

Appendix A. Errata

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Errata in the *Oak Ridge Reservation Annual Site Environmental Report* for 2007 (DOE/ORO/2261).

In Sect 3.7.1, “Air,” p. 3-47, the corrected second full paragraph should read as follows.

Figures 3.22 through 3.27 illustrate the air concentrations of As, Be, Cd, Cr, Pb, and total uranium for the past five years based on quarterly composites of weekly continuous samples. The results are compared against any applicable standards for each pollutant. Due to a laboratory procedure anomaly, duplicate quarterly composite samples for all of 2007 were submitted for analysis. The new analytical results were typically higher than the original results and therefore to assure conservatism, only the data from the duplicate sample analyses based on correct analytical procedures are being reported. The 2007 annualized concentrations of As, Be, Cd, Pb, and U, all show results below the indicated standards. The chromium results are conservatively compared with the standard for hexavalent chromium.

In Sect 3.7.1, “Air,” p. 3-47, the corrected third full paragraph should read as follows.

Total uranium metal was measured as a quarterly composite of continuous weekly samples from stations K2, K6, K9, and K11. The total uranium mass for each sample was determined by the inductively coupled plasma-mass spectrometer (ICP-MS) analytical technique. The uranium averages and maximum individual concentration measurements for all sites are presented in Table 3.24. The averaged results ranged from a minimum of approximately 0.000038, up to 0.000280 $\mu\text{g}/\text{m}^3$. The highest 12-month average result (0.000280 $\mu\text{g}/\text{m}^3$) was measured at Station K2. The annual average value for all stations due to uranium was 0.000113 $\mu\text{g}/\text{m}^3$. The ICP-MS results are compared with the DCG for natural uranium. (DCG is based on an annual air concentration exposure that would give a dose of 100 mrem.) The highest annual result (K2) only corresponds to approximately 0.2 % of the DCG. The single sampling location with the highest quarterly concentration (0.000551 $\mu\text{g}/\text{m}^3$) was at station K2. If this concentration were extrapolated to a 12 month exposure it would only represent 0.4% of the DCG.

In Sect 3.7.1, “Air,” p. 3-49 through 3-51, the corrected Figures 3.22, 3.23, 3.24, 3.25, 3.26, and 3.27 are as follows.

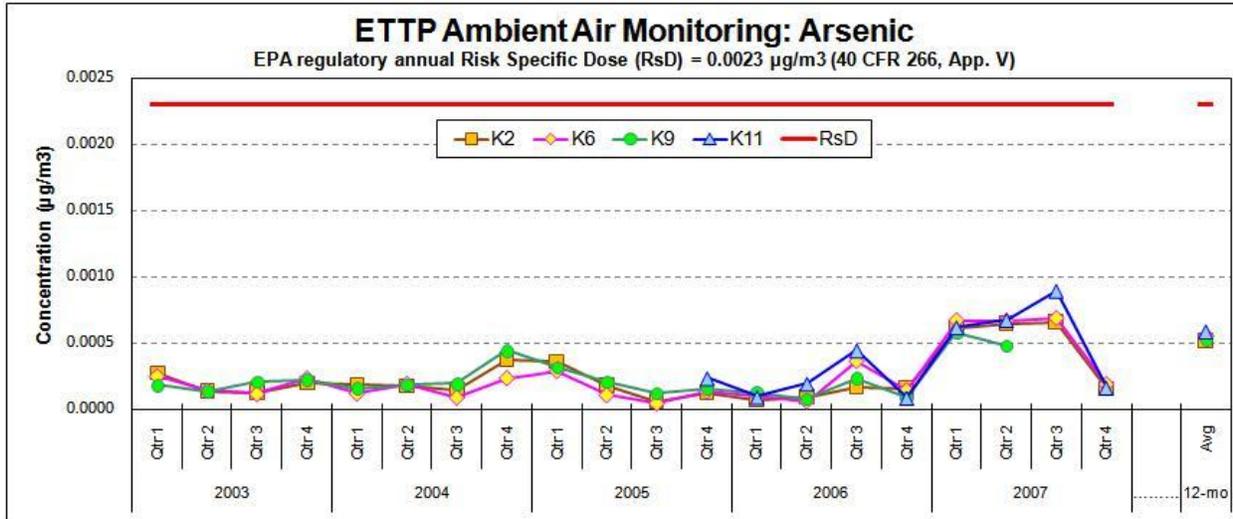


Fig. 3.22. East Tennessee Technology Park ambient air monitoring, 2007: Arsenic.

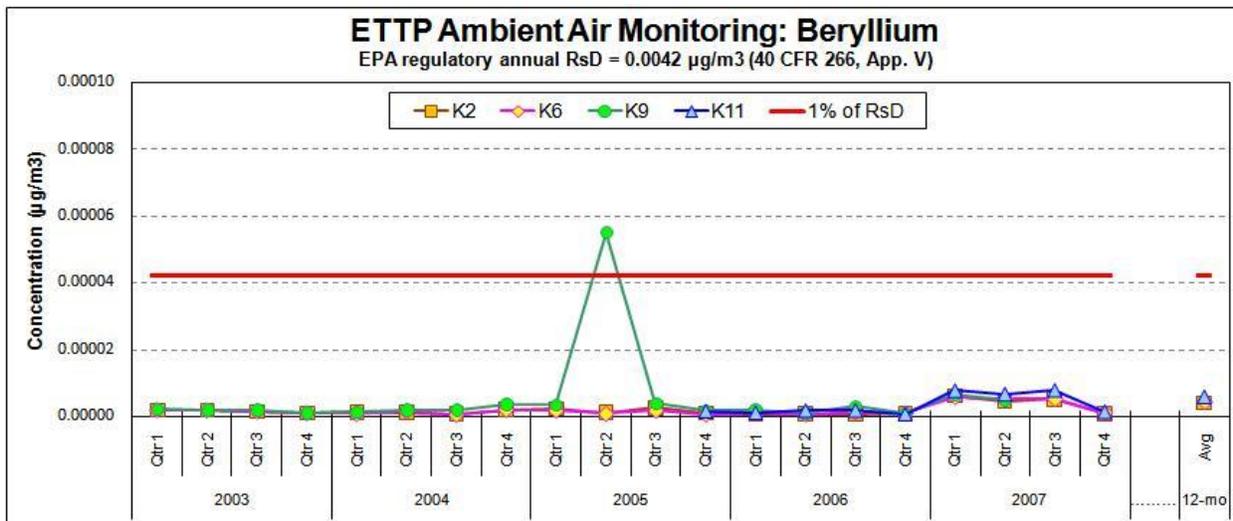


Fig. 3.23. East Tennessee Technology Park ambient air monitoring, 2007: Beryllium.

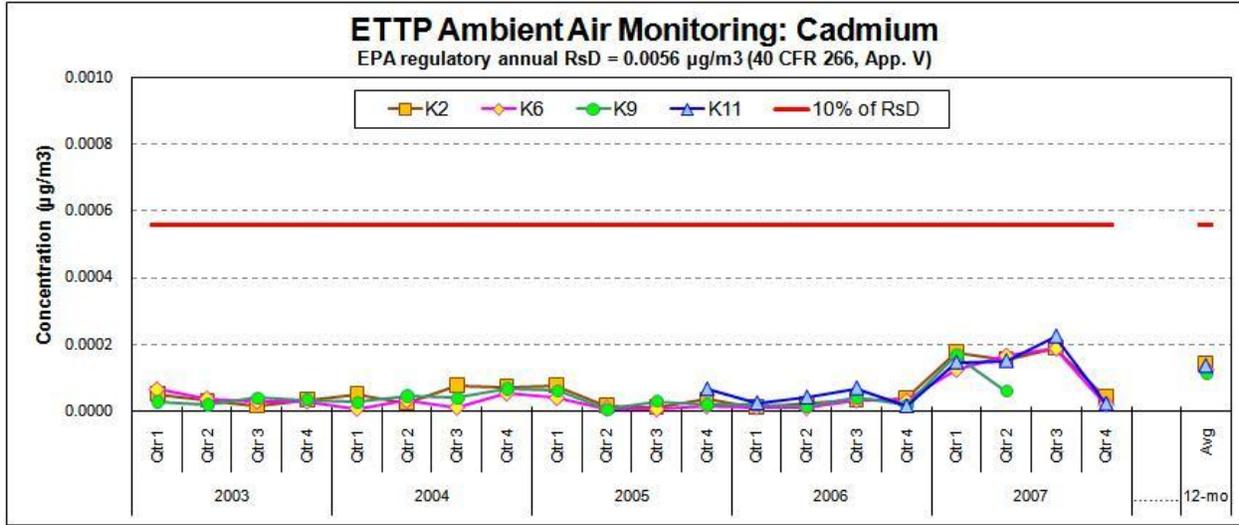


Fig. 3.24. East Tennessee Technology Park ambient air monitoring, 2007: Cadmium.

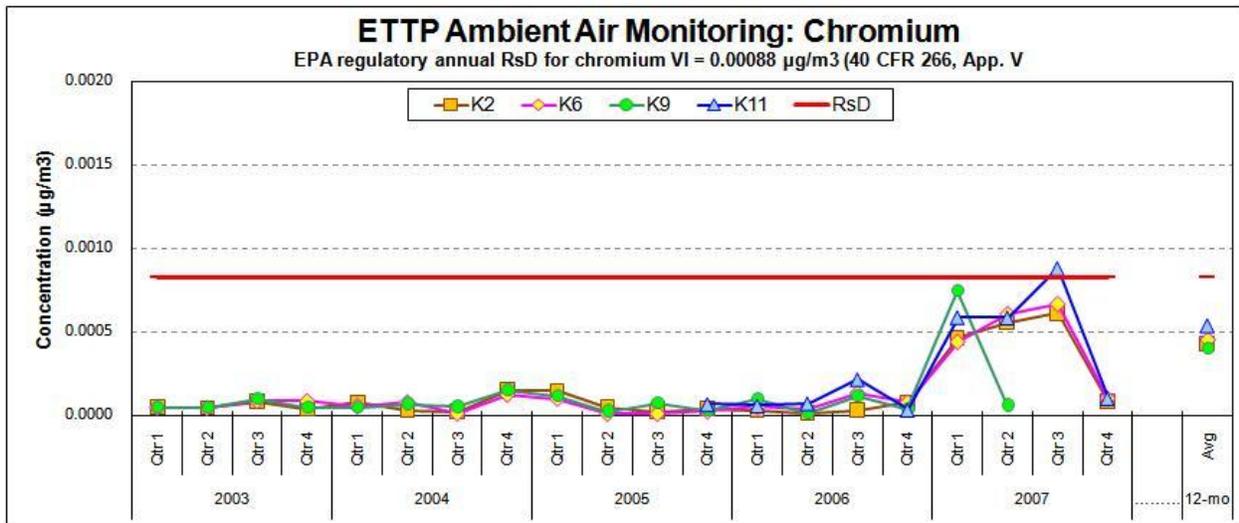


Fig. 3.25. East Tennessee Technology Park ambient air monitoring, 2007: Chromium.

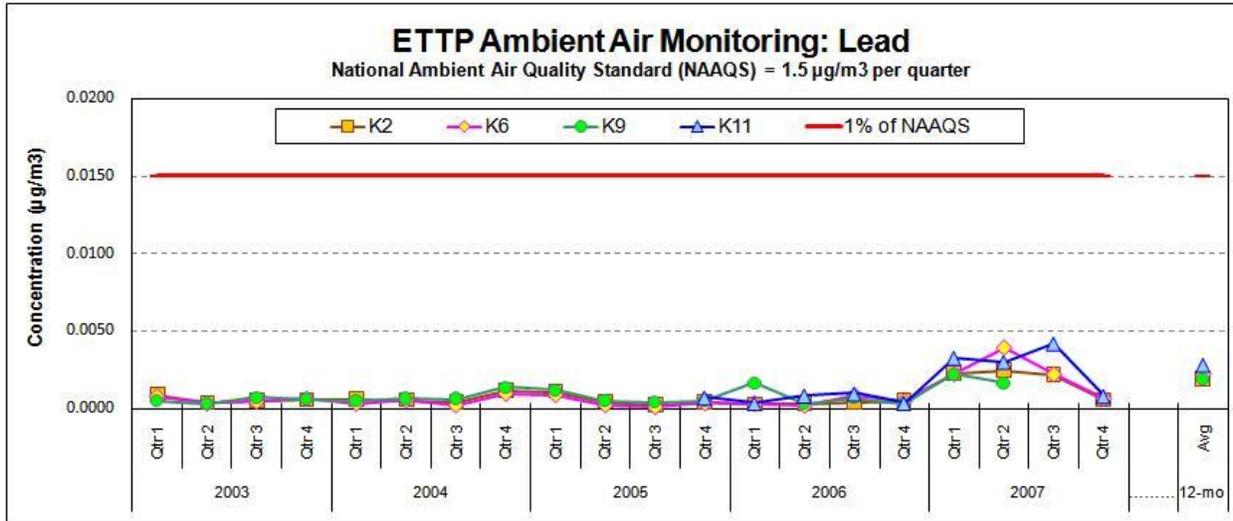


Fig. 3.26. East Tennessee Technology Park ambient air monitoring, 2007: Lead.

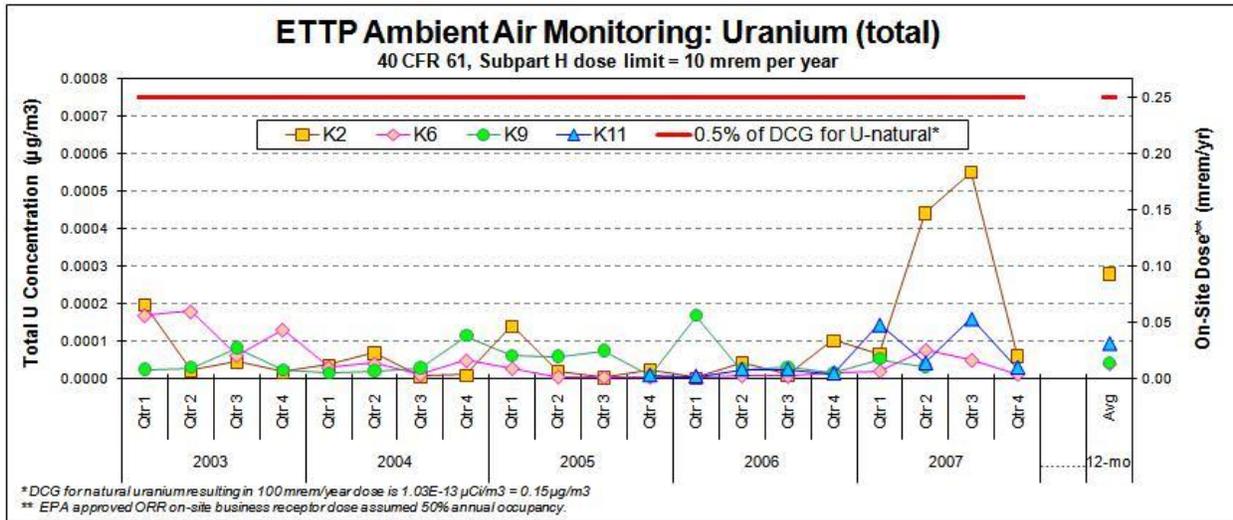


Fig. 3.27. East Tennessee Technology Park ambient air monitoring, 2007: Uranium (total).

In Sect 3.7.1, “Air,” p. 3-52, Table 3.24 with the corrected data is as follows.

Table 3.24. 2007 Total uranium in ambient air by inductively coupled plasma analysis at East Tennessee Technology Park

Station	No. of Samples	Concentration ^a				Percentage of DCG ^b (%)	
		$\mu\text{g}/\text{m}^3$		$\mu\text{Ci}/\text{mL}$		Avg	Max
		Avg	Max ^c	Avg	Max		
K2	4	0.000280	0.000551	1.87E-16	3.67E-16	0.19	0.37
K6	4	0.000038	0.000075	2.52E-17	4.97E-17	0.03	0.05
K9	2	0.000042	0.000052	2.79E-17	3.48E-17	0.03	0.03
K11	4	0.000093	0.000159	6.21E-17	1.06E-16	0.06	0.11
ETTP total	14	0.000113		7.54E-17		0.08	

^aMass-to-curie concentration conversions assume a natural uranium assay of 0.717% ²³⁵U.

^bU.S. Department of Energy (DOE) Order 5400.5 derived concentration guide (DCG) for naturally occurring uranium is an annual concentration of 1E-13 $\mu\text{Ci}/\text{mL}$, which is equivalent to a 100 mrem annual dose.

^cMaximum individual sample analysis result with dose calculations conservatively assuming the value to be an annual concentration.