

CAFOD's Rejoinder to Goldcorp's Response to CAFOD Press Release: "CAFOD and Development and Peace Canada Discover Evidence of Severe Water Contamination at Goldcorp Mine," 2 December 2009.

CAFOD is committed to highlighting matters of public interest and issues affecting disadvantaged communities in the countries where we work. We fully reject Goldcorp's claims that CAFOD's allegations are "patent falsehoods and distortions". Our press release was published following a thorough investigation of the San Martin Mine Closure Plan and its implementation by distinguished experts in this field. CAFOD, Development and Peace and our Honduran partner Caritas Tegucigalpa have attempted to raise concerns about acid mine drainage at the San Martin mine with Goldcorp on numerous occasions via letter and in person for several years. We remain fully committed to a constructive dialogue with the company. However, this should not replace being open about the findings of our research or sharing this information publicly.

Goldcorp says that "statements made by CAFOD and Development and Peace regarding water contamination at and around the San Martin mine in Honduras are completely false", and that "Honduran government agency, DEFOMIN, reported in September 2008 that water flowing from the Palo Alto pit had been treated to international standards".

CAFOD's press release of December 2, 2009 relates to findings of an investigation into the San Martin mine closure plan and its implementation that was carried out by Dr Adam Jarvis and Dr Jaime Amezaga of Newcastle University between June 2 and 8, 2009. Dr Jarvis and Dr Amezaga, who are experts in characterisation and management of mine waters, and especially in the remediation of polluted mine site drainage, were commissioned by CAFOD and Caritas Tegucigalpa in response to a request for technical assistance from the Environmental Prosecutor in Honduras.

Dr Jarvis and Dr Amezaga discovered DEFOMIN¹ records, which had not previously been disclosed, showing that an incidence of severe acid mine drainage at the San Martin mine had been recorded on September 24, 2008. The records showed that water was leaving the Tajo Palo Alto pit with low pH and highly elevated concentrations of metals, significantly above internationally recommended standards. CAFOD has a transcription of the data recorded in DEFOMIN's laboratory report. Dr. Jarvis and Dr. Amezaga produced a report of their visit, dated June 2009, which states on page five that "there is no doubt that the highly elevated concentrations of metals recorded on September 24, 2008 are associated with the [water draining from the] Tajo Palo Alto" and that "The concentrations of metals are very high, and the pH is very low, which are both typical characteristics of severe AMD [acid mine drainage]". Their report was shared with Goldcorp via letter on September 11, 2009.

¹ DEFOMIN is the mining regulatory authority, the Honduran Department for the Administration of Mineral Resources.

CAFOD's press release also includes information gathered from a reconnaissance investigation by Paul Younger, Professor of Energy and Environment at Newcastle University, on behalf of CAFOD. Professor Younger's work took the form of a walkover survey, which led to the recommendation of the more detailed investigation later carried out by Dr Amezaga and Dr Jarvis.

During his visit to Honduras, Professor Younger recorded observations and photographic evidence of acid mine drainage coming from the San Martin mine perimeter at the point at which the overflow channel from the Tajo Palo Alto pit enters the Quebrada Casitas stream. This drainage was causing staining of the stream bed in a manner uniquely diagnostic of acidic (as opposed to circum-neutral) mine drainage. His observations were recorded in a report dated December 16, 2008 and which was shared with Goldcorp via letter on September 11, 2009.

The Siria Valley Environmental Committee also reported water contamination in streams at the end of September 2008 (which is consistent with the DEFOMIN data) and made an official complaint to the Environmental Prosecutor of Honduras.

Goldcorp states that “the successful treatment and the clay encapsulation process are confirmed in DEFOMIN’s December 2008 report”.

Whilst ongoing works within Tajo Palo Alto pit which have the aim of restricting the potential for acid mine drainage may have been temporarily effective, Dr. Jarvis and Dr. Amezaga's report stated that, in their opinion, the passive treatment system for the San Martin mine, which was in the process of being designed at the time of their visit, “may not be the best approach to addressing acid mine drainage problems in this particular instance” and that “risks remain in relation to pollution due to acid mine drainage post closure”. There was insufficient detail in the mine closure plan to make a thorough assessment of the proposed treatment plant. However, passive treatment systems are designed for acid mine drainage with low to moderate metals concentrations, and consistent with low to moderate design flow rates. The metals concentrations shown in the DEFOMIN records and the climate of Honduras suggest that, on many occasions, neither of these conditions will be met.

In addition, given that rainfall is scarce in Honduras during December and that without water, acid mine drainage does not occur, any confirmation by DEFOMIN in December 2008 that the processes were “successful” does not mean that they continued to be. The fact that Goldcorp had introduced remediation measures in the first place is tacit acknowledgement and recognition of a pre-existing problem of acid mine drainage at the San Martin mine.

Goldcorp says that “the Honduran Environmental Prosecutor visited the mine site with Caritas Tegucigalpa to sample water three separate times in 2008, and all pH measurements were above 6 and showed no evidence of acidity”.

The water sampling and testing carried out by Caritas Tegucigalpa was actually done in collaboration with the Centre for Pollution Studies and Control (CESSCO), not with the Environmental Prosecutor as stated incorrectly by Goldcorp. “Acidity” is a parameter which includes not only ambient pH, but, crucially, also the dissolved concentrations of hydrolysable metals. High sulphate is also a very

reliable indicator of acidity release in sulphide ore environments. Repeated sampling by CESSCO of drainage by waters leaving the mine site show clear signs of acidic mine drainage, especially elevated sulphate (up to 1359 mg/l measured), elevated iron (evident in abundant staining, and measured in spot samples to concentrations of about 5mg/l), extremely elevated aluminium (up to 18.8mg/l, a concentration only achievable in natural waters under acidic conditions), and very high concentrations of lead (up to 0.2 mg/l), cadmium (up to 0.013mg/l) and arsenic (up to 12.54mg/l). Given the toxicity of the last three in particular, these are extremely worrying values in waters which are used downstream by communities who cannot afford to pre-treat such waters to high standards.

Goldcorp says that “the San Martin closure plan was reviewed by three governmental agencies: DECA, DEFOMIN and CESSCO, as well as the San Ignacio Municipality. Following these reviews, the closure plan was approved by the Honduran Ministry of Environment (SERNA) in accordance with applicable law”.

CAFOD’s press release did not dispute the fact that the mine closure plan was approved by SERNA. Given that this is the first such plan SERNA has been asked to approve, independent review of the closure plan is appropriate. Our concerns about the closure plan are those identified by Professor Younger following his thorough review, dated November 15, 2008, of both the draft closure plan and then later of the government approved plan. The same concerns were also raised by Dr. Jarvis and Dr. Amezaga in their report of June 2009.

Professor Younger noted concerns about insufficient detail within the closure plan, especially with respect to corroborating evidence for a number of key assertions made and the engineering design details for rehabilitation of the mine site. In addition, Professor Younger shared a copy of his analysis with Goldcorp when he participated in a live TV debate with company representatives Christian Roldan and Hector Sevilla. During the debate he was promised a point-by-point response to his review of the closure plan. No response has been received by Professor Younger to date and his recommendations have not been incorporated into the final plan.

In 2009 DEFOMIN, CESSCO, the Environmental Prosecutor, the Attorney General’s Office, the Health Ministry and other Honduran state institutions together with Caritas Tegucigalpa and other civil society organisations held several meetings to assess the closure plan. All of the organisations presented a number of concerns about the plan.

Goldcorp states that the “drainage channels never overflowed; rather, during construction of the channels and after a large rain storm, some rinsed ore washed onto a road. Consistent with our commitment to transparency, we promptly informed DEFOMIN of the event, who came to site to investigate and to take samples. The samples were tested, and indicated no negative impacts. The channels were constructed in a manner consistent with international best practices, including the use of a layer of concrete and a Geoweb stability system. The fully-constructed channels function according to design, and did so during the severe storms of the past year”.

The CAFOD press release refers to reports from the local community that water has overflowed from the covered drainage channels originally constructed to collect water from the mine's heap leach pads. CAFOD has photographic evidence, taken between May 25 and 28, 2009, which shows blockage of the covered drainage channels on the internal side of the mine site perimeter by earth eroded from the heap leach pad by the heavy rains. The photographs clearly show water and earth run-off from the heap leach pad.

Following this incident, construction of the open drainage channels on the inside of the mine perimeter began, a clear indication of concern and acknowledgement from the mine of the inadequacy of the existing drainage system to capture and safely channel rain water from the heap leach pads.

In addition, in a meeting of the Inter-Institutional Commission for the follow-up of the San Martin mine closure plan held on September 8, 2009 one of the recommendations agreed by participating members of the Commission (including Caritas Tegucigalpa, the Environmental Prosecutor's Office, DEFOMIN, CESSCO, DECA) was that Goldcorp should present a rehabilitation plan for the drainage channel system: further indication that the original system had deteriorated and was in need of repair and improvement.

Goldcorp's response states that "It is important to clarify that Mr. Younger never requested a visit to the San Martin mine when he was in Honduras, never took a sample of water at the mine site, and never produced a pH assessment of the mine site water. His comments regarding the situation at San Martin should be interpreted in that context".

At no point did CAFOD claim that Professor Younger did any sampling or pH measurement. However, Professor Younger visited the area in November 2008 and stood at the perimeter fence of the mine at several points, particularly where drainage could be seen flowing from the mine site into the surrounding watercourses. Given his extensive and internationally recognised experience on this subject (for instance, his work on acidic drainage won the Queen's Anniversary Prize in 2005), he was able to identify clear signs of the discharge of acidic, metalliferous waters from the mine. His report of December 16, 2008 provided clear, unequivocal photographic evidence of a particular discoloration of the water which is only explicable by the action of acidic waters. All of Professor Younger's observations were confirmed by Dr. Jarvis and Dr. Amezaga, who did carry out an inspection of the mine site.

As a result of the evidence obtained, we will continue to seek to engage Goldcorp and to secure commitments from the company to ensure that mine closure is completed responsibly. In order for this to happen Goldcorp must:

- Address existing, and prevent future, occurrences of acid mine drainage at the San Martin mine in line with the recommendations in Dr. Jarvis and Dr. Amezaga's report.
- Commit to long term monitoring of the San Martin mine to ensure successful rehabilitation after mine closure.
- Strengthen and improve the mine closure plan, in line with the recommendations of Professor Younger, the Honduran authorities and civil society organisations.

- Set aside sufficient financial guarantees or bonds to ensure funding of any reclamation work that may emerge in the future, after closure of the mine.

In addition we are calling on Goldcorp to:

- Provide investment for the ongoing social and economic development of the Siria Valley, in consultation with the communities and local authorities.
- Cooperate with investigations to determine the cause of the community health problems in the Siria Valley.

CAFOD, January 12, 2010