



RIO DESERTO

SYNERGY WITH YOU

ANNUAL SUSTAINABILITY
REPORT | 2018



Mineral coal, used in the generation of electricity and integral to our daily lives as far as we can imagine. An ore that represents the union of technology, involvement, work, attention to the environment, safety, health, everything and everyone. The power of southern Santa Catarina!



RIO DESERTO
SYNERGY WITH YOU

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RIO DESERTO
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REPORT | **2018**

A DIFFERENT AND TRUE COMPANY

*A place where there is family, unity, strength and understanding.
This is Rio Deserto.*

We are grateful for all the achievements made in 2018. In all units, we monitor team engagement, everyone's attention to health and safety, participation in activities, involvement with communities, and above all, the dedication for the company to keep developing. We had a challenging year, with new ideas being discussed and projects being implemented, with achievements and adversities, but in general, we innovated, fought, achieved goals and won.

It was the year Rio Deserto gained a new visual identity. A change that came with great responsibility: to show the brilliance of an organization with a structured, strategic positioning, which counts on employees aligned, aware of the surrounding communities and the development of the region where it is installed. We also started to use the expression "Synergy with you", which highlights the union of everyone to achieve goals.

Similarly, agribusiness, where Rio Deserto is also present, is now represented by the Ragro Mineral Solutions brand. As a matter of fact, it is noteworthy that continuous investments in research and technology have allowed Ragro to consolidate itself as a reference in mineral solutions related to plant supply, animal nutrition and pet hygiene. Aware of sustainability and active in national and international territory, Ragro is following a promising path.

Also in 2018 was implemented in Rio Deserto the Young Apprentice Program, aimed at young people 15 to 21 years old, children or relatives of employees of Rio Deserto, who are attending or have already completed high school.

Speaking of young people, the Internship Program, consolidated by the awards, remains a reference. So, for more than 10 years, Rio Deserto has maintained actions that stimulate personal and professional growth and the entry of young people in the job market. With this same thought, it also promotes the education of employees and their children, with scholarships. In addition, it transfers monthly financial resources to the Santa Catarina Carbon Industry Beneficent Association (SATC), an institution that maintains an Education and Technology campus, as well as the Technological Center, with various research and projects.

In 2018, Rio Deserto continued investing in modernization, while thinking about the welfare of people. We operate in environmental recovery, maintain native forest sites and pay special attention to the preservation of fauna. Several actions and projects with positive impacts on the lives of communities and people have been developed. We continue to value each employee with extra benefits and positive attitudes that increase satisfaction with the work environment.

That is why there is one word that defines the history of Rio Deserto: ACTION. Throughout its existence, the company has gone through several phases, all with common characteristics: innovation, transformation and overcoming. A constant movement that leads Rio Deserto to continually reinvent itself, always ahead of time, moving forward.

Heitor Agenor Zanette
Giovanni Pagnan Zanette
Valcir José Zanette
Administrators of Rio Deserto

Rio Deserto new visual identity

In 2018, the new Rio Deserto visual identity was launched. The plot brought with it the modernization, which between the lines highlights the commitment of Rio Deserto with everything that surrounds it. The inspiration came from traits already well known, such as the Brazilian flag diamond, which represents the mineral riches of our country.

The study proceeded through mining analysis. It was then that the geometric forms of the new visual identity emerged, represent-

ing the layers of coal. The diamond, adapted from the Brazilian flag, now has a more unique composition. Another feature is that, if closely observed, the new Rio Deserto symbol carries the initials R and D.

To follow the concept, the name Rio Deserto also received a slogan that faithfully portrays the company's ways: "Synergy with you". The font format used, with rounded and perpendicular details, also brings traces of the present.

This is Rio Deserto, in synergy with you, always!



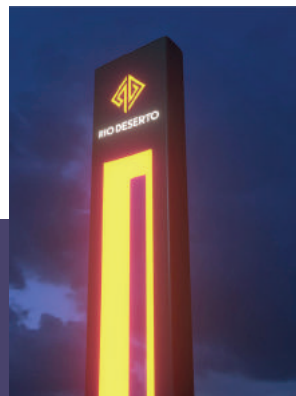
RIO DESERTO
SYNERGY WITH YOU



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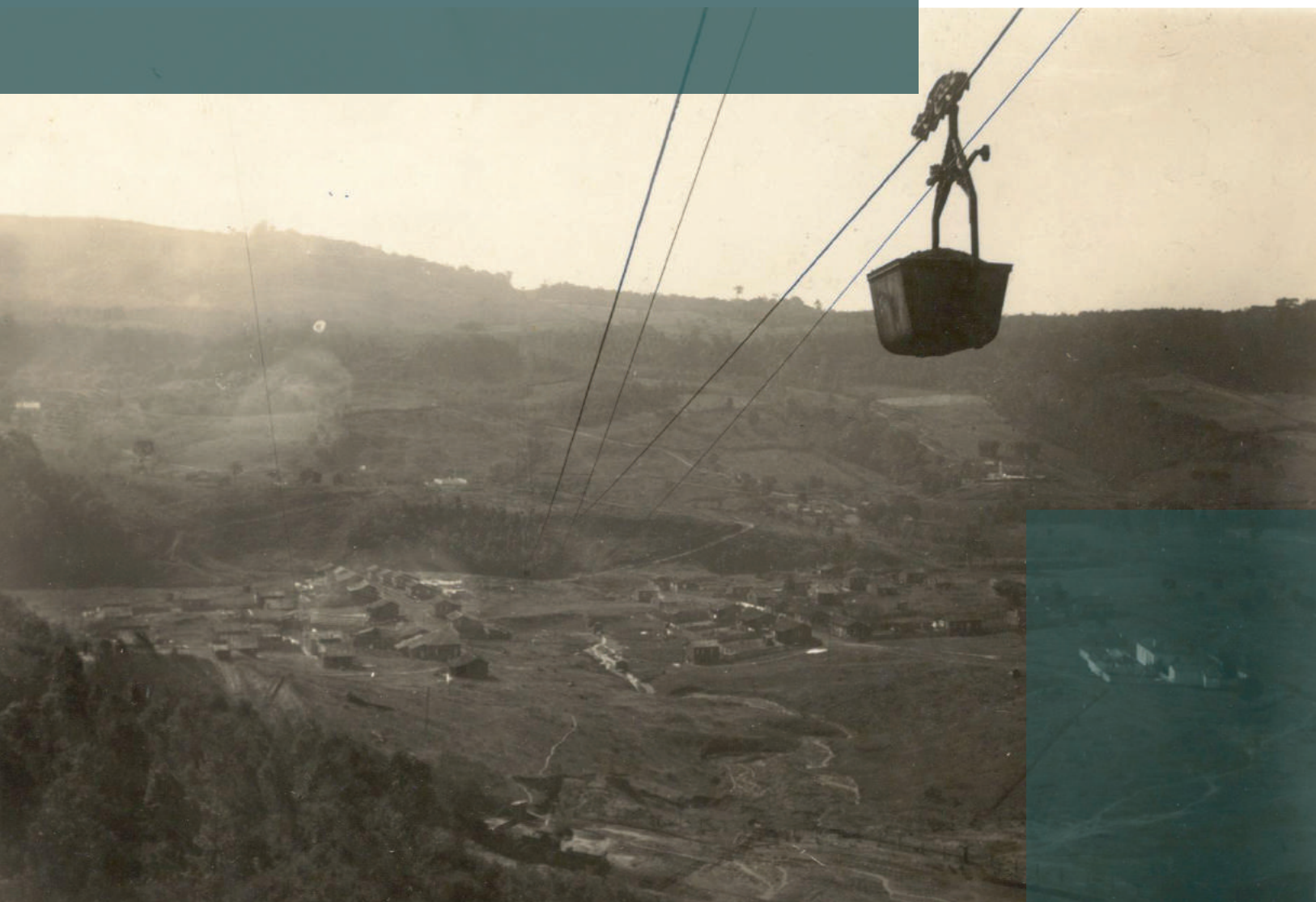
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HISTORY



Transportation of coal by air cable - Urussanga, 1930

With significant investments in technology and professionalization, as well as a broad understanding of the need for updating and capacity-building to keep up with the present context and stay in the future, Rio Deserto has developed new techniques in order to provide products with assured quality and competitive costs.



Urussanga, 1930

MINERAL SOLUTIONS IN YOUR LIFE

Celebrating years of history, marked by tradition and investments in research and development, Rio Deserto innovates, modernizes methods and implements new processes.

Value people, take care of the environment, plan the future and innovate in each process. With these principles, Rio Deserto became a company with a history of decades, which today has more than 600 employees in 17 units (productive, administrative and research), present in 9 cities of Santa Catarina.

With innovation, transformation and overcoming, wrote its career, the result of the entrepreneurship of the twin brothers João and Gabriel Zanette. It was with the courage of the businessman João, coupled with the knowledge of partners and employees, that Rio Deserto positioned itself in a solid and lasting way in the market. The Zanette family, now in its third generation, remains at the head of the organization.

In addition to the Carboniferous Industry, with mineral production used in electricity generation and various industrial uses, such as cement, ceramic drying and glass manufacturing, Rio Deserto's business includes other segments, including agribusiness, under the brand name Ragro. Thus, with mineral solutions related to plant strengthening, animal nutrition

and pet hygiene, Ragro products have gained wide prominence in the national and international market.

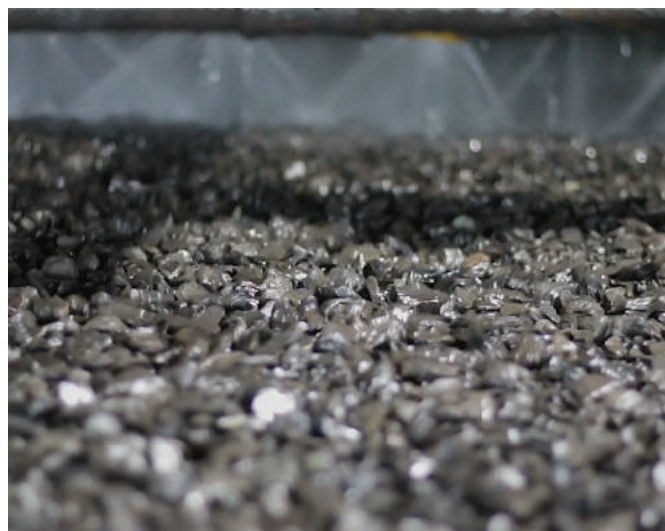
Recognition

Rio Deserto is the first coal mine in southern Santa Catarina with certification under the three management standards: ISO 9001 (Quality Management), ISO 14001 (Environmental Management) and OHSAS 18001 (Occupational Safety and Health Management). Similarly, Ragro Animal Nutrition is also already certified in the GMP + B2 Management System (Dutch standard related to the production of food ingredients).

In addition to respecting technical standards, Rio Deserto and Ragro are also recognized for their correct treatment of the environment, their importance given to their clients and employees, and their social return in the communities in which they operate.



Continuous Miner - Coal Extraction



Dense Environment - Coal Processing



Criciúma (SC)

- Main Office

General Administration

- Extraction Unit Novo Horizonte Mine

Power Coal

Management System Certificate NBR ISO 9001, NBR ISO 14001 and OHSAS 18001

Treviso (SC)

- Extraction Unit Cruz de Malta Mine

Power Coal

Management System Certificate NBR ISO 9001, NBR ISO 14001 and OHSAS 18001

Içara (SC)

- Extraction Unit 101 Mine

Power Coal

Management System Certificate NBR ISO 9001, NBR ISO 14001 and OHSAS 18001

Correia Pinto (SC)

- Unit Correia Pinto

Phonolite

Nepheline

Sodalite

Lages (SC)

- Unit Lages

Phonolite

Cocal do Sul (SC)

- RD São Geraldo

Environmental Recovery

Capivari de Baixo - Consortium (SC)

- Unit Capivari de Baixo

Power Coal

Pelletized Coal

Siderópolis (SC)

- Boarding Box

Energy Coal for Jorge Lacerda Thermoelectric

Management System Certificate NBR ISO 9001, NBR ISO 14001 and OHSAS 18001

- Metallurgical

Mining & Maintenance Equipment

Urussanga (SC)

- Laboratory Division

Chemical and physical-chemical analyzes in general. Research, development and innovation. Management System Certificate NBR ISO 9001, NBR ISO 14001 and OHSAS 18001.

Registered in MAPA as a provider of laboratory analysis services in the area of fertilizers, inoculants and correctives. Environmental Certificate – Certificate of laboratory recognition – Environment Institute of Santa Catarina (IMA).

- Production Unit II (Ceramic and fuel)

Nepheline

Benpox

RD Glass

Feldspar

Fuel (Coke of Calcined Oil)

Bormix

Pyrite



Cocal do Sul (SC)

- Floresul Florestamento e Reflorestamento Sul Ltda.

Eucalyptus



Urussanga (SC)

- Production Unit II (Cata e Filter Plus)

CATA – Coal for Water Filtering Treatment
Management System Certificate NBR ISO 9001

Correia Pinto (SC)

- Unit Correia Pinto

Filter Plus



Urussanga (SC)

- Production Unit II (Ragro)

Plant Protect

Gran Protect GP Plus

Silicon Protect

Pet Protect

Top Clean and Top Clean Premium

Animal Protect

Protetox Afla

Notox

Notox Poultry

Notox Swine

Notox Reproduction

Notox LS

Bugram Protect

Certificate GMP+B2 Production of Feed

Ingredients.

Management System Certificate NBR ISO 9001.

Ecocert Certificate for Organic Inputs: Bugram Protect and Silicon Protect.

Criciúma (SC)

- Oriental Administração de Patrimônio Ltda. Patrimony and real estate

IDEOLOGY



The behavior of Rio Deserto Companies is a reflection of the thought of the country's socioeconomic development. All actions are taken towards growth, both the company and its employees, customers, suppliers, community and partners in general.



RIO DESERTO
SINERGIA COM VOCÊ



Business

Supply of mineral inputs.



Mission

To contribute to national development through the extraction, industrialization and commercialization of mineral products, transforming mineral resources into solutions.



Vision

To be a national reference in the supply of mineral inputs.

VALUES



Innovation

Technological improvement, development and valorization of the employee's initiative, in search of continuous results for organization.



Commitment

With customers, employees, suppliers, inspection agents, community and safety.



Ethics

Respect of principles, policies and practices defined by the company, regulated by law and by society, working with honesty, professionalism and transparency.



Socio-Environmental Responsibility

To contribute to the conscious and sustainable development of society, favoring the full exercise of citizenship and respecting the environment.

PRODUCTS



In addition to coal, which is mainly used for electricity generation, Rio Deserto's business includes other segments. Ceramic, glass and steel inputs are some of them. Agribusiness, with products aimed at strengthening plants, animal nutrition and pet hygiene, also deserves attention, having gained space in the market.



RIO DESERTO MINING

Power Line, Carbon Source, Elastomer and Sulfur

Energy Coal: it is obtained after the beneficiation of the ROM (Raw Coal). In the whole process are adjusted to the granulometry, the contents of ash, sulfur, volatile matter, calorific value, always according to the needs of the market. It is used in thermal plants, as fuel (heat source).

Fuel: it is the result of calcination of green petroleum coke. Correction of carbon (carburizing process) in iron and steel castings, of various industrial processes.



Bormix: is reached through a rigorously selected and controlled charcoal. It is widely used as a catalytic agent for ebonite and as a semi-reinforcing charge for composing low-cost moulds, in elastomeric composites.

Pyrite (Iron Sulphide): results from the selective processing of coal. Correction of sulfur content in cast iron as a source of sulfur.



Ceramic, Glass and Steel Line

Sodalite: natural product from volcanic rocks, with high alkali content. At the metallurgical industry, has the function of fluidize the slag, replacing the fluorite.

Phonolite: natural product from volcanic rocks, with high alkali content. It is used for densification and control of dimensional variation in the masses of the ceramic and glass industry.

Un-ironed Nepheline: mineral product, which after processing and classification, has very low iron content. It is used in ceramic enamels, with the function of giving brightness and transparency.

RD Glass: product molded by minerals that, after processing and classification, confer properties to ceramic glazes. They are used in ceramic enamels with a function of improving texture and fusibility.

Feldspar: this is a natural product from volcanic rocks. It is a high alkali flux material used in the glass, ceramics and melting of frits and colorings industries.

Syenite Nepheline: it's a natural product from volcanic rocks, with high alkali content and low iron content. Its used for densification and control of dimension variation of porcelain tiles in ceramic industry and glasses.

Benpox: they are clay minerals that, after processing and selection, can be used industrially, as they give intrinsic properties of technological interest to ceramic glazes. They are used in enamels, engobes and masses with the function of giving stability and plasticity.

RIO DESERTO FILTERINGS

Coal for Water Treatment Filters (CATA): produced from specific coal and controlled processes, the product has different angular particles, providing perfect filtration. Used in water treatment filters, it increases filtration rates, impurities removal efficiency and improves water quality in various aspects such as turbidity, color, coliforms and other microorganisms.

Filter Plus: it is manufactured from mineral rock with high percentage of silica, with characteristics of high hardness and density. Its main function is to improve the water quality, reducing metals, total and dissolved solids. Due to mechanical action, Filter Plus eliminates bacteria, protozoa and the small particles that stick around Filter Plus.



ANIMAL PROTECT

Notox

It is an adsorbent additive of mycotoxins, composed of activated sodium calcium aluminosilicate, tested in vivo for poultry and swine. Intended for all animal species, Notox is also added to the feed, being effective in combating fumonisins and aflatoxins, which can harm the health of animals. It has no smell and taste,

Notox Poultry: it is an adsorbent additive of broad spectrum mycotoxins, composed of special aluminosilicates and organic additives, with in vivo confirmation. It is a product intended for birds. When ingested by the animal, it absorbs and retains mycotoxins (zearalenone, aflatoxins, fumonisins, ochratoxins, T2 and deoxynivalenol), avoiding absorption by the organism. It has wide adsorption capacity of polar mycotoxins (through cation exchange) and apolar (through porosity and surface area), generating more stability in the adsorption of mycotoxins with different molecular weights.

Notox Reproduction: product for swines in the breeding phase. A product of innovative technology is a broad spectrum additive effective in combating mycotoxins such as zearalenone, aflatoxins, fumonisins, ochratoxins, T2 and deoxynivalenol. The product must be used in the pigs' food and is indicated for the breeding phase. With Alkaline pH, the adsorption of Notox Reproduction begins in the mastication, passing to the stomach and then through the small intestine of the animal, where the chemical digestion and adsorption of mycotoxins continues, preventing them from reaching the bloodstream.

Notox LS: is a broad spectrum anti-mycotoxin additive that works effectively against Fusarium Toxins (zearalenone, fumonisin and T2), aflatoxin and ochratoxin. Notox LS is composed of special aluminosilicates and organic additive, which facilitates the adsorption of nonpolar and polar mycotoxins.

does not absorb vitamins, minerals and other feed additives, and does not cause side effects on the level of nutrients of the animal feeding. When ingested, it adsorbs and retains mycotoxins, inhibiting the absorption by the organism.

Notox Swine: product indicated for pigs in the nursery phase. It is composed of special aluminosilicates and organic additive. Product validated in vivo against the main mycotoxins that affect pigs in the nursery phase. Effective against fumonisin, aflatoxin, T-2 toxin, zearalenone and ochratoxin.



Protetox

Protetox Afla: is a mycotoxin adsorbent additive composed of calcium and sodium aluminosilicate, tested in vivo for poultry. Natural product for all animal species. When used in feed, it forms a highly stable complex with mycotoxins. When ingested by the animal, it adsorbs and retains aflatoxins, inhibiting their absorption before they reach the bloodstream, thereby eliminating their toxicity along with the feces, allowing better utilization of nutrients. The product has no odor or taste.



Bugram

Bugram Protect: product registered with the Ministry of Agriculture, Livestock and Supply (MAPA) as an anti-caking additive. It is a compound from natural rocks and mainly composed of silica. Intended for animal feed. The product acts on stored grains, meal and feed, absorbing moisture and controlling fungi and toxins. Broadly, it acts as an anti-stain, protecting products against damage from excessive moisture.



PET PROTECT

Top Clean

It is a hygienic cat litter composed of bentonite which, after processing and particle size adjustment, gives high cationic capacity characteristics. It has two versions: one with fragrance (Top Clean Premium) and one without (Top Clean).

Sanitary product for the adsorption of odors in the urine of cats. Through its cation exchange capability, it reduces unpleasant odors, helping to prevent the proliferation of stench. When in contact with cat urine, they expand the spaces between the leaves of the chemical structure, causing a phenomenon called thixotropy, forming a gel. Due to the binder characteristic, the product enables the formation of clod.



PLANT PROTECT

Gran Protect

Product registered with the Ministry of Agriculture, Livestock and Supply (MAPA) as a mixed mineral fertilizer for foliar application. Contains silicon from fossilized rocks of marine diatom algae, added by phosphorus and potassium macronutrients, in addition to copper micronutrients.

Gran Protect GP Plus is a suspension that acts to increase the natural resistance of plants

against diseases, preventing damage and consequent damage to the farmer. Due to its properties in nutrition and plant protection, Gran Protect GP Plus is suitable for all



Silicon Protect

Product registered with the Ministry of Agriculture, Livestock and Supply (MAPA) as a contact insecticide of the inorganic chemical group. From fossilized rocks of marine diatoms consisting mainly of amorphous silica.

It is a contact insecticide and should be applied by spraying the product on grains before entering silos, deposits or warehouses. The microscopic particles of the product adhere to the epicuticle of the insects, causing body de-

hydration, leading to death. The effect is the result of adsorption of waxes from the lipid layer by silica crystals and abrasion of the cuticle or both. Due to the adsorption of the wax molecules from the surface layer, the protective lipid layer breaks, allowing the body fluids to evaporate from the insects.



TECHNOLOGY, INNOVATION AND QUALITY



Rio Deserto excels in innovation and quality, using modern methods for extraction, production and research processes. National and international technologies are inserted in all procedures, from the extraction of raw material to the final disposal of wastes.



PLANNING THE FUTURE

Research, innovation and important advances have marked and will continue to mark the future of mining in southern Santa Catarina. In the extraction of coal, the largely mechanized process gains notoriety, mainly through the use of the continuous miner in the blasting. In addition to these, other methods are also emphasized, such as lamella thickener, dense medium and backfilling. In terms of technological advancement, Rio Deserto stands out for being in the process of importing equipment for production. Therefore, the company continues to invest in technology, training and specialization of its employees. Through studies, research and development, it modernizes methods and equipment, implements new processes and improves production, contributing to the health, safety and well-being of all.

PIQ – INNOVATION AND QUALITY PROGRAM

Rio Deserto has maintained, since 2003, the Innovation and Quality Program (PIQ). The initiative stimulates the creativity of employees, who can propose solutions and improvements to the processes of the units. Every year,

more than 40 teams mobilize, putting projects into practice. Ideas are welcomed, awarded and applied to the units. A recognition of Rio Deserto to the efforts of employees.

In the VI edition of the Innovation and Quality Program, 61 projects were completed and evaluated. In all, 40 teams were registered, totaling the participation of 186 employees, which represents 30% of the company's effective staff.

The winning teams from each of the four categories received R \$ 5,000, the runner-up teams received R \$ 2,000, the teams that came in third place received R \$ 500, and the team ranked fourth, in the case of category 1, it also received the amount of R \$ 500. The event took place in November 2018, in the Jayme Zanatta Auditorium of the Criciúma Business Association (ACIC), and also marked the closing of the Internal Accident Prevention Week on Mining Works (SIPAT / MIN), from Rio Deserto.

In presentations, focus to theaters, videos and other creative ideas. More than 500 people attended the event, including administrators, superintendents, managers, employees and family members. Several giveaways were also drawn.

PIQ Themes

- Labor Lawsuit;
- Workplace;
- Internal / External Communication;
- Community;
- Waste;
- Education;
- Innovation / Creativity;
- Logistics;
- Marketing;
- Environment;
- Productivity;
- Quality (product, processes);
- Human Resources;
- Cost Reduction;
- Social Responsibility;
- Reuse, Recycling and Recovery;
- Health;
- Safety;
- Information Technology.

WINNING PROJECTS PIQ 2018

CATEGORY 1 - *Reduction of costs, waste, productivity and quality (product, processes).*



1st place: team Evolução
Representing Indústria Carbonífera Rio Deserto Ltda. – Extraction Unit 101 Mine
Project: Cost reduction and increased equipment availability (focusing on tires)



2nd place: team Jatava
Representing Indústria Carbonífera Rio Deserto Ltda. – Extraction Unit 101 Mine
Project: 4 (E) three hundred



3rd place: Team Organizando o Paiol
Representing Ragro
Project: Homogenizer Chain Stretcher



4th place: team UNI
Representing Indústria Carbonífera Rio Deserto Ltda. – Metallurgical
Project: Main shaft cutting head recovery



CATEGORY 2 - Safety, health, work environment and labor lawsuit.



1st place: team Nova Energia
Representing Indústria Carbonífera Rio Deserto Ltda. – Extraction Unit Cruz de Malta Mine
Project: LHD pneumatic impact wrench adaptation



2nd place: Team Automotivação
Representing Indústria Carbonífera Rio Deserto Ltda. – Metallurgical
Project: LHD loader emergency brake



3rd place: Team Criativos
Representing Indústria Carbonífera Rio Deserto Ltda. – Metallurgical
Project: Hauler break system

“

We had the opportunity to follow the study and the implementation of innovative projects in our units, which combine technology to generate safety, innovation to reduce costs and facilitate processes, creativity to contribute to the social environment. More than that, we were fortunate to see employee involvement, motivation and team spirit, the pursuit of discovery and the development of leadership.”

Valcir José Zanette, one of the managers of Rio Deserto.

CATEGORY 3 - Environment, Reuse, Recycling & Recovery.



1st place: Team Sinergia
Representing Indústria Carbonífera Rio
Deserto Ltda. – Laboratory Division
Project: Reuse of waste from feldspar
chemical removing.



2nd place: Team Eletro-elite
Representing Indústria Carbonífera Rio Deser-
to Ltda. – Extraction Unit Cruz de Malta Mine
Project: Reduction of peak hour power
consumption.



3rd place: Team Garra
Representing Indústria Carbonífera Rio
Deserto Ltda. – Metallurgical
Project: Hydraulic Pump Gear Recovery



BEST SUPPORTERS - Indústria Carbonífera
Rio Deserto Ltda. – Metallurgical

CATEGORY 4 - Education, communication, human resources, social responsibility, marketing, community, logistics and information technology.



1st Place: Team Os Filhos da Rio Deserto
Representing Indústria Carbonífera Rio
Deserto Ltda. – Extraction Unit 101 Mine
Project: Family Brigade



2nd place: Team Trocando Ideias
Representing Indústria Carbonífera Rio
Deserto Ltda. – Metallurgical
Project: Exchanging Ideas



3rd place: Team Visão: Sangue nos “Zolho”
Representing Indústria Carbonífera Rio
Deserto Ltda. – Main Office
Project: Inactive Client Recovery, Customer
Records Update and CRM implementation





In order to recognize the commitment of the brigade collaborators, the Emergency Brigade flag was implanted in Rio Deserto's production units. A way to value the teamwork of the brigade members, who are always willing to help others.



PRIORITY ON EACH PROCESS

At Rio Deserto, safety is a highlight and priority. The company has a team of Specialized Services in Safety Engineering and Occupational Medicine (SESMT) and also an Emergency Brigade formed by collaborators trained periodically for emergency services, ready to intervene in situations of risk and urgency and to act in prevention of accidents. Several programs are part of the company's routine. The Daily Health and Safety Dialogue (DDSS) is held at the beginning of each shift to clarify doubts and warn of possible journey risks. Annually, the Internal Mining Accident Prevention Week is also held, with lectures and awareness-raising activities, closing the activities developed throughout the year.

SESMT

Engineers, safety technicians, doctors and other health professionals make up the Rio Deserto Specialized Safety Engineering and Occupational Medicine (SESMT) team. The main function of the group is to protect the physical integrity of employees, spreading the importance of health and safety in all areas. At Rio Deserto's units, the participatory safety management method is also applied, and each employee has responsibilities for their area of activity, promoting their own and other colleagues' safety.

In 2018, the rate of occupational accidents decreased by 48.7% compared to 2017. Meanwhile, cases of serious accidents decreased by 53.94%.

Equipment Suitability

In order to ensure safety and productivity, all equipment adjustments are performed internally, from design to manufacturing.



Shuttle Car Adaptation Project Already Carried Out



Main actions taken in 2018

- Certification in OHSAS 18001 (Occupational Safety and Health Management);
- Adjustment and standardization of equipment;
- Informatization of security controls and monitoring.

Security System Computerization

Computerization of security controls and monitoring has gained priority in recent years at Rio Deserto. The goal was to optimize tasks and reduce risks and costs. About 85% of the security system has been migrated to electronic controls. This is the case of underground monitoring with the use of tablets, and the control of fire fighting equipment and first aid.

In addition to online information, the reports are didactic and automatic, informing those responsible for programming and / or possible irregularities.

GET TO KNOW!**Rio Deserto employees and brigade members give first aid in traffic accident**

Employees and brigade members of Rio Deserto's Extraction Unit 101 Mine acted in the first aid of a traffic accident at BR-101 in front of the unit. The accident occurred on November 5, 2018, just as a meeting of SIPAT / MIN - Internal Mining Accident Prevention Week. Check out the report by occupational safety engineer Rafael Bortolotto:

"Today (Monday, November 5th), around 11 am, we opened SIPAT / MIN 2018, at the Extraction Unit 101 Mine. At the opportunity, the employees were told of their satisfaction with the results achieved. The reduction of accidents in recent years. We also highlight the importance of SESMT (Specialized Service in Safety Engineering and Occupational Medicine) and we show a video with interviews of employees, referring to the good safety practices adopted in the company and on a daily basis.

At this time, we were informed that an accident had occurred in front of the unit on the banks of BR-101. Safety technicians Diego Demétrio and Tairine Motta, who are unit brigade officers and volunteer firefighters, quickly began first-aiding the victims using the Extraction Unit 101 Mine first aid kit. Rio Deserto brigade members arrived to provide support, including collaborators Marcel Teixeira, Josimar Consoni and Rafael Rosa Neto. The unit guard immediately contacted the Rescue Department, requesting assistance.

In the accident, there were four people. One of the occupants, not wearing a seat belt, was thrown out of the vehicle. A 7-year-old child had an internal fractured femur and a deep cut in the jaw. Two other passengers in the vehicle had minor abrasions, and the driver had lower back pain.

Prior to the arrival of the Fire Department, the 7-year-old victim had already received all appropriate care. Even with the Rescue Department staff present, Rio Deserto's brigade members continued to provide all possible assistance until the end of the service.

During the first calls, we observed in the face of the injured people the tranquility after the arrival of the brigade of the Extraction Unit 101 Mine. Thus, we congratulate all the brigade members and collaborators, for their promptness in helping others. With these attitudes, we are convinced that we are moving in the right direction, after all, nothing in this world is more rewarding than being able to help people."

SIPAT/MIN

The dynamics, theaters and lectures marked the meetings of the Internal Mining Accident Prevention Week, SIPAT / MIN 2018, at Rio Deserto units. The activities took place from 5th to 9th November. Every day, a different theme was highlighted to employees, always emphasizing health and safety.

Among the topics addressed with employees at SIPAT / MIN 2018, emphasis is placed on emotional intelligence, men's health, the importance of standardization for safety, and life as a major motivation.



SIPAT / MIN is a corporate activity that moves the entire company, having as its main objective the mobilization of employees in favor of preventive actions. In 2018, some news made the meetings even more special, such as videos with testimonials from employees and their families talking about safety and health.

The official closing of SIPAT / MIN 2018 was on November 10th, parallel to the final event of the VI PIQ - Innovation and Quality Program, when the improvement teams were awarded.



DDSS – DAILY HEALTH AND SAFETY DIALOGUE

The Daily Health and Safety Dialogue (DDSS), which is a 10 to 15 minute meeting held with Rio Deserto employees at the beginning of each shift of the production units, was remodeled in 2018 and is more dynamic. The action, considered one of the main safety programs of the organization, aims to instruct employees on daily issues of the company, such as unsafe conditions and actions, procedures, training, causes of occupational accidents, prevention, among others.

DDSS addresses general and specific first aid topics. Videos and activities on procedures and work orders are also presented. Topics covered include communication, teamwork, leadership, consequences of not using and / or misusing Personal Protective Equipment (PPE), valuing time, resources and space constraints. The meetings are given by security technicians.

EMERGENCY BRIGADES

Constant improvement is one of the characteristics of Rio Deserto Emergency Brigades. With periodic training, employees are able to work on accident prevention and emergency situations inside and outside the company. The capabilities of the Emergency Brigades are the responsibility of the Specialized Safety Engineering and Occupational Medicine Service (SESMT), and meet the requirements of the Regulatory Standards. The concepts determine requirements and protective measures, including planning, organization and execution, in order to ensure the health and safety of employees who perform emergency care and develop preventive actions.



GET TO KNOW!

Fire Department honors Rio Deserto employees

Members of the Içara Military Fire Department (SC) honored six employees and brigade members of the Rio Deserto Extraction Unit 101 Mine. The congratulation was a way of thanking the professionals for the first aid action of a traffic accident that occurred on the BR-101, in front of the unit, in November 2018. Rio Deserto employees and brigade members honored by the Corps of Firefighters were: Diego Demétrio, Josimar Consoni, Marcel Teixeira, Rafael Neto, Rafael Bortolotto and Tairine Mota.

The commander of the Içara Fire Department, Captain Renan Fernandes, spoke about the importance of the prompt assistance provided by Rio Deserto employees to the victims of the traffic accident. "By the time the fire department arrived at the scene, the Rio Deserto brigade members had already done all the proper procedures, and it was only necessary to continue with the service," he explained.

Corporation also met Extraction Unit 101 Mine

After the tribute, the members of the Içara Military Fire Department learned about the production process of the Extraction Unit 101 Mine, with emphasis on underground extraction. On the occasion, they were also informed about the existing safety procedures and congratulated the company for its initiatives regarding employee health and safety.



TRAINING AND DEVELOPMENT

Considering that the achievement of good results is a reflection of a team prepared to perform its duties and propose solutions, Rio Deserto invests in the qualification of its employees. Thus, training related to professional development and specific specialization is carried out at the company’s units throughout the year.

In 2018, with the purpose of developing and qualifying employees, a total of 56,253.52 hours of training for professional development were recorded. Included in this number:

Safety Programs and Actions: aim at preventing occupational accidents and caring for employees.

Mining Operating Procedures: include the handling procedures of machinery and equipment in the workplace.

NR’s (Regulatory Standards): meet the legal requirements and foster the physical integrity of employees by training them in the NR10 (Facilities and Services in Electricity), NR12 (Safety at Work in Machinery and Equipment), NR20 (Safety and Health with Flammable and Fuel) and NR35 (Work at height).

At Rio Deserto, specific job qualifications are also held for employees who change positions and those who enter the company. The purpose is to guide the development of activities. With specific workload in mining and industry, as well as training required for each position, the year 2018 totaled 83,388.00 hours.

UNIT	TRAINING AND DEVELOPMENT (TOTAL HOURS)	SPECIFIC QUALIFICATION IN FUNCTION (TOTAL HOURS)
Extraction Unit Cruz de Malta Mine	23.126,08	41.084,00
Extraction Unit 101 Mine	24.400,14	33.184,00
Extraction Unit Novo Horizonte Mine	867,53	1.200,00
Metallurgical Unit	3.278,59	3.920,00
Laboratory Division	726,20	--
Unit São Geraldo	424,33	1.280,00
Main Office	748,00	--
Unit Correia Pinto	648,50	800,00
Ragro	631,14	640,00
Ceramic Unit	156,90	--
Production Unit II	1.000,81	1.280,00
Boarding Box	245,30	--
TOTAL	56.253,52	83.388,00

HEALTH AND WELFARE



Rio Deserto employees have extra benefits in food, health, transportation and education. They also have incentives for the welfare and safety of family members and for personal and professional growth.



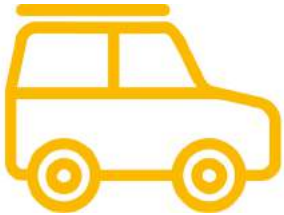
VALUING PEOPLE

Cooperation and collective effort have the power to transform people. That's why Rio Deserto values each of its employees.



HEALTH INSURANCE

Rio Deserto employees can have life insurance. The benefit is available to all concerned. The company commits to the payment of 50% of the full monthly fee, with the other half paid by the employee, monthly, through a payroll discount.



TRANSPORTATION

Rio Deserto provides transportation, with pre-established itinerary, to employees who work in the extraction units.



INTERNAL ASSISTANCE

Doctor, psychologist, occupational nursing professional and physical educator make up Rio Deserto's specialized health team. These professionals are responsible for guiding employees with regard to health care, performing preventive work, periodic examinations, vaccines, consultations and emergency care. Expert consultations and other examinations are also referred by the medical assistance.



PERIODIC EXAMINATIONS

All employees of Rio Deserto's industrial units must undergo periodic examinations. The tests, made throughout the year, correspond to the function performed by the employee. Listed are tests such as visual acuity, audiometry, spirometry, clinical examination, spine and chest X-ray.



MEAL AT COMPANY

In Rio Deserto's industrial units there are their own dining halls. Meals are provided by industrial kitchens and follow the guidance of a professional dietitian. The company is responsible for the payment of 80% of the meal value, with the other 20% deducted from the employee's payroll.



UNIFORM

For reasons of standardization and organization, Rio Deserto offers uniforms to the employees of the productive units, being the use mandatory.



HEALTH INSURANCE

Rio Deserto employees can count on health insurance. The benefit ensures more affordable appointments, exams and procedures. The company assists in the payment of employees' salaries with support ranging from 30 to 70% of the amount, depending on salary range.



ACICARD

Rio Deserto offers its employees the Acicard, which acts as an exclusive credit card for the purchase of medicines. Expenses are discounted on payroll.



FOOD-ALLOWANCE

The employees of the Rio Deserto Ltda. receive a food allowance in the month of vacation. The benefit only does not include the Metallurgical Unit, which meets the convention of the Metallurgical Union.



MILK

All Rio Deserto employees receive 24 liters of milk monthly. The benefit comes from a union agreement of the Carbon Industries Convention. The agreement establishes the delivery of milk only to employees who work in coal extraction, but the company extends the delivery to all employees.



CLINICAL AND LABORATORY AGREEMENT

To facilitate the access of employees and their families to medical examinations, Rio Deserto has an agreement with laboratories and clinics. In addition to the aid, the partnership enables the exams for different values.

EDUCATION



Rio Deserto encourages the education of employees and their children through scholarships. It also transfers monthly financial resources to the SATC (Charitable Association of the Santa Catarina Coal Industry). The institution maintains an education and technology campus and offers preschool, elementary, high school, technical, undergraduate and specialization. It also maintains the Technology Center, with various research and projects.



TRAIN GOOD PEOPLE

For Rio Deserto, the education of young people and their entry into the labor market are fundamental for the future.

60 years ago, the Coal Workers Assistance Society (SATC) was founded, today called the Charitable Association of the Santa Catarina Coal Industry. In the beginning, the purpose was to support the coal industry workers as well as their families. Today, the institution is philanthropic, non-profit and belongs to the community segment, serving the entire population. The main purpose is to provide technical and educational assistance, among others, to the community in general.

SATC is also considered a social arm of the coal activity, since the institution's education and technology campus is maintained via a contribution of about 1% of Rio Deserto's revenues and all other coal that make up the Coal Extraction Industry Union (SIECESC), in addition to the tuition fees paid by the students. Importantly, even with some difficulties, carboniferous companies never fail to support education, technology, innovation and offer opportunities.

In 2016, after a market repositioning, the SATC College was strengthened - bringing together early childhood education and elementary, secondary and technical education, post-technical education and distance technical education; SATC College - with undergraduate, specialization and masters courses (and also the SATC Extension, with fast courses, enabling workers for the industry); and the SATC Technology Center - which combines research and service delivery.

SATC's campus has a total area of 550,000 square meters, with 36,000 square meters of built area. Its 60 laboratories have state-of-the-art equipment. There are more than 100 classrooms, a library with more than 40 thousand titles, as well as a virtual collection, a sports complex with two open gyms, two soccer fields and an athletics track. It currently has about 5,000 students and 600 employees.

“

Much more than professionals, SATC trains good people, with very important values that are taken for a lifetime. ”

Valcir José Zanette, one of the managers of Rio Deserto

**Amount invested in education by
Rio Deserto in 2018:**

R \$ 1,473,224.56

SCHOLARSHIPS

Rio Deserto also encourages the education of employees and their children through scholarships. The human resources department is responsible for analyzing all requests as well as accounting for the investments made. In the case of applications for scholarships by employees, the importance of training is also evaluated in view of the employee's required needs in the company.

ENVIRONMENT



Social and environmental responsibility is one of the values that guide the future and development of Rio Deserto. With a specific sector responsible for conducting studies, identifying preventive measures and process innovations, the company recovers and revitalizes areas degraded by coal extraction. Proof of this are the large investments made every year.



TAKING CARE OF THE ENVIRONMENT

Rio Deserto contributes to the conscious and sustainable development of society.

INVESTMENTS IN RECOVERY, AFFORESTATION AND REFORESTATION

Rio Deserto respects the principles of sustainability, carrying out the activities in order to keep the economy, the social and environment balanced. Investments in research and development occur constantly and make it possible to carry out more actions with fewer resources, through the reuse of factories and the production of raw materials. With a specific sector responsible for conducting studies, identifying preventive measures and process innovations, the company recovers and revitalizes areas degraded by coal extraction. Proof of this are the large investments made every year.

From 2010 to 2018, around 3 million square meters have already been recovered, including in territories that are not part of Rio Deserto's environmental liabilities. During this period, the investment in recovery and revitalization of degraded areas was over R \$ 35 million. For the next 10 years, the recovery of other major areas is expected, with investments that should be around R \$ 30 million.

The company also maintains areas of native forest in the cities of Orleans and Siderópolis, in southern Santa Catarina.

COMPLETE AND EFFICIENT ENVIRONMENTAL RECOVERY PROCESS

The environmental recovery methods used by Rio Deserto are based on the criteria elaborated by the Technical Advisory Group (GTA). Among the activities carried out in the areas, the following stand out: removal of tailings in Permanent Preservation Areas (APP), topographic conformation, clay sealing, soil fertility recovery and introduction of new vegetation. After completion of the work, monitoring is performed, with visits and due maintenance, which certify the quality of recovery and the balance of the ecosystem. At Rio Deserto, all activities that involve environmental aspects in some way are controlled. As a matter of fact, emergency drills, monitoring and controls are often performed.



ENVIRONMENTAL MANAGEMENT

Lectures and trainings are held to clarify issues related to environmental criteria and the requirements of certifying entities. At the same time, audits are performed in order to improve the implemented Management Systems. Thanks to professionalism, commitment to the environment and the pursuit of improvement, Rio Deserto is the first coal mine in southern

Santa Catarina with certification under the three management standards ISO 9001 (Quality Management), ISO 14001 (Environmental Management) and OHSAS 18001. (Occupational Safety and Health Management), in addition to the Dutch GMP + B2 standard for Rago Animal Nutrition.

EFFLUENT TREATMENT PLANT

In Rio Deserto's extraction units, the Effluent Treatment Stations (ETE's) are installed. On site are treated, through physical-chemical processes, the effluents from mining. Techniques such as aeration, neutralization and sedimentation in waterproofed basins are some of those used in the procedure.

The treated water returns to production, being used in the inherent activities of industrialization (underground equipment, bathrooms, cleaning and others). The surplus is released into the water resource fully meeting the requirements of environmental legislation. It can also be used in local industry and agriculture.

SOLID WASTE CENTER

Rio Deserto maintains the Solid Waste Management Program (PGRS), implemented at all units. The initiative comprehends the collection of waste deposited in the selective collection dumps and the sorting in the waste center according to the classification. Subsequently, they are marketed with a licensed company, which for the second consecutive year acknowledged Rio Deserto's commitment to sustainable development, again granting it certification for the correct management of industrial waste in 2018, enabling social inclusion encouraging the marketing of recyclables.

GET TO KNOW!

Employee Inventions are awarded

Awarded with trophies and giveaways, the Rio Deserto employees who won the "Show Your Gadget" challenge. The initiative, which moved units during May and June 2018, encouraged employees to present home inventions made with the reuse of materials such as pet bottles, wood and others. The action marked the Environment Week.

In all, 25 gadgets were enrolled. In each unit one idea was awarded, except for the Extraction Unit 101 Mine and the Capivari de Baixo Unit, which two projects were awarded for the largest number of entries.

The environmental engineer and one of those responsible for the activities of the Environment Week, Taíse Cancelier, explains that the goal is to innovate every year. "Knowing the employees' creativity and talent, we decided to motivate them to show inventions with recycled materials. The result was excellent", She said.

GET TO KNOW!

Correct management of Rio Deserto's recyclable industrial waste receives recognition

Correct management of recyclable industrial waste at the extraction units Cruz de Malta, Novo Horizonte and 101 Mine was recognized by EVA Recycling for the second consecutive year, this time referring to the activities of 2018 the certificates underscore the commitment to sustainable development.

The recognition came through the Solid Waste Management Program (PGRS), implemented in the company's units. In the data below, it is possible to check the amount of industrial waste generated in each of Rio Deserto's three units during 2018, as well as the resources saved through the proper management of the material. Numbers are obtained based on international methods of calculation.

Waste generated and resources saved

Extraction Unit 101 Mine

Generated industrial waste: 460 kilos of cardboard, 1,580 kilos of plastic and 530 kilos of scrap and other metal waste.

Resources saved: 511 liters of oil, 3,073 liters of water, 3 trees and 7,568 hours of power.

Extraction Unit Cruz de Malta Mine

Generated industrial waste: 1,280 kilos of cardboard and 410 kilos of plastic.

Resources saved: 335 liters of oil, 8,552 liters of water, 8 trees and 852 hours of power.

Extraction Unit Novo Horizonte Mine

Generated industrial waste: 510 kilos of cardboard and 400 kilos of plastic.

Resources saved: 170 liters of oil, 3,407 liters of water, 3 trees and 396 hours of power.



PEOPLE VALUING



Among Rio Deserto's projects related to the valorization of people is ValoRHumano, which pays tribute to employees for their years of work and the reach of their retirement time. The initiative started from the Innovation and Quality Program (PIQ) and is part of the human resources department calendar.



OVERCOMING EXPECTATIONS

Positive attitudes increase employee satisfaction with the work environment.

WHITE JANUARY CAMPAIGN

Encouraging people to reflect on mental health, emotional conditions and quality of life was the main goal of the White January Campaign, held in 2018. During the month, professionals from Rio Deserto's human resources department shared with the employees information related to the theme.

The subject Mental Health was once also the subject of a master's dissertation by the collaborator of the human resources sector, Alice Constantino Joaquim. The scientific article "Mental Health in Underground Coal Mining Workers" was the first to characterize aspects related to the mental health and psychological capital of underground coal miners in the country and had the voluntary participation of collaborators working in the underground Extraction Unit 101 Mine.

Rio Deserto employees, as well as family

members, have the possibility to seek specialized professionals through the benefits offered by the company such as the Health Insurance (Unimed), Sesi Clínica and other partnerships with professionals in the area of psychology.



CARNIVAL AND STD'S PREVENTION CAMPAIGN

When we talk about sexually transmitted diseases in Brazil, the numbers are worrying. Therefore, in early February, the medical de-



partment conducted an awareness campaign on the theme "Carnival / STDs / HIV". The objective was, through informative and educational action, to guide employees in creating a culture that encourages condom use.

For the development of the action, informative lectures were presented on the most common sexually transmitted diseases, as well as symptoms and forms of transmission, highlighting the importance of prevention. The lectures also addressed the importance of early diagnosis, treatment of infected cases, and seeking medical advice and health professionals in cases of doubt. Informational materials on the topic were also distributed.

FLU VACCINATION CAMPAIGN

In April 2018, with the objective of enabling the immunization against influenza in Rio Deserto and avoiding absenteeism due to the disease, the medical department conducted a survey of the total number of employees interested in the vaccine. Subsequently, it entered into a partnership with SESI - Social Industry Service (regional Criciúma / SC), to carry out vaccines in the units, free of charge to employees. About 430 workers were vaccinated

against influenza.

The impact of vaccination on Rio Deserto workers represents an important measure of "occupational health" from both a collective and an individual point of view. Achieving levels close to the ideal immunity within the company brings the employee's well-being and confidence in the workplace.

LABOR GYMNASTICS

Occupational gymnastics performed at Rio Deserto are classified as preparatory, consisting of light physical exercises, muscle activation, balance and motor coordination. It aims to warm up and / or stretch structures required in the development of work activities, awakening employees to feel more willing. The movements improve the blood circulation, lubricate and increase the viscosity of the joints and tendons and, mainly, prepare the individual for the beginning of the workday. The average duration of the sessions is 10 to 20 minutes.

In Rio Deserto, in the second semester of 2018, the gymnastics was planned, oriented, executed and accompanied by a physical education professional in its theoretical and practical character, always supported by the multi-disciplinary team of the medical department. The sessions were held at the Cruz de Malta Mine and 101 Mine Extraction Units, and at the Metallurgical Unit.

According to a survey of the 144 employees who practiced gymnastics at the company in 2018, it was found that the program generally has 98% satisfaction among the public. Of the practicing collaborators, 94% reported that the exercises interfered positively, improving the work day, and 99% said they liked the activities proposal.



ANTITETANIC VACCINATION CAMPAIGN

As defined by the Ministry of Health (2018), accidental tetanus is a non-contagious infectious disease that can be prevented by vaccine. Considering the prevention of the disease the most effective measure, the vaccination campaign promoted by Rio Deserto's medical department, which began in October 2018, aimed to collect data on pending doses or boosters of the tetanus vaccine, as well as update employee records.

Concomitant with the update of the tetanus vaccine records in the vaccination document, the verification of the pending vaccination documents of employees and other adult vaccines was encouraged. The action involved the display of posters on the walls of the units, with indication from the Brazilian Society of Immunization (SBim), referring to the recommendation of vaccine on the life stages.

ANTI-SMOKING CAMPAIGN

In allusion to the National Anti-Smoking Day (August 2018), Rio Deserto's medical department organized lectures to raise awareness about the risks and consequences of licit and illicit drug use. The activity was intended for the 8th and 9th grade students (students in the morning and afternoon) of the João Frassetto School of Basic Education, located in the Santa Luzia community, in the city of Criciúma.

The lecture was composed by dynamics, expository information and dialogues, being addressed as the concept of "drug" by the

World Health Organization, the definition of licit or legal and illicit or illegal drugs, the most frequent reasons that approach the youth to drugs, effects and (physical) consequences of use, development of addiction and preventive actions.

The actions of the Tobacco Control Program were also developed internally with the employees. The initiative reinforces the company's awareness of the relevant social role towards the community in which it operates.

GOOD BLOOD FRIEND PROGRAM

Aware of its social role, the Rio Deserto medical department annually develops the Good Blood Friend Program. The objective is to encourage the practice of blood donation by company employees and their families, encouraging solidarity and periodic and constant donation. The Good Blood Friend Program is carried out in two editions: the week of June 14th (World Blood Donor Day) and the week of November 25th (National Volunteer Blood Donor Day).

To reinforce the importance of the initiative, professionals from Rio Deserto's medical department carried out actions in the units, with clarifications on blood types, donation interval, need for blood bank maintenance, public in need of donation, requirements for donation and temporary and permanent impediments. Altogether, in 2018, more than 50 people, including employees and their families, went to the blood center located in Criciúma.



PINK OCTOBER CAMPAIGN

In the month in which women's health is highlighted, Rio Deserto encouraged employees to give quality of life tips. The initiative, from the human resources department, proposed that the women of the company tell what they do to keep their body and mind healthy, suggesting actions to other colleagues.

Testimonials and photos were aired weekly via e-mail and, at the end of the month, also featured a bulletin board on the units' walls. The intention was to share good ideas, encouraging people to have healthy habits, after all the quality of life is directly linked to disease prevention.

In addition to the health tips, all Rio Deserto employees wore the pink campaign-related T-shirt, always on Mondays and Thursdays, throughout October.



YELLOW SEPTEMBER CAMPAIGN

Yellow September, the international month of suicide prevention, was marked by some actions at Rio Deserto. Information on the subject was disseminated through posters on the walls, e-mails, and even informative material delivered to employees during the month. The goal was to alert people to the value of life by showing that if they need help, they have someone to count on.

BLUE NOVEMBER CAMPAIGN

With the purpose of working on the issue related to men's health with the Rio Deserto group of collaborators, the medical department promoted lectures in order to guide and clarify any doubts about the prevention and early diagnosis of prostate cancer. The Industry Social Service (SESI) team, made up of nurses and psychologists, reinforced and contributed to the meetings, reporting significant experiences on the topic.

The culture of preventive care was also emphasized and a more active attitude of men towards their own health was encouraged, with regular visits to the doctor for the early identification of diseases in general. Employees were also encouraged to perform preventive tests, and those aged 40 and over received requests for blood tests (PSA), funded by Rio Deserto. In all, 56 employees took the exams.



RED DECEMBER CAMPAIGN

December 1st is remembered as World AIDS Day. Alluding to the date, Rio Deserto's medical department promoted the December Red Campaign. The objective was to guide employees through information related to the disease and awareness of prevention.

In addition to the distribution of informational materials and condoms, in 2018 there were also lectures to employees and, in some units, in partnership with local health units, were performed rapid tests of HIV, syphilis, hepatitis, blood glucose, as well as measurement of blood pressure for free.

This campaign also aims to alert employees to the importance of virus prevention and to detect possible diseases, as well as to promote the exchange of knowledge about the approach of individuals with HIV.

The action was considered very favorable by the staff of the Rio Deserto medical department, with a lot of interest from the employees, as well as positive support from the health teams that performed the rapid tests in the units. Altogether, more than 130 tests were performed.

GETTING INTO SHAPE PROJECT

According to a preventive perspective, Rio Deserto, in partnership with the Social Service of Industry (SESI), again carried out, in 2018, the "Getting Into Shape" Project. The initiative produced good results, achieving the goals of healthy weight loss and weight maintenance (participants did not regain weight even after the end of the program). The project was aimed at employees and also extended to families.

The Getting Into Shape Project provided interested participants with the opportunity to receive information from health care professionals (nutritionist, psychologist and physical educator) through scheduled meetings aimed at reducing body weight in a targeted, healthy and sustainable manner, as well as improving the quality of life. The project methodology comprised 12 weekly meetings and 6 biweekly meetings, totaling 6 months of activity.

During the meetings, highlighting the practical classes, with cooking tips, anthropometric assessment (weight measurement, height, waist circumference and blood pressure measurement) and bioimpedance (scale that measures percentage of fat, percentage of lean mass, BMI - Body Mass Index and total body water). Each participant also received an individualized eating plan.

In the total sum of the final participants, there was the elimination of 39.3kg, reduction of waist circumference of 68.6cm, and reduction of 21.3% of fat. As a result of the Rio Deserto Getting Into Shape Project, it is noteworthy that, in addition to weight loss, other health gains were seen, such as increased self-esteem, greater satisfaction with body and health, and changing habits, with more natural, whole foods, fruits and vegetables, and fewer processed and ready-to-eat foods. There have also been reports of decreased pain, tiredness and more willingness to perform daily activities, as well as improved bowel function and increased physical activity.



VALORHUMANO COFFEE

A festive and exciting event has annually honored Rio Deserto employees for their time of service. The ValoRHumano Coffee, which in 2018 reached the 2nd edition, always takes place in June. In addition to honored employees and family members, the event is also usually attended by coordinators, managers and superintendents of the units and by Rio Deserto's administrators. The meeting honored employees who completed their time at the com-

pany in the period between July 1st, 2017 and June 30th, 2018. The ValoRHumano Coffee is part of the ValoRHumano Project, which aims to value and recognize human capital of the company. The honors are paid by employees who complete 10 years of work and continue every 5 years until retirement. The honor related to retirement, in turn, happens on the date relative to the fact, in the unit itself in which the employee performs the activities.

Honored employees at the 2º Human Value Coffee

10 YEARS

Extraction Unit Cruz de Malta Mine

- Air Roberto Velho
- Angelino Tavares Neto
- Diego da Silva
- Fábio de Jesus Andrade
- Giovani Vieira Nunes
- Glaicon Paulino Machado
- Jakson Monteiro
- Jonathann Nogueira Hoffmann
- Leandro de Souza
- Lucas Roberto Teixeira Junior
- Miguel Sangaletti
- Rui Gonçalves Filho

Laboratory Division

- Marcos Roberto Honório

Extraction Unit 101 Mine

- Claidson Cardoso de Oliveira
- Eduardo Teixeira
- Ivan Alexandre dos Santos
- Josimar Consoni Luzziatti
- Leandro de Jesus Luiza
- Marco José Rodrigues da Silva
- Rafael Bortolotto
- Rafael de Oliveira Euzébio





15 YEARS

Production Unit II

- Adriano José Kucker
- João Luiz Maragno
- Sérgio Antônio Conti

Extaction Unit Cruz de Malta Mine

- Leonildo Macari

Laboratory Division

- Soraia Schug

Metallurgical Unit

- Adair Pirolla

Extraction Unit Novo Horizonte Mine

- Jair dos Santos da Rosa

20 YEARS

Production Unit II

- Joel de Souza

Extraction Unit Cruz de Malta Mine

- Dorival Figueiredo de Oliveira

Laboratory Division

- Katia Crislaine de Lorenzi
- Wagner Donato Velho



40 YEARS

Main Office

- Hélio Luiz Martinello
- Jadna Tiscoski de Sousa

One of Rio Deserto's administrators, Valcir José Zanette, was honored in August 2018 for completing 50 years of work. The surprise came at the end of a meeting where superintendents and managers were present. In addition to a special cake in celebration to date, Valcir was also presented with a plaque and a book with records of his own history.



INTERNAL CELEBRATION



A gift, a hug, a moment of reflection, congratulations... The main commemorative dates of the year are celebrated at Rio Deserto. Honors are ways for the company to thank employees for all their dedication.



CELEBRATING THE SPECIAL DATES

Moments that reinforce affection among co-workers.

INTERNATIONAL WOMEN'S DAY

As usual, Rio Deserto collaborators were honored for International Women's Day. The action was carried out by leaders and co-workers, who celebrated the important date, marked by the achievements of women's rights, through a special message. The women were presented with a moisturizer.

In 2018, 43 women, including permanent collaborators and interns, were honored. In each unit, employees came together and dedicated themselves to congratulate co-workers.



MOTHER'S DAY



The employees of Rio Deserto who are mothers were honored in allusion to Mother's Day. In each unit, the co-workers were greeted with a gift, a knit collar, along with a heart-shaped balloon and a message card, illustrated with a picture of the children. The tribute is part of the Rio Deserto calendar and aims at valuing employees.

FATHER'S DAY

The importance of valuing family moments, enjoying the stages of children's lives, and telling people how much we care about them, were issues that led Rio Deserto employees to reflect on a special time related to Father's Day, held in 2018. In addition to reflection, employees who are fathers were also presented with a barbecue kit, which refers to family parties. The celebration is considered very important in the calendar of the company, since among the collaborators are a large number of fathers.



DRAWING CHRISTMAS RIO DESERTO

At the end of 2018, parents and children gathered for the award of the 5th edition of the “Drawing Christmas Rio Deserto” Project, which proposes that children of employees make drawings to illustrate the company’s Christmas card. At the time, the six winning children remade the drawings, received certificates and were presented.

In the 2018 edition, the contest had the theme “Merry Christmas”. In all, 59 papers were submitted, and 2 were chosen from each category. One category was for children aged 4 to 6 years, another for participants ages 7 to 9, and another category for children aged 10 to 12 years. All contest participants received a souvenir and certificate.

Winners of each category of the “Designing Christmas Rio Deserto 2018” Project

Category 4 to 6 years old



Nicolas Serafim Soares – Son of the employee Douglas Soares (Extraction Unit 101 Mine)



Alice Demétrio Dutra – Daughter of the employee Fabrício Damásio Dutra (Metallurgical Unit)

“

This project has an educational nature, stimulates imagination and creativity, is a form of language, the perception that each child has about the theme. This year we propose that children draw the meaning of a Merry Christmas. We were surprised to see that the vast majority drew family, concern for the welfare of others, desires for love, unity. Congratulations parents! It shows the values they consider important.”

Jaci Baggio Vieira, HR coordinator

Category 7 to 9 years old



Nathalia Costa – Daughter of the employee Diego Luiz Costa (Production Unit II)



Ana Paula Elias Pescador – Daughter of the employee Reginaldo Pescador (Metallurgical Unit)

Category 10 to 12 years old



Heitor Zanini Formanski – Son of the employee Leonardo Formanski (Extraction Unit 101 Mine)



Miriã Letícia Vieira de Souza – Daughter of the employee Demétrio Bernardes de Souza (Metallurgical Unit)



CERTIFICATIONS



In order to comply with the requirements of national and international certifying bodies, Rio Deserto adopts and respects all measures that ensure the certifications. Professionalism, commitment to the environment and the search for improvements stimulate the maintenance of certificates.



ISO 9001: 2015 CERTIFIED MANAGEMENT SYSTEM



Boarding Box
Siderópolis/SC

Extraction Unit 101 Mine
Içara/SC

Extraction Unit Cruz de Malta Mine
Treviço/SC

Extraction Unit Novo Horizonte Mine
Criciúma/SC

Main Office
Criciúma/SC



Laboratory Division
Urussanga/SC



Production Unit II
Rio Deserto
Urussanga/SC



Mineração e Pesquisa Brasileira Ltda.
Agronegócio
Urussanga/SC

ISO 14001: 2015 CERTIFIED MANAGEMENT SYSTEM



Boarding Box
Siderópolis/SC

Extraction Unit 101 Mine
Içara/SC

Extraction Unit Cruz de Malta Mine
Treviço/SC

Extraction Unit Novo Horizonte Mine
Criciúma/SC

Laboratory Division
Urussanga/SC

Main Office
Criciúma/SC

OHSAS 18001: 2007 CERTIFIED MANAGEMENT SYSTEM



Boarding Box
Siderópolis/SC

Extraction Unit 101 Mine
Içara/SC

Extraction Unit Cruz de Malta Mine
Treviço/SC

Extraction Unit Novo Horizonte Mine
Criciúma/SC

Laboratory Division
Urussanga/SC

Main Office
Criciúma/SC

GMP + B2 Production of Feed Ingredients Certified



**Mineração e Pesquisa
Brasileira Ltda.**
Agronegócio
Urussanga/SC

OHSAS 18001

In 2018 Rio Deserto received the OHSAS 18001 certification, related to the Occupational Safety and Health Management System (SGSSO). The audit was performed by the BRTUV certification body. With this achievement, the organization became the first coal mine in southern Santa Catarina with certification in the three management standards: ISO 9001 (Quality Management System), ISO 14001 (Environmental Management System) and OHSAS 18001.

The Rio Desert certified OHSAS 18001 units are as follows: Extraction Unit Cruz de Malta Mine, Boarding Box, Extraction Unit 101 Mine, Laboratory Division, Extration Unit Novo Horizonte Mine and Main Office. The OHSAS 18001 certification is valid for 3 years and follow-up audits are performed annually. The intention is that the certification is also extended to the other units of the group.

In parallel to the OHSAS 18001 certification recommendation, Rio Deserto's units also underwent recertifications, obtaining ISO 9001 and ISO 14001, 2015 version.

OHSAS 18001 refers to an Occupational Health and Safety Assessment Series. The standard aims to protect and ensure that employees of an organization have a healthy and safe work environment. In the south of Santa Catarina, there are few OHSAS 18001 certified companies, including Ferrovia Tereza Cristina, Transferro Operadora Multimodal and Engie Brasil Energia. With Rio Deserto certification, a cycle in the supply of coal for power generation in the south of the state closes.

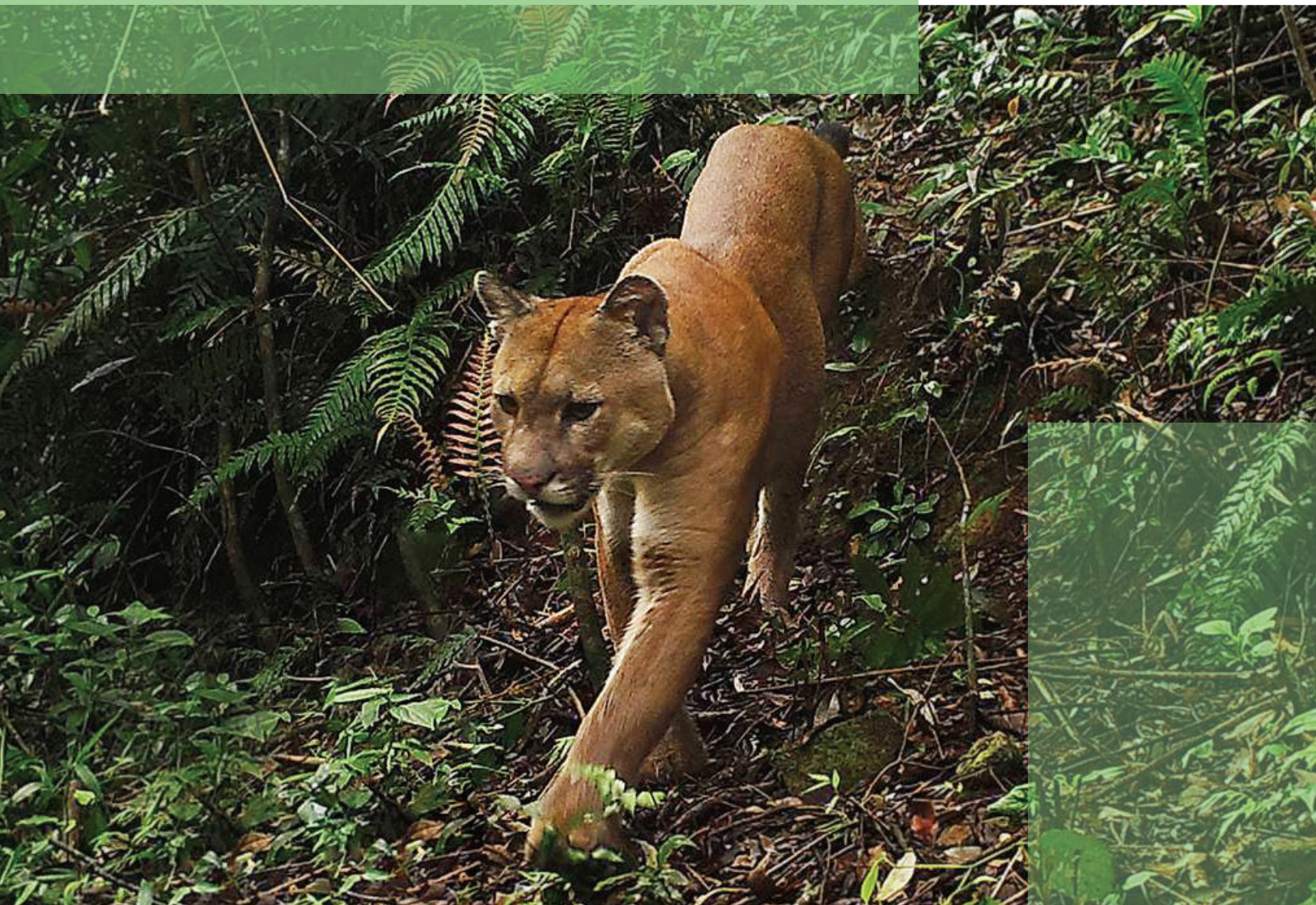
GREEN STAMP

Rio Deserto was again awarded, in 2018, with the Environmental Highlight Certificate (Green Stamp). The award is issued by the Environmental Newspaper of the State of São Paulo, through research conducted with the State Secretaries of Environment, Ministry of Environment, IBAMA, CONAMA and City Hall.

As specified in a document, the Green Stamp is a recognition given to a select group of companies that are making a commitment to sustainable development, having licenses in place and applying good environmental practices. The assessment criteria for issuing the Environmental Highlight Certificate include items such as water and effluents, energy, raw materials and waste, atmospheric emissions and environmental education.



SOCIAL AND ENVIRONMENTAL PROGRAMS



Since 2010, Rio Deserto has maintained the Içara Mais Doce Project, in partnership with the Içara Beekeepers Association, by stimulating honey production through honey eucalyptus plantations and strengthening the region's economy. The Felinos do Aguaí Project, on the other hand, helps in the conservation of wild feline protection areas. It is developed in the Aguaí State Biological Reserve, an important area of Atlantic Forest, and has existed since 2006.



PROTECTION OUR REGIÃO

Just as important as taking care of the environment and safety is taking actions with positive impacts on the lives of the communities where Rio Deserto operates.

IÇARA + DOCE

The sweet perfume is one of the characteristics of the honey eucalyptus donated by Rio Deserto to beekeepers of the city of Içara, through the Içara Mais Doce Project. In some lands the newly planted seedlings are beginning to emerge, in others there are already large trees planted for almost 10 years. Every year Rio Deserto donates more than 50,000 honey eucalyptus seedlings, benefiting over 40 honey producers, which are part of the Içara Beekeepers Association (API).

The Içara Mais Doce project has been in existence since 2010, being the result of a partnership between Rio Deserto and the Içara Beekeepers Association (API). Currently, the API has 42 members, with 400 to 500 boxes each, totaling around 21,000 hives and at least 700 apiaries. This in about 200 properties in the southern region of Santa Catarina. The city of Içara is among the cities of Santa Catarina with the most expressive honey production, so much so that it has the title of Honey Capital.



Rio Deserto intends to favor cities where it is installed



Contract Renewal for 2019

Rio Deserto has been present in the city of Içara since 2003, when the project for the Extration Unit 101 Mine was started. Since it began operations in 2011, the unit has contributed to tax collection and job creation. The company's social participation is highlighted in the city, with emphasis on the development of the Içara Mais Doce Project, which benefits beekeepers, and social actions that include the surrounding communities.

FELINOS DO AGUAÍ

The Felinos do Aguaí Project is focused on the protection of the environment in the southern Santa Catarina coal region, with emphasis on the conservation of key areas for the protection of wild cats. The Felinos do Aguaí Institute's activities are carried out in the Aguaí State Biological Reserve, which covers an area of almost 8,000 hectares, located within the territories of the Santa Catarina cities of Treviso, Siderópolis, Nova Veneza, Morro Grande, and also confronted with the city of Bom Jardim da Serra.

Rebio do Aguaí safeguards the wide variety of plant and animal species, which make the region a valuable scenario for the conservation of biodiversity, with relevant natural features, richness of ecosystems, rugged terrain, magnificent canyons and beautiful waterfalls.

The Felinos do Aguaí Institute has been awarded at the state and national levels. In 2009, it received the Von Martius Sustainability and Fritz Müller awards. In 2010, he was congratulated with the Corporate Citizen Award ADVB / SC and, in 2011, with the Expression of Ecology Award. In 2016, in turn, received the SC Human Being Award, in the category Socioenvironmental Cases. In 2018, he was also awarded the Good Practices Award in Public Management, from Santa Catarina State University (UDESC / ESAG), and the 1st National Award for Environmental Education in Action.

The Felinos do Aguaí Project, developed in partnership with Rio Deserto, has been in existence since 2006, consisting of the Environmental Education Program and the Research Program.



Environmental Education Highlights

In 2018, the works in the area of environmental education directly reached 3,000 people in 10 cities in the southern Santa Catarina coal region.

The bridge over the São Bento River, which gives access to the Tropeiros Trail and the Felinos do Aguaí Institute, has been completely renovated, ensuring the safety of those passing by and allowing access to the Environmental Education Center.

Another news was the partnership with São Francisco Reserve, which provided an environmental preservation area for environmental interpretation activities. Thus, in 2018, in addition to Siderópolis, the Felinos do Aguaí Institute began to carry out environmental education activities also in Nova Veneza.

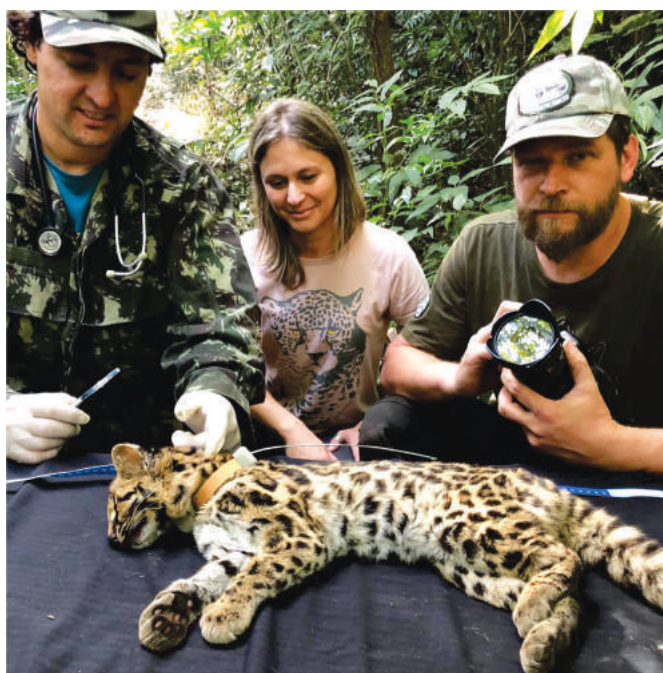
Research Program highlights

Regarding the research program, unexpected surprises and new opportunities marked the year 2018. The surprises involved the appearance of a Puma Concolor on the coast of Santa Catarina, being placed a monitoring transmitter and reintroduced in the Atlantic Forest.

Another relevant fact was the 6th edition of the Aguaí Scientific Expedition, held in Treviso, which revealed records of newly described rare and endemic species that surprised researchers.

Still in the bias of the research, for the second consecutive year, the Felinos do Aguaí Institute was awarded with appeals from the Federal Court of Santa Catarina, contributing immensely to advances in research.

Another news was the partnership with the NGO Ambá, from Uruguay. The proposal is to work together with the Uruguayan institutions, comparing the genetic variability of the *Leopardus Wiedii* in both countries.



“

For Rio Deserto, it is a pleasure to be with projects like this one, which emphasizes aspects such as education, attention to the environment and sustainability in every way.”

Valcir José Zanette, one of the managers of Rio Deserto

PROGRAMS WITH SOCIAL BENEFITS



Actions focused on solidarity have always been constant in Rio Deserto, which supports charitable projects and institutions. Cultural, educational and social activities such as soccer schools, futsal and basketball teams, and monthly support to organizations are just some of them.



GENERATE OPPORTUNITIES

Initiatives aimed at solidarity are constant in Rio Deserto.

APASB

In addition to being a state and national reference in futsal, the São Bento Parents and Athletes Association (APASB), formerly known as the Futsal Parents and Friends Association (APAF), also maintains handball, volleyball and basketball teams. Currently, almost 500 children are part of the schools. One of the main characteristics of the association is the essence of the formation of critical citizens capable of making the world a better place. Rio Deserto contributes to the São Bento Parents and Athletes Association through monthly financial support.



SHOW DE BOLA INSTITUTE

The Show de Bola Institute, formerly known as the Sowing Life Charitable Association, is a social, sporting and cultural initiative that fosters education and promotes healthy integration between people, encouraging respect and good daily practice. The entity serves children and teenagers aged 7 to 16 years, regularly enrolled in public schools, living in communities such as Ana Maria, Vida Nova and others around, in the city of Criciúma. Among the workshops offered are football, volleyball, table tennis, music and others. The monthly contribution granted by Rio Deserto helps in

the maintenance of the project.



WOMEN'S BASKETBALL

Contribute to the moral formation, ethics and give opportunity for the emergence of talents in sport and in life. This is the goal of the Criciúma Women's Basketball team. The training takes place at the SATC (Charitable Association of the Santa Catarina Coal Industry). The team maintains athletes in the categories under 12, 13, 15, 17, 19 and adult. In addition to participating in championships and winning titles, the team maintains social goals, such as reducing school dropout, teaching ethical and moral values for children through sports, driving children and adolescents away from violence and drugs, among other initiatives.



CRICIÚMA BASKETBALL CLUB

Criciúma Basketball Club, dedicated to the discovery of talents and the development of men's basketball teams, is one of the entities that receive monthly support from Rio Deserto. The project encourages sports through partnerships with public and private schools. The under-12, under-17 and adult categories are highlights.



CRICIUMA ASSOCIATION FOR THE DISABLED (JUDECRI)

The Criciúma Association for the Disabled is philanthropic and focused on one goal: social inclusion. The entity was founded in 1981, defends the rights of people with disabilities, integrating them through actions related to sports, culture and leisure. Understanding Judecri's relevance to society, Rio Deserto maintains a monthly financial support to the institution.



APAE CRICIÚMA

Rio Deserto contributes to Criciúma's APAE through monthly financial support. The partnership has existed since 2017. Currently, APAE Criciúma serves almost 300 students, from newborns to people over 60 years old. The entity provides education, health and social assistance services, constituting a network to defend the rights of people with intellectual and multiple disabilities.



ALPHA KARATÊ ASSOCIATION

Rio Deserto financially supported, in the second half of 2018, the Alpha Karate Association of Urussanga (SC). Since 2011, the sporting entity has maintained the “Who Fights Don’t Fight” Project, whose objective is to attract children, teenagers and adults with an interest in competing, practicing or simply knowing the benefits, principles and fundamentals of martial art. Currently, the Alpha Karate Association has over 150 students, as well as over 30 high performance athletes. The team also has accumulated stakes in major competitions and important victories.



SUPPORT FOR SCHOOLS, NGOS, COMMUNITIES AND SPORT TEAMS

In addition to the monthly financial support provided to charitable entities located in the southern region of Santa Catarina, Rio Deserto also contributes, sporadically, with educational institutions, churches, sports teams, NGOs, events, community actions, and others.



Among the donations made in 2018, we highlight the delivery of bicycles, televisions, seedlings of native trees to the Scout Aguai Group (Siderópolis) and to the Lions Club (Lau-ro Müller).

For its part, Ragro, in turn, more than 850 kilograms of Top Clean product (hygienic cat litter) were donated in 2018 to five animal protection associations located in the cities of AMREC (Association of Cities of the Carboniferous Region).



INTERNAL PROGRAMS



Rio Deserto maintains internal programs, such as the Internship Program, the Young Apprentice, the Paths & Choices (aimed at the professional guidance of employees and their families), the Listen to Evolve Program (where employees can express opinions), the Development Program of Leaders (designed to foster leadership skills), and Quality of Life and Health (with initiatives for employee health and well-being).



PROMOTE DEVELOPMENT

Solidarity and professional growth are differentials of Rio Deserto.

SOLIDARY MILK

Rio Deserto's Solidary Milk Project set a record in 2018, with a donation of 6,187 liters of milk. Contributions benefited 14 institutions located in the Association of Cities of the Carboniferous Region (AMREC). The largest number of donations so far had been registered in 2017, with the delivery of 5,217 liters of milk to the institutions.

The institutions benefiting from the Milk Solidarity Project in 2018 were: Abadeus Charitable Association (Criciúma), Fanuel Charitable Association - ACAF (Criciúma), Child Paradise Shelter (Urussanga), Association of Parents and Friends of the Exceptional - APAE (Criciúma and Lauro Müller), School of Seeds of the Future (Criciúma), Casa Maria Tereza Supporting People with Cancer (Criciúma), Casa Guido (Criciúma), Friends of Autists of the Santa Catarina Carboniferous Region - AMA-REC / SC (Criciúma), Henrique Lage Municipal Hospital (Lauro Müller), Family Support Group of the Assembly of God Church (Criciúma), Bairro da Juventude (Criciúma), Childhood Home (Criciúma) and St. Paul the Apostle Parish (Criciúma).

Existing since 2005, the Rio Deserto Solidary Milk Project consists of donating milk to needy families in the cities where the company's units are located. Thus, every month each employee receives 24 liters of milk and can choose to donate a portion. Since 2015,

when the project completed 10 years of existence, Rio Deserto has doubled the amount of milk donated monthly by employees, allowing more than one institution to be helped per month.



Monthly Donation Amount 2018

January: 463 liters	July: 473 liters
February: 536 liters	August: 508 liters
March: 429 liters	September: 571 liters
April: 578 liters	October: 573 liters
May: 433 liters	November: 539 liters
June: 506 liters	December: 578 liters

INTERNSHIP PROGRAM RIO DESERTO

The first job, the first experience and a decisive step in the career path. Everything generates expectations. In order to offer opportunities, Rio Deserto has maintained, for over a decade, the Internship Program, a gateway to the labor market. The program has been growing significantly in the opportunity for internship links: in 2016, 35 internship links were made; In 2017, the number grew to 37; In 2018, the Internship Program provided 53 internship links (mandatory and non-mandatory). Of these, there are about 14 active interns, where 64% of the interns were hired. The company also provides employees with the required internship to complete the training course. Compared with 2017, the year 2018 saw a 50% increase in the number of employees who completed their compulsory internship at the company, which is an environment that encourages education. This shows how much the internship is an indispensable practice of personal and professional development within Rio Deserto.

All interns are paid and are entitled to benefits such as transportation vouchers, food, health insurance and others. The trainee also, in the scope of Rio Deserto, is granted participation in internal trainings, campaigns and programs, with the opportunity to acquire new knowledge and develop new skills, whether



Trainee Meeting 2018

technical or behavioral, adding to complementary curricular hours, as well as providing the development of the student for work and citizen life. All this translates into the discovery of new talent, the high rate of hiring interns at the end of the internship program and the number of professional training within the organization.

Understanding the internship as an educational act, Rio Deserto is also part of the Santa Catarina Movement for Education, led by the Federation of Industries of the State of Santa Catarina (FIESC). The action aims to mobilize and stimulate the public power and economic sectors to invest and improve state education in relation to education, quality of education and professional qualification.

The Rio Deserto Internship Program has been recognized several times by the Santa Catarina Education Award, in the Best Internship Practices category, delivered by FIESC - Instituto Euvaldo Lodi (IEL / SC). In 2016, in addition to the state stage, Rio Deserto also won the IEL Best Internship Practice Award nationwide. In 2018, for the second time in a row, Rio Deserto's Metallurgical Unit won the first statewide title in the Micro Enterprise / Small Door category of the IEL Award - Best Internship Practices.



Internship Supervisors Meeting 2018

YOUNG APPRENTICE PROGRAM

Rio Deserto began to count on the Young Apprentice Program in 2018. The news is aimed at young people from 15 to 21 years old, who are attending or have already completed high school. Theoretical and practical activities are carried out exclusively at the SATC (Santa Catarina Coal Industry Charitable Association), from Monday to Friday, from 1:15 pm to 5:30 pm. The organization is maintained via a contribution of about 1% of the revenues of Rio Deserto and all other coal that make up the Coal Extraction Industry Union (SIECESC). In addition to training in two courses (certified in the Mechanical Adjuster course and diploma in the Electromechanical Technical course), the participants are also registered in the Work Card for a period of 24 months, transportation vouchers and remuneration as required by law.

Rio Deserto's Young Apprentice Program was officially launched at the Extraction Unit 101 Mine and received 20 applications. The



main idea was to extend to employees the implementation of the program and encourage them to refer children or relatives. Of those enrolled, 4 were selected to start in July 2018. Criteria for selection against the four vacancies: 1st Employee's Child, 2nd Employee's Work Time and 3rd Apprentice's Age.

Young Apprentice – Beginning in July 2018

Luis Henrique Vefago Euzébio – Son of the employee Rafael Euzébio

Luis Eduardo Teixeira – son of the employee Eduardo Teixeira

João Vitor Genovencio Rita – son of the employee Ricardo Rita

Paulo Henrique Meneghel da Rosa – Son of the employee Paulo Sérgio da Rosa



“

*This company always surprises us with good things.
We are very happy for the opportunity and we are
very grateful for all the support.”*

Employee Paulo Sérgio da Rosa, father of young Paulo Henrique Meneghel da Rosa

PATHS & CHOICES

The period of choosing the profession is usually full of indecision. To facilitate the process, Rio Deserto maintains the Paths & Choices Project, which focuses on professional guidance and encourages education. In 2018, in the 3rd edition, 20 people participated in the meetings, some of them children, wives or relatives of employees.

The Paths & Choices Program is intended for employees and / or family members of employees who are attending the last year of high school or attending the college entrance exam or even for those who have completed their studies and want to choose a profession. The initiative consists of 4 meetings that include individual interview, lectures, activities and in-

dividual feedback, when each participant receives a material about their own professional profile, as well as the professions that match the skills.



QUALITY OF LIFE AND HEALTH PROGRAM

Rio Deserto's Quality of Life and Health Program is composed of actions developed to improve the quality of life of employees. In addition, health monitoring enables the company to make early diagnoses, preventing the onset of serious illness or future occupational injuries. The initiatives, promoted by the medical department, aim to inform and motivate

employees to adopt healthy habits, behaviors and living conditions.

Rio Deserto's Quality of Life Program consolidates the follow-up of a worldwide trend in organizations: the culture of disease prevention and health promotion, beyond organizational levels.

The activities consist of the following actions:

Educational - Aim at information and knowledge directed at the entire company. They happen through printed material (folders, booklets, posters), lectures and courses.

Communication - presentation of the program to employees, educational and intervention actions, their places and time, their importance, their results and their advantages.

Preventive intervention actions - These are specific actions aimed at diagnosing and monitoring topics of programs such as sexually transmitted diseases, smoking, weight control, vaccination and others. The target audience is employees with one or more risk factors who want to participate in programs on their own initiative.

LEADER DEVELOPMENT PROGRAM

The lecture “Leader of the Future”, given by coach Laércio Rosso, marked the closing of the activities of the Leaders Development Program, promoted by Rio Deserto’s human resources sector, in 2018. The meeting took place at the Rio Deserto Association, located in Criciúma (SC), in November, and brought to-



gether over 40 employees performing leadership roles at the 101 Mine and Cruz de Malta Mine Extraction Units.

The Leader Development Program began on 25th August at the Extraction Unit Cruz de Malta Mine and on 1st September at the Extraction Unit 101 Mine. The training consisted of 6 meetings held on alternate Saturdays, always from 8 am to noon. Among the topics covered during the course of training, highlighting self-knowledge, stress management, time optimization, feedback and knowledge of internal processes, oratory, among others.

Rio Deserto’s Leader Development Program aims to develop leadership and support areas in improving people management skills, assisting in the management of internal behaviors and the empowerment of human capital.

LISTENING TO EVOLVE PROGRAM

Closer relations between the organization, leaders and employees is the main purpose of Rio Deserto’s Listening to Evolve Program. Through tools such as mood surveys, dismissal interviews and satisfaction surveys, employees are encouraged to express opinions and make suggestions regarding the processes adopted by the company and practices in the workplace.

In 2018, the Rio Deserto units conducted the Mood Survey. The analysis allowed a visualization of the internal environment of the company, aiming at the search for constant improvements and the strengthening of posi-

tive points. The questionnaires were answered by employees from September 17th to 21st. With the results are drawn action plans.



WINTER CLOTHING CAMPAIGN

The charities Nossa Casa and Abadeus, both headquartered in the city of Criciúma (SC), benefited from the items collected in the winter clothing campaign promoted by Rio Deserto in 2018. In all, 455 pieces of clothing, 42 pairs of shoes, 14 accessories such as socks, caps and scarves as well as 6 blankets were delivered totaling over 500 items.

AWARDS



Rio Deserto's initiatives always receive recognition from society. In 2018, the company received national, state and honors awards. Titles are important incentives to continue contributing to the environment where it is inserted.



20th BRAZILIAN MINING-METALLURGICAL INDUSTRY EXCELLENCE AWARD

Two Rio Deserto projects were awarded, in 2018, the 20th Brazilian Mining-Metallurgical Industry Excellence Award. The event took place in Belo Horizonte (MG). One of the projects covered was the project “Eccentric Shaft Protection”, developed by collaborators from the Extraction Unit Cruz de Malta Mine. The other award-winning project, “Adaptation of Tank Hoses in the Continuous Miner”, was prepared by collaborators from the Extraction Unit 101 Mine.

Organized by Minerals & Minerals Magazine, the award aims to disclose, annually, the best technologies, processes and concepts applied in mining companies throughout Brazil. Rio Deserto had also been awarded other times in the Brazilian Mining-Metallurgical Industry Excellence Award, but never with two titles in a single edition of the award.

The “Eccentric Shaft Protection” project took into consideration the safety of employees. The study proposed the installation of a protection on the eccentric shaft of the beneficiation fines circuit sieves, avoiding the risk of accidents. For protection, high strength rigid PVC pipes were used. The measure, besides preventing accidents, also facilitated operations such as lubrication, complying with Regulatory Standards.



The project “Adaptation of Continuous Miner Tank Hoses” consists of unifying the hydraulic tank sighs by raising their venting point in order to eliminate any oil leakage caused by tilting the continuous miner. With the improvement, there were no more production shut-downs or damage to mechanical components due to leaks due to Continuous Miner tilting.

GET TO KNOW!

Rio Deserto honored at ALESC solemn session

Rio Deserto was honored during a solemn session held by the Legislative Assembly of the State of San Catarina (ALESC), in June 2018, at the Criciúma Business Association (ACIC). The event, in honor of the Southern Region Coal Mining Pathfinders, was proposed by then State Representative Cleiton Salvaro, and highlighted the history of coal and the importance of the sector for the development of the southern region of Santa Catarina.



IEL AWARD - BEST INTERNSHIP PRACTICES 2018

Rio Deserto's Internship Program was awarded the IEL Award - 2018 Best Internship Practices, at the state level. The recognition was earned by the Metallurgical Unit, entered in the Micro Enterprise / Small Size category. The organization was the only one contemplated in southern Santa Catarina. The event took place at the headquarters of the Federation of Industries of the State of Santa Catarina (FIESC). In all, more than 100 companies held the title.

In this edition of the award, the judging panel's evaluation was very careful. Among the analysis methods, we highlight the visit to the company and the individual interviews, whose purpose was to verify all the data informed in the project registration. The title is a very significant recognition given all the work done at Rio Deserto regarding the Internship Program.

The IEL Award - Best Internship Practices is an initiative of the Euvaldo Lodi Institute that aims to recognize and encourage the quality of internship programs in Brazil in order to ensure the connection between the academic public and granting companies, stimulating the improvement in the quality of the internship, ed-

ucation, in the training of future professionals, and represents an opportunity for internship grantors to select new talent.

The Rio Deserto Internship Program has been in existence for over a decade and has been recognized several times by the Santa Catarina Education Award, in the Best Internship Practices category, delivered by FIESC - Instituto Euvaldo Lodi (IEL / SC). In 2016, in addition to the state stage, Rio Deserto also won the IEL Award for Best Internship Practices nationwide.



GET TO KNOW!

Rio Deserto administrator is honored by the Criciúma Legislature

One of the administrators of Rio Deserto, Valcir José Zanette, was honored by the Criciúma City Council in December 2018, with the title of Honorary Citizen. The ceremony took place at the Mampituba Recreational Society. At the occasion, the Legislative honored 24 citizens and entities that contribute and / or contributed to the development of the city of Criciúma.

Honorary Citizenship, a title granted to Valcir José Zanette, is intended for people who were born in another city, but who developed and / or continue to develop relevant services to the locality that granted such citizenship.



ECOLOGY EXPRESSION AWARD

Rio Deserto was awarded the 25th Ecology Expression Award, in the Pollution Control category, for the project “Ozone - Mass and Energy Balance of Acid Mining Drainage Treatment”. The event took place at the headquarters of the Federation of Industries of the State of Santa Catarina (FIESC), in Florianópolis. This is the 2nd time that Rio Deserto has been awarded the title. The first one was in 2010, at the 18th edition of the award, when it won in the Wildlife Conservation category, with the Felinos do Aguai Project.

The project “Ozone - Mass and Energy Balance of Acid Mining Drainage Treatment” was authored by collaborator Suélen Zanin Manfioletti, who works on the Integrated Management System (GIS) of the Extraction Unit Novo Horizonte Mine, in conjunction with the Professor Elidio Angioletto, University of the Southern Santa Catarina (Unesc). The study, developed in Passivo São Geraldo, consisted of the treatment of Acid Mine Drainage (DAM) on a pilot scale, using ozone, calcium hydroxide and sodium hydroxide. The objective was to seek new technologies for the application



of the treatment of DAM, with a view to the removal of heavy metals, compliance with current environmental laws and the best cost-benefit between technologies.

The Expression of Ecology Award was created in 1993 by Editora Expressão and is considered the largest environmental award in southern Brazil. It is also recognized as Brazil's largest environmental award in the business segment with recognition from the Ministry of the Environment. In the 25th edition of the Ecology Expression Award, 126 environmental projects were submitted.

IÇARA FEATURED

Rio Deserto's Extraction Unit 101 Mine was once again congratulated on the Içara Featured Trophy. The event was held at the Ipiranga Recreational Society in Içara. This is the 8th consecutive time the organization has received



the title. More than 100 trophies were delivered during the ceremony, including classes such as business, medical, sporting, political, trade union, economic, banking, cultural, real estate and professional, as well as companies that make a difference in the city. The voting to define the winners took place via internet for 3 months. The Içara Featured Award has been held for 20 years, always with the purpose of encouraging and valuing the organizations that contribute to the development of Içara.

Rio Deserto has been present in Içara since 2003, when the project for the Extraction Unit 101 Mine was started. Since it began operations in 2011, the unit has contributed to tax collection and job creation.

RIO DESERTO - 01/01 A 31/12/2018	
Economic and Financial Data	R\$
Sales revenue	244.634.614,95
Payroll	30.433.360,14
Internal Social Indicators	R\$
Food	1.448.551,45
Social charges	18.168.937,26
Health	929.141,10
Occupational Safety and Health	670.118,97
Education	1.473.224,56
Training and Development Professional	150.612,23
Participation in profits and results	504.633,16
External Social Indicators	R\$
Federal taxes	8.434.469,83
State Taxes	5.987.247,41
Municipal taxes	2.761.159,43
Environmental Indicators	R\$
Company Operation	3.245.017,24
Environmental Recovery	3.089.803,74
Mineral Reserves (Tons)	Tons
Coal	32.389.168
Nepheline	2.525.714
Phonolite	19.886.637
Bentonite	714.200
Investments	R\$
Machines and Equipment	3.513.623,82
Industrial Installations	4.790.510,49
Buildings	546.044,61
Land	200.000,00
Furniture and Utensils	197.432,58
Equipment and Software	197.266,47
Vehicles	127.500,00
Maracajá Project	217.604,17
Development of new products	355.842,01

Calculation basis

Gross Revenue
R\$ 250.649.838,58

Net Revenue
R\$ 232.334.716,03

Operating income
R\$ 244.634.614,95

Between the amount of Sales Revenue and the other items recorded, we have the value of inputs purchased from third parties (raw materials, materials, outsourced services, freight, energy, etc.).



RIO DESERTO

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