



MANTECH

OPTIMIZE YOUR RESULTS. PROTECT OUR ENVIRONMENT.



peCOD ANALYZER
OXYGEN DEMAND ANALYSIS FOR
SOURCE & TREATED DRINKING WATERS

The revolutionary peCOD Analyzer technology measures the chemical reactivity and associated oxidative changes in Natural Organic Matter (NOM). As a result it is more sensitive than TOC and UV254 to changing NOM concentrations.

The peCOD method follows ASTM International method D8084, and is included in Health Canada's *Natural Organic Matter in Drinking Water* (2018) guideline.

NOM is a critical target for drinking water treatment.

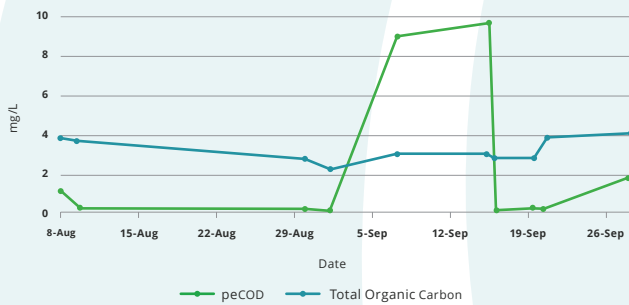
It can be associated with:

- Taste, odour, colour issues
- Coagulant, oxidant demand
- Disinfection by products (DBP) precursors

NOM compounds are known to react with common disinfectants to produce harmful and potentially carcinogenic DBPs.

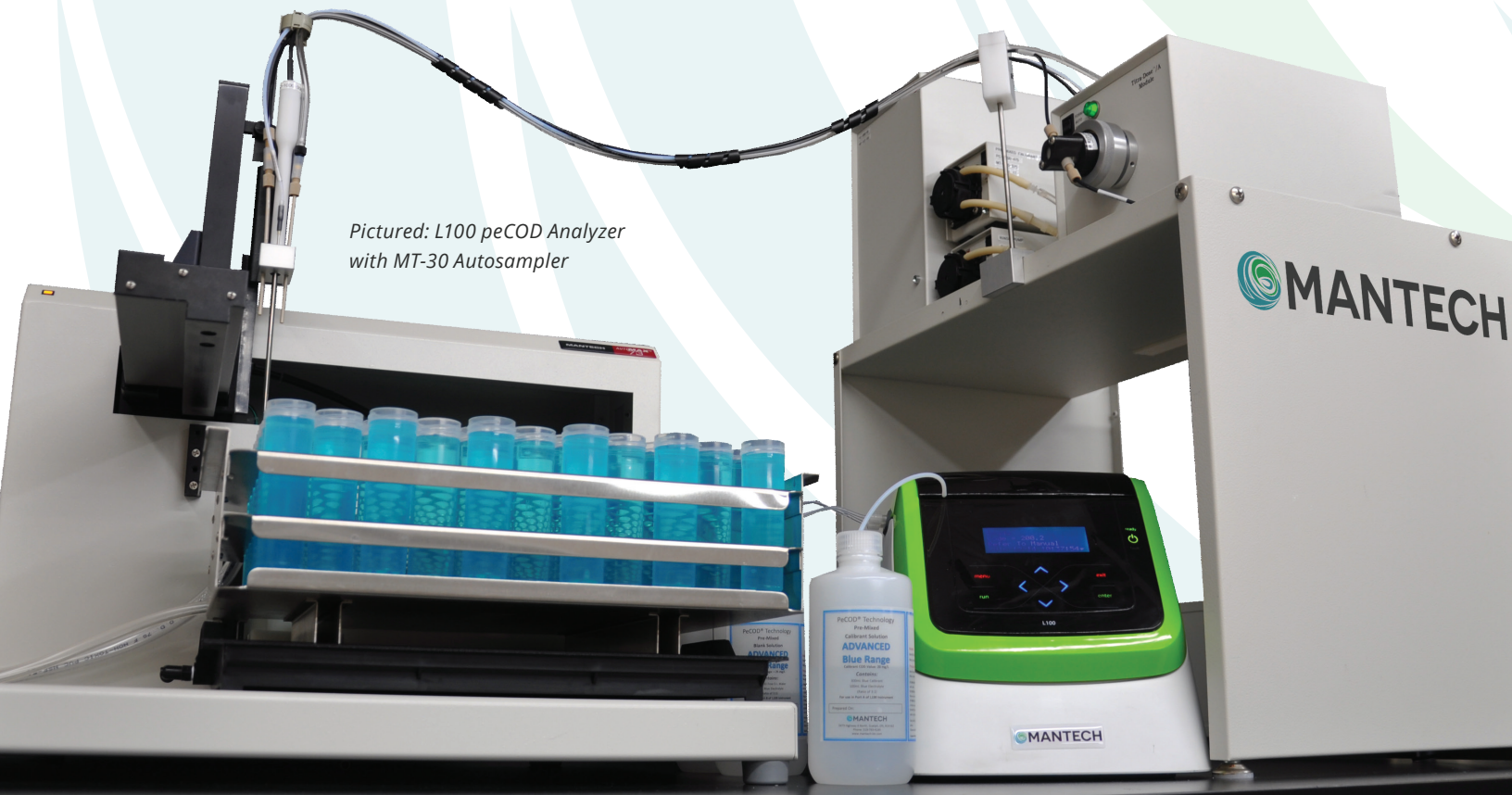
Traditional NOM surrogates (UV254, SUVA, TOC, DOC) may not be suitable for assessing NOM removal in all cases, as they are often calibrated or "tuned" to the specific site matrix. peCOD is independent of the matrix, therefore variations in NOM are clear and can be acted upon.

EVENT DETECTION AT A TEXAS WTP



peCOD DETECTED CHANGES IN TREATMENT EFFICIENCY THAT TOC DID NOT. THE peCOD RESULTS ALLOWED THE OPERATORS TO MAKE DECISIONS WHICH LED TO FINANCIAL SAVINGS AND PROTECTION OF PUBLIC HEALTH.

Pictured: L100 peCOD Analyzer with MT-30 Autosampler



peCOD ANALYZER BENEFITS

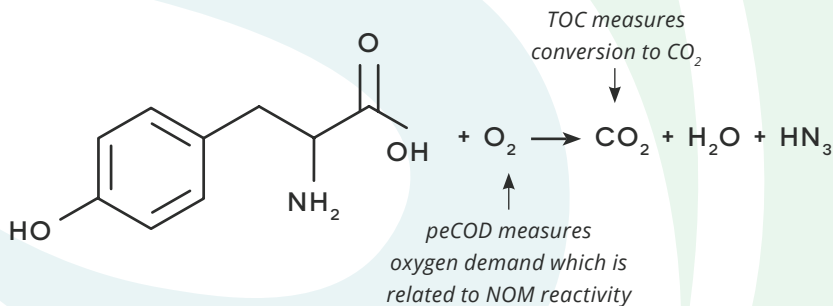
- Identify organic reactive changes that occur during treatment
- Can be combined with alkalinity to fully comply with US EPA guidelines (EPA 815-R-99-012, Section 2.3, Table 2-1)
- Measures oxidisability; replaces permanganate method in EU directive 98/83/EC
- Optimize coagulation and DBP formation potential
- Laboratory, portable and online configurations use identical technology and method
- Low detection limit (< 1 mg/L) with results generated in less than 5 minutes



Pictured: Online L100 peCOD Analyzer

**“MY peCOD IS MEASURING NOM CHANGES IN OUR SOURCE WATER
WHICH ARE NOT PICKED UP BY OUR TOC OR UV254.”**
- UTILITY IN THE ROCKY MOUNTAINS

CHEMISTRY OF peCOD AND TOC



**“TOC ON ITS OWN
SHEDS NO LIGHT ON
THE OXIDIZABILITY OF
THE MEASURED CARBON
OR THE AMOUNT OF
OXYGEN NEEDED FOR
ITS BIODEGRADATION.”**
- TOC MANUFACTURER

MANTECH's portable, online and laboratory peCOD Analyzers test thousands of samples every day for a wide variety of applications, including:



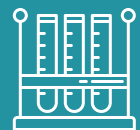
SOURCE
WATER



WATER
REUSE



MUNICIPAL DRINKING
WATER TREATMENT

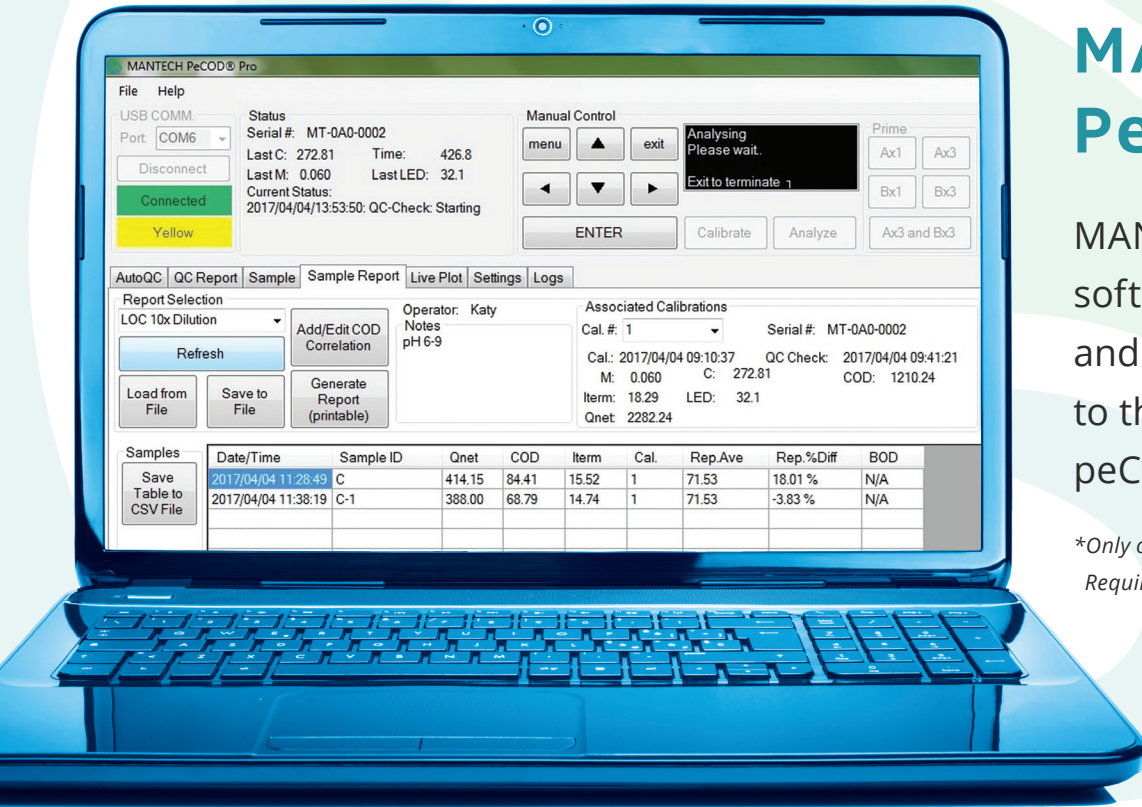


UNIVERSITY
AND COLLEGE
LABORATORIES

MANTECH PeCOD PRO™

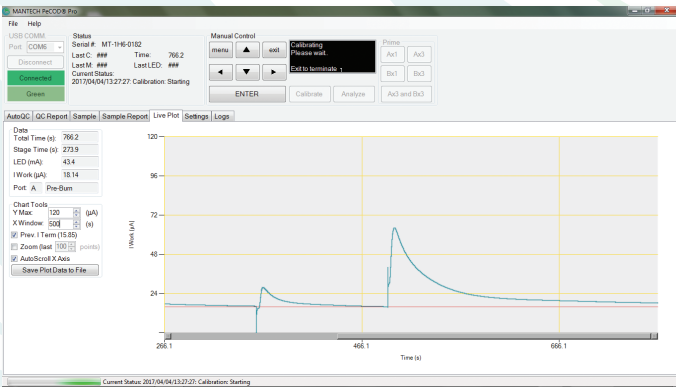
MANTECH's PeCOD Pro™ software adds automation and a sleek user interface to the Benchtop L100 peCOD Analyzer.

**Only offered with Benchtop L100.
Requires laptop.*



BENEFITS

- 1 Easy to use interface
- 2 Unit is ready to analyze samples when the work day begins. Automated calibration and control check can be scheduled ahead of time.
- 3 Customized sample names and batches
- 4 Operates two Benchtop L100 units from a single computer



5473 HIGHWAY 6 NORTH
GUELPH, ONTARIO, CANADA
N1H 6J2

+1 (519) 763-4245

INFO@MANTECH-INC.COM

 @mantech_inc

 linkedin.com/company/mantech-inc-

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