



The Chilean Miners - Nearing a Rescue

Posted by [Heading Out](#) on October 11, 2010 - 7:02pm

Topic: [Supply/Production](#)

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The rate of progress in rescuing the miners from the copper mine in Chile continues to be better than expected. After the completion of the rescue shaft on Saturday, it was inspected, and the top 300 ft was considered to be possibly unstable and so has had to be lined with a metal casing. This is somewhat similar to that used in oilwells, except that it does not have to be water-tight and can be hung from the top, [through a lip](#) that extends outwards, again without need for a seal. This liner was inserted in 20 segments, and is only needed for the first 300-ft since a survey of the rest of the 2,300 ft long shaft has shown that the rock around it is solid, and does not need support.

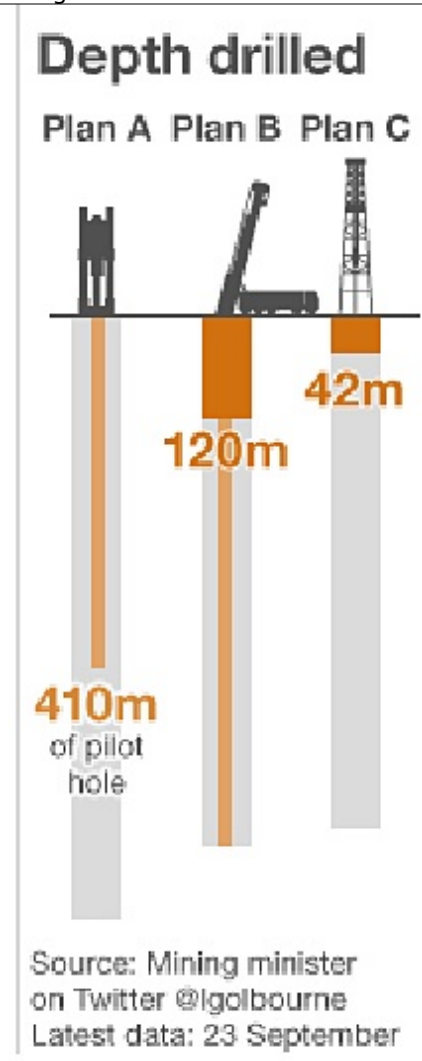


Preparing the casing for the shaft



Schramm T-130

There were three different drills used to try and create the rescue shaft. The first of these, a Strata 950 was brought to the site [on August 22nd](#), and drilled its own access bore, which would then be subsequently reamed to the necessary diameter for the rescue capsules. As a back-up a second drill, a Schramm T-130 [was brought to the site](#) at the beginning of September ([the fourth](#)). In contrast with the first drill, which was drilling its own access borehole, this unit was set up to ream one of the existing boreholes (of which there were 3). By doing this, and reaming the hole in two stages, rather than just one, progress [could be considerably faster](#). The initial diameter of the hole was 6 inches, this was first reamed out to 12-inches, and then to the [final 26-inches](#). After set-up the benefit of the two-stage operation became evident early on, with the T-130 being able to ream the initial bore out to 12-inches by the [17th of September](#). Fifty days after the collapse of the mine tunnel, progress for what was now three different operations, was shown in this graphic.



Plan C, a drilling rig which is drilling a hole at full diameter from the beginning was set-up later, but has been making very good progress, and is being continued to provide a possible back-up in case something goes wrong with the initial shaft.

One of the concerns with the existing shaft is that, as a result of the way that the hole was drilled, it is not straight but has a number of curves in it. These are not severe, but could possibly cause a problem with the cage. By this morning the lining had been completed, and the infrastructure is being assembled over the shaft to be able to wind the cage in and out of the mine.



[Moving the liner into place](#)

It is now expected that the cage will be tested today to ensure that it [can easily move up](#) and down the shaft, and that the miners will be able to start being lifted out of the mine starting at 3 am Wednesday morning. And in a more recent story the cage has been reported as having been able to move down the shaft [without any problems](#) .



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