MINING WELL DONE
IN SOTO NORTE
We are MINESA, an underground gold mining company focused on the development of the Soto Norte Project located in Santander (Colombia).

Our actions are endorsed by the best global standards in safety, environment and operations. To achieve this, in Minesa we have the support of the Mubadala Investment Company, an investment and development business group of the government of Abu Dhabi (United Arab Emirates).

The mine is located in the municipality of California and the plant in Suratá in Santander.

Extraction of polymetallic concentrates, not refined minerals that contain gold and copper.

Projection of production of 10 million ounces in concentrates of pyrite and copper.

Underground mine project.
MINESA, currently employees more than 600 people 90% from Santander and 99% from Colombia. Our Mission Statement:

• We protect our natural resources.

• We enhance the lives of our people and local communities by bringing economic development to Santander and Colombia.

• We use the latest technology and business systems for a safe, efficient, and profitable mining operation.

>1000 direct employees once operating, of which 70% expected to be from Soto Norte region; 4,000 indirect jobs created

US$1bn spent over first 5 years Annual GDP impact of USD 900 million; USD 450-650 million trade balance benefit

> USD 1.6 billion local purchases and wages over life of project

> USD 2 billion in taxes and royalties generated
In Minesa COMMITMENTS ARE FACTS, this is why our mining Project is explained through our 5 Gold Commitments:

1. Respect the limits of the Páramo de Santurbán.
2. Forbid mercury and cyanide use in the Project.
3. We will not affect the quality or quantity of water.
5. Built together a development pole for Santander.
Minesa filed the Soto Norte Project ESIA to the ANLA past August 28, 2017

VISION - 50 year

Project life - 25 years

+10 Million ounces of gold extracted in 25 years

EIA studies, PTO
Prefeasibility,
Drilling and
Exploration

Feasibility,
ESIA/PTO
Licensing,
Socializations

Construction and
assembly

Production

Progressive
closing

Restoring

GENERAL TIMELINE OF THE PROJECT
MINE PLANNING

Soto Norte Mine Design- Retreat Sub Level Stoping with Back Fill

Soto Norte Mining Inventory

<table>
<thead>
<tr>
<th>Scenario - All Stopes and Development</th>
<th>Tonnes</th>
<th>Au Grade</th>
<th>Ag Grade</th>
<th>Cu Grade (%)</th>
<th>Au Metal (oz)</th>
<th>Ag Metal (oz)</th>
<th>Cu Metal (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Including NSR &gt;$60 Incremental Shapes and Development</td>
<td>53,321,850</td>
<td>5.98</td>
<td>34.17</td>
<td>0.20%</td>
<td>10,244,664</td>
<td>58,578,497</td>
<td>106,644</td>
</tr>
</tbody>
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Tunnel Borining Machines

- **TBM Strategy**
  - Location of the concentrator necessitates the development of two 6km tunnel to join the Mine to the plant site. The rapid development of these tunnels are critical to the Soto Norte Mine plan.
  - Tunnel boring machines are proven technology, with many successful tunnels developed throughout the world.
  - Tunnel boring machines advance rates in suitable geological conditions are well ahead of conventional drill & blast methods.
  - Mine design is suited for TBM applications
  - The TBM presents an option to accelerate the Soto Norte underground development
Technology in Underground Mining

Semi Autonomous Loaders

- Eliminates the need for workers to enter into the production stopes
- Eliminates the risk of workers being struck by the loader
- Productivity Increase (able to work over shift change and during mine firings)
- Reduces equipment damage through computer controlled guidance
3D of Process Plant

Key Facility – Padilla

- Concentrator,
- Mine Access (Twin Incline)
- DSF “Dry Stack Facility”
- WSF “Water Storage Facility”
- Administration Buildings,
- Truck shop and workshop facilities, including warehouse and truck wash bay,
- Fuel farm, distribution and dispensing systems,
- Perimeter Security and gate house,
- Temporary Construction Facilities.
- HV Switchboard,
- Waste Management Facilities
- Substation
- Change House
- Mine and processing control rooms
- Stockpiles for soils
- Camp
NUMBERS THAT CONFIRM OUR COMMITMENT DURING 2017

608 Jobs

19 thousand Million pesos

2,600 Million pesos

direct and contractors. 90% from Santander.

In purchases from local and regional suppliers

Invested in environmental programs

#MineríaBienHecha
<table>
<thead>
<tr>
<th>SOCIAL RESPONSIBILITY PROGRAM IN NUMBERS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>27 university scholarships</strong></td>
</tr>
<tr>
<td><strong>452 students prepared for the “SABER” Test</strong></td>
</tr>
<tr>
<td><strong>109 young people receive educational subsidy</strong></td>
</tr>
<tr>
<td><strong>640 mts of road infrastructure in California</strong></td>
</tr>
<tr>
<td><strong>5.3 kms of domestic gas in California</strong></td>
</tr>
<tr>
<td><strong>800 mts of pavement in Surata’s urban road.</strong></td>
</tr>
<tr>
<td><strong>4 improved aqueducts in California and Suratá</strong></td>
</tr>
<tr>
<td><strong>83,400 trees for watershed protection.</strong></td>
</tr>
<tr>
<td><strong>360 tons of sands with mercury and heavy metals removed.</strong></td>
</tr>
<tr>
<td><strong>30 business strengthened in Soto Norte</strong></td>
</tr>
<tr>
<td><strong>720 entrepreneurs throughout SENA courses.</strong></td>
</tr>
<tr>
<td><strong>600 children and Youth in “Mi Música Mi Tradición” in Soto Norte</strong></td>
</tr>
<tr>
<td><strong>+1,000 children, youngs and adults in sports schools.</strong></td>
</tr>
</tbody>
</table>

**TAKING TO THE FUTURE THE MINING VOCATION OF THE REGION**
• Prevent Harm
• Be Open and Honest
• Keep Our Word
• Innovate and Create
• Respect and Collaborate
• Take Ownership

#MineríaBienHecha
RESPECT THE LIMITS OF THE PÁRAMO DE SANTURBÁN

Soto Norte Project is located outside the Paramo. The Paramo begins after 3.100 meters and the highest point of the mine comes to 2.640 meters.

Likewise, the project will be developed in opposite direction to the Paramo.

The underground mine has 700 m of depth and will have a fingerprint of 80 hectares if it is projected to the surface. The total area of the project is 172 hectares for its development.
The water used in the mining operation will be treated across a system of storage provided with bombs for the recirculation of most of the water used in the benefit of the mineral. In operation, the average use of water is estimated in 33 L/s.

With the intention to protect the environment, the project is designed to produce polymetallic concentrates, throughout a physical process by flotation, guaranteeing that it will not need the use of the mercury or cyanide for the concentration of the metals.
DO NOT AFFECT THE QUALITY AND QUANTITY OF THE WATER

We rely on numerous and rigorous environmental and hydrogeological studies that have allowed us to shape the behavior and the hydraulic superficial and underground conductivity to determine the actions that guarantee that Soto Norte and Bucaramanga’s water will not be affected in quality or quantity.

Our ESIA gives us deep knowledge of the area of influence of the Project across years of fieldwork of numerous professionals. We did 9 technical independent studies and developed a strong network of hydrological and hydrogeological monitoring (47 monitors of superficial waters and 49 of underground waters).

¡Yes water and mining too! In Minesa we guarantee that Soto Norte Project will not affect the water that supplies Soto Norte and Bucaramanga.
The water that will be used on the mining operation and on the benefit process will proceed of underground sources and they will be captured by underground drainages and later pumped to the treatment plant or to the benefit plant, depending on the case.

The average use of water in the operation will be 33 L/s, which come from underground currents independent from the original water flows of the Paramo. 90% of the water used in the process will be re-circulated.

Minesa’s commitment with water is translated in facts. Before beginning the Project we have advanced actions as: (1) creation of a nursery garden in California for reproduction of native species that will serve for the conservation of the water resource and reforestation of areas that had been degraded by the former mining industry; (2) 88 thousand trees of native species sowed between 2016 and 2017; (3) evacuation of 360 tons of dirty sands product of traditional mining industry; (4) control of acid drainages of mines operated by traditional mining industry and (5) recovery of the soil and of the landscape.
Minesa recognizes and respects the mining tradition of the Province of Soto Norte. For this reason, the Model of Coexistence with the miners of the zone was designed and signed in June 2017 between the community and the company. This model seeks to guarantee the conservation of the mining tradition, strengthen the capacities of the traditional miners and improve mining practices. This way we fulfill our commitment to preserve and transform the mining tradition of Soto Norte.
BUILT TOGETHER A DEVELOPMENT POLE FOR SANTANDER

The wealth of the soil, managed with responsibility and controlled by environmental authorities, can turn into SOCIAL WEALTH, as shown by Canada, Chile and Australia, among other countries.

The Soto Norte Project will stimulate the sectorial growth and will make of Colombia the second producer of gold in South America. Benefits are for Soto Norte, Santander and Colombia.

**JOBS**
- **1,000** DIRECT
- **4,000** INDIRECT

**LOCAL PURCHASES AND SALARIES**
- **1,600 MILLION DOLLARS**

**TAXES AND ROYALTIES**
- **2,000 MILLION DOLLARS.**

COP $5,700 mill Minesa’s investment between 2016 and 2017 in the Social Responsibility Plan that benefits Soto Norte community.

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