

Alpha Analytical Technical Bulletin



Analytical Services in Support of CT DEEP Remediation Standard Regulations Revised in 2021:

Alpha Analytical has provided this Technical Bulletin to summarize our sample analytical services in support of the Connecticut Department of Energy and Environmental Protection (CT DEEP) Remediation Standard Regulations (RSRs) (R.C.S.A. §§ 22a-133k-1—22a-133k-3), amended February 16, 2021, effective March 9, 2021.

The CT DEEP RSRs provide detailed guidance and standards that may be used at any site to determine whether or not remediation of contamination is necessary to protect human health and the environment. Refer to: <u>Full document</u>

The CT DEEP RSRs contain regulatory criteria for the remediation of soil and groundwater. Refer to: <u>Full document</u>

Laboratory Analytical Services:

Analytical Methods: Alpha Analytical provides analytical support in accordance with the CT DEEP Reasonable Confidence Protocols (RCP) for a range of analytical parameters including:

- Volatile Organics by Method 8260
- Semi volatile Organics by Method 8270
- Organochlorine Pesticides by Method 8081
- PCB aroclors by Method 8082
- Chlorinated Herbicides by Method 8151
- Volatile Petroleum Hydrocarbons (VPH) by the MassDEP VPH Method
- Extractable Petroleum Hydrocarbons (EPH) by the MassDEP EPH Method
- Air-Phase Petroleum Hydrocarbons (APH) by the MassDEP APH Method
- Volatile Organics in Air by Method TO-15
- PAHs in Air by Method TO-13
- RCP Metals by Methods 6010 & 6020 as well as Total Mercury by Methods 7470 & 7471
- Hexavalent Chromium by Method 7196
- Total Cyanide by Methods 9010 & 9012
- TCLP and SPLP sample preparation by Methods 1311 and 1312.

Reasonable Confidence Protocols: CT DEEP has been working to improve the quality and consistency of analytical data used to support environmental investigation and remediation projects statewide. This work has included the introduction of the CT DEEP Reasonable Confidence Protocols (RCPs) developed with assistance from the CT DEEP Quality Assurance/Quality Control Work Group established in 2004. The Work Group is comprised of licensed environmental professionals, data validators, and representatives from private laboratories, the Connecticut Department of Public Health, the U.S. Environmental Protection Agency, and the CT DEEP. Alpha Analytical has participated in the CT DEEP Work Group since its inception.

Compound List: Alpha Analytical provides analysis of the RCP-listed target compounds associated with the analytical methods listed above. Additional analytes are available upon request to support project objectives.

Laboratory Accreditation: Alpha Analytical is a state of Connecticut Department of Public Heath approved laboratory and we are accredited by the National Environmental Laboratory Accreditation Program (NELAP) for a full range of analytical methods applicable to groundwater, surface water, soil, sediment, tissue, dredged material, waste, and vapor intrusion samples.

Data Report Formats: Alpha Analytical provides a complete CT DEEP RCP compliant laboratory report with the results and a supporting summary of quality control information. A full data package including raw data is also available upon request. Results are reported routinely to the reporting limit (RL), which is derived based on the concentration of the lowest calibration standard, as proscribed in the CT DEEP RCP. For increased sensitivity, results can be reported to the method detection limit (MDL) with a J flag. Alpha Analytical offers a wide range of Electronic Data Deliverables (EDD) formats.

Data Management Tools: Alpha Analytical provides a secure on-line data access system for quick file retrieval using the Alpha Data Exchange (ADEx) and Data Merger platforms. Laboratory data deliverables and invoices are available for download through ADEx. Alpha Data Merger is a user-friendly, fully customizable tool that allows for combination of multiple sample submittals into a single file which can then be manipulated in several different formats. Data Merger search criteria include specific sample identifications, analytical methods, or individual analytes. One particularly useful Data Merger format summarizes most of the quality control data to support data quality assessment / data useability evaluation (DQA/DUE) applications. Data Merger allows for quick comparison of sample analytical results to a multitude of regulatory criteria, up to ten sets at once.

Regulatory Criteria: Alpha Analytical Data Merger platform provides for efficient comparison of sample analytical data to regulatory criteria including the CT DEEP Revised Remediation Standard Regulations (RSRs), effective March 9, 2021. These updated criteria include:

- Groundwater Protection Criteria for GA & GAA Areas (CT-GW-PC)
- Industrial/Commercial Ground Water Volatilization Criteria (CT-IGWVC)
- Residential Ground Water Volatilization Criteria (CT-RGWVC)
- Surface Water Protection Criteria for Substances in Groundwater (CT-SW-PC)
- GA/GAA Pollutant Mobility Criteria for Soil (CT-GAS)
- GB Pollutant Mobility Criteria for Soil (CT-GBS)
- Industrial/Commercial Direct Exposure Criteria for Soil (CT-ICS)
- Residential Direct Exposure Criteria for Soil (CT-RCS)

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.

Please contact your Alpha Analytical Project Manager or Account Representative for more information. Visit us on the web at: <u>www.alphalab.com</u>

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