



Technical Bulletin for Low Level VOCs

Alpha Analytical has provided this technical bulletin to summarize our analytical services for low level Volatile Organic Compounds (VOCs) in potable water and non-potable water.

Regulatory Criteria: In August 2018, NJDEP amended the New Jersey Groundwater Quality Standards (GWQS) (N.J.A.C. 7:9C) to include new regulatory criteria for 1,2,3-Trichloropropane (CAS# 96-18-4) (1,2,3-TCP) in non-potable water. In September 2018, NJDEP amended the New Jersey Safe Drinking Water Act (SDWA) (N.J.A.C. 7:10) and the New Jersey Private Well Testing Act (PWTA) (N.J.A.C. 7:9E) to establish a state health-based Maximum Contaminant Level (MCL) for 1,2,3-TCP in potable water.

Analytical Approach: Low level VOC analytes are determined by a different analytical approach than most VOCs on USEPA's Target Compound List (TCL) which are determined by SW846 Method 8260.

Alpha Analytical offers SW846 Method 8011 for non-potable water and EPA Method 504.1 for potable water to meet regulatory criteria for three low level VOCs as summarized below with NJDEP regulatory criteria for GWQS for non-potable water and MCLs for drinking water.

Low Level VOC Analytes	CAS #	Reporting Limit by 504.1, 8011	NJ GWQS	NJ DW MCL	Reporting Limit by 8260 full scan
1,2-Dibromoethane (Ethylene Dibromide, EDB)	106-93-4	0.01 µg/L	0.03 µg/L	0.03 µg/L	2.0 ug/L
1,2-Dibromo-3-Chloropropane (DBCP)	96-12-8	0.01 µg/L	0.02 µg/L	0.02 µg/L	2.5 ug/L
1,2,3-Trichloropropane (1,2,3-TCP)	96-18-4	0.03 µg/L	0.03 µg/L	0.03 µg/L	2.5 ug/L

Sample Handling: Alpha Analytical provides pre-preserved sample containers for these low-level VOC analytical methods as follows. Sample hold time is 14-days to extraction.

Methods	Container	Preservation
SW846 Method 8011	2 x 40 mL Amber Glass vials with teflon-lined cap	sodium thiosulfate (Na ₂ S ₂ O ₃), cool to 4 degrees C
EPA Method 504.1	2 x 40 mL Amber Glass vials with teflon-lined cap	sodium thiosulfate (Na ₂ S ₂ O ₃), cool to 4 degrees C

Laboratory Accreditation: Alpha Analytical is accredited by the National Environmental Laboratory Accreditation Program (NELAP), with state accreditation by NJDEP, as well as accreditation in 30 other states. Alpha Analytical supports a full range of groundwater, surface water, soil, sediment, and tissue sample analysis for TCL/TAL analytes plus additional analytes by SW846, EPA and Standard Methods. Alpha Analytical is accredited to provide analysis of VOCs in air by EPA TO-15 for vapor intrusion applications, as well as air sample analyses for PAHs, Metals and Mercury for perimeter monitoring applications. Alpha Analytical is accredited for PFAS analysis for drinking water and non-potable water monitoring and other environmental applications.

Data Report Formats: Alpha Analytical provides results in NJ-Reduced or NJ-Full Data Packages, NJ-HazSite EDDs, project specific EDDs, plus a Standard Data Report of Results and Summary QC. Alpha's sample analytical products are designed meet regulatory criteria.

Data Access: Alpha Analytical provides a secure on-line data access system for file retrieval using the Alpha Data Exchange platform and for efficient comparison of sample analytical data to regulatory criteria using the Alpha Data Merger platform.

Alpha Analytical is a growing, financially secure, privately held company. Alpha Analytical was founded in 1985 with an absolute commitment to data integrity and the industry's highest ethical and professional standards. Alpha Analytical is the 6th largest environmental testing laboratory and the largest privately family owned laboratory in the country with more than 50,000 square feet of state-of-the-art laboratory facilities and a reputation of quality and reliability for over 30 years. Alpha Analytical is focused providing responsive customer-focused service ranging from our service center teams, to our experienced project managers, to our expanding network of couriers, to our technical staff who can assist with you in setting up your project to meet applicable regulatory requirements.

For more information please contact your Alpha Analytical Project Manager or Account Manager or Alpha's New Jersey Service Center in Mahwah NJ at njservicecenter@alphalab.com

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