

June 30, 2011

Firestone Ventures Now Reckons It Can Apply Alexander's AmmLeach Processing Technology To Zinc Projects In Nevada As Well As In Guatemala

By Charles Wyatt

Source: Minesite.com

Good to know that the technical relationship formed between Canadian-listed Firestone Ventures and Aim-traded Alexander Mining continues to make progress. The two have been testing Alexander's Ammleach mineral processing technology on ore from Firestone's Torlon Hill zinc-lead-silver project in Guatemala. The results of the first round of metallurgical testwork were announced back in March. These focussed on selected representative samples with a head grade of 6.99% zinc, and resulted in an average zinc dissolution of 79 per cent. This showed that zinc recoveries of up to 75 per cent should be achievable, and both Matt Sutcliffe, executive chairman of Alexander Mining and Lori Walton, chief executive of Firestone Ventures were clearly very encouraged. As a result it was decided that Alexander would develop a conceptual process flow sheet for a treatment plant to produce zinc metal from Torlon Hill using AmmLeach.

The two of them also decided they would widen the scope of the technical relationship to include Firestone's zinc oxide projects in Nevada. The following month they announced that preliminary stage amenability tests using the AmmLeach process had taken place on two grab rock samples from Firestone's Black Mountain and Antelope zinc properties. These samples, which ran to grades of 15.3% and 16.3% zinc respectively, produced high leaching recoveries. What Lori found particularly encouraging was that the process appeared to work on both smithsonite, which is zinc carbonate, and hemimorphite, which is zinc silicate, the two primary zinc-bearing minerals present at these two properties.

Firestone's 1,245 metre drill programme at Black Mountain has recently been delayed as a result of very bad winter weather, but Lori reckons it is now about to commence. At the moment Firestone has an option to earn a 100 per cent interest in the Black Mountain project from Kinross Gold. The mineralisation consists of said hemimorphite and smithsonite, hosted by Devonian carbonate rocks. At the beginning of June the conceptual flowsheet for using AmmLeach for processing material from Torlon Hill made an appearance and is now being examined by the technical people at Firestone. The study summarizes a relatively simple conceptual operation involving heap leaching, solvent extraction and stream stripping to produce a zinc oxide product. The adoption of heap leaching would eliminate the need for milling, and for agitation leaching equipment and solid-liquid separation. Cost savings would be realized through the use of AmmLeach since no on-site acid plant is required. Lori Walton's crew is continuing its examination of the flowsheet, but is also in discussions with Alexander Mining to decide on the next steps. These may include further bench-scale work, heap leach column testing and a demonstration scale pilot plant.

Even to the non-technically minded, the message comes across clearly that costs will be reduced. Ammonia has been used historically as a leaching agent, with mixed results, but no one has made it work under ambient leach conditions. In the 1970s Anaconda developed the Arbiter process for dissolution of copper sulphides with ammonia and oxygen; and twenty years later BHP Minerals developed the Escondida process in which copper concentrates are leached with ammonia and ammonium sulphate. Another 20 years on, and Alexander is the one that's cracked it.

Costs and technology aside, there are two other advantages to AmmLeach. First, it uses conventional equipment, so minimal changes are required to existing plant for anyone switching to the new technology. If anything a smaller plant is required. Second, it brings environmental benefits in terms of minimizing the likelihood of acid mine drainage and reducing problems relating to transport and shipping. Lori Walton, who comes top of the class among chief executives in Canada for her helpfulness and approachability for journo's, confirms that Ammleach will not only impact Torlon Hill, Black Mountain and Antelope, but her company's other projects as well.

Clearly there's plenty more testing to do, but in the meantime regional exploration indicates that there is plenty of scope to increase the zinc resource in Guatemala. "From our analysis of the zinc potential of Guatemala we believe that the geological setting is similar to prolific global Mississippi Valley type deposit districts", she says. "These deposits always occur in clusters and there has literally been no modern exploration. We tied up the major land position in the zinc carbonate belt extending across Guatemala and started drilling some of our zinc occurrences in central Guatemala last spring. Our exploration target is not only the rich, high grade zinc oxide on surface, but also the large sulphide deposits related to the oxides. We are finding much evidence of what we think is zinc oxide as leakage from deeper sulphide deposits. From the grade and size of the oxide we know that there are larger sulphide deposits at depth. We are finding that the zinc is very rich in silver as well."

All to the good, but what about the zinc price which will become vital to Firestone Ventures as development approaches in the next year or two? Lori has just completed a round of corporate presentations in Toronto and was greatly encouraged by the attention that the analysts are now paying to zinc, even though retail investors have yet to get the message. The best case scenario is that zinc metal prices will be significantly higher at the end of 2011, and the worse case is that the closing of a number of zinc mines won't impact until later in 2012. The most recent transaction involved Breakwater and Nystar, and that deal left very few pure zinc companies either in production or in exploration, she says. All of which bodes well for Firestone.