

## Lampiran Perhitungan

Konsentrasi merkuri dalam sampel dihitung berdasarkan rumus berikut:

$$[\text{Hg}]_s = \frac{[\text{Hg}]_i \times \frac{250}{1000}}{G_s}$$

dimana:

$$[\text{Hg}]_s = \text{Berat Hg dalam sampel (mg/kg)}$$

$$[\text{Hg}]_i = \text{Berat Hg hasil destruksi (mg)}$$

$$\frac{250}{1000} = \text{Faktor pengenceran pada pelarutan sampel}$$

$$G_s = \text{Berat sampel (kg)}$$

Tabel 5.1 Hasil Perhitungan Kosentrasi Hg pada pemanasan 3 jam

No.	Kode sampel	Berat Sampel $G_s$ (kg)	Berat Hg hasil destruksi $[\text{Hg}]_i$ (mg)	Berat Hg perhitungan (mg/kg)
1.	A	$4,1397 \times 10^{-3}$	$0,747 \times 10^{-3}$	0,045112
2.	B	$2,3884 \times 10^{-3}$	$0,811 \times 10^{-3}$	0,084889
3.	C	$1,0939 \times 10^{-3}$	$0,927 \times 10^{-3}$	0,211856
4.	D	$0,4413 \times 10^{-3}$	$0,926 \times 10^{-3}$	0,525719
5.	E	$1,1644 \times 10^{-3}$	$4,793 \times 10^{-3}$	1,029071

Perhitungan konsentrasi Hg hasil pemanasan 3 jam

$$[\text{Hg}]_s \text{ A} = \frac{0,747 \times 10^{-3} \text{ (mg)} \times \frac{250}{1000}}{4,1397 \times 10^{-3} \text{ kg}}$$

$$[\text{Hg}]_s \text{ A} = 0,0451120 \text{ mg/kg}$$

$$[\text{Hg}]_s \text{ A} = 0,0451 \text{ mg/kg}$$

$$[\text{Hg}]_s \text{ B} = \frac{0,811 \times 10^{-3} \text{ (mg)} \times \frac{250}{1000}}{2,3884 \times 10^{-3} \text{ kg}}$$

$$[\text{Hg}]_s \text{ B} = 0,0848895 \text{ mg/kg}$$

$$[\text{Hg}]_s \text{ B} = 0,0849 \text{ mg/kg}$$

$$[\text{Hg}]_s \text{ C} = \frac{0,927 \times 10^{-3} \text{ (mg)} \times \frac{250}{1000}}{1,0939 \times 10^{-3} \text{ kg}}$$

$$[\text{Hg}]_s \text{ C} = 0,21185616 \text{ mg/kg}$$

$$[\text{Hg}]_s \text{ C} = 0,2119 \text{ mg/kg}$$

$$[\text{Hg}]_s \text{ D} = \frac{0,928 \times 10^{-3} \text{ (mg)} \times \frac{250}{1000}}{0,4413 \times 10^{-3} \text{ kg}}$$

$$[\text{Hg}]_s \text{ D} = 0,52571946 \text{ mg/kg}$$

$$[\text{Hg}]_s \text{ D} = 0,5257 \text{ mg/kg}$$

$$[\text{Hg}]_s \text{ E} = \frac{4,793 \times 10^{-3} \text{ (mg)} \times \frac{250}{1000}}{1,1644 \times 10^{-3} \text{ kg}}$$

$$[\text{Hg}]_s \text{ E} = 1,0290708 \text{ mg/kg}$$

$$[\text{Hg}]_s \text{ E} = 1,0291 \text{ mg/kg}$$

Tabel 5.2 Hasil Perhitungan Kosentrasi Hg pada pemanasan 4 jam

No	Kode Sampel	Berat Sampel $G_s$ (kg)	Berat Hg hasil destruksi $[\text{Hg}]_i$ (mg)	Berat Hg perhitungan (mg/kg)
1.	A	$2,5779 \times 10^{-3}$	$5,360 \times 10^{-3}$	0,519803
2.	B	$2,9965 \times 10^{-3}$	$5,283 \times 10^{-3}$	0,44076
3.	C	$1,3929 \times 10^{-3}$	$4,839 \times 10^{-3}$	0,868512
4.	D	$0,51893 \times 10^{-3}$	$4,276 \times 10^{-3}$	2,062127
5.	E	$1,0291 \times 10^{-3}$	$5,397 \times 10^{-3}$	1,376855

Perhitungan konsentrasi Hg hasil pemanasan 4 jam

$$[\text{Hg}]_s \text{ A} = \frac{5,360 \times 10^{-3} \text{ (mg)} \times \frac{250}{1000}}{2,5779 \times 10^{-3} \text{ kg}}$$

$$[\text{Hg}]_s \text{ A} = 0,519803 \text{ mg/kg}$$

$$[\text{Hg}]_s \text{ A} = 0,5198$$

$$[\text{Hg}]_s \text{ B} = \frac{5,283 \times 10^{-3} \text{ (mg)} \times \frac{250}{1000}}{2,9965 \times 10^{-3} \text{ kg}}$$

$$[\text{Hg}]_s \text{ B} = 0,4407642$$

$$[\text{Hg}]_s \text{ B} = 0,4408$$

$$[\text{Hg}]_s \text{ C} = \frac{4,839 \times 10^{-3} \text{ (mg)} \times \frac{250}{1000}}{1,3929^{-3} \text{ kg}}$$

$$[\text{Hg}]_s \text{ C} = 0,865117 \text{ mg/kg}$$

$$[\text{Hg}]_s \text{ C} = 0,8685 \text{ mg/kg}$$

$$[\text{Hg}]_s \text{ D} = \frac{4,276^{-3} \text{ (mg)} \times \frac{250}{1000}}{0,5189 \times 10^{-3} \text{ kg}}$$

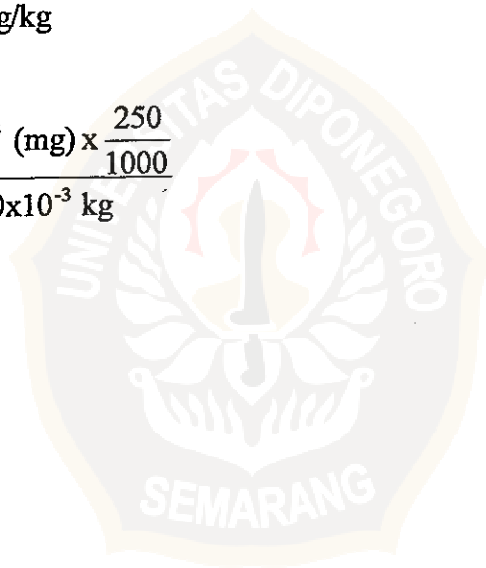
$$[\text{Hg}]_s \text{ D} = 2,060127 \text{ mg/kg}$$

$$[\text{Hg}]_s \text{ D} = 2,0601 \text{ mg/kg}$$

$$[\text{Hg}]_s \text{ E} = \frac{5,397 \times 10^{-3} \text{ (mg)} \times \frac{250}{1000}}{1,0780 \times 10^{-3} \text{ kg}}$$

$$[\text{Hg}]_s \text{ E} = 1,376855$$

$$[\text{Hg}]_s \text{ E} = 1,3769$$



Hasil Perhitungan Kosentrasi Hg pada pemanasan 5 jam

No	Kode Sampel	Berat Sampel $G_s$ (kg)	Berat Hg hasil destruksi $[Hg]_i$ (mg)	Berat Hg perhitungan (mg/kg)
1.	A	$A_1. 5,2393 \times 10^{-3}$	$5,362 \times 10^{-3}$	0,255855
		$A_2. 2,8636 \times 10^{-3}$	$2,750 \times 10^{-3}$	0,240082
2.	B	$B_1. 5,6303 \times 10^{-3}$	$6,223 \times 10^{-3}$	0,276317
		$B_2. 3,1684 \times 10^{-3}$	$3,310 \times 10^{-3}$	0,261173
3.	C	$C_1. 4,5583 \times 10^{-3}$	$4,720 \times 10^{-3}$	0,258868
		$C_2. 1,9387 \times 10^{-3}$	$3,434 \times 10^{-3}$	0,381844
4.	D	$D_1. 3,9756 \times 10^{-3}$	$5,810 \times 10^{-3}$	gagal
		$D_2. 1,9387 \times 10^{-3}$	$4,928 \times 10^{-3}$	0,635477
5.	E	$E_1. 2,8819 \times 10^{-3}$	$5,490 \times 10^{-3}$	gagal
		$E_2. 2,8819 \times 10^{-3}$	$5,379 \times 10^{-3}$	0,725628

Perhitungan konsentrasi Hg hasil pemanasan 5 jam.

$$[Hg]_s A_1 = \frac{5,362 \times 10^{-3} \text{ (mg)} \times \frac{250}{1000}}{5,2393 \times 10^{-3} \text{ kg}}$$

$$[Hg]_s A_1 = 0,255855 \text{ mg/kg}$$

$$[Hg]_s A_2 = \frac{2,750 \times 10^{-3} \text{ (mg)} \times \frac{250}{1000}}{2,8636 \times 10^{-3} \text{ kg}}$$

$$[\text{Hg}]_s A_2 = 0,2400824 \text{ mg/kg}$$

$$\text{rata-rata } [\text{Hg}]_s A = 0,247969 \text{ mg/kg}$$

$$\text{rata-rata } [\text{Hg}]_s A = 0,2480 \text{ mg/kg}$$

$$[\text{Hg}]_s B_1 = \frac{6,223 \times 10^{-3} \text{ (mg)} \times \frac{250}{1000}}{5,6303 \times 10^{-3} \text{ kg}}$$

$$[\text{Hg}]_s B_1 = 0,276317 \text{ mg/kg}$$

$$[\text{Hg}]_s B_2 = \frac{3,310 \times 10^{-3} \text{ (mg)} \times \frac{250}{1000}}{3,1684 \times 10^{-3} \text{ kg}}$$

$$[\text{Hg}]_s B_2 = 0,2611728 \text{ mg/kg}$$

$$\text{rata-rata } [\text{Hg}]_s B = 0,268745 \text{ mg/kg}$$

$$\text{rata-rata } [\text{Hg}]_s B = 0,2687 \text{ mg/kg}$$

$$[\text{Hg}]_s C_1 = \frac{4,720 \times 10^{-3} \text{ (mg)} \times \frac{250}{1000}}{4,5583 \times 10^{-3} \text{ kg}}$$

$$[\text{Hg}]_s C_1 = 0,258868 \text{ mg/kg}$$

$$[\text{Hg}]_s C_2 = \frac{3,434 \times 10^{-3} \text{ (mg)} \times \frac{250}{1000}}{2,2483 \times 10^{-3} \text{ kg}}$$

$$[\text{Hg}]_s C = 0,381844 \text{ mg/kg}$$

$$\text{rata-rata } [\text{Hg}]_s C = 0,320356 \text{ mg/kg}$$

$$\text{rata-rata } [\text{Hg}]_s C = 0,3204 \text{ mg/kg}$$