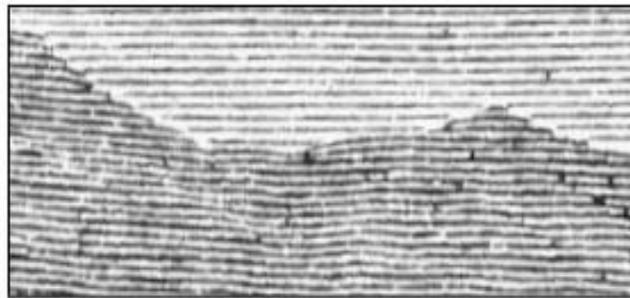


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MPC Site Report— From Olympias, Greece

Citizens Say No To A Gold Mine in Greece



MINERAL
POLICY

C E N T E R

Robert Moran, PH.D.
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Preface

Dr. Robert Moran, is a geochemical and hydrogeological consultant with more than 29 years experience in the mining sector. Dr. Moran is currently in Greece, at the invitation of citizens in Olympias, to provide technical and scientific support.

Mineral Policy Center (MPC) is a non-profit research and advocacy organization dedicated to protecting communities and the environment from the impacts of mining.

MPC has published this paper in order to provide Dr. Moran's observations on the situation unfolding in Olympias, Greece. Community leaders in Olympias are seeking to protect their environment and way of life from the impacts of a proposed industrial-scale gold mine, one that would use cyanide to process the ore.

The background information was provided by MPC. The opinions expressed in the body of the site report are those of the author.

Background

Last week a Greek court, the Council of State, ruled against a gold mine proposed by TVX Gold Inc. of Canada due to the mine's environmental risks. The mining company proposed to use cyanide to process low-grade gold ore. According to press reports, the nation's highest administrative court ruled 20-7 that risks from cyanide processing of gold outweighs the potential economic benefits. The court's decision has not yet been published, but observers expect that it will be made official in the near future.

For several years, community leaders near the proposed mine, 40 miles east of Thessaloniki, Greece, have fought the development of the gold mine. They are concerned that cyanide spills and pollution from heavy metals such as arsenic could impact water resources and agriculture. Concerned citizens organized a months-long blockade of the mine site. They argued before the Council of State that the cyanide used in the gold processing and the arsenic created as a byproduct would endanger the environment.

Yesterday, the Wall Street Journal reported that, in response to the court's ruling, workers at a Greek subsidiary of TVX Gold Inc. blocked a road leading to the village of Lerissos. According to the report, supporters of the mine project threatened to "crush" opponents of the project. In a statement they claimed, "We are determined to crush... anyone who dares, from now on, to be an obstacle in the realization of this investment."

Gold mines using the cyanide extraction process have had a number of devastating environmental spills in recent years including in Colorado (USA), Kyrgyzstan, Guyana, and Romania. The spill in Romania devastated a 250-mile stretch of the Danube River in Europe. Public outcry over the impacts of cyanide process gold mines has led to growing citizen pressure to ban the technology. In Montana in the United States, the process is banned at all new mines and mine expansions. In the Czech Republic, in the aftermath of the spill in Romania, the legislature passed a similar cyanide ban.

In a recent Issue Paper published by Mineral Policy Center (“More Cyanide Uncertainties, Lessons from the Baia Mare, Romania Spill—Water Quality and Politics, MPC Issue Paper #3), Dr. Robert Moran described the risks associated with the cyanide process and documents many of the scientific and technical uncertainties.

In that paper, Dr. Moran, who has worked directly with the community leaders in Greece and is currently in the country, expressed concerns regarding the lack of adequate information, regulation, and testing of mines that use cyanide. In referring to forms of cyanide and related compounds in water he stated, “many aspects of the geochemical behavior and toxicity of such complex mixtures are poorly known.”

In the view of MPC, more and more communities will reject mines that use cyanide extraction technology. Communities will reject them for the same reason that the Greek Council of State did, for the same reasons that the citizens of Montana did: cyanide process mines are too great a threat to water resources, fish, and the livelihoods of those who live and work near these mines. This remains true whether the mine is in Montana, Greece, or Kyrgyzstan.

MPC’s Issue Paper, “More Cyanide Uncertainties, Lessons from the Baia Mare, Romania Spill—Water Quality and Politics, MPC Issue Paper #3, is available at www.mineralpolicy.org.

Observations from Olympias, Greece

Last week the highest court in Greece ruled in favor of local citizens who are opposed to the operation of a proposed gold mine and mill at the town of Olympias in northern Greece. The citizens argued that the project would create lasting environmental impacts due to the production of toxic wastes, and that the existing facilities were never adequately permitted.

The Olympias mine is owned by TVX Hellas SA, a subsidiary of the Canadian mining company, TVX Gold Inc.

This ruling has dealt a serious blow to what was to be the largest investment of foreign private funds in Greece in the last 50 years. Numerous Greek business sources have described this decision as an economic disaster, saying that it will drive away international investors, and that Greece will remain an economic backwater. The situation, however, may also be seen as a progressive move by the Greek courts, one intended to encourage parts of the economy to modernize. Clearly the Greek courts have become aware that, wherever economies are predominantly dependent on mining, they have the characteristics of developing countries---even in the U.S.

The TVX mining situation is also a microcosm of many aspects of “globalization,” and its environmental consequences—the kind politicians and international financial institutions such as the World Bank prefer to avoid discussing publicly.

North American observers may need to be reminded that Greece only became a full economic member of the European Union in January 2001. Also, one glance at a map reveals that Greece is totally separated from the other EU member countries by the northern Balkans. It has the lowest per capita income and lowest labor costs of all the EU countries. In the past, many of the costs of operating a mine were subsidized by the State, yet no taxes were, or are, paid to the local or regional governments.

Ground and surface waters in parts of the Olympias area have already been contaminated by past mining activities—some of which started 2500 years ago. Tailings wastes from the nearby Stratoni site, now also operated by TVX, used to be dumped directly into the sea. Commercial fishing near Stratoni is prohibited for a distance of one nautical mile from the shore. The existing tailings impoundments at both TVX operations are unlined. Local ores contain very high sulfide concentrations, often in the form of arsenic-rich pyrite, which means that the dangers of acid drainage are real.

Despite these conditions, little water quality data is available. Does an environmental problem exist? If citizens wish to answer this question, they must pay to collect and analyze their own samples. As is usual in mining matters, the

legal and environmental complaints in Olympias were pushed forward through the efforts of private citizens, essentially unassisted by government authorities.

Fresh water is scarce in most of the coastal areas, and mining will compete for and degrade the quality of this already scarce resource. Hence, many of the folk of this agriculturally rich area want to break the cycle of pollution and economic reliance on mining. Future resource conflicts are likely to center on water supply issues rather than the need for mining.

But the government and TVX have chosen to keep the public in the dark about the mine's potential impacts on water supply and quality. The citizens opposed to the Olympias operations claim that few studies with any valid data or substance have been made public. I have not been shown any studies that would be useful in quantifying baseline water quality or the chemical contents of the tailings, for example. Such studies may have been performed, but they have not been made available to the general public. Thus, it is not possible to truly evaluate the baseline situation. Is this how a mining company is allowed to operate in TVX's home country, Canada, or in the other EU countries?

Months prior to the recent court decision, the Ministry of Environment and Public Works ruled that TVX should be fined 12 billion drachmas, or about \$31.6 million for not having construction permits for the tailings impoundments in Olympias and an active mine site at Stratoni. However, these fines have not yet been enforced. Why? For this most sensitive environmental task, enforcement falls to the regional planning department in Arnea, a town of between 3,000 and 5,000 inhabitants, in the mountains about 75 km southeast of Thessaloniki.

Consider the situation of this regional planning department. It has four technical staff responsible for issuing construction permits, primarily for homes and other buildings. Most have been trained as architects. Here they are required to approve permits for tailings impoundments. Note that they do not normally conduct independent inspections of any construction. None of the staff has specific training in any mining disciplines, and certainly not in mine facilities construction or mining chemical matters. They are aware that these wastes contain metals, but they have no information or experience that would allow them to know that the wastes contain high concentrations of arsenic, copper, lead, cadmium, manganese, zinc, sulfate, and probably cyanide decomposition products, as a minimum. Importantly, the budget does not include any funds to provide legal support for staff activities.

This department has never confronted such an enforcement situation, related to a mine site, before. It's nothing like construction of an apartment or home. Their superiors in Thessaloniki, the second largest city in Greece, have informed the department that approval must come from Athens. However, months ago they were directed by the judge and the head of the Ministry to enforce the fines. If

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they do, they may be sued by TVX-Hellas. Of course, the planning department has no routine legal support. So, they are forced to delay.

It has been raining off and on near Olympias for days. What would happen if an earthquake were to occur on top of these wet conditions? Is it too perverse to imagine such a scenario in a region where some of the local towns were leveled by earthquakes as recently as 1932? The metal-laden tailings would be released into the nearby rivers and towns. Who would be held legally responsible? The Arnea regional planning department, of course! While Greek law requires that construction permits be obtained, the regional planning department never required that TVX obtain the permits, because their superiors didn't request that they be required. Thus, these operations have technically been illegal.

On top of everything else, the department has also received implied threats of violence if the fines are imposed.

Most of the TVX workers have just been told they are to be laid-off. They have been told that citizen-activists are the cause. Conveniently, the environmental practices of their company are neglected. So, today they have blocked the roads leading into and out of the towns where their citizen opponents live. They threaten to maintain these blockades into the summer when the tourists would normally arrive. It appears, once again, that local citizens are being presented with a simple black and white choice: accept this huge foreign-financed project, the few jobs it will create, and the inevitable long-term environmental impacts, or be considered unfriendly to foreign investment and "unmodern."

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