Ohio Environmental Protection Agency

Division of Surface Water

Instructions for Using the Specific Oxygen Uptake Rate (SOUR) Calculation Worksheet

1. The SOUR calculation worksheet serves to ensure compliance with vector attraction reduction option four, as established within Ohio Administrative Code rule 3745-40-05(Q)(4).

2. In order to calculate the SOUR, enter the following information requested in the "blue" boxes provided:

Total Solids

Sample volume used for total solids test (mL), weight of dish (g), and weight of dish + dried solids (g). This information is utilized to calculate the total solids concentration (g/L) of the sewage sludge. The sample volume utilized in this calculation should only be the portion of the sample that is dried to determine total solids content (e.g. 25 mL is a typical value here).

SOUR

The temperature of the sewage sludge is entered in the "blue" Celcius boxes, and should be entered at least once per minute during the test. Also, once per minute you will enter the mg/L of dissolved oxygen in the appropriate boxes. The SOUR is automatically calculated.

SOUR Temperature Correction

If the ambient sewage sludge sample is not twenty degrees Celsius (20°C), a SOUR temperature correction is also automatically calculated. The SOUR temperature correction will automatically be generated in two "green" boxes. The actual result will depend on if the ambient sewage sludge sample was greater than or less than twenty degrees Celsius (20°C).

3. Enter the date that the information was added to the spreadsheet in the applicable box. The spreadsheet may then be printed and used as a record of the SOUR.

4. This information must be maintained for a minimum of five years.