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**Rubber Liners in the Service of Large Diameter Ball Mill at Hudbay, Constanca Mine, Peru**

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Large-diameter ball mills have traditionally used steel liners—steel being a highly durable material that can be shaped into any desired geometry, among which the double-wave has been the preferred design. Such a design produces a purely cascading charge motion, which is ideal for the shearing action needed to produce a finer product. Today, however, rubber liners, which have been in existence for over forty years, are now preferred over traditional steel, largely because they weigh less and are easier to maintain. In this paper, we show the operating data from the Hudbay Minerals' Constanca Mine, wherein the liners on a 26-by-40-foot mill were changed from conventional steel liners to PolyStl™ liners. It is then shown that this change reduced the amount of energy consumed whilst being able to maintain previous grind and throughput levels. The design is verified via discrete element simulations.