



**esdat** 

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**Terraphase is using  
ESdat LabSync to protect  
children from lead  
poisoning in schools**

Terraphase is a US environmental consulting company that offers cost-effective solutions to complex environmental and engineering challenges. The Pennsylvania Infrastructure Investment Authority (PENNVEST) has selected Terraphase Engineering Inc. to provide lead in drinking water testing at schools and childcare facilities. The PENNVEST project has been funded by the [WIIN 2107 \(School and Child Care Lead Testing and Reduction Grant Program\)](#).

The scope of services involves the design and implementation of a comprehensive plan to test lead in drinking water at up to 3,000 facilities state-wide. TerraPhase use ESdat LabSync to process laboratory results and issue notifications if excessive lead concentrations are identified. This means they can respond rapidly, taking immediate action to prevent children from drinking contaminated water.

To find out more about how Terraphase is helping schools with drinking water testing, please visit:

<https://terraphase.com/markets/education/>

#### THE PROBLEM:

## MANY US SCHOOLS HAVE LEAD-CONTAMINATED WATER

Children are particularly vulnerable to lead poisoning which can lead to reduced IQ, slowed growth, behavior difficulties, hearing issues, anemia, and other health effects.

Lead can enter drinking water from the corrosion of lead pipes commonly found in older buildings built before 1986. In the US, 40,000 schools and childcare facilities are estimated to have lead water supply pipes according to the US Federal Government <sup>i</sup>. According to a 2019 report from the Government Accountability Office <sup>ii</sup>, 37% of school districts with testing programs have found elevated levels of lead in their water samples.



**40,000**

schools and childcare facilities in the US have lead water pipes



**37%**

of districts with testing programs have found elevated levels of lead in their school drinking water

i. <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/31/fact-sheet-the-american-jobs-plan/>

ii. <https://www.gao.gov/products/gao-18-382>

## THE CHALLENGE:

# TESTING OF SCHOOL DRINKING WATER SUPPLIES IS CRITICAL.

Any contaminated water supplies in schools must be identified quickly so that prompt action can be taken to protect children's health.

Terraphase conducts water sampling in schools and childcare facilities across the US. Samples are analyzed at an accredited laboratory to determine the concentration of lead that is present. Terraphase reviews the results and alerts the school to take action if lead concentrations exceed acceptable limits.

Due to the dangerous nature of lead in drinking water, it is critical that schools are notified as soon as possible if there is any concern. Terraphase, therefore, were keen to find ways of expediting the results processing stage and making sure that they were quick to respond to any issues found.



**If we find a high lead result in a school, that outlet needs to be shut down ASAP. We need really tight documentation and smooth communications... the project has that immediate need to eliminate any sort of lag in human processing time"**

– Joseph Luchette,  
**Terraphase**

## THE SOLUTION:

# ESDAT LABSYNC AUTOMATES RESULTS PROCESSING WITH INSTANT NOTIFICATIONS

By utilizing ESdat LabSync, Terraphase can streamline the workflow so that results are processed automatically as soon as the tests are completed by the lab. Staff are immediately notified if high lead levels are detected in any sample and so prompt action can be taken to warn the schools and protect children.

This automated processing offers a huge advantage to Terraphase who manage thousands of samples at hundreds of schools each year.

Without ESdat LabSync, the project would be reliant on individual staff members retrieving the laboratory reports from their email, checking them manually, and then taking action to warn schools when needed. Although this process works, it is subject to delays if team members are unable to access their emails immediately.

ESdat LabSync means that Terraphase can be confident that results will be automatically checked as soon as the analysis is completed at the laboratory. The risk of error is eliminated, and any high lead concentrations will be identified without delay.



It's incredibly convenient. It's nice to know that when we get a lab report in, it's already in the system. There's no additional work that needs to be done. It just makes the whole work process flow a whole lot smoother and schools can get the results much faster.”

– David Bishop,  
**Terraphase**

#### ESDAT LABSYNC:

## AUTOMATED RESULTS VALIDATION, IMPORT, AND EXCEEDANCE NOTIFICATIONS

ESdat LabSync is one of many useful functions within the ESdat environmental data management solution by Escis. Users can have their laboratory reports automatically imported into the ESdat system, seamlessly ensuring all results are recorded and available when needed. ESdat comes with libraries of the latest regulatory guidelines meaning that it is easy to check for results that exceed the relevant criteria. Users can be automatically notified when reports are received or when certain concentrations are detected.

- Results are uploaded automatically by the laboratory
- Email notifications are issued whenever a lab report is uploaded.
- Exceedance notifications are emailed directly to users.
- Supports water, soil, and air sample results

Find out more about ESdat LabSync:

[https://www.esdat.net/ESdatESdat LabSync.aspx](https://www.esdat.net/ESdatESdat%20LabSync.aspx)

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