1011-13-276   **Raymond C Heitmann*** (`heitmann@math.utexas.edu`), Mathematics Department, University
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Local cohomology modules for noetherian rings can be large, even non-noetherian. Does this imply they contain complex information or are they a complex arrangement of easy phenomena? We explore the possibility that all elements in these modules are images, under change of rings, of elements in a cyclic local cohomology module. We need rings, generic in nature, which map to all possible target rings. For zeroth local cohomology, there is a countable class of rings, all but finitely many of which map to any desired example. For first local cohomology, the same result holds. While these two cases lack useful corollaries, additional positive results would be useful. One corollary would be that the absolute integral closure of a three dimensional mixed characteristic complete local domain is Cohen-Macaulay. (Received August 29, 2005)