different orepasses as required. The pneumatic hammers are all operated remotely while a pilot program is being used to remotely operate some of the LHDs. At the edges of the drawpoints, 2m wide concrete arches that are 1m thick are cast in place to prevent the high stresses near the drawpoints from collapsing the access drives in the area.

Figure 2. Plan view of the production level.
Above: Photo of concrete arch on an undeveloped drawpoint.

Above: 7 yd$^3$ LHD dumping at the top of an orepass.
Once ore is in the orepass, it moves to the transportation level where it is dumped into a train 35m below the production level. The train then transports the ore to a large underground ore bin which is used to regulate the rate at which ore is sent to the mill. From the bottom of the ore bin, 200m below the production level, the ore is dumped into the main train, which transports the ore to the mill.

It is also worth noting that in the history of the El Teniente mine, there have been several mines at various levels. As a mine becomes depleted, a new mine, usually 200 to 300m below it is developed and the old mine becomes part of the orebody for the next cave.
2.2.5 The Crystal Cavern

Inside the El Teniente mine, there is a crystal cavern with extremely large gypsum crystals. The crystals are approximately 20cm wide square.
crystals that are tens of meters in length. The true length is unknown because the ends of the crystals cannot be uncovered without risk of damaging the crystals. The cavern is only available to VIPs on a guided tour however given the opportunity it is well worth seeing.

Above: Gypsum crystals inside a natural cavern inside El Teniente.

2.2.6 Other Facilities On Site

As part of the El Teniente facilities, there is a 45,000 tonnes per day mill, a smelter to upgrade the copper concentrate to anode copper, and a sulphuric acid production facility (part of smelting stage) that supplies acid for the heap-leach mines in northern Chile.

2.3 Sewell

The isolated town of Sewell is perched on the edge of the Andes at 2000m elevation, adjacent to Codelco’s El Teniente (“The Lieutenant”) the largest underground mine in the world. The town was built in 1904 by the US owned Braden Copper Company, to house it’s workers and their families.