This indicates that whatever down-hole restriction existed at that time was failing rapidly, regardless of whether this restriction resided in wellbore debris, the float collar, or cement barrier. For continued failure at this rate, I estimate that the productivity index would further increase to my best-estimate value in less than 9 hours.13 At this point, the cement barrier or other impediments would provide no significant restriction to flow from the reservoir into the casing. Subsequent erosion in this region therefore could not have influenced later flow rates.

13 Assuming that the cement remained reasonably intact, the likely mechanism for progressive failure is erosion.