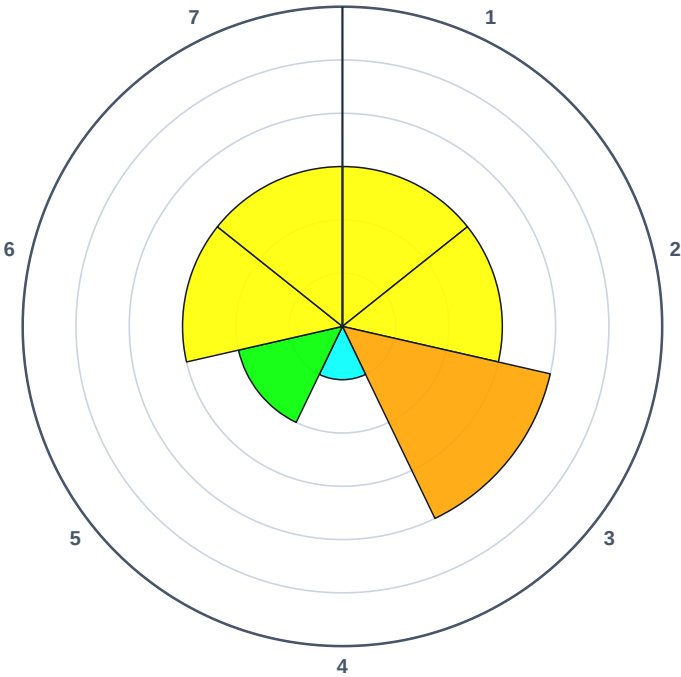


Ecotoxicology Analysis

During Remediation

Locality:	Ferrara, Italy, ER-site
Method:	Rhizodegradation (fertilizer + sunflower + bacteria 2)
Bioremediation methods:	During Bioremediation
Sample type:	soil
Collection date:	2025-10-29



ER soil with fertilizer + sunflower + bacteria 1

ORGANISMS

- 1 *A. fischeri* 15
- 2 *A. fischeri* 30
- 3 *Daphnids*
- 4 *Algae*
- 5 *Lettuce terrestrial*
- 6 *A. fischeri* kinetic 15
- 7 *A. fischeri* kinetic 30

CATEGORIES

- A Non-toxic
- B Low toxicity
- C Medium toxicity
- D High toxicity
- E Very high toxicity
- F Extreme toxicity

Category Distribution (% of organism readings) — most recent sampling: 29.10.2025



Resulting category (current): D High toxicity

Test Organisms by Type

Consumers: *Daphnids*
Producers: *Algae, Lettuce terrestrial*
Destruent: *A. fischeri 15, A. fischeri 30, A. fischeri kinetic 15, A. fischeri kinetic 30*

Most sensitive organism: *Daphnids*

Active ecotoxicity management recommended

Samples fall into category D. At 10% sample concentration inhibition is 20–50%, or EC50 is 10–50%. A significant toxic impact is observed.

- It is recommended to apply further environmental remediation, new sampling, new tests and find the main contaminant.

Ecotoxicity Assessment Criteria

CATEGORY	DESCRIPTION	CRITERIA (ACTIVE RULES)
A	Non-toxic	Undiluted sample: inhibition / stimulation -19.99% – 19.99%
B	Low toxicity	Undiluted sample: stimulation 20% – 50%, or Undiluted sample: inhibition 20% – 50%
C	Medium toxicity	Undiluted sample: stimulation 51% – 90%, or Undiluted sample: inhibition 51% – 90%
D	High toxicity	At 10% sample concentration: inhibition / stimulation -50.99% – 50.99%, or EC50 10% – 50%
E	Very high toxicity	At 10% sample concentration: inhibition 51% – 100%, or EC50 1% – 10%
F	Extreme toxicity	At 1% sample concentration: inhibition 10.01% – 100%, or EC50 0% – 0.99%

Notes: A sample's category is the worst (most toxic) grade reached by any single test organism. Determination of EC50 takes precedence over the inhibition value. In a luminescence bacterial test, an undiluted sample corresponds to a sample concentration of 500 mL/L.

Chemical Risk Assessment

During Remediation

Locality:	Ferrara, Italy, ER-site
Method:	Rhizodegradation (fertilizer + sunflower + bacteria 2)
Bioremediation methods:	During Bioremediation
Sample type:	soil
Collection date:	2025-10-29

No chemistry data recorded for this phase.