CASE STUDY: GARVEY ELEVATOR SUPERFUND SITE

Pace Analytical®
DELIVERING SCIENCE BETTER

Remedial Investigation Required by Administrative Order on Consent

The Garvey Elevator Superfund Site is a commercial grain elevator located on 22-acres of land approximately one-half mile southwest of Hastings, Nebraska. From 1959 to 1985, a mixture of carbon tetrachloride and carbon disulfide (80-20 fumigant) was utilized as a fumigant for pest control and stored in a 3,000-gallon above ground storage tank (AST) near the silos.

Project Scope

Carbon tetrachloride and other contaminants were discovered in site supply wells and surrounding private supply wells in 1994. Further investigation of the site and surrounding area identified extensive carbon tetrachloride contamination in groundwater, soil, and soil gas surrounding the property. By 2003, carbon tetrachloride was discovered in private wells located more than three miles down gradient from the site.

Subsequently, a PRP-funded Remedial Investigation was required by Administrative Order on Consent (AOC). Challenges the investigation team faced included depth to groundwater – over 100 feet below ground surface – and a contaminant plume suspected to be over three miles long.

Specialized Approach

During the Remedial Investigation, groundwater, soil, and soil vapor samples for a select target list of volatile organic compounds (VOCs) and ethylene dibromide (EDB) was analyzed in the Pace mobile lab. Project-specific soil gas methods were established to meet the needs of the project. In addition, the Pace Mobile Lab team developed and fielded a project-specific method to analyze EDB by GC/ECD, with a reporting limit of 0.025 ppb in water.

Pace provided ENSR (now AECOM Environment), the PRP's consulting team, with real-time data to facilitate in-field decisions. Results were provided in multiple formats including EQuIS® EDDs to ease integration of report data.

CASE STUDY: GARVEY ELEVATOR SUPERFUND SITE

Pace Analytical®
DELIVERING SCIENCE BETTER

Project Summary

- Developed specific soil gas method to meet unique project needs
- Utilized low-level method for ethylene dibromide (EDB) to meet project quality objectives
- Real-time definitive results included:
    - Groundwater at over 100 ft. below surface
    - Contaminant plume over 3 miles long, 1 mile wide
    - Assessing soil gas at 10 ft. sample intervals
- Results provided in multiple formats, including EQuIS® EDD

Mobile Lab Analysis Methods

Compound	Method
Volatile Organic Compounds (soil, soil gas, water)	8260
EDB by Micro-Extraction	GC/ECD

Pace Mobile Lab Services

The Pace Mobile Lab services team specializes in responding to the needs of unique projects across the country. If you need to quickly process large amounts of samples at a remote location, our team may be your most cost-effective option.

Pace Mobile Labs hold multiple state and federal certifications, are equipped with full-size instruments and staffed with highly experienced chemists. Contact us or visit our webpage to learn more about our mobile service capabilities.

About Pace Analytical®

Pace Analytical® Services, LLC makes the world a safer, healthier place. Pace is the trusted source for quality environmental and life sciences lab testing and analysis and the resource for in-house lab staffing, regulatory, and instrument services. Our work is done in partnership with our clients by providing the science and the data they need to make critical decisions that benefit us all. Pace delivers science better to businesses, industries, consulting firms, government agencies and more through the largest, American-owned and nationally certified laboratory network. More at PACELABS.com.