



## Roșia Montană mining project



The Roșia Montană project proposes mining activities to extract gold and silver from Roșia Montană, a traditional mining community in North-Western Romania. Initially, in the area proposed for the development of the mining project lived 973 families. For this reason, the company completed studies and proposed a complex plan to reduce the social impact, within the World Bank standards.

*Up: Ecological rehabilitation of mining areas in Germany*

*Insert: Rio Narcea mine in Spain, a modern project between 1997-2006. A model for the Roșia Montană Project*

### AT A GLANCE

**Roșia Montană** is a commune of 16 villages; one of them (closest to the proposed mine) is also called Roșia Montană, a traditional mining community, located in the Apuseni Mountains of North-Western Romania. Beneath part of the village area lays one of the largest gold and silver deposits in Europe.

**SC Roșia Montană Gold Corporation SA (RMGC)** owns the mining rights for this deposit.

**The Romanian Government owns almost 20% of RMGC.** The remaining 80% is held by Gabriel Resources, a Canadian company that has sustained this partnership for 14 years, making a significant contribution to the local and regional Romanian economies. During that time, the company has invested about US\$400 million to develop a modern mine at Roșia Montană.

The Roșia Montană area has been mined since the height of the Roman Empire. While the **modern approach to mining** demands careful remediation of environmental impacts, historically disused mines in this region have been abandoned, leaving widespread environmental damage.

### PEOPLE. THEY ARE ALSO PART OF THE ENVIRONMENT

**Roșia Montană is a traditional gold mining area, characterized as being rich in gold, but lacking other resources**, an area where the climate and soil do not allow for the development of agricultural activities, unless these are complementary to the mining activity and only for subsistence. **Reported to the territory of the Roșia Montană commune, the agricultural land accounts only for 12%.**

Under such circumstances, the closure of the State-owned mine in 2006 (which absorbed almost the entire local workforce) and other mines in the area, associated with a delay in the decision-making regarding the new mining project proposed in Roșia Montană, generated unprecedented social issues in the area: unemployment, extreme poverty. At the end of 2009, according to the data of a research<sup>1</sup> targeting all the households in the commune, around 70% of the working-age population of Roșia Montană was not included in any remunerated economic activity.

The now-defunct RoșiaMin mine at Roșia Montană has been designated an environmental “hot spot” by the International Commission for the Protection of the Danube River. **The impact of past mining activities shows in the poor quality of water and soil and in human health.** The severe water pollution and potential health consequences to the local inhabitants will continue as long as there is a lack of resources to restore the environment.

<sup>1</sup> “Report about the socio-economic status of the commune of Roșia Montană”, “Munții Apuseni” Research and Development Centre, December 2009

## A GOLD MINE. LITERALLY AND METAPHORICALLY SPEAKING

A modern gold mine at Roşia Montană, supported by a financially strong company, will:

- create **over 2,300 direct jobs during construction** and about **880 direct jobs** during operational phase;
- create **over 3,000 jobs in total** in Romania during the operational phase (an estimate based on similar mines around the world);
- generate over **US\$1.8 billion for the Romanian State** in profits from its 20% share, fees and taxes;
- spend at least **US\$2.2 billion** in Romania;
- the **direct and indirect potential impact of the Roşia Montană Project in the Romanian economy is US\$19 billion** (source: Oxford Policy Management, 2009);
- collect and treat the acidic waters laden with heavy metals, **cleaning up pollution** left from previous mines;
- **rehabilitate** the project-affected areas;
- **preserve and restore** historical and archaeological sites;
- provide **development opportunities** for an otherwise dying community.

## THE PEOPLE'S MEMORIES ARE IN GOOD HANDS

Since 2000, RMGC has provided over US\$15 million in funding as well as expert support to the "Alburnus Maior" National Research Program and also for the protection of the cultural patrimony values in the Roşia Montană area.

This program includes various surveys: historical and archaeological, architecture, urbanism and protected areas. Also, artifacts were found, catalogued and preserved and six important archaeological structures have been protected.

Another **US\$70 million** has been committed for this research and conservation programme of Roşia Montană's cultural patrimony over the life of the project.



Photo: Panoramic view of the historic centre and former State pits

## WE HAVE BEEN HERE FOR A LONG TIME

In 1999, after a four-year Cooperation Agreement between the Government of Romania and Gabriel Resources, Roşia Montană Gold Corporation (RMGC) was granted the mining license. RoşiaMin SA, a company owned by the Romanian Government, operated the mine until May 2006, when it was shut down because it was unprofitable and could not meet EU regulations.

When the new project receives the necessary permits to proceed, a modern mine will be built in Roşia Montană with four separated opencast pits and an advanced gold and silver recovery plant, designed to meet all EU and international standards.

The area proposed for the four pits has been mined in the past, either in opencast or underground mining, or both.

## MODERN MINING. MEANING SAFE AND CLEAN

The Roşia Montană project proposes a modern mine, designed to meet strict Romanian and EU legislation, using EU-designated Best Available Techniques, and internationally proven management practices for safe operation and environmental protection. Mining, processing and waste disposal are designed to meet the highest operating standards.

By current estimates, this site has one of the largest gold and silver ore reserves in Europe today. The proposed project would be active for about **25 years** (2 years' construction, 16 years' operation, about 7 years' closure and remediation).

After the mine is closed, Romanian and European legislation demands another 30-50 years of monitoring and inspection. The funds needed for closure and cleaning activities will be made available by RMGC for the Romanian Government, according to the law, not at the end of the mining process - but at the beginning of the operations.

## ENVIRONMENTAL FINANCIAL GUARANTEE - PROVIDED NOW FOR ANY CLEANUP RISKS

Strict regulations and procedures govern modern mines, including mitigation of all environmental impacts.

Land disturbed by mining will be rehabilitated during the use of the mine and not only after the mine's closing, so that the land is restored to valuable use. An Environmental Financial Guarantee will be in place, as required by both Romanian and EU law.

According to this Guarantee, at the beginning of each year the mine is active, RMGC will deposit - in a special bank account (trust fund) - the full amount estimated for the environmental repair work and long-term monitoring. The amount set aside is the cost to complete the rehabilitation program if it is made by an independent third party.

The account can only be accessed by specific Government authorities, and only for this purpose. This means that, before any mining takes place, environmental rehabilitation is already guaranteed - and funded.

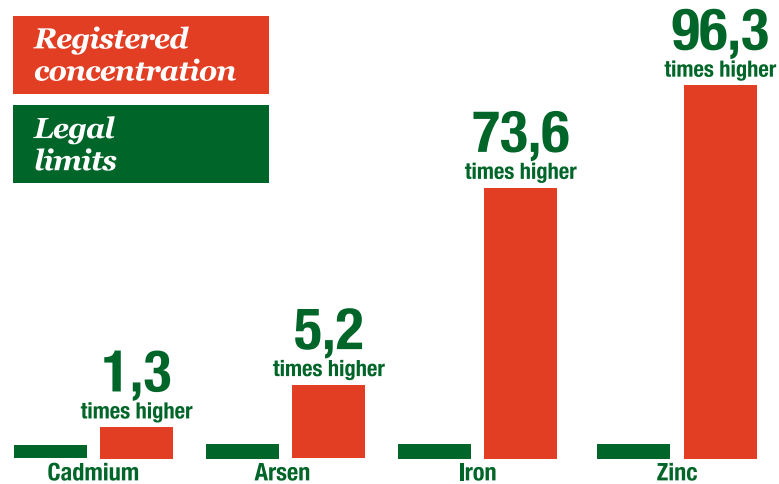
## ADDRESSING THE LEGACY OF PAST MINING: ROȘIA'S RED RIVERS

Roșia Montană's 2000-year history of mining has left the area with open mine diggings, as well as vast underground areas containing a honeycomb of unstable tunnels. The former opencast pits and underground galleries have generated and continue to generate acidic waters.

In the Roșia Montană area, the "red" of the rivers reflects the high levels of acidity and other heavy metal pollutants in the water. The waters contain heavy metals above the legal limits: an average of 96.3 times for Zinc, 73.6 times for Iron, 5.2 times for Arsen and 1.3 times for Cadmium.

Every second, 20 liters of highly acidic waters flow from the galleries of RoșiaMin mine into Roșia stream, which in turn pours tens of kilometers downstream into the Abrud river and on to the Arieș river. The effect: within a few months, anything made of metal in this water rusts so badly it becomes pockmarked with holes.

The modern mining methods employed in the Roșia Montană Project offer a



means of remediating that past pollution - cleaning up Roșia's rivers at no cost to the Romanian state.

Cadmium and arsenic rank in the top seven of the 2007 CERCLA list of hazardous chemicals (list of hazardous chemicals of the US Environmental Agency).

### CYANIDE: THE WORD FRIGHTENS. TECHNOLOGY PROTECTS US.

In large amounts, cyanide is very harmful for people and other creatures. Ingestion, inhalation or skin absorption of large amounts of cyanide immediately affects one's capacity to breathe, being even deadly. However, to this day, there have been no death cases by cyanide in mines throughout the world.

Cyanide is naturally decomposed under the sun rays. It is a substance which does not agglutinate in the fish bodies and does not cause diseases to human beings or animals.

Nevertheless, cyanide is one of the substances with strictly regulated usage and stringent limits imposed throughout the world for its

concentration in air, underground or surface waters.

The Cyanide Management Plan for the Roșia Montană Project has been prepared in accordance with the International Cyanide Management Code, and reviewed by international experts. A copy of this Plan can be obtained from the Stakeholder Engagement Office.

- A modern cyanide detoxification facility will reduce cyanide levels before waste goes to the Tailings Dam to levels that are even better than the EU legislation;
- Maximum level of cyanide entering the Tailings Dam, according to the EU Mine Waste Directive: 10 ppm (parts per million);
- The cyanide concentration within the Roșia Montană Project, when it enters the Tailings Dam: 5-7 ppm;
- The cyanide concentration within the Roșia Montană Project, after naturally breaking down in the Tailings Dam: 2-3 ppm;
- By comparison, the cyanide which occurs naturally in a cup of coffee can reach 6 ppm.

### WE LEARNED, WE SIGNED

UN Environmental Program (UNEP) developed the International Cyanide Management Code, a voluntary code which came into effect in 2006. RMGC, through Gabriel Resources, is a signatory to the Code.

The Code covers all aspects of industrial cyanide use: buying from suppliers, transportation, storage, handling, use, final detoxification, work safety, training and emergency response, as well as maintaining dialogue with the public about cyanide. Companies that have signed the Code are audited by independent experts, and the results of these audits are publicly reported.

### RMGC COMMITTED TO COMPLY WITH THE FOLLOWING STANDARDS OR GUIDELINES:

- International Cyanide Management Code (ICMC) [www.cyanidecode.org](http://www.cyanidecode.org)
- IFC Performance Standards for Environmental and Social Sustainability (International Financial Corporation, a division of the World Bank) [www.ifc.org/enviro](http://www.ifc.org/enviro)
- OECD (Organization for Economic Cooperation and Development) Guidelines for Multinational Enterprises [www.oecd.org](http://www.oecd.org)
- World Bank Operational Policies and IFC Guidelines on Resettlement [www.ifc.org](http://www.ifc.org), [www.worldbank.org](http://www.worldbank.org)
- ICMM (International Council for Mining and Metals) Principles for sustainable development in the mining and minerals sector [www.icmm.com/icmm\\_principles.php](http://www.icmm.com/icmm_principles.php)
- IPPC (Integrated Pollution Prevention and Control) Best Available Techniques <http://eippcb.jrc.es/pages/FAactivities.htm>
- EU Mine Waste Directive
- EU Water Framework Directive
- Equator Principles [www.equator-principles.com](http://www.equator-principles.com)
- UN Global Compact [www.unglobalcompact.org](http://www.unglobalcompact.org)



*Photo: The new Recea resettlement site in Alba Iulia, inaugurated in May 2009*

## PEOPLE MOVED TO A BETTER LIFE

The ability to conduct mining operations requires the Company to obtain surface rights to the land. To that end, the Company developed, together with international experts and the local community, its **Resettlement and Relocation Action Plan, in accord with the World Bank’s standards and best international practices.**

**Between 2002-2008, RMGC acquired 78% of the residential properties in the area to be mined.** The acquisition was made solely on a “willing buyer, willing seller” basis. In addition to relocation (the option of buying a property in another location), residents have two resettlement options (i.e. the opportunity to acquire a property in one of two possible resettlement sites). This option is essential for maintaining the community and its social network.

*Photo: Roşia Montană Project - Infocenter*



## TWO OPTIONS: RESETTLEMENT OR RELOCATION

The **two resettlement areas identified by consultations with the community** are Recea (a new and modern neighborhood already built by RMGC in the municipality of Alba Iulia, the capital city of the county), respectively a model rural community which is to be built in Roşia Montană.

Families who chose **relocation** have bought one or more properties close to children or relatives, and in many cases have saved or gifted money to their children. The Company has **an intensive program to monitor and support** relocated families to help them adapt to their new life.



*Photo: Professional training courses*

## HE WHO LABOURS AND THRIVES SPINS ROŞIA TO GOLD

As part of an intensive program, 2,500 people from Roşia Montană and the surrounding areas received training in various occupations, many of them not related to mining. The program was sponsored by RMGC and provided certified training, in accordance with national standards.

## WHEN THE INDUSTRY HAS A SOUL

In every project of this size, stakeholders raise concerns about a range of issues. These concerns and other inputs from the public - especially the local community - offer opportunities to shape the project, making it better.

RMGC has taken note of many such inputs, working to accommodate them where possible - for instance, even to the extent of agreeing to expand the buffer zone around the village’s historic center, a decision that meant sacrificing a great deal of potential income.

RMGC is grateful for the longstanding support of the local communities living in Roşia Montană and other towns in the area. **Aside from years of ongoing dialogue with local residents, during the Environmental Impact Assessment process, the company also ran 14 public meetings in different regions of Romania and two in Hungary.**

In all, approx. 40 major design changes have been made, many in response to stakeholder concerns.

## FOR FURTHER INFORMATION

### Get informed:

In order to ensure that you receive clear and transparent information, RMGC invites all those who have an interest in the project to register as a stakeholder – to inform yourselves, to make up your own minds, to discuss aspects related to the project.

You do not have to register as a stakeholder to obtain information, but it does enable us to keep you informed directly of project progress, and upcoming events.

### Contact:

#### Info Center

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