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Analyses: Environmental Monitoring Well ER-20-5 #3 Pu data

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August 28, 2013

To: Bill Wilborn

From: Environmental Radiochemistry Group, Lawrence Livermore National Laboratory

RE: Analyses: Environmental Monitoring Well ER-20-5 #3 Pu data

This report updates the results of Pu measurements of groundwater samples from well ER-20-5#3 collected on April 26, 2011. These analyses were not completed when the original well report was issued. Pu analytical results for this sample are compiled in Table 1. Laboratory analytical protocols are fully described in the LLNL Standard Operating Procedures written in support of the UGTA Project (LLNL, 2004).

The activities measured in 2011 are low. The most recent previous sampling of this well yielded a Pu activity very near the detection limit (≤ 0.04 pCi/L). As a result, a comparison between the 2011 and 2004 Pu activity at this well is not justified. Importantly, activities are orders of magnitude below the MCL for Pu.

Mavrik Zavarin, Project Manager
Underground Test Area

References

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Table 1: Analytical results for groundwater from well ER-20-5 #3.

Sample Date	29 Nov 2004	26 Apr 2011
[^{239,240} Pu] (pg/L)	≤0.6	0.080
^{239,240} Pu (pCi/L) ^b	≤0.04	0.006

^b ^{239,240}Pu activity is calculated based on an assumed 240/239 ratio of 0.07. This ratio is the unclassified cumulative atom ratio of 240/239 for all underground nuclear tests reported in Bowen et al. (2001).

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