During run 38 there were some spurious noise counts attributable to the counter and the particular gas filling. These noise pulses could be identified by an electronic criterion, namely the time difference between the peaking times of the energy amplifier and the rise-time differentiating amplifier. Although those noise pulses could be eliminated by this criterion, we are not absolutely certain that all such noise pulses were eliminated from the data. The first two counts in run 39A occurred 22.71 and 22.78 days after the end of purge. The probability of occurrence of this short an interval between counts is only 0.006 for the calculated number of atoms given in Table 2.

The ^{37}Ar production rates are plotted in figure 2. It may be observed that runs 18 and 19 are high, then there is a long period in which the rate is low, essentially at the cosmic ray background level, with only one high value, run 27, and then runs 36 and 37 are high. Note that although the water shield was not in place for runs 18, 19, 20, 38 and 39, a fast neutron background rate correction was not applied. A test was made at the time run 39 was performed to see if the ^{37}Ar was indeed coming from the 3.8×10^5 liter tank. First, immediately prior to run 39 the argon collection system was purged, the argon sample collected, purified, and counted. Following this preliminary purge the sample was collected from the tank in the usual way, run 39A. Finally the tank was purged a second time, run 39B, to test for residual ^{37}Ar that might remain in the tank. The counts observed are given in Table 1. It is clear even with the low number of recorded events that run 39A, as expected, had the highest counting rate of any of the three samples collected.

There is a possible source of contamination that could have affected runs 27, 36 and 37. Molecular sieve, containing 0.1 percent calcium, is used as an adsorber, and if this material is exposed to cosmic ray produced neutrons some ^{37}Ar will be produced by $^{40}Ca(n,\alpha)^{37}Ar$ reaction. Normally