

Table S1: Choptank Water/Sediment Characteristics at Start of Study; Supporting Information

| Parameter   | Choptank Aerobic |          | Choptank Anaerobic |          |
|---|------------------|----------|--------------------|----------|
|   | Water            | Sediment | Water              | Sediment |
| % sand/silt/clay                                    | ---              | 96/2/2   |                    | 98/1/1   |
| PH  |                  | ---      | 7.2                | ---      |
| Total Organic Carbon (mg/L)                         | 171.4            | ---      | ---                | ---      |
| O <sub>2</sub> Concentration (mg O <sub>2</sub> /L) | 4.5              | ---      | 0.1                | ---      |
| Redox Potential (mv)                                | +178.3           | +100.6   | -163.6             | -172.7   |
| Organic Carbon %                                    | ---              | 0.2      | ---                | 1.5      |
| Cation Exchange Capacity                            | ---              |          | ---                |          |
| Microbial Biomass (μg/g)                            | ---              | 92       | ---                | 194      |

Table S2: Turkey Creek Water/Sediment Characterization at Start of Study; Supporting Information

| Parameter   | Turkey Creek Aerobic |          | Turkey Creek Anaerobic |          |
|---|----------------------|----------|------------------------|----------|
|   | Water                | Sediment | Water                  | Sediment |
| % sand/silt/clay                                    | ---                  | 34/34/32 | ---                    | 40/30/30 |
| PH  | 6.5                  | 6.3      | 7.9                    | 6.7      |
| Total Organic Carbon (mg/L)                         | 138.0                | ---      | 32.5                   | ---      |
| O <sub>2</sub> Concentration (mg O <sub>2</sub> /L) | 5.5                  | ---      | 0.2                    | ---      |
| Redox Potential (mv)                                | +165.6               | +103.7   | -138.5                 | -208.7   |
| Organic Carbon %                                    | ---                  | 7.8      | ---                    | 7.7      |
| Cation Exchange Capacity                            | ---                  |          | ---                    |          |
| Microbial Biomass (μg/g)                            | ---                  | 278      | ---                    | 71       |

Table S3: Sampling Schedule for Test Material Analyses; Supporting Information

| Test<br>Apparatus | System<br>Type            | Day                     |                         |                         |                         |                         |                         |                         |                         |                         |                         |
|-------------------|---------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|                   |                           | 0                       | 7                       | 14                      | 22                      | 28                      | 42                      | 56                      | 70                      | 84                      | 98                      |
| 1                 | Aerobic<br>&<br>Anaerobic | 14C<br>P/M<br>CO2<br>VC |
| 2                 | Anaerobic                 |                         |                         | 14C<br>CH4              | 14C<br>P/M<br>CO2<br>VC |

Table S4: Physical-chemical, fate and effects studies recommended in Phase II Tier A

| <b>Study Type</b>  | <b>Recommended Protocol</b> |
|--|-----------------------------|
| Adsorption-Desorption Using a Batch Equilibrium Method           | OECD 106                    |
| Ready Biodegradability Test                                      | OECD 301                    |
| Aerobic and Anaerobic Transformation in Aquatic Sediment Systems | OECD 308                    |
| Algae, Growth Inhibition   | OECD 201                    |
| Daphnia sp. Reproduction Test                                    | OECD 211                    |
| Fish, Early Life Stage Toxicity Test                             | OECD 210                    |
| Activated Sludge, Respiration Inhibition Test                    | OECD 209                    |

Guideline on the Environmental Risk Assessment of Medicinal Products for Human Use, June 2006.

Figure S1: Schematic of Aerobic Biotransformation Test Apparatus; Supporting Information

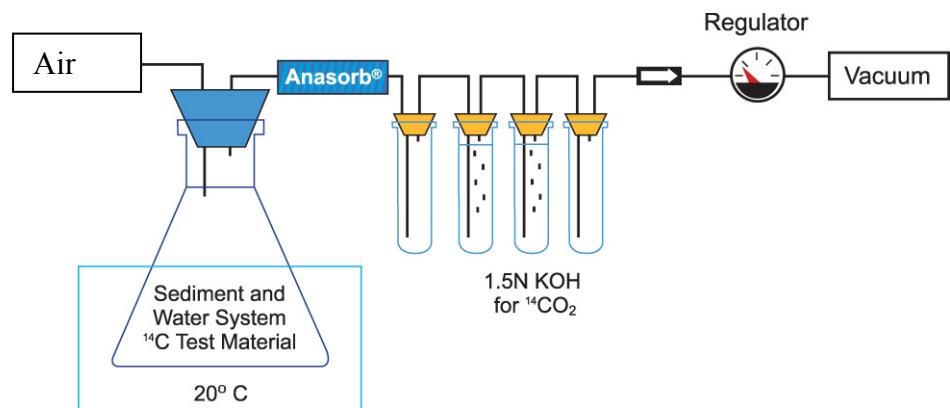


Figure S2: Schematic of Anaerobic Mineralization Test Apparatus; Supporting Information

