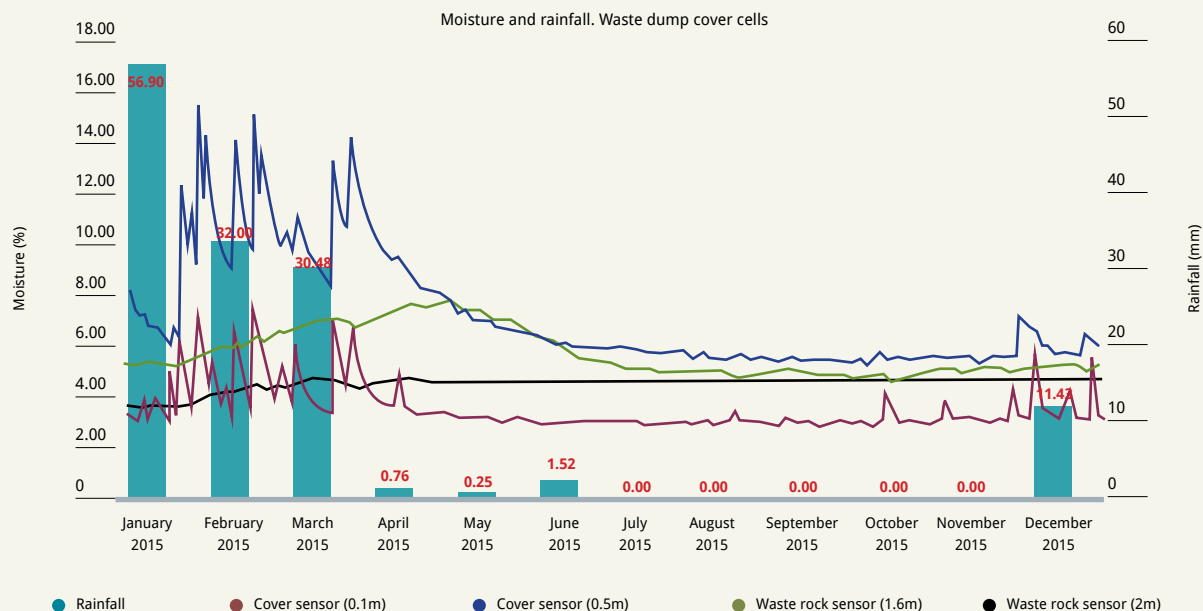


Waste dumps and tailings dam will be covered with barren core material during the mine closure stage.

Recovery of alluvial material for the tailings dam cover

A campaign was carried out to extract alluvial material⁸ to build the tailings dam capping system. The excavation was made in an area to be occupied by mining tailings.

Cover sensor and waste rock material monitoring, 2015



Fuentes: sobre la base de Minera Alumbrera y COCHILCO.

This chart shows the relation between reported rainfall levels and the reaction of sensors located in the cover and on the waste rock material. Cover sensors activate with rainfall while waste rock sensors (placed deep below) report no variations.

Rainwater does not percolate into the waste rock material.

The studies conducted through the analysis of a group of different variables (temperature, suction

and moisture) help identify the cover suitable to store rainwater during the rainy seasons and subsequently release it via evaporation during the dry season.

• Revegetation programme

After surveying, identifying and classifying vegetation population in the site area, field and lab trials were carried out to develop a Revegetation Plan for disturbed areas. This programme has been implemented since 2005 in different areas of the site with very good results.

THE WASTE DUMP AND TAILINGS DAM CAPPING PROGRAMME HAS BEEN SUPPLEMENTED BY THE REVEGETATION PROGRAMME, WHICH WILL ALLOW FOR LAND REHABILITATION USING NATIVE VEGETATION ONCE THESE AREAS ARE NO LONGER OPERATIONAL.

New revegetation trials were started using the fittest native species previously examined. The seeds used for trials are collected during annual campaigns. Then seedlings are grown at the site-based plant nursery, where their ability to adapt and grow is monitored.

In January -the rainy season- the seeds of 8 native species were planted in two different substrata, namely alluvial rock and barren core rock⁹. Tests were conducted using bacterial inocula¹⁰, adding synthetic fibre, biological compost and nutritional additives, as well as control tests with no additive.



Seeds are selected, classified, prepared and stored at the site-based plant nursery.

Test results

- Higher survival rate -approximately 15%- on barren core rock using bacterial inocula against the control test rate. The most numerous species were herbal and retama shrubs and brea trees.
- Survival rate of 23% on alluvial material in the control test. The most numerous species are the jarilla and herbal shrubs and brea trees.



⁷ The barren core material layer is placed on the waste dump surface. It is used to store water during the humid season and release it during the dry season.

⁸ Modern and uncompact material of variable grain size carried by water.

⁹ Waste rock material from the mine with no acid forming potential.

¹⁰ Biofertilizers are added to treated seeds to facilitate plant growth in the areas where they are not found naturally due to earth removal.

3. OPEN PIT CLOSURE

In order to remove rocks from inside the mine, water contained internally needs to be removed first using a pump system with wells located in the open pit.

Water quality shows the mineralised environment where it is contained. It is slightly corrosive water with high iron and sulphate levels and neutral pH. This water is solely used to consolidate internal roads to the site.

We gathered data of the behaviour of this rock aquifer from monitoring and pumping wells. This will be used to develop predictive models of water quality and behaviour once mining operations are completed.

Tests show that pumping activities at the bottom of the pit will cease when the site is closed down and a terminal pond will be formed. It will consist of rock aquifer water, rainwater and surface run-offs¹¹ that flow into the pit.

It will reach its highest level in 10 years and will be levelled in approximately 200 years, with a water quality similar to baseline level. The hydro-chemical model forecasts that the pond water will have a pH level slightly below neutral (6.5) and therefore will not be acidic water.

The pond water will never leave the pit and will act like a groundwater reservoir with a depth of 160 to 200m. Therefore, it will not supply water to the regional aquifer. This behaviour is the result of the high evaporation rate at the site area.

THE PIT CLOSURE WILL CONSIST IN THE DELIMITATION OF A PERIMETER SAFETY ZONE TO PREVENT THE ENTRY OF PERSONS OR ANIMALS USING PHYSICAL BARRIERS AND SIGNS TO WARN OF THE RISKS OF TRESPASSING. THEY WILL BE ROCK BARRIERS TALLER THAN 2M. THERE WILL ALSO BE WIRE FENCING AT THE SITE MAIN ENTRIES AND ACCESS RAMPS.

¹¹ Water running from the upper basins of the open pit and channeled to the entrance of the pit.



Heavy trucks can haul up to 220 tons of rocks.

Mine closure auditing programme

Glencore has a multi-disciplinary team of experts who oversee activities through an auditing plan carried out across all sites around the world, particularly focusing on the assessment of risks associated to the site's most relevant processes.

Audits are conducted annually and improvement opportunities identified during the process are followed up and incorporated into a record system.

In 2015, Minera Alumbrera's Mine Closure Plan was audited by Glencore and some improvement opportunities were identified and immediately implemented in the programmes described above.



Direct planting of onions in La Puntilla, Belén, a project developed under the Community Programme through which we support small-scale farmers from the PIA by providing tools, supplies, materials, training and follow-up.



SOCIAL ASPECT

The social aspect of mine closure includes a comprehensive view of the social and economic conditions of local residents, both locally¹² and regionally. This information helps outline the social goals which are expanded under the attentive look of the stakeholders most closely associated to Alumbreira through our strong community engagement efforts.

The social and community development agendas, and priorities identified within the communities, can change over time and opportunities can be redefined. Therefore, our social mine closure plan is taking shape and narrowing its scope as mine closure progresses.

The environmental results associated to mine closure depend on our technical expertise to achieve good results. However, local communities and governments are very important in achieving social mine closure results. The community knows the history of its people and the role of Alumbreira throughout the life of the mine, whereas governments contribute with institutional capacity, economic prospects and cultural issues.

The process of engagement may not result in full consensus on closure outcomes, but it should be considered successful if it leads to fully informed decisions.

Reference data has been compiled over the life of the project through successive updates of the social baseline studies (Minera Alumbreira's Socio-Economic Impact study).

¹² Catamarca province and particularly the Primary Impact Area geographically defined by Andalgalá, Belén and Santa María districts.

This allowed us to:

- Improve our community development programmes.
- Identify the skills needed in the community to maintain or change the programmes.
- Know the technical capabilities and skills of employees and help them improve their employability.
- Support and develop local suppliers through specific programmes.

The definition of goals to implement, review and adjust the mine closure plan as required, together with Alumbreira's commitment and the stakeholders' involvement will provide a sustainable exit strategy to pursue closure outcomes that are beneficial to all parties involved.

At this stage we seek to:

- Maintain our commitment with our stakeholders.
- Listen to and address employee, community and supplier needs and expectations in a tiered and inclusive manner.
- Build mutual understanding
- Strengthen bonds of trust built in earlier stages.
- Provide truthful and reliable first-hand information as the final plan is developed.

EMPLOYEES



In the next stage, we will focus on defining an action plan for our employees. Mine closure means ending our employment relationship with approximately 1,200 people of different ages, household composition, experiences in different job positions, education level and socio-cultural background.



Then we will identify the general needs of our human resources, their individual needs by sub-groups and specific training requirements. With this information, we will develop a training programme that provides our employees with suitable skills to facilitate their re-employment or development of other kind of projects.

In addition, we will work to transfer values and principles learnt at the workplace and from human interaction to the community, under which people work under a corporate identity that brings them together and motivates them.

Through a general survey, we will review their perceptions on the particular current and future situation of each family upon mine closure. We will seek to outline an appropriate and relevant training plan to deal with this process.

This work is the continuation of the training activities carried out by Alumbra in the last few years in the face of mine closure, such as the High-School Completion programme and two site-based higher education

courses: the Technical Mining course and the Food Studies course.

During the first stage, training will provide the general tools applicable to any activity that may be developed after mine closure. It will be focused on resource administration, finance planning, business development and the study of motivating cases. Then, specific training courses will be delivered dealing with subjects of interest raised during the survey.

Our staff will remain relatively stable until mine closure since the movement of mined material will be constant until the last months of operations. All employees will be paid 100% of severance payment upon mine closure.

SUPPLIERS



Regarding the value chain, Alumbra will develop a contractor mapping to examine new hiring opportunities in the region and will work based on the results obtained from the Local Supplier Development programme which has fostered the growth of businesses and the number of indirect jobs in the PIA.



The decline in our procurement requirements since Alumbra has different needs now has reinforced discussions with suppliers to make them aware of this situation.

The specific mine closure-oriented work goals will be defined based on the potential and skills acquired which may be of interest to other

mining companies in the country or to serve industries that apply the same high standards. Minera Alumbra can help by connecting these interests by economic activity in the region.

COMMUNITIES



We will also conduct a study to identify our achievements relating to the social expenditure consistently made in the PIA in order to help plan the continuation of those programmes. We seek to learn more about the socio-economic situation of local families and their general

perceptions through a survey and in-depth interviews with the leadership of the Alumbra representatives in each town.

The results of the health and education improvement and local production development initiatives

under the social expenditure programme will allow us to set goals to work together with the communities.

Communication

Communication is crucial to promote our mine closure work. It must be managed in a gradual, efficient and transparent manner, taking into account the different target audiences.

Through an inter-disciplinary team of Argentine managers with vast experience in the mining sector, the community, and especially those stakeholders most closely associated to the project, will be informed of the steps to be followed.

This process will include the views of employees and their families, trade union, suppliers, professionals and opinion leaders, among others.

Among our key stakeholders, Alumbra employees and their families will be the first ones to receive our communications. We seek to:

- Report in an efficient, credible, timely and complete manner.

- Minimise any potential conflicts arising from misinformation.
 - Maintain:
 - our social license during the mine closure stage;
 - open discussion channels with stakeholders or leadership to take responsible management actions; and
 - improve our reputation as a responsible neighbour.
 - Add value to actions taken so far as part of our effort to continue with our way of work.
 - Set our Mine Closure Plan as an example of leading mining planning in Argentina.
- To succeed, various communication tools will be used, such as work groups, informative sessions, polls, direct consultation, hotlines, media campaigns, publications and social networks.



Case

Education Improvement Plan in Catamarca from 2006 to 2015

REGARDING THE COMMUNITY WORK CARRIED OUT BY ALUMBRERA IN LOCAL COMMUNITIES, THE RESULTS OF THE EDUCATION IMPROVEMENT PLAN STAND OUT SINCE IT IS THE FIRST CLOSURE COMMUNITY PROGRAMME WHICH HAD A SIGNIFICANT IMPACT IN THE AREA OF INFLUENCE, WITH EXCELLENT RESULTS FOR THE CATAMARCA COMMUNITY.

BACKGROUND

Since 2006, an Education Improvement Programme has been implemented by Alumbra in the Primary Impact Area. This is a long-term initiative which sought to provide new educational tools to Catamarcan teachers.

School needs to take on other challenges to educate in a context of multiple requirements and new demands from society. Therefore, we sought to help improve educational quality to foster a different school model that develops projects related to the local social and cultural context while being integrated into the global community at the same time.

OBJECTIVES

The goal of improving school performance meant reducing grade repetition, incorporating the use of new technologies in teaching activities, providing a refresher on reading and writing and maths teaching skills and improving school management.

BENEFICIARIES

Although the programme was launched after a baseline study was conducted in Andalgalá with the participation of the school community, it was later extended to Belén and Santa María, after adapting it to meet local needs.

The main beneficiaries of this educational initiative were the local children, teenagers and young people who, through the training of adult teachers, could learn a number of skills which expanded their possibilities to communicate, work and participate in their communities.

TRAINING TEAM

The work was carried out by an inter-disciplinary professional team of trainers through an agreement initially entered into between Alumbra and the National University of San Martín, which was later joined by the Tres de Febrero National University.

RESULTS

A total of 85% of the teachers from Andalgalá, Belén and Santa María received training under the Programme. In addition, local leaders were also trained to continue with this work beyond the life of Alumbra.

KNOWLEDGE TRANSFER

Alumbra worked 9 years together with local teachers who gave continuity to this process. The programme had an impact on most schools from Alumbra's primary impact area and, consequently, students have made unexpected progress in different areas thus accomplishing the set goals.

The long-term target was to transfer this knowledge to a group of Catamarca teachers, who have received training to continue with this educational model. In the first years, we started to integrate teachers from Catamarca into the team to lead this educational change locally until the group had a total of 19 teachers.

END OF THE CYCLE

In the face of mine closure, Alumbra completed the goals set for this period with very good results which can be explained via figures and stories told by the teachers themselves.

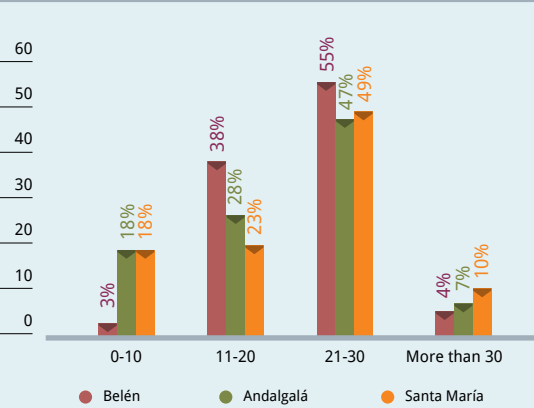
Perception survey on the Education Improvement Plan

A perception survey was conducted to know the opinion of the school teachers and principals who participated in some stages of this Programme¹³.

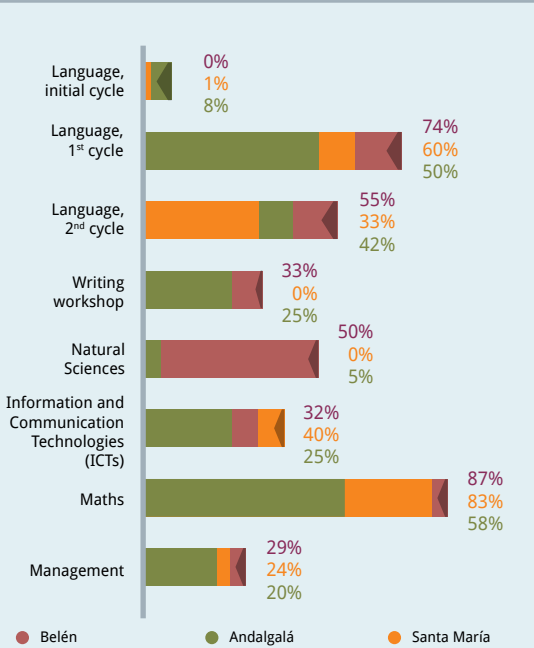
According to the assessment of teachers of the knowledge acquired and contribution made to change teaching strategies, the results were positive in more than 90% of cases in the three districts.

Teachers who completed the courses, in spite of being dissatisfied with the programme being funded by Minera Alumbrera, positively assessed the initiative and recognised its impact on the local educational system.

Years of service as teacher



Courses taken by teachers



The “0” values mean that those courses were not taught in that town.

13 It is estimated that 950 teachers from the PIA participated in the Programme. The sample includes ordinary school term, primary school teachers only.

CONTENT ASSESSMENT

	Excellent	Very good	Good	Fair	Insufficient
ANDALGALÁ					
Contents	40%	52%	8%	0%	8%
Methods	37%	47%	16%	0%	0%
Teacher training	48%	42%	10%	0%	0%
Materials	40%	43%	17%	0%	0%
BELÉN					
Contents	31%	51%	17%	1%	0%
Methods	33%	50%	14%	2%	1%
Teacher training	36%	45%	18%	1%	0%
Materials	31%	46%	20%	2%	1%
SANTA MARÍA					
Contents	37%	55%	8%	0%	0%
Methods	32%	54%	12%	1%	1%
Teacher training	44%	41%	14%	1%	0%
Materials	35%	45%	18%	1%	1%

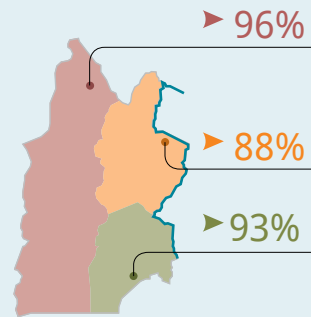
IMPACT ON THEIR CAREER TRAINING

	YES	NO
ANDALGALÁ	93%	7%
BELÉN	96%	4%
SANTA MARÍA	88%	12%

IMPACT ON THEIR TEACHING PRACTICE

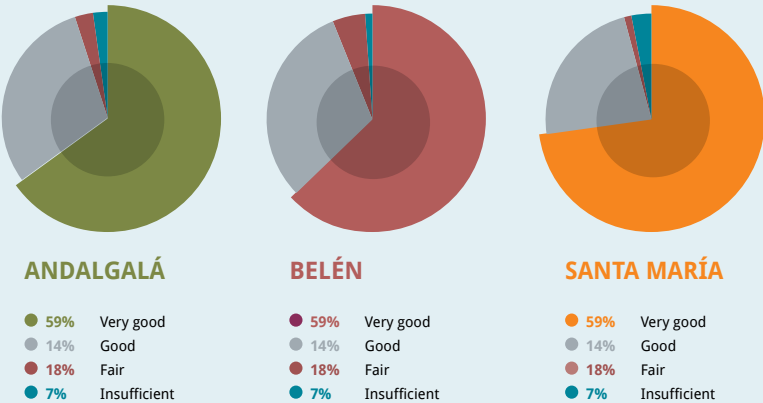
	YES	NO
ANDALGALÁ	90%	10%
BELÉN	96%	4%
SANTA MARÍA	96%	4%

Positive impact on the local education system



* It had a lower impact in Santa María because the programme was launched in 2010 and offered fewer courses. The Language training cycle was not completed in full and the Maths training started in 2014.

Assessment of the overall contribution to the training process





ANALÍA SEGOVIA ISASMENDI
(Teacher)

DEGREE: Basic General Education Teacher graduated from Instituto de Estudios Superiores de Belén district, Catamarca province.

Higher Education Computer Sciences Teaching Certificate and Ethics and Civics Continuing Education Degree.

ROLE: 1st grade teacher at special term School No. 450 of Laguna Blanca, Belén.

TEACHING EXPERIENCE: 18 years.

My first job was as a substitute teacher in an urban school in downtown Belén for 12 years. During that period I did research on how 1st graders can learn to read and write in a short period of time. This need to know shared with other teachers coincided with the arrival of the first UNTREF multi-disciplinary team under the Education Improvement Programme funded by Minera Alumbraera.

The UNTREF trainers trained us on Alphabetization. The course revolved around a reading and writing teaching strategy called “Phonological Awareness”, which was similar to the ideas that we, the Catamarca teachers, had been implementing.

The training offered an innovative conceptual approach under which trainers went into the classroom to teach a class and we could observe them and subsequently meet to discuss our views. They were truly model classes; something different than what we had been doing until then in our training courses. We really enjoyed this work method so we reinforced our teaching practices and thus first graders learnt how to read and write in a shorter period of time. We also implemented various comprehensive reading and text writing strategies.

The highlight of this programme was that four teachers and I wrote a book titled “Compartiendo saberes. Enseñar a leer y a escribir en primer grado” [“Sharing Knowledge. Teaching 1st graders how to read and write”], which was an accomplishment for me personally, for the work team and for the trainers who proposed the idea and provided us with guidance for us to share what we knew how to do”.

I continued putting into practice multiple reading, writing and written expression strategies with very good results because no matter what their socio-cultural background is, children can learn.

I devoted myself to reinforce my training by taking the Language, Literature and ICTs Bachelor’s Degree course delivered by UNTREF in Andalgalá. Owing to the experience gained with my ongoing training efforts, two colleagues and I were asked to work as members of the local training team to train teachers in the Belén district. We worked two years which were filled with dreams, ideals and challenges.

I have been working as a first-grade teacher at School No. 450 since 2013. This is a full-time, special term school located in a remote area with adjacent lodging facilities. It is located at an altitude of 3,300 metres above sea level in the Andes mountains highlands, where cold and hot weather conditions are extreme. Students come from poor young families who live in rural homes built with stones and adobe.

During this work period, children learn how to read and write in an average of 45 days with a daily 45-minute practice.

IT SHOULD BE NOTED THAT THE CHANGES TO TEACHING PRACTICES MADE UNDER THE UNTREF PROGRAMME ARE VERY SIGNIFICANT SINCE THEY IMPROVED TEACHING SKILLS AND FACILITATED LEARNING WHICH ALSO IMPROVED THE QUALITY OF KNOWLEDGE.

I am very grateful to the trainers for the years we shared from 2008 to 2015. They are great professionals and beautiful persons who gave me the chance to do what I love, i.e. to learn and teach.

Results of the Programme from the teachers’ point of view



ELIDA ELIZABETH DOMÍNGUEZ
(Teacher)

DEGREE:	Primary School Teacher graduated from Instituto Privado Virgen de Belén.
ROLE:	Regular teacher at School No. 254 of La Puerta de San José, Belén, Catamarca.
TEACHING EXPERIENCE:	25 years.

THE VISIT SYSTEM APPLIED TO RURAL SCHOOLS, WHICH HAVE BEEN LONG FORGOTTEN, THE PROVISION OF BOOKS AND TEACHER TRAINING HAD A GREAT IMPACT TO HELP IMPROVE SCHOOL PERFORMANCE.

In order to continue our training, the Language and New Technologies Bachelor’s Degree course was delivered in Andalgala town, with an outstanding number of teachers and subjects carefully selected and a constant communication via electronic means.

THE IMPACT ON THE TEACHING PRACTICES AND IMPROVEMENT OF SCHOOL PERFORMANCE OF THE STUDENTS OF ALL LOCAL TEACHERS WHO VOLUNTARILY TOOK THESE TRAINING COURSES, NOT ONLY THE LANGUAGE ONE BUT ALSO THE MATHS AND SCIENCES COURSES, POSITIONED BELÉN AS A DISTRICT WITH THE HIGHEST EDUCATION QUALITY STANDARDS IN CATAMARCA PROVINCE.

During most of my teaching career, I taught at third-category rural schools with very few students in multi-grade classrooms. The contents taught in the classroom had little to no impact on our teaching practices. In this scenario, I tried to train on my own. Although I was invited to participate in a new training session in 2008, I was reluctant to attend given my own disbelief and disillusionment of training programmes.

I was teaching at School No. 254 when a group of trainers came into my classroom and, with a piece of chalk in hand, they helped me solve complex situations which I failed to solve due to my limited strategies, which caused me a great deal of distress. They convinced me to go to the plenary sessions to be delivered in Belén. Ever since that first meeting I discovered a wide variety of specific, consistent, and above all, real possibilities. They made regular visits and worked from the classroom, continuously monitoring each of the students who had learning difficulties and particularly provided the theoretical knowledge to professionalise my teaching practice in the classroom.

After completing my training, I was invited by the UNTREF trainers to be part of the local trainers’ team together with other teachers, which was a highlight in my personal experience. I will always say that in my teaching career there is a before and after UNTREF, which makes me feel privileged and well-regarded and encourages me to continue learning and improving my performance at the school where I might teach.





MARÍA AMELIA MIRANDA
(School supervisor of Node VII, Zone XXIV)

DEGREE:	Primary School Teacher graduated from Instituto Superior Virgen de Belén. 1 st and 2 nd cycle Natural Sciences Continuing Education Degree.
ROLE:	Regular teacher at School No. 6 "Fray Mamerto Esquiú", Belén district, Catamarca.
TEACHING EXPERIENCE:	30 years.

In 2003, I took office as interim Vice Principal and then as interim Principal in the same school until I was appointed Teaching Supervisor of Node VII in 2011 to be in charge of 23 urban and rural schools.

The school where I was Principal has the highest enrolment rate in the district and, as a current teaching supervisor, I wish that students have access to quality education and equal opportunities and that teachers can receive ongoing training to teach with solid skills.

Belén is 300 km away from the capital city and this makes it difficult for teachers to attend refresher courses delivered privately. In turn, the Regional Educational System has not provided any training for many years now.

From my 9 years of experience as a Principal in a First-Category School and later as a Teaching Supervisor, I could see that because teachers from the schools in my jurisdiction received training from UNTREF trainers, an improvement in their teaching skills was noted.

THE EDUCATION IMPROVEMENT PROGRAMME PROVIDED PEDAGOGICAL AND TEACHING INNOVATIONS AND ALSO HELPED ME FULFIL MY ROLE SUCCESSFULLY. 90% OF SCHOOLS SHOWED SIGNIFICANT CHANGES IN TEACHING PRACTICES IN THE CLASSROOM, WHICH WAS REFLECTED IN THE IMPROVED STUDENT PERFORMANCE.

The work methods implemented by the trainers were different from those of other training courses, since their every actions showed their commitment to teaching in the field (school and classroom visits), tutorial classes, plenary sessions, earning the trust of teachers while fostering communication channels to provide the information and advice needed at each stage.

During my meetings with school principals and teachers from different schools, they told me about their positive experiences with the new teaching methods and strategies, always mentioning the support given by trainers, who continuously provided guidance and helped teachers integrate ICTs into their teaching activities in the classroom.



2015 targets achieved and 2016 objectives

► ENVIRONMENT

OBJECTIVES	2015 TARGET	PERFORMANCE	2016 OBJECTIVE
Fines or penalties	0	↑ 0	0
Category 2 Incidents	0	↑ 0	0
Waste	Manage residential, industrial and hazardous waste.	↑ All waste generated at the mine site was taken for final disposal.	- Manage all generated waste. - Properly dispose of hazardous waste.
Management System	Maintain ISO 9001 and 14001 certifications.	↑ External maintenance audits were conducted.	Maintain ISO 9001 and 14001 certifications.
CLIMATE CHANGE			
Energy efficiency	Consumption in line with objective of 1.92 t CO2 eq/Kt moved.	↑ 1.83 t CO2 eq/Kt moved.	Meet key performance indicator for energy consumption.
BIODIVERSITY CONSERVATION			
Native species	Monitor native species through biodiversity monitoring activities and a cardon cacti rescue programme.	↑ - Monitoring activities were carried out in the Filter Plant (DP2), slurry pipeline and site area. - 347 cardon cacti were rescued and replanted.	Conduct annual biodiversity monitoring activities to monitor native species.
WATER MANAGEMENT			
Vis Vis monitoring	Conduct scheduled monitoring activities.	↑ Quarterly and monthly, and trace metals monitoring activities were completed.	Maintain monitoring system in the area.
Water use improvement in dry areas	Our freshwater consumption goal of 702 l/tonne milled was achieved.	↑ 683 l/tonne milled.	Meet goal of 750 l/tonne in accordance with 2016 production plan.
MINE CLOSURE			
Environmental aspect	- Continue with mine closure environmental monitoring programmes. - Recover and stock alluvial material for the tailings dam capping. - Collect native species seeds. - Keep a germplasm bank.	↑ Programmes were continued, reports were sent and regulator audits were conducted. 960,000 m³ of alluvial material were recovered and stocked for the future tailings dam capping.	• Complete models that define thickness of the tailings dam and waste dump cappings. • Complete advance design for tailings dam and waste dump closure. • Adapt mine closure plan to new requirements from regulator.
Social aspect	Disseminate information to employees about the mine closure programme.	↑ A series of mine closure presentations for employees from all areas was started.	- Develop training programmes for employees to reinforce their skills and thus improve their employability. - Take first steps to make the mine closure programme known to different stakeholders.

► HEALTH AND SAFETY

OBJECTIVES	2015 TARGET	PERFORMANCE	2016 OBJECTIVE
INCIDENT MANAGEMENT	Zero fatalities.	↑ No fatalities.	Zero fatalities.
	LTIFR¹ = 0	↓ 4 cases reported. Our LTIFR was 0.75.	LTIFR = 0
	TRIFR² = 0.8	↓ 9 cases reported (including 4 disabling injuries). Our TRIFR was 1.69.	TRIFR = 0.7
RISK MANAGEMENT	Potentially Hazardous Activities (PHA) Management.	↑ Online training was reinforced to ensure that the new Glencore SafeWork System "Life Saving Protocols" are incorporated.	- Consolidate PHA training process in the Intranet. - Incorporate new modules.
		↑ The annual programme to review our most significant risks was completed.	Review the effectiveness of the most critical risk controls.
		↑ The Risk Management Procedure was updated to include the Risk Matrix adapted to Minera Alumbra's operational context.	Apply this procedure in risk updates.
		↑ The Control Effectiveness Review Programme applied to PHAs was completed through new auditing formats in line with Glencore's Life Saving Protocols requirements.	Incorporate recommendations made during these reviews to assess progress.
	Contractor company management.	↑ The Annual Contractor Auditing Programme was completed.	Continue with Auditing Programme.

► HEALTH AND SAFETY

OBJECTIVES	2015 TARGET	PERFORMANCE	2016 OBJECTIVE
HEALTH PROMOTION	Improve the standard of living of employees and maintain health at the workplace.	🟢 0 occupational illnesses.	Maintain suitable work environment that protects the health of employees.
		🟢 Flu vaccination campaign for employees and contractors.	Conduct vaccination campaign.
LEADERSHIP AND AWARENESS RAISING	Apply leadership techniques for the development of our own leaders and contractor leaders.	🟢 4 modules of the Safety Leadership Development Programme were completed.	- Deliver behaviour-based safety workshops for managerial levels.

► SOCIAL

OBJECTIVES	2015 TARGET	PERFORMANCE	2016 OBJECTIVE
EXPENDITURE IN COMMUNITY DEVELOPMENT PROGRAMMES	Continue with community development programmes implemented and review new needs identified in the communities.	🟢 - Expenditure in Community Development Programmes: \$15.9 million. - Expenditure in large infrastructure works: \$6.8 million.	Continue with production programmes that benefit small-scale entrepreneurs and partnership initiatives in neighbouring communities.
ENGAGEMENT	Maintain open and transparent discussions with our neighbouring communities and stakeholders.	🟢 We had 1,382 visitors at the Minera Alumbrera site as part of our social commitment and open door policy and ongoing engagement with our stakeholders.	Maintain ongoing discussions with our communities and their representatives.
	Pay attention to community concerns and demands which should be addressed through our community procedure and management system.	🟢 No formal complaints were reported in our community grievance recording, follow-up and resolution system.	Continue our ongoing discussions with stakeholders to pay attention to their needs.
	Propose instances to directly discuss with our stakeholders in order to review our performance, while promoting fluid communication and contact spaces based on our SD strategy.	🟢 - A roundtable discussion was held in September 2015 in Catamarca in order to continue with our continuous improvement process. - We have a discussion group with local residents and environmentalist groups from Concepción, Tucumán province.	Continue fostering the bond with the communities through these tools.
	Conduct a perception survey in the communities.	🔴 The perception survey was not conducted in 2015.	Monitor community perceptions through our community leaders.
	Prioritise interpersonal communication and spaces where the concerns of the residents of neighbouring communities and other stakeholders can be addressed.	🟢 698 meetings were held by community	Xxxx.
COMMITMENTS	Foster farming and livestock raising programmes in the area of influence and crop varietal improvement initiatives, and provide training to farmers.	🟢 Our support included training and supplies provided to local farmers and follow-up of farming activities by agricultural engineers.	Continue with production programmes that benefit small-scale entrepreneurs and partnership initiatives, while encouraging growth opportunities and self-sufficiency.
	Build, give advice and provide materials and manpower to farmers to ensure irrigation water supply.	🟢 Irrigation water canals were built in the towns of Belén, Santa María and Andalgalá.	Support the execution of works to improve water use.
	Promote small-scale production projects.	🟢 Provide equipment, supplies and training to small-scale community entrepreneurs.	Continue with ongoing farming production programmes (walnuts, aromatic seeds, forage and fruits) providing supplies and training to farmers.
	Contribute to sports and cultural activities.	🟢 - Support was provided to the three primary impact area districts, San Fernando del Valle de Catamarca and Tucumán province. - The Santa María sports centre was built.	Continue supporting initiatives that encourage sports and cultural activities in the region.
	Provide training tools to teachers from the area of influence.	🟢 The programme was completed in 2015 after 8 years of continued efforts in the area of influence. Training was delivered by a multi-disciplinary UNTREF team.	

🟢 Achieved

🟡 Partially achieved

🔴 Not achieved

1 Lost Time Injury Frequency Rate.

2 Total Recordable Injury Frequency Rate.

GRI G4 Table and United Nations Global Compact

This 2015 Sustainability Report was prepared in accordance with the Global Reporting Initiative (GRI) G4 Sustainability Reporting Guidelines and Mining and Metal Sector Supplement. The table below shows all contents and indicators that meet the “core” «in accordance» criteria. We also reported some contents of the “comprehensive” «in accordance» option

as part of our commitment to reporting in a complete and transparent manner.

In addition, those indicators that meet the 21 criteria of our Advanced Communication on Progress (COP) of the United Nations Global Compact were marked in orange.

GENERAL STANDARD DISCLOSURES

GENERAL STANDARD DISCLOSURES

STRATEGY AND ANALYSIS

G4-1:	Statement from the most senior decision maker in the organisation about the relevance of sustainability to the organisation and its strategy.
G4-2:	Description of key impacts, risks and opportunities.

2-3
2-3, 13-17, 19-20, 22-27, 108-109

ORGANISATIONAL PROFILE

G4-3:	Name of the organisation.
G4-4:	Primary brands, products, and services.
G4-5:	Location of the organisation's headquarters.
G4-6:	Number of countries where the organisation operates.
G4-7:	Nature of ownership and legal form.
G4-8:	Markets served.
G4-9:	Scale of the reporting organisation.
G4-10:	Number of employees.
G4-11:	Percentage of employees covered by collective bargaining agreements.
G4-12:	Description of the organisation's supply chain.
G4-13:	Significant changes during the reporting period regarding size, structure, or ownership, including supply chain.
G4-14:	Explanation of whether and how the precautionary principle is addressed by the organisation.
G4-15:	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organisation subscribes or which it endorses.
G4-16:	G4-16: Memberships in associations and national/ international advocacy organisations in which the organisation participates

6
6-7
6-7
6-7
6, 30
6-7
5, 6-7, 69-75
5, 37-41, Note 1
5, 44
7, 77-81
Note 2
19-20, 22, 27, 47, 53-54, 93-100
11, 20, 29, 31, 33
11, 31

IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES

G4-17:	List of all entities included in the organisation's consolidated financial statements or equivalent documents.
G4-18:	Process for defining report content and aspect boundary.
G4-19:	List of material aspects.
G4-20:	Boundary of each material aspect within the organisation.
G4-21:	Boundary of each material aspect outside the organisation.
G4-22:	Explanation of the effect of any restatements of information provided in previous reports, and the reasons for such restatements.
G4-23:	Significant changes from previous reporting periods in the Scope and Aspect Boundaries.

6-7, 10
12-14
13-14
Note 3
Note 3
Note 4
Note 5



Indicators in line with the
UN Global Compact Principles

GENERAL STANDARD DISCLOSURES

PAGE AND/OR RESPONSE

STAKEHOLDER ENGAGEMENT

G4-24: List of stakeholder groups engaged by the organisation.	23
G4-25: Basis for selection of stakeholders with whom to engage.	23
G4-26: Organisation's approach to stakeholder engagement.	13, 15-17, 23-24, 26-27, 31, 44, 47, 85, 87-89, 93-94, 104
G4-27: Key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to those key topics and concerns, including through its reporting.	13, 15-17, 23-24, 26-27, 87-89, 93-94, 104

REPORT PROFILE

G4-28: Reporting period.	10
G4-29: Date of the most recent previous report.	10
G4-30: Reporting cycle.	10
G4-31: Contact point for questions regarding the report or its contents.	Back of cover
G4-32: "In accordance" option the organisation has chosen, GRI Content index for the chosen option and reference to the External Assurance Report.	11
G4-33: Organisation's policy and current practice with regard to seeking external assurance for the report.	12

GOVERNANCE

G4-34: Governance structure of the organisation, including committees.	30
G4-35: Process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees.	22, 30
G4-36: Executive-level positions with responsibility for economic, environmental and social topics.	22, 30
G4-37: Processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics.	221, 30-31
G4-39: Report whether the Chair of the highest governance body is also an executive officer.	30
G4-40: Nomination and selection processes for the highest governance body and its committees.	30
G4-41: Report processes for the highest governance body to ensure conflicts of interest are avoided and managed.	21, 30
G4-45: The highest governance body's role in the identification and management of economic, environmental and social impacts, risks, and opportunities.	22, 30
G4-47: Frequency of the highest governance body's review on economic, environmental and social impacts, risks and opportunities.	22, 30
G4-48: Highest committee or position that reviews and approves the sustainability report.	Note 6
G4-51: Remuneration policies for the highest governance body and senior executives.	30

ETHICS AND INTEGRITY

G4-56: Describe the organisation's values, principles, standards and norms.	19-21, 29, 33
G4-57: Internal and external mechanisms for seeking advice on ethical and lawful behaviour, and matters related to organisational integrity, such as help lines.	21, 24, 31
G4-58: Internal and external mechanisms for reporting concerns about unethical or unlawful behaviour, and matters related to organisational integrity, such as whistle blowing mechanisms or hotlines.	21, 24, 31

SPECIFIC STANDARD DISCLOSURES

MATERIAL ASPECTS	DISCLOSURES ON MANAGEMENT APPROACH AND INDICATORS	PAGE AND/OR RESPONSE	OMISSIONS
ECONOMIC			
Economic Performance	Management Approach.	6-7, 13-14, 69-75	
	G4-EC1: Direct economic value generated and distributed.	5, 72-75, 84-86	
	G4-EC3: Coverage of the organisation's defined benefit plan obligations.	43, 45	
	G4-EC4: Financial assistance received from government.	5, Note 7	
Market Presence	Management Approach.	13-14, 6-7, 37-39, 43, 69-70, 72	
	G4-EC5: Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.	43	
	G4-EC6: Proportion of senior management hired from the local community at significant locations of operation.	38-39, Note 8	
Indirect Economic Impacts	Management Approach.	6-7, 13-14	
	G4-EC7: Development and impact of infrastructure investments and services supported.	83-91	
	G4-EC8: Significant indirect economic impacts, including the extent of impacts.	68-69, 75, 76, 78-81	
Procurement Practices	Management Approach.	13-14, 77-81	
	G4-EC9: Proportion of spending on local suppliers at significant locations of operation.	78-81	
ENVIRONMENTAL			
Materials	Management Approach.	13-14, 53-54, 65-66	
	G4-EN1: Materials by weight or volume.	66	
Energy	Management Approach.	13-14, 53-54, 62-63	
	G4-EN3: Energy consumption within the organisation.	63	
	G4-EN5: Energy intensity.	63	
	G4-EN6: Reduction of energy consumption.	58, 62-63	
Water	Management Approach.	13-14, 53-54, 58-61	
	G4-EN8: Total water withdrawal by source.	59-61	
	G4-EN9: Water resources significantly affected by withdrawal of water.	59-61	
	G4-EN10: Percentage and total volume of water recycled and reused.	59-61	
Biodiversity	Management Approach.	13-14, 53-58	
	G4-EN11: Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	55-58	
	G4-EN12: Description of significant impacts of activities, products and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	55-58, 93-100	
	G4-EN13: Habitats protected or restored.	55-58	
	G4-EN14: Total number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	55-58	
	MM1: Amount of land (owned or leased and managed for production or extractive use) disturbed or rehabilitated.	5, 55-58	
	MM2: Number and percentage of total sites identified as requiring biodiversity management plans according to stated criteria, and the number (percentage) of those sites with plans in place.	5, 55-58	

MATERIAL ASPECTS	DISCLOSURES ON MANAGEMENT APPROACH AND INDICATORS	PAGE AND/OR RESPONSE	OMISSIONS
ENVIRONMENTAL			
Emissions	Management approach.	13-14, 53-54, 62-63	
	G4-EN15: Direct greenhouse gas emissions (Scope 1).	5	
Effluents and Waste	Management approach.	13-14, 53-54, 61, 65-66	
	G4-EN22: Total water discharge by quality and destination.	61	
	G4-EN23: Total weight of waste by type and disposal method.	65-66	
	G4-EN26: Identity, size, protected status, and biodiversity value of water bodies and related habitats, significantly affected by the organisation's discharges of water and runoff.	59-61	
Compliance	Management Approach.	13-14, 29, 53	
	G4-EN29: Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	54	
Transport	Management Approach.	13-14, 53-54, 66-67	
	G4-EN30: Significant environmental impacts of transporting products and other goods and materials used for the organisation's operations, and transporting members of the workforce.	66-67	
Supplier Environmental Assessment	Management Approach.	13-14, 54, 77	
	G4-EN32: Percentage of new suppliers that were screened using environmental criteria.	54, 77	
Environmental Grievance Mechanisms	Management Approach.	13-14, 53-54	
	G4-EN34: Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms.	54	
SOCIAL: LABOUR PRACTICES AND DECENT WORK			
Employment	Management Approach.	13-14, 37-41, 45	
	G4-LA2: Benefits provided to full-time that are not provided to temporary or part-time employees by significant locations of operation.	45	
Labour/ Management Relations	Management Approach.	13-14, 44	
	G4-LA4: Minimum notice periods regarding operational changes, including whether these are specified in collective agreements.	44	
	MM4: Number of strikes and lock-outs exceeding one week's duration by country.	44	
Occupational Health and Safety	Management Approach.	13-14, 47-51	
	G4-LA5: Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programmes.	47	
	G4-LA6: Type of injury and rates of injury, occupational diseases, lost days and absenteeism, and total number of work-related fatalities, by region and by gender.	5	
	G4-LA8: Health and safety topics included in formal agreements with trade unions.	47	

SPECIFIC STANDARD DISCLOSURES

MATERIAL ASPECTS	DISCLOSURES ON MANAGEMENT APPROACH AND INDICATORS	PAGE AND/OR RESPONSE	OMISSIONS
SOCIAL: LABOUR PRACTICES AND DECENT WORK			
Training and Education	Management Approach.	13-14, 42	
	G4-LA10: Programmes for skills management and life-long learning that support the continued employability of employees and assist them in managing career endings.	42	
	G4-LA11: Percentage of employees receiving regular performance and career development reviews, by gender and by employee category.	22	
Diversity and Equal Opportunity	Management Approach.	13-14, 30, 37-41	
	G4-LA12: Composition of governance bodies and breakdown of employees per employee category according to gender, age, group, minority group membership, and other indicators of diversity.	30, 36, 38-41, Note 9	
Supplier Assessment for Labour Practices	Management Approach.	13-14, 33-35, 77	
	G4-LA14: Percentage of new suppliers that were screened using labour practices criteria.	33-35, 77	
SOCIAL: HUMAN RIGHTS			
Non-discrimination	Management approach.	5, 13-14, 32-35, 77	
	G4-HR3: Total number of incidents of discrimination and corrective actions taken.	5, 32-35	
Freedom of Association and Collective Bargaining	Management approach.	5, 13-14, 32-35, 44, 77	
	G4-HR4: Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights.	5, 32-35, 44, 77	
Child Labour	Management approach.	5, 13-14, 32-35, 77	
	G4-HR5: Operations and suppliers identified as having significant risk for incidents of child labour, and measures taken to contribute to the effective abolition of child labour.	5, 32-35, 77	
Forced or Compulsory Labour	Management approach.	5, 13-14, 32-35, 77	
	G4-HR6: Operations and suppliers identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of all forms of forced or compulsory labour.	5, 32-35, 77	
Security Practices	Management approach.	5, 13-14, 32-35	
	G4-HR7: Percentage of security personnel trained in the organisation's human rights policies or procedures that are relevant to operations.	5, 35	
Assessment	Management approach.	13-14, 32-35	
	G4-HR9: Total number and percentage of operations that have been subject to human rights reviews or impact assessments.	32-35	
Supplier Human Rights Assessment	Management approach.	5, 13-14, 32-35, 77	
	G4-HR10: Percentage of new suppliers that were screened using human rights criteria.	32-35, 77	
Human Rights Grievance Mechanisms	Management approach.	13-14, 21, 32-35	
	G4-HR12: Number of grievances about human rights filed, addressed, and resolved through formal grievance mechanisms.	33	

MATERIAL ASPECTS	DISCLOSURES ON MANAGEMENT APPROACH AND INDICATORS	PAGE AND/OR RESPONSE	OMISSIONS
SOCIAL: SOCIETY			
Local Communities	Management approach.	13-14, 83-91	
	G4-SO1: Percentage of operations with implemented local community engagement, impact assessments, and development programmes.	83-91	
Anti-corruption	Management approach.	13-14, 21, 29-31, 77	
	G4-SO3: Total number and percentage of operations assessed for risks related to corruption and the significant risks identified.	29-31	
	G4-SO4: Communication and training on anti-corruption policies and procedures.	21, 29-30	
Public Policy	Management approach.	13-14, 29-31	
	G4-SO6: Total value of political contributions by country and recipient/beneficiary.	29	
Compliance	Management approach.	13-14, 29	
	G4-SO8: Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	Note 10	
Grievance Mechanism for Impacts on Society	Management approach.	13-14, 21, 24, 26	
	G4-SO11: Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms.	24, 26, Note 11	
Emergency Preparedness	Management approach.	13-14, 51	
Closure Planning	Management approach.	13-14, 92-102	
	MM10: Number and percentage of operations with closure plans.	92-102, 108-109	
SOCIAL: PRODUCT RESPONSIBILITY			
Materials Footprint	Management approach.	13-14, 65-66	

Notes:

- 1 All employees have been hired for an unlimited period of time. The number of part time employees is not significant and they have the same rights as the rest of employees.
- 2 No significant changes occurred during the reporting period.
- 4 No significant restatements of information of previous reports were made.
- 5 No significant changes in the scope and boundaries of material aspects related to previous reports were made.
- 6 Our Sustainability Report is reviewed and approved by Minera Alumbrera's management.
- 7 Minera Alumbrera does not receive any financial assistance or grant from the national or provincial government.
- 8 3 out of the 4 members of Minera Alumbrera's Board are from Argentina and 1 is from Honduras.
- 9 The age of our Directors is 48 to 62. The age of our Managers is 44 to 60.
- 10 At Minera Alumbrera, no material violations of applicable laws or regulations occurred during 2015.
- 11 At Minera Alumbrera, we have various channels for concerns to be raised by communities which are explained throughout this report. In 2015, no social impact complaints were reported through formal grievance mechanisms.

(Note 3) **INTERNAL AND EXTERNAL COVERAGE.
SIGNIFICANT IMPACT OF MATERIAL ISSUES ON
MINERA ALUMBRERA'S STAKEHOLDERS**

MATERIAL ISSUE	STAKEHOLDERS
Health and Safety	Employees, trade unions, communities.
Environment	Employees, communities, NGOs and representative organisations.
Communities	Employees, communities, NGOs and representative organisations, universities
Human Rights	Employees, trade unions, communities, NGOs and representative organisations.
Human Resources	Employees, trade unions, government, communities.
Social and Economic	Customers, employees, suppliers, government, communities, associations and chambers.
Transparency and anti-corruption	Investors, suppliers, governments, associations and chambers, media.

Glossary

PHA: Potentially Hazardous Activity.

AA1000 Stakeholder Engagement Standard (AA1000SES): The first worldwide stakeholder engagement standard developed by AccountAbility in order to incorporate engagement processes into our business strategy and practices.

Waste Dump: Waste rock (with no economic value) produced during mining that is generally stocked in coarse fragment piles called waste dumps, which resemble small hills of this material.

Capping: A layer of barren core material (not generating Acid Rock Drainage) stocked on the surface of waste dumps or tailings dams. It retains rainwater and avoids water seepage into the covered material. It is placed on waste dumps as their final design is completed. Its thickness is 1 metre on horizontal surfaces and 15 metres on slopes.

Tailings: The residue of an industrial process, especially residue that contains mineral ore.

DIFR: Disabling Injury Frequency Rate refers to injuries which prevent employees from performing their normal duties in their next work shift.

Acid Rock Drainage (ARD): This phenomenon occurs by the natural oxidation of sulphurous minerals when exposed to air and water simultaneously, which results in acidity, sulphates and metal dissolution. ARD is the result of successive chemical reactions and stages normally resulting from almost neutral to more acidic pH conditions.

Eco-efficiency: It is a management model under which more products are made using less resources and energy (and creating fewer pollutants), thus reducing waste and emissions.

Indirect energy: Energy used by the Minera Alumbra site and supplied by third parties in the form of electricity.

Renewable energies: Energy obtained from renewable and non-exhausting sources, including solar, wind, biomass, tidal, hydroelectric and geothermal energy, as well as alternative energies.

GRI (Global Reporting Initiative): The Global Reporting Initiative is a network-based organisation that develops and disseminates voluntary sustainability reporting guidelines; there is a specific supplement for the mining and metals industry.

HPR: High potential risk incidents are incidents that could have potentially resulted in a catastrophic (Category 5) or significant (Category 4) outcome under Minera Alumbra's management framework.

HPRI: High Potential Risk Incidents are incidents that could have potentially resulted in a catastrophic (Category 5) or major (Category 4) outcome in accordance with Glencore Group's consequence assessment matrix.

ISO 9001: A quality management system standard (not a performance standard) issued by the International Organization for Standardization (ISO). It is a voluntary standard that can be independently audited by certifying bodies.

ISO 14001: A management system standard, similar to ISO 9001, but covering environmental impacts and risk.

IUCN: The International Union for Conservation of Nature is a global environmental professional network comprising more than 1,000 member organisations and 140 countries.

Cut-off grade: It is the lowest ore grade contained in a mineralised body that can be mined obtaining economic value.

Alluvial material: Modern and uncompact material of variable grain size carried by water.

Total Suspended Particulate Matter (TSPM): TSPM consists of small solid or liquid particles accumulated in ambient atmosphere that result from any anthropogenic (human) or natural activity.

Settleable Particulate Matter (SPM): It is matter of any size captured on a certain surface unit in a given time unit. In general, it consists of solid particles with a size ranging from 10 to 500 micrometres. These are "coarse dust" particles that settle at a significantly fast rate and stay in the atmosphere for a relative short period of time.

Open pit: It is the mineralised area that is exposed when mining operations are conducted on the surface because they are disseminated minerals, unlike underground mining that is conducted underground because they are vein-shaped minerals.

PM: Particulate matter, or dust, usually from industrial sources.

PM10: Breathable particulate matter consists of particles of 10 or less micrometres in size on which the air quality pattern is currently measured in accordance with the US Environmental Protection Agency.

Greenhouse Gas Protocol (GHG): Standards and guidance for corporate accounting and reporting on GHG emissions, which help governments and business leaders to understand, quantify, and manage GHG emissions (e.g. CO₂). The protocol separates GHG emissions into different scopes depending on source.

TRIFR: Total Recordable Injury Frequency Rate is the sum of number of lost time injuries, including fatalities, restricted work injuries and medical treatment injuries.

Waste rock: Mineral wastes with no economic value produced during mining. Waste rock is either used for backfilling or stored at the surface.

Slope: Inclination from the face of a wall or land.

Reader's feedback form

We will appreciate your feedback to streamline our activities.

► HOW DID YOU FIND THE REPORT IN GENERAL?

Uninteresting ☐

Somewhat interesting ☐

Interesting ☐

Very interesting ☐

► IT REPORTED ON MINERA ALUMBRERA'S CORPORATE SOCIAL INVOLVEMENT INITIATIVES IN ... DETAIL:

No ☐

Little ☐

Sufficient ☐

Great ☐

► HOW WOULD YOU RATE THE INFORMATION INCLUDED IN THE FOLLOWING CHAPTERS:

	Insufficient	Sufficient	Superior
● A Word from our General Manager	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
● About this report	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
● Commitment to sustainable development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
● Governance and compliance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
● Human rights	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
● Our people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
● Occupational health and safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
● Environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
● Our economic contribution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
● Value chain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
● Sustainable communities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
● Mine closure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
● 2015 targets achieved and 2016 objectives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

► YOUR COMMENTS AND/OR SUGGESTIONS:

Full name:

Address:

Province:

Country:

E-mail:

Telephone:

► YOUR RELATIONSHIP WITH MINERA ALUMBRERA:

Customer ☐

Shareholder ☐

Employee ☐

Supplier ☐

Resident from neighbouring communities ☐

Others (specify) ☐

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