# Loading & Concentration Calculations

Monthly Average (all of the samples in a month)
Weekly Average (samples within a certain week)

C= concentration
F=flow
L= loading

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## NOT Continuous Recorder

**Concentration**

Concentration Average= $$\frac{C1 + C2 + C3 + C4}{4}$$

**Loadings**

Loading Average= $$\frac{L1 + L2 + L3 + L4}{4}$$

| | | |
|---|---|---|
| Day 1 | L1= | (F1)(C1)(8.34 lbs/day) |
| Day 2 | L2= | (F2)(C2)(8.34 lbs/day) |
| Day 3 | L3= | (F3)(C3)(8.34 lbs/day) |
| Day 4 | L4= | (F4)(C4)(8.34 lbs/day) |

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## WITH Continuous Recorder

**Concentration**

Concentration Average ($C^{fw}$)= $$\frac{C1(F1) + C2(F2) + C3(F3) + C4(F4)}{F1 + F2 + F3 + F4}$$

**Loadings**

Loading Average= $$C^{fw} \times \frac{F1+F2+F3+F4}{4} \times 8.34 \text{ lbs/day}$$

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## Fecal Coliform Geometric Average

Geometric Mean (Average) = $\sqrt[n]{(C1)(C2)(C3)(C4)}\ldots\ldots$

Geometric Mean (Average) is the product of all the sample values followed by taking the nth root of the resulting value where n equals the number of samples

Example:  4 samples of 150, 75, 200, 24
Multiplied together equals 54,000,000
The 4th root equals 85.72

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*For more information, see the EPA NPDES Reporting Requirements Manual
on the Water Enforcement page of the LDEQ public website at www.deq.louisiana.gov.*