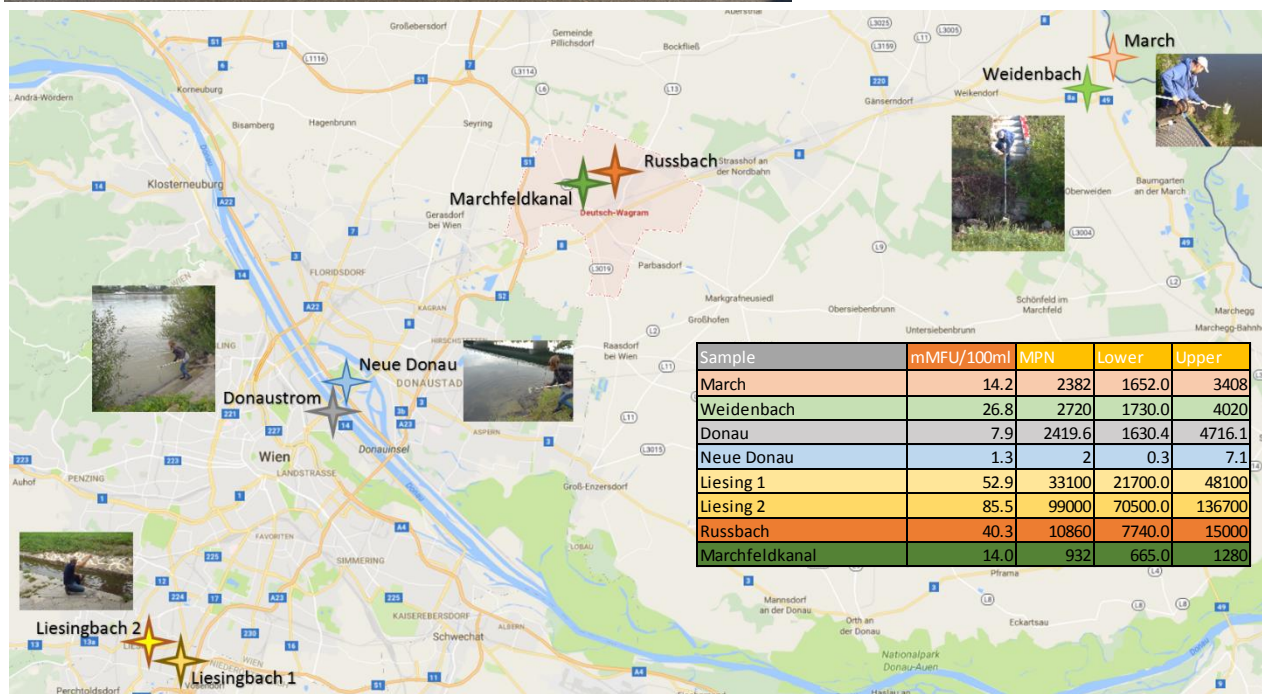


ColiMinder Driving Lab

A ColiMinder Industrial LE (low energy consumption -12 V 55W) and a 10 fold sampling module is installed in a car and powered by the 12V on-board electrical system. Data connection of the ColiMinder is established through a hotspot on a cellphone.

Samples are taken driving from sampling point to sampling point and placed within the 10 fold sampling module analyzed while driving. Measurement data including sampling site information are being transferred online and live to the server respectively to the headquarters.



For comparison to the classical method, each sample has also been stored in a cooling box for later examination in the lab, using IDEXX Quanti-Tray tests.

Distributed by:

Lab Unlimited
 CARL STUART GROUP

Tallaght Business Park
 Whitestown, Dublin 24,
 Ireland
 D24 RFK3

Tel: (01) 4523432
 Fax: (01) 4523967
 E-mail: info@labunlimited.com
 Web: www.labunlimited.com

Quatro House, Frimley Road,
 Camberley,
 United Kingdom
 GU16 7ER

Tel: 08452 30 40 30
 Fax: 08452 30 50 30
 E-mail: info@labunlimited.co.uk
 Web: www.labunlimited.co.uk

Details:

Sampling:

1. **March** (Zwerndorf Pumpwerk) sampling time: 07:46am
2. **Weidenbach** (Zwerndorf Pumpwerk) sampling time: 07:46am
3. **Donau** (Donauinsel Floridsdorfer Brücke) sampling time: 08:46am
4. **Neue Donau** (Donauinsel Floridsdorfer Brücke) sampling time: 08:55am
5. **Liesing 1** (Turmöl Tankstelle) sampling time: 09:25am
6. **Liesing 2** (Wohnpark Alterlaa) sampling time: 10:15am
7. **Rußbach** (Deutsch-Wagram) sampling time: 11:45am
8. **Marchfeldkanal** (Deutsch-Wagram) sampling time: 11:45am

Results and comparison to classic lab tests:

Although the samples have been take from completely different types of waterbodies the results show a similar correlation to MPN results as it has been found in various tests performed before.

Sample	mMFU/100ml	MPN	Lower	Upper
March	14.2	2382	1652.0	3408
Weidenbach	26.8	2720	1730.0	4020
Donau	7.9	2419.6	1630.4	4716.1
Neue Donau	1.3	2	0.3	7.1
Liesing 1	52.9	33100	21700.0	48100
Liesing 2	85.5	99000	70500.0	136700
Russbach	40.3	10860	7740.0	15000
Marchfeldkanal	14.0	932	665.0	1280

The formula to estimate a MPN/100ml value from the ColiMinder reading has been determined using a trend line in excel.

Using the following formula the estimated MPN have been calculated:

$$[\text{MPNe}/100\text{ml}] = 2.7025 * (\text{mMFU}/100\text{ml})^{2.3601}$$

The estimated MPNe/100ml values have than been calculated from ColiMinder's mMFU/100ml results and are being displayed in a graph using log scale for MPN/100ml.

