

## **ELDORADO GOLD'S LEGAL PROBLEMS IN GREECE**

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HMW is a Greek citizens' group concerned over the activities of Eldorado Gold Corp ([www.eldoradogold.com](http://www.eldoradogold.com)). Eldorado's common shares trade on the Toronto Stock Exchange (TSX: ELD) and the New York Stock Exchange (NYSE: EGO).

We would like to bring to your attention some critical information that Eldorado Gold is apparently withholding from investors, regarding the status of its projects in Greece.

With two decisions dated July 5, 2016 and November 2, 2016, the Greek Ministry of Environment & Energy definitively rejected the "**Technical Study for the Madem Lakkos copper, gold and sulphuric acid metallurgical unit**". As explained below, this would be the last one of the major permits, the last missing link in a series of chainwise permitting required to integrate the Hellas Gold investment plan in Halkidiki, Greece.

Failure to obtain this permit brings Hellas Gold may have serious implications for the company's entire investment project.

### **CONTRACT:**

Eldorado Gold acquired Hellas Gold and the Greek mines through the acquisition of European Goldfields, in early 2012. Hellas Gold has a contract with the Greek state ratified by Law no.3220/04 which stipulates that:<sup>i</sup>

*"the Purchaser (Hellas Gold) undertakes the obligation to prepare a full (ie complete) and in integrity investment plan no later than twenty four (24) months from the publication of the law ratifying this Contract, for the development (ie the exploitation) of Cassandra Mines and the construction and operation of a Gold Metallurgy Plant, accompanied by all studies required by law for the award of all relevant permits and approvals".*

### **PERMITTING PROCESS**

#### **a. Environmental Approval**

In July 2011, the Greek Ministry of Environment & Energy granted Hellas Gold environmental approval for the "Cassandra mines project" comprising the following sub-projects:

1. The Olympias gold and base metals mine (development project) including the retreatment of the Olympias tailings (already completed)
2. The Skouries copper-gold mine and mill (development project)
3. The Stratoni base metals mine and mill (already in operation)
4. A new mill and metallurgical plant at Madem Lakkos that would co-process two concentrates, gold concentrate from Olympias ore and copper concentrate from Skouries ore to produce gold, copper, silver and sulphuric acid.

These three mines and four projects are under one single environmental approval and involve co-processing which means they are inseparable. For as long as this approval is valid, neither the mining company nor the Greek state have the option of modifying this plan or removing one of its components should it prove non

feasible or non functional in practice, or even not eligible to be awarded the final permit (ie technical study approval).

The construction of a gold metallurgy plant that will produce pure valuable metals is therefore a central obligation of Hellas Gold, both under the contract and the environmental approval. In order to fulfill this obligation, Hellas Gold chose to employ the “flash smelting” pyrometallurgical technology, developed and provided by the Finnish company Outotec. The environmental approval further defines that the application of this specific technology is a “*necessary precondition*” for the whole project.<sup>ii</sup>

*“The investment plan of Hellas Gold SA aims at the production of lead, zinc and copper/gold concentrates, along with the production of metallic gold, copper and silver through a vertical metal recovery process. A necessary precondition for the utilization of the produced Olympias gold concentrates and the Skouries gold/copper concentrates as feed for the new metallurgy plant is the application of the pyrometallurgical flash smelting technology”.*

For as long as this environmental approval is valid, Hellas Gold is not allowed to apply a different technology and the state (the Ministry’s competent authority) is not allowed to grant approval for a different technology. The Hellas Gold Environmental Impact Study (EIS) and the subsequent environmental approval do not provide for a different, alternative technology as a resort in the case of failure to implement the first.

The flash smelting processing method was also recognized as a key component of the investment plan by the State Council, Greece’s highest administrative court, when it ruled on the legality of the above environmental approval<sup>iii</sup>:

*“As derived from the whole of the Environmental Impact Study, the metallurgical processing method is a core component of the investment plan affecting the overall design... Therefore the potential application of a different processing method or its substantial modification, at whichever stage may this need arise, must be based on a new Approval of Environmental Terms, issued following anew the environmental permitting process, due to a material modification of the project’s environmental impacts”.*

It is worth noting that in its review of the company’s EIS the Ministry’s Directorate of Metallic, Energy and Industrial Minerals (the competent authority for issuing technical permits) had stressed that Hellas Gold was proposing a non-standard application of the flash smelting process which was at the stage of laboratory scale research and development and that further development would be needed in order to prove applicability to the specific concentrates of the Greek mines. It was however decided that technical issues would be resolved and the process would be proven for the Greek concentrates at the next stage of permitting, the technical approvals.

## **b. Technical Approvals**

According to Greek Mining Code technical approvals are necessary for any activity or work in a mine to begin. The basic technical approvals for the Olympias and Skouries mines were granted in February 2012. In addition, specific technical studies were required from Hellas Gold for each specific part of each sub-project (for example the open-pit and underground mine, the flotation plant (mill), the metallurgy plant, the tailings facilities). These specific studies (6 for the Olympias mine and 5 for the Skouries mine, the study for the Madem Lakkos metallurgical Plant being common for both) would have to be approved separately and then annexed to the original technical approvals. Furthermore, it was stipulated that only when all of these annexes had been approved would Hellas Gold’s investment plan be integrated and definitively approved, as per article 3.4 of the contract.

Thus, these 6+5 are the major technical approvals that Hellas Gold has to obtain and without them any of the sub-projects cannot proceed. Most of the minor approvals have already been granted, but the central technical study (annex) for the copper-gold metallurgical unit was rejected on July 5, 2016 (and again on November 2, 2016) as Hellas Gold and Outotec failed to prove that the flash smelting technology could be successfully applied, under the conditions and design parameters specified in the environmental approval.

There are also numerous other permits that a project as big as this requires, such as installation permits for the mechanical equipment, auxiliary facilities, permits for mining waste disposal facilities and an industrial waste disposal facility, explosives permits etc. These may be described as “routine permits” (based on the major approvals that have been granted). The permit issued on May 9, 2016, concerning the relocation of some auxiliary surface facilities at Skouries was one such routine permit. Therefore, Eldorado’s January 2016 claims that Greek authorities had been delaying routine permits<sup>iv</sup> were only partly true. While it is true that certain routine permits were pending, the non-routine, major and substantial technical approval for the metallurgy unit, common for both Skouries and Olympias projects, was also pending but Eldorado said nothing about it.

After May 9 and to this day, there is no mention whatsoever in Eldorado’s public announcements of permitting problems in Greece. In the words of CEO Paul Wright on May 12<sup>v</sup>:

*“I’m pleased to say that on May 9, we also received the approval of the updated technical study. This time, not on the direction of the courts, but through the normal course of permitting. I’m confident that we are now on the right track with the Ministry of Environment and Energy in Greece, as we continue to have more constructive engagement with the Ministry and the technical services group”.*

But on June 8 the Minister of Environment, Panos Skourletis stated, referring to Eldorado<sup>vi</sup>:

*“The most important issue ahead of us is the flash smelting metallurgy issue. The company has yet to prove whether this investment is consistent with what it promised, based on the contract, meaning to produce gold here and not just export the concentrates. If it can’t prove that, then the entire structure of the contract is overturned”.*

Hellas Gold and Eldorado Gold knew that the technical study for the flash smelting unit was at the time under examination by the Ministry’s competent authority. One month later the study was found flawed and incomplete and was returned to Hellas Gold.

- On July 5 2016, the Ministry of Environment and Energy returned to Hellas Gold the technical study (annex) for the copper-gold flash smelting metallurgy plant, citing the fact that it failed to prove the applicability of the flash smelting processing method, as a number of critical technical and environmental issues remained unresolved<sup>vii</sup>. The company was instructed to correct and complete the technical study according to the competent authority’s guidelines and resubmit it within two months.

- On September 9 2016, Hellas Gold filed a Remedy Petition with the Greek Ministry of Environment and Energy requesting the repeal of the July 5 Ministerial Decision.

- On November 2, after reviewing Hellas Gold’s petition, the Ministry rendered a negative decision 2016<sup>viii</sup> thus affirming the validity of the July 5 decision. This is a final decision that can not be overturned by a newer one. It can only be annulled by the supreme administrative court, the State Council.

- On December 28, Hellas Gold filed an Application for annulment of the November 2 Ministerial Decision at the State Council.

## **FLASH SMELTING**

The negative outcome may not have been unforeseeable by Hellas Gold or Eldorado.

Flash smelting is a widely used copper smelting technology that may also produce gold as a by-product. Relevant literature and plant practice however indicate that it is unsuitable for concentrates with a percentage of arsenic exceeding 0,3%, because the evaporation of arsenic creates highly toxic offgases and fugitive emissions. Also, the arsenic and other minor impurities are distributed in all smelting phases,

making all downstream separations and metal recovery difficult and requiring costly additional processing. When the impurities content is high, i.e. in the certain case extremely high, all downstream processing is rendered non feasible and/or final products are rendered unmarketable.

Hellas Gold proposed to use the technique with a mixture of the Olympias and Skouries concentrates that have a combined arsenic content of 8%. As previously mentioned, in December 2010, before the 2011 environmental approval, the ministry's technical authority had clearly stressed that this was not a standard application of flash smelting and that it would entail technical and environmental problems, which were described in the relevant document. Environmental approval was nevertheless granted, as the environmental authority vaguely chose to favor the company's opinion instead of the technical authorities', on the basis of the company's unsubstantiated claims that the process had been tested and proven for use on an industrial scale with the specific concentrates, which was and still is not supported by real data.

In a Technical Report released in July 2011<sup>ix</sup>, by European Goldfields (parent company of Hellas Gold at the time) but never made public in Greece, it is stressed that:

*"Flash smelting as applied to the treatment of arsenopyrite/pyrite concentrates is a new application of the technology and is still basically in the research and development phase. Outotec have stated that more continuous pilot-scale tests need to be undertaken... Assuming the testwork proves the process is technically viable and provides the required process design criteria, then basic engineering and accurate costing to produce a bankable feasibility study can be undertaken. This will then enable an investment decision to be made and should this be positive, detailed engineering will be completed and project implementation effected".*

It appears that the metallurgical process that had just been environmentally permitted in Greece was in fact nowhere near industrial-scale application in 2011. Questions are raised on whether Hellas Gold knew all along that the process was not proven in industrial scale for the area's high-arsenic concentrates.

Five years later, Hellas Gold was finally called upon to demonstrate that its method of choice was technically and economically feasible and environmentally sound. After thoroughly reviewing the documentation provided by Hellas Gold and Outotec as well as the results of the metallurgical tests conducted by Outotec in Finland, the Ministry decided to reject the study. The main reason was to protect occupational and public health. The volume of arsenic offgases generated by the operation of this unit would be larger than any other comparable industrial facility in the world and exceeding the capacity of known arsenic management systems.

Furthermore, the study submitted by Hellas Gold resulted in an intermediate product (a gold bearing concentrate) and not metallic gold, silver and copper as is the company's main contractual obligation. In the same 2011 Technical Report it is clearly stated that Outotec and Hellas Gold had decided early on the *"elimination of the Precious Plant so that the final product is a gold bearing copper concentrate"*. Hellas Gold may never have intended to produce pure metals in Greece at all.

## **POSSIBLE IMPLICATIONS**

Hellas Gold has applied to the State Council for the annulment of the November 2 ministerial decision. The State Council is an administrative court and can rule on the legal aspect of the decision and not the technical one. Should the court uphold the validity of the decision, this would mean that Hellas Gold:

- is violating the technical approvals
- is violating the environmental approval
- is violating article 3.2 of the contract because it is incapable of producing pure metals
- is violating article 3.4 of the contract because the investment plan can't be approved

There's no telling what the court will decide but until it does, the status of the Greek project is unclear and at stake. According to Eldorado's recent announcements, Phase II of the Olympias project is set for

commissioning in the first quarter 2017<sup>x</sup>. But this requires new permits and it is highly questionable that any more “routine” permits can be granted, while the major permit is pending.

On February 1, 2017, it was reported that the Ministry of Environment and Energy would take Eldorado Gold to arbitration to determine whether the company was in violation of the contract<sup>xi</sup>. Sources also said that the arbitration process could have two possible outcomes - either the state will cancel the contract with Eldorado's subsidiary without having to pay for damages, or there will be a drastic renegotiation of terms. Eldorado's CEO who met with the Greek minister on January 31 has been notified of the minister's intention. Officially, the Ministry has neither confirmed nor dismissed these reports. True or not, the very notion that judicial arbitration may be needed illustrates the legal impasse that the rejection of the metallurgy study has created for Eldorado.

Eldorado’s management has failed to inform investors on any of the above facts and matters. Since July 2016, there have been several press releases and corporate presentations by Eldorado that refer to the development and operational status of the Greek projects (Q2 2016 Results Press Release, July 28<sup>xii</sup>; Q2 Earnings Call, July 29<sup>xiii</sup>; Updated Outlook Announcement, September 7<sup>xiv</sup>; Q3 2016 Results, October 27<sup>xv</sup>; Q3 Earnings Call, October 28<sup>xvi</sup>; Preliminary 2016 Operational Results and 2017 Guidance, January 6 2017<sup>xvii</sup>; 2016 Year-End and Q4 Financial and Operational Results, Feb 23, 2017<sup>xviii</sup>). However, there’s not a single mention to the above ministerial decisions and their possible implications to Eldorado’s activities in Greece.

Excerpts of documents presented here are unofficial translations. The validity of the information can be directly confirmed with the Greek Ministry of Environment and Energy.

For further information, please contact Maria Kadoglou, [mkadoglou@gmail.com](mailto:mkadoglou@gmail.com), tel. +30 674371552

- i The Contract no. 22138/12.12.2003 between the Greek government and “Hellas Gold SA” was ratified by articles 52-53 of law 3220/2004. The text of the law can be downloaded from [http://www.et.gr/idos-nph/search/pdfViewerForm.html?args=5C7QrtC22wGQ\\_kZuUB4NxXdtvSoClrL8suaQnuDva5rtll9LGdkF53UIxsx942CdyqxSQYNuqAGCF01fB9HI6qSYtMQEkEHLwnFqmgJSA5WIsLuV-nRwO1oKqSe4BIOTSpEWYhszF8P8UqWb\\_zFijEAvmfuQXTE\\_UI9cIgz58Q-aBuf2gV9jyTg7rMoT0Qru](http://www.et.gr/idos-nph/search/pdfViewerForm.html?args=5C7QrtC22wGQ_kZuUB4NxXdtvSoClrL8suaQnuDva5rtll9LGdkF53UIxsx942CdyqxSQYNuqAGCF01fB9HI6qSYtMQEkEHLwnFqmgJSA5WIsLuV-nRwO1oKqSe4BIOTSpEWYhszF8P8UqWb_zFijEAvmfuQXTE_UI9cIgz58Q-aBuf2gV9jyTg7rMoT0Qru). The specific excerpt is article 3.2, page 251 of the pdf document.
- ii Joint Ministerial Decision 201745/2011 “Approval of Environmental Terms for the Cassandra Mines Mining-Metallurgical Installations of Hellas Gold SA” <https://diavgeia.gov.gr/doc/4%CE%91%CE%A3%CE%940-%CE%A9%CE%940?inline=true> α1, p.19
- iii State Council ruling 1492/2013 [http://files.hellas-gold.com/ste/ste\\_1492.2013.pdf](http://files.hellas-gold.com/ste/ste_1492.2013.pdf), p.29
- iv Eldorado Gold Announces Amended Investment Plans in Greece, Jan 11, 2016 <http://www.eldoradogold.com/news-and-media/news-releases/press-release-details/2016/Eldorado-Gold-Announces-Amended-Investment-Plans-in-Greece/>
- v Eldorado Gold's (EGO) CEO Paul Wright on Q1 2016 Results - Earnings Call Transcript. May 12, 2016 <http://seekingalpha.com/article/3974570-eldorado-golds-ego-ceo-paul-wright-q1-2016-results-earnings-call-transcript?part=single>
- vi [http://ypeka.gr/Default.aspx?tabid=389&sni\[524\]=4302&language=el-GR](http://ypeka.gr/Default.aspx?tabid=389&sni[524]=4302&language=el-GR)
- vii Department of Metallic, Energy and Industrial Minerals, “Return of the technical study for the Madem Lakkos copper, gold and sulphuric acid metallurgical unit, in compliance with n. 3191/2015 State Council ruling” <https://diavgeia.gov.gr/decision/view/682%CE%9D4653%CE%A08-%CE%963%CE%A6> (click on pdf icon)
- viii Department of Metallic, Energy and Industrial Minerals, “Review of the Remedy Petition nr. 182906/9.9.2016 by Hellas Gold SA for the repeal of nr. Α/Φ.10ΤΜ.6/180239/2659/5.7.2016 Decision of the Minister of Environment and Energy” <https://diavgeia.gov.gr/decision/view/7%CE%A4224653%CE%A08-40%CE%9B> (click pdf icon)
- ix European Goldfields, Technical Report on the Olympias Project Au Pb Zn Ag Deposit, Northern Greece, July 2011 [http://s2.q4cdn.com/536453762/files/doc\\_downloads/Reports/Olympias\\_Technical\\_Report\\_%E2%80%93\\_July\\_2011.pdf](http://s2.q4cdn.com/536453762/files/doc_downloads/Reports/Olympias_Technical_Report_%E2%80%93_July_2011.pdf), page 69. The report can still be found on Eldorado’s website here: <http://www.eldoradogold.com/assets/operations-and-projects/europe/projects/olympias-greece/default.aspx>
- x <http://www.eldoradogold.com/news-and-media/news-releases/press-release-details/2017/Eldorado-Announces-Preliminary-2016-Operational-Results-and-2017-Guidance/default.aspx#sthash.ZWDBAnMQ.dpuf>
- xi See <http://www.stokkino.gr/article/100000000053477/Amfisbitei-tin-tirisi-tis-sumbasis-me-tin-Ellinikos-Xrusos-to-UPEN-proseugontas-stin-Diaitisia> and <https://www.thepressproject.gr/article/106681/Otan-skouriazai-o-xrusos>
- xii <http://www.eldoradogold.com/news-and-media/news-releases/press-release-details/2016/Eldorado-Reports-Second-Quarter-2016-Results/default.aspx>
- xiii <http://seekingalpha.com/article/3993345-eldorado-golds-ego-ceo-paul-wright-q2-2016-results-earnings-call-transcript>
- xiv <http://www.eldoradogold.com/news-and-media/news-releases/press-release-details/2016/Eldorado-Provides-Updated-Outlook/default.aspx>
- xv <http://www.eldoradogold.com/news-and-media/news-releases/press-release-details/2016/Eldorado-Reports-Third-Quarter-2016-Results/default.aspx>
- xvi <http://seekingalpha.com/article/4016507-eldorado-golds-ego-ceo-paul-wright-q3-2016-results-earnings-call-transcript>
- xvii <http://www.eldoradogold.com/news-and-media/news-releases/press-release-details/2017/Eldorado-Announces-Preliminary-2016-Operational-Results-and-2017-Guidance/default.aspx>

xviii <http://www.eldoradogold.com/news-and-media/news-releases/press-release-details/2017/Eldorado-Reports-2016-Year-End-and-Fourth-Quarter-Financial-and-Operational-Results/default.aspx#sthash.ioezwBOt.dpuf>