

Sierra Gorda

REVISITING THE SIERRA GORDA
MINE: KGHM'S BIG BET PAYS OFF





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RESEARCH BY *Fernando Ruiz*



Business Excellence first visited the Sierra Gorda mine almost seven years ago, when it was still under construction. Its new owner, Polish mining giant KGHM, had recently invested over US\$5.2 million to acquire the mine, making it the biggest foreign investment ever by a Polish firm outside of Poland.

Over half a decade on, with copper prices again reaching record levels, we arranged a follow up call with Marcin Chludziński, President & CEO of KGHM, to see how the mine

had progressed in that time. Our interest was piqued by a report in the early part of 2019 which said that it looked like being a record year for KGHM, so we thought it was the ideal opportunity to revisit an old success story.

Background

Longer term readers of Business Excellence may recall that the Sierra Gorda plant is slightly differentiated from typical copper plants. It uses molybdenum concentrate separation is used for ore flotation. Commercial outputs of

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Sierra Gorda are Cu and Mo concentrates. In the first half of the year, this yielded around 142,000 tonnes of copper.

Of the mine’s progress to date, Marcin Chludziński says: “Up to date Sierra Gorda has achieved the production parameters assumed for the first phase of the project, and has also significantly developed as an organization that transformed from project construction into a more mature operation.”

However, as he is keen to point out, continuous improvement works are underway

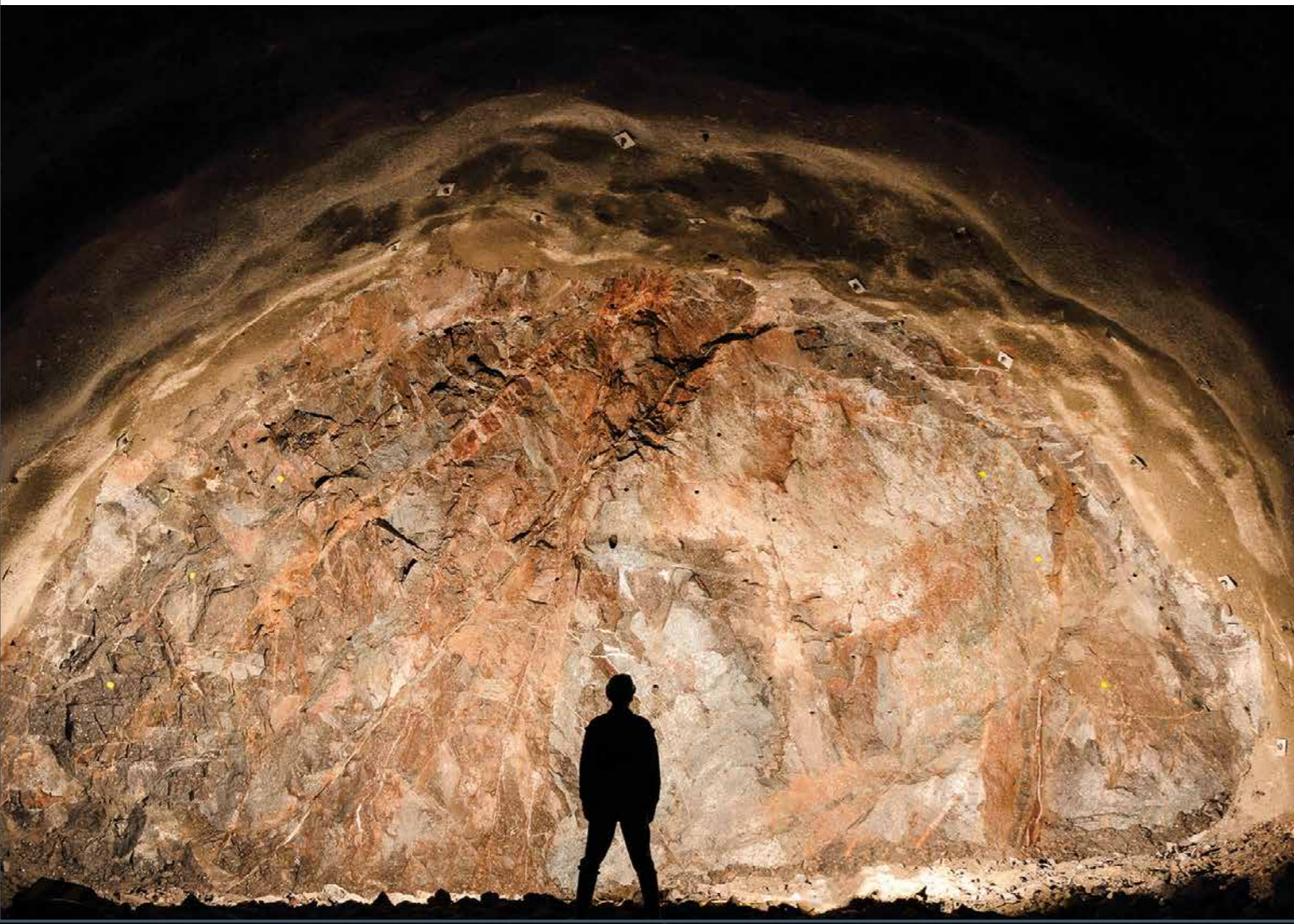


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Hatch has made available its vast experience working in FEL1 to FEL4 project stages, high level engineering reviews and due diligences, for the development of the Integrated Plan Study Review for the ongoing Sierra Gorda Debottlenecking Project. This project seeks to maximize cash flow through the optimization of existing infrastructure and overcapacity, redefining the operational strategy to achieve an increase in the plant throughput. The Hatch team includes professionals with broad experience developing and reviewing projects according to NI 43 IOI standards, a key differentiator to be awarded this task. The results of this review will provide an important input for the approval of the investment decision by Sumitomo and KGHM, partners and owners of Sierra Gorda.

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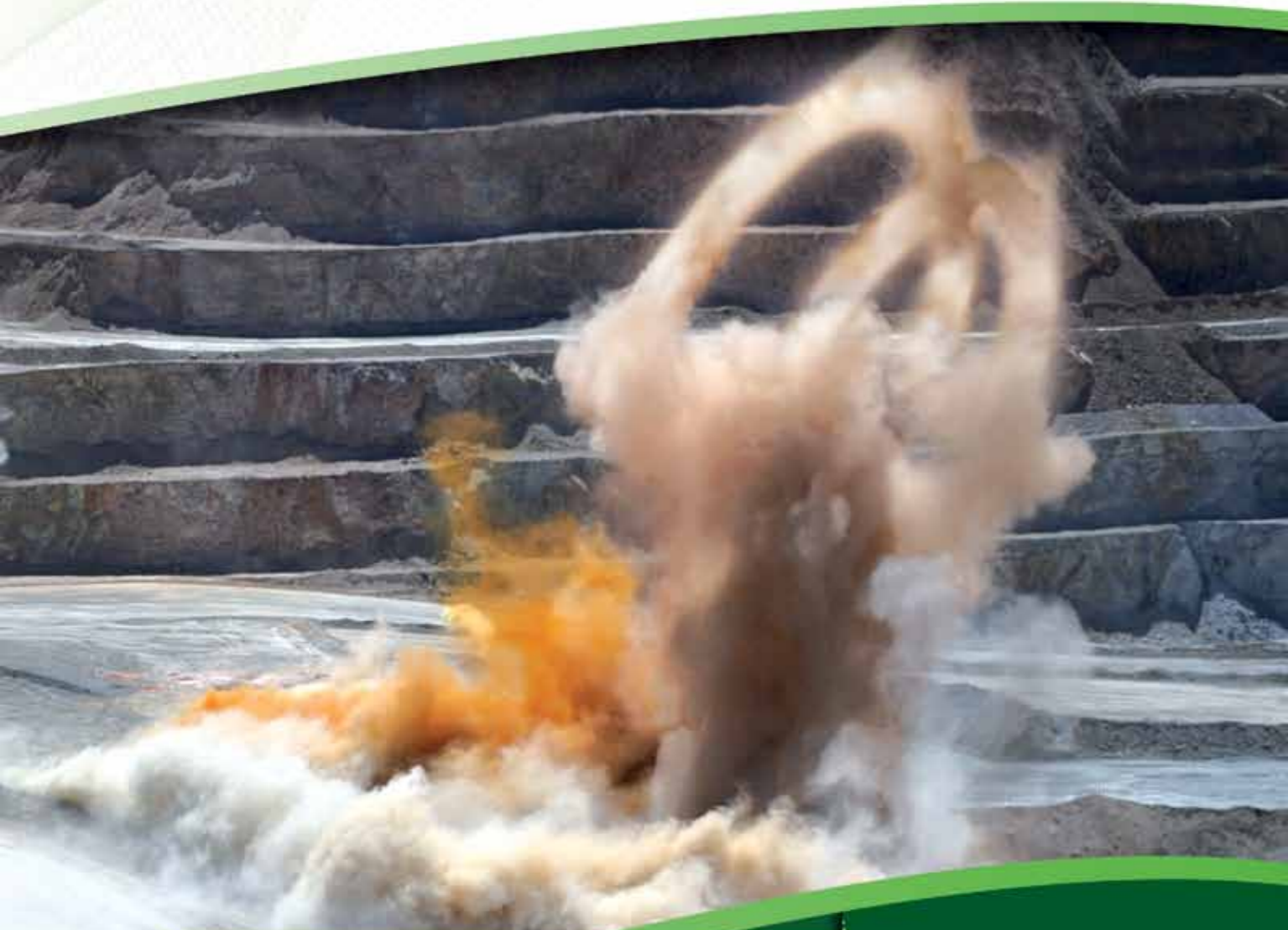
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at Sierra Gorda: "In cooperation with Owners company is still enhancing its production process, with the current main goal to increase the value of the project by initiatives like, for example, enhancing the operational parameters and its efficiency or increasing ore throughput capabilities."

He continues: "In the fourth quarter of 2018, the Management Board of KGHM decided that it was necessary to review the company's strategy. This led to the development of our strategy for the years 2019-2023. The yearly average of the daily ore processing in Sierra Gorda from 2020 will be 130 kt. Naturally,

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“Sierra Gorda is one of the biggest employers and operation in the Antofagasta region, our company maintains a strong and healthy relationship with the local community”

this led to some changes in our management style, and now we are already witnessing the effects of those changes.”

Local Impact

Arguably no country in the world has been boosted by copper mining as much as Chile. The country’s rich mineral resources have been commercially (and for the most part, sustainably) exploited to give the country a level of prosperity that puts it at the top of the rankings in Latin America. A large

element of this prosperity springs from the fact that the local population shares in the value generated by the country’s mines and this trend continues with Sierra Gorda.

Mr. Chludziński says: “Sierra Gorda is one of the biggest employers and operation in the Antofagasta region, our company maintains a strong and healthy relationship with the local community KGHM carries out the strategic principles of its CSR policy through dialogue and by being a partner which cooperates with the communities where we operate.” 502



There is tangible evidence of this in several local communities. Aside from generating excellent employment opportunities, KGHM has helped local businesses reach a new standard. Mr. Chludziński says: “We have developed a support program for local SMEs, with which we work to implement an Entrepreneurship Formalization Program, through the Shared Value Creation model. This seeks to balance the social value and benefit of the business and includes support for Laundries and Local Hostels and other ventures.”

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Knight Piésold S.A. (KP) completed the detailed engineering design of the tailing storage facility for the Sierra Gorda Project, including tailing transport, embankment dam and water management systems. KP also provided engineering support following commissioning and through the first years of operation of the facility.

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Outside of mining, local communities also benefit in other ways, he says: “Sierra Gorda runs numbers of initiatives in regards to the local community. It is, for example, engaged in sport life supporting one of the Chilean sports club. KGHM Polska Miedź coordinates also cooperation of Polish universities with University of La Serena in Chile. In July, we hosted Chilean students in First KGHM Summer School in Poland.”

Finally, the positive local impact has extended to the environment: “from the angle of environmental education, our Arborization Program has allowed the generation of more green areas, thanks to the planting of nearly a thousand tree species in different points of Antofagasta, in coordination with state entities such as CONAF, which it is complemented with

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workshops for recycling and recovery of spaces.”

CSR Initiatives

As a measure of its commitment to a broader CSR program, KGHM has established a Strategic Plan for Communities, that focuses on three action areas: Quality of Life, Development of Opportunities and Community Relationships. In less than a decade, this CSR strategy has already borne fruit in the Antofagasta area.

Mr. Chludziński says: “This plan has led to the development of one of the most outstanding and valued initiatives at national, regional and local level: the Community Trainee Program - the only one of its kind aimed at the training of heavy-duty extraction and heavy equipment operators, focused on exclusively in young people from the towns of Sierra Gorda and Baquedano.”



Did you know?

Sierra Gorda SCM is one of the promoters of the Territorial Development Agreement signed in the town of Sierra Gorda, among the mining companies that carry out activities in the district, social organizations and the public sector. Management model that seeks sustainable growth in those areas where the mining industry is the main livelihood for its inhabitants.

“Sierra Gorda’s existing infrastructure has a significant potential that can be used in order to enhance asset value”

He enthusiastically explains that this is a training model in the field that provides technical tools to be incorporated into the mining industry, preferably at KGHM, but also others operating in the region. With this, young people not only receive a year of training, but also discover facets of development through which they can improve the quality of life of their families.

Elsewhere, in the field of education, he is keen to note the ViLTi SeMMAN Technological Innovation Program led by the Catholic University of the North of Antofagasta. He says: “promotes robotics in primary school students of the G-109 Caracoles School, as

well as preparation workshops for the world of work. , motivational talks and links with regional and national universities. In addition, guided technical visits are made to work, aimed at secondary and university students, which allows them a real and timely approach with the mining industry.”

It’s also important to note that Sierra Gorda SCM is one of the promoters of the Territorial Development Agreement signed in the town of Sierra Gorda, among the mining companies that carry out activities in the district, social organizations and the public sector . Management model that seeks sustainable growth in those areas where the



mining industry is the main livelihood for its inhabitants.

Approaching a Decade in Good Shape

Global copper prices have experienced a turbulent few years since KGHM first invested in Sierra Gorda almost a decade ago but thankfully, they’re now recovering to where they were at their peak. This is good news for both KGHM and the local communities in Chile that stand to share in its ongoing success.

Aligned to those recovering copper prices, a record year for output and a new strategic plan, Mr Chludziński is confident that KGHM and Sierra Gorda have the ideal growth

platform for the years ahead: “Sierra Gorda’s existing infrastructure has a significant potential that can be used in order to enhance asset value. Thanks to the optimization of the production process and a few necessary investments, we aim at increasing mine production capabilities.” **BE**

SIERRA GORDA

+56 2 23665200
 info@sgscm.cl
 www.sgscm.cl



Sierra Gorda

☎ +56 2 23665200

✉ info@sgscm.cl

www.sgscm.cl

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