

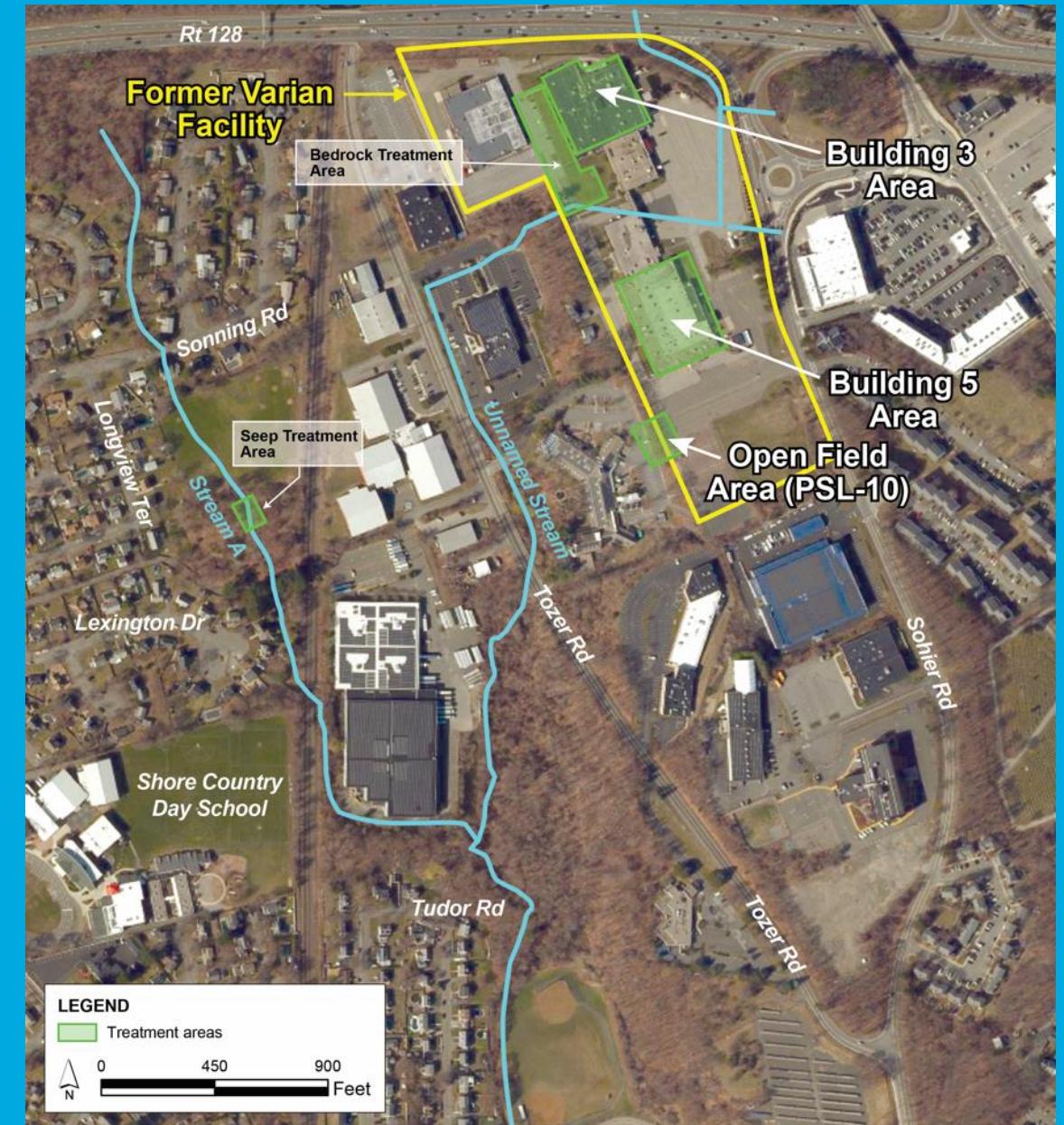
# Technical Advisory Group (TAG) Meeting

**Former Varian Facility (Site 3-0485)  
150 Sohier Road  
Beverly, Massachusetts**

**Tuesday, January 27, 2026  
Virtual Meeting (Teams)**

# Presentation Objectives

- Provide a status update on treatment system operations, monitoring, and construction
- Answer questions from the TAG



# Status Update on Treatment System Operations, Monitoring, and Construction



# Summary of Activities Since the October 2025 Public Meeting

- **Bedrock Treatment**  
Stage 2 bedrock injections completed
- **Building 3 Area Thermal Treatment System**  
Drilling continues along with site preparation
- **Building 5 Area Treatment**  
Drilling to start this week (pending weather)
- **PSL-10 Subgrade Biogeochemical Reactor**  
SBGR monitoring continues
- **Stream A Reactive Core Mat**  
Inspections continue with no issues observed
- **Site Monitoring**  
Routine groundwater and indoor air testing continues

Bedrock packer installation



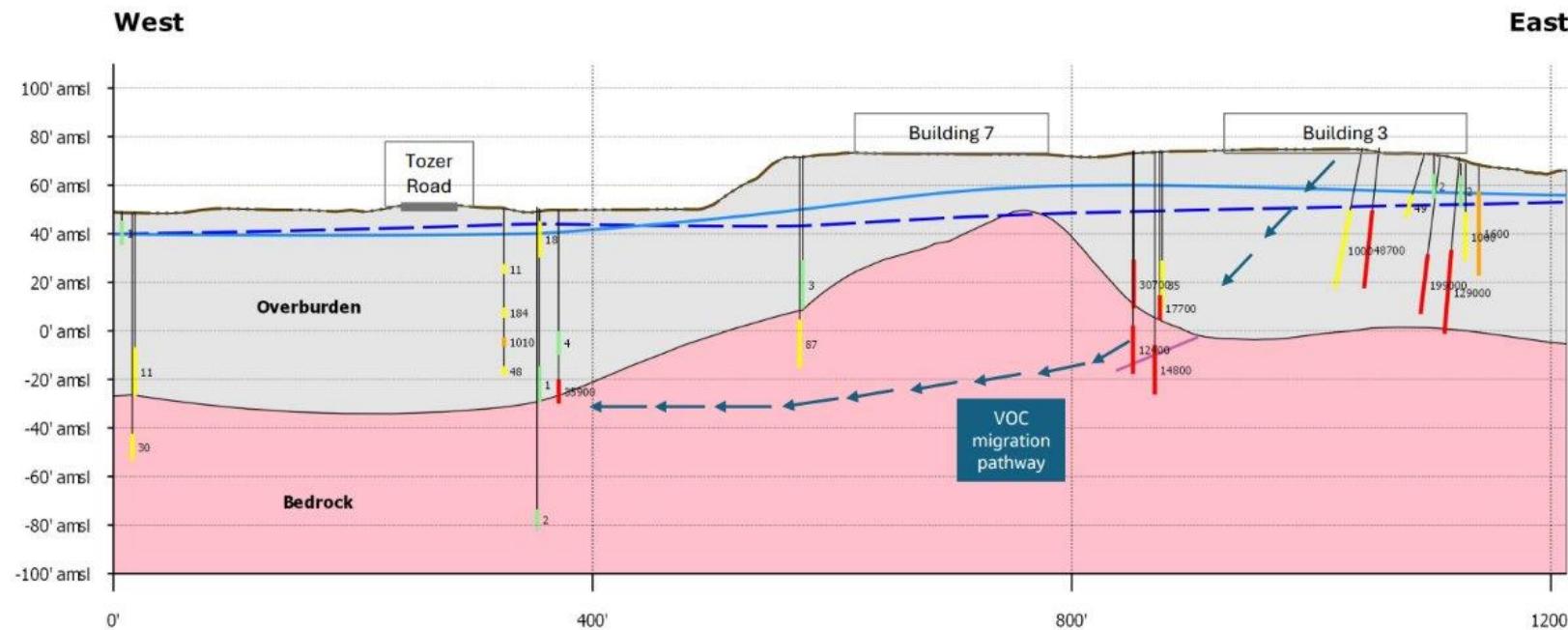
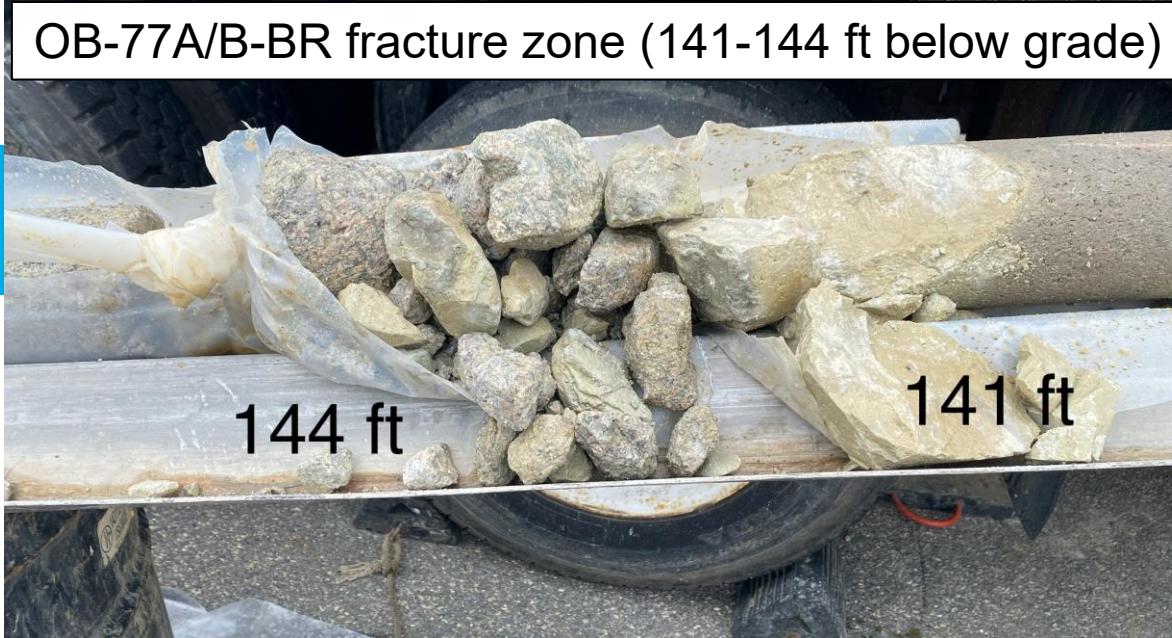
Staging of thermal treatment equipment on site



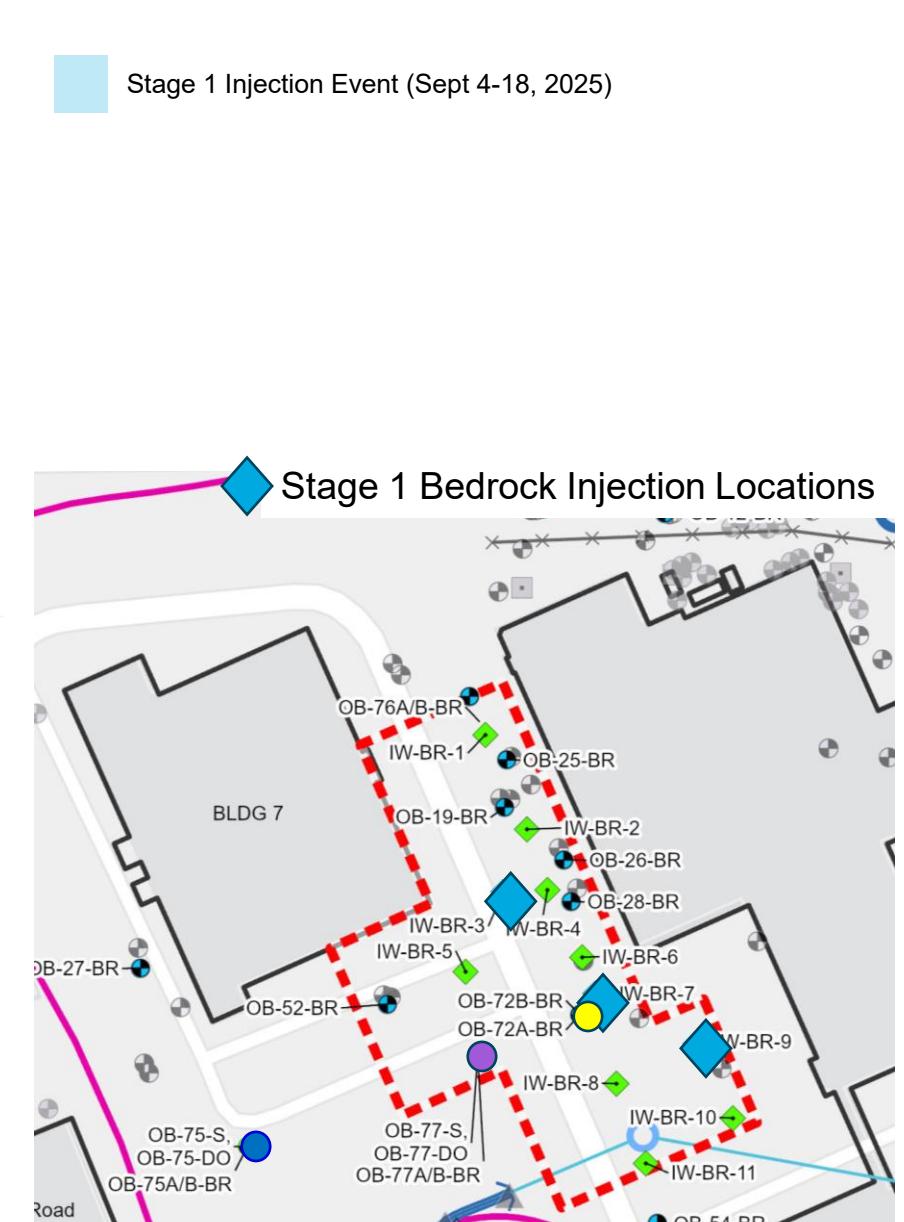
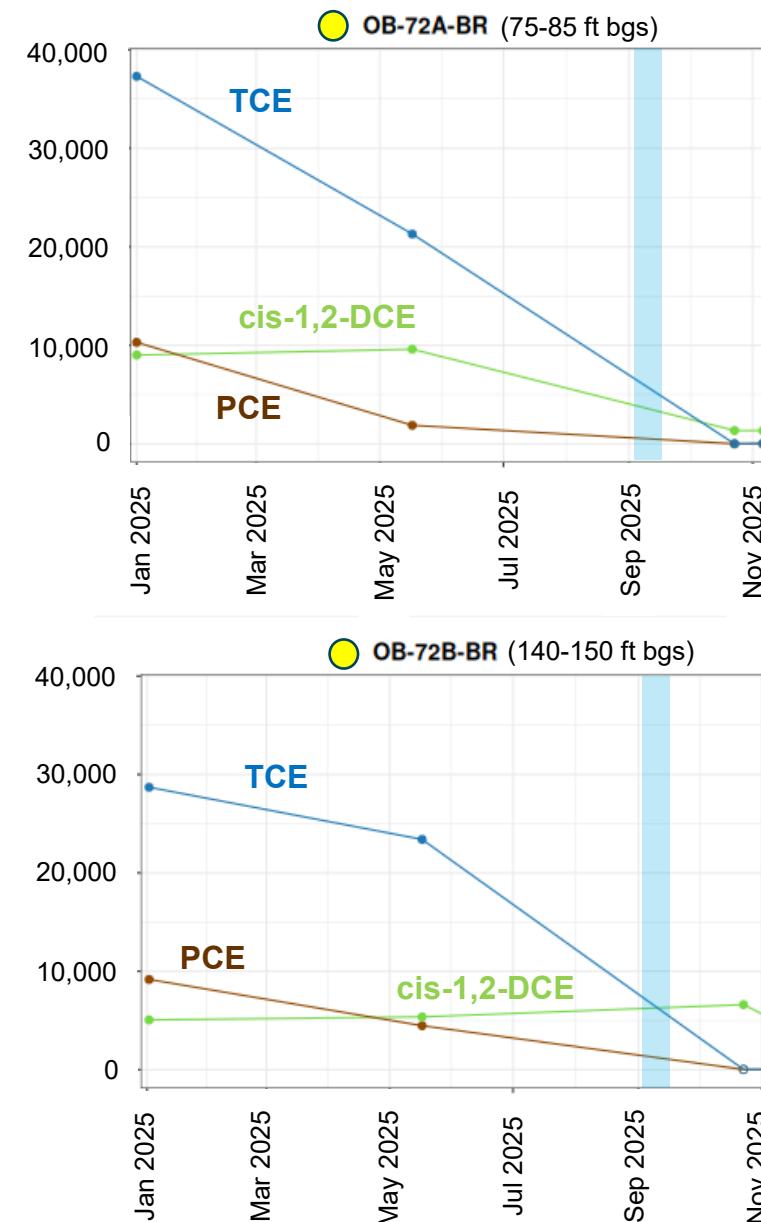
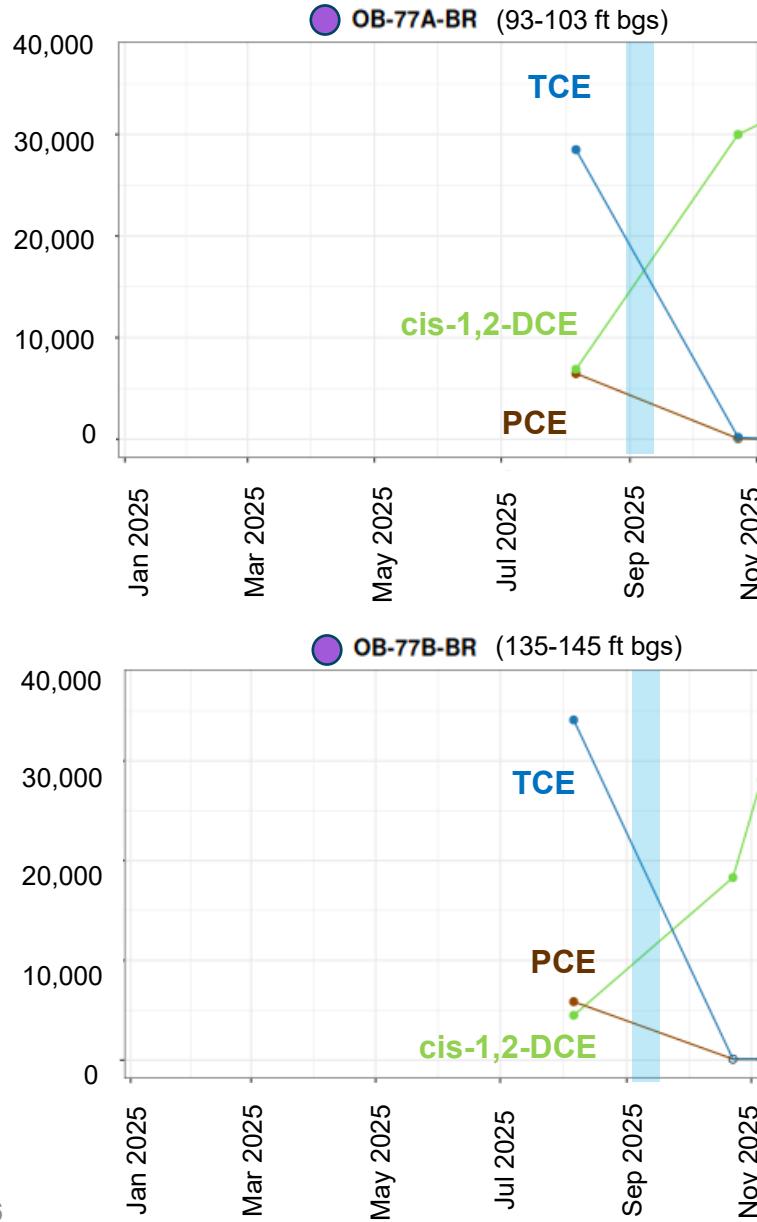
# Bedrock

## ❖ In situ chemical reduction (ISCR)

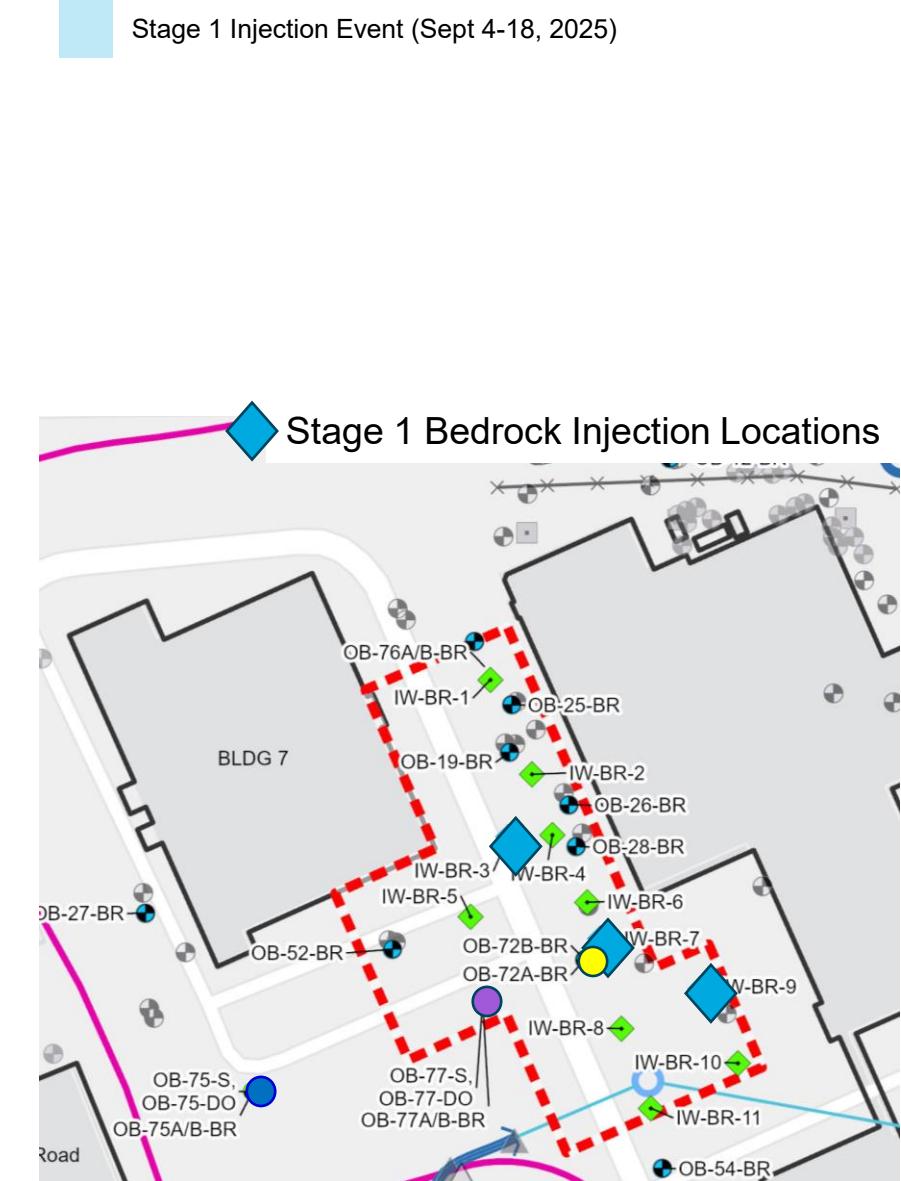
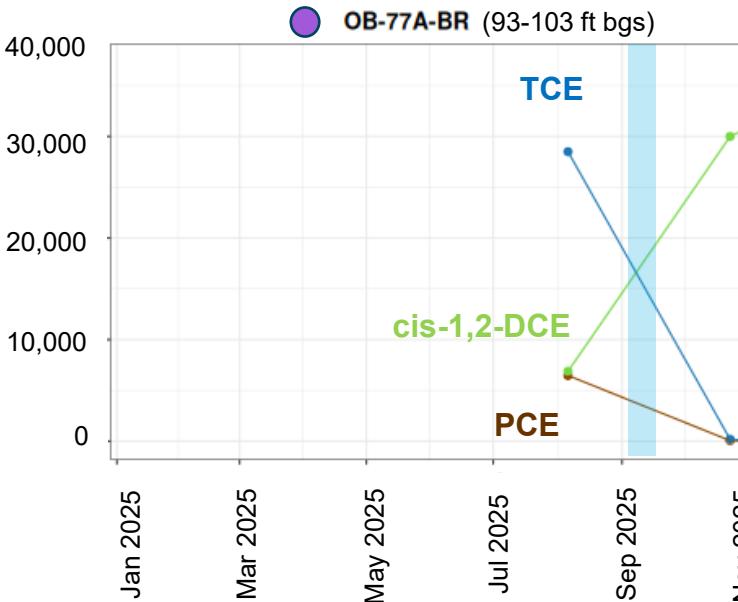
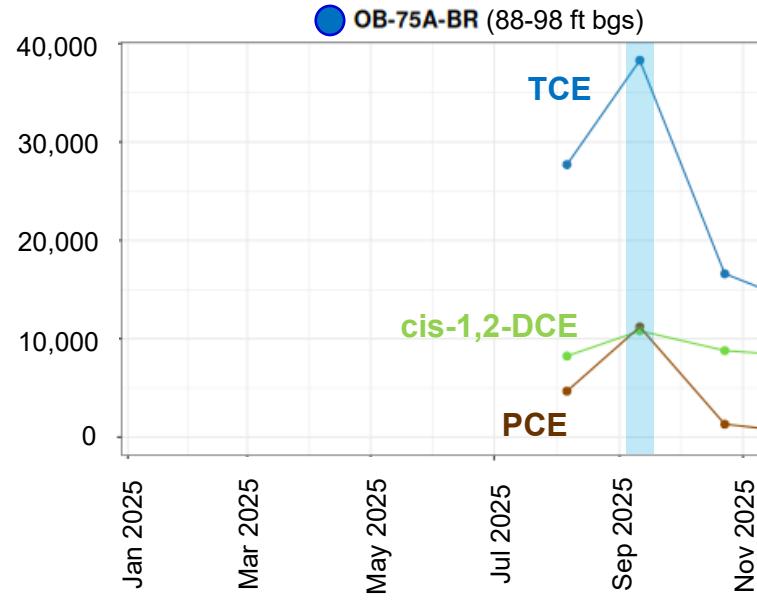
- Injecting amendments to degrade VOCs in bedrock fractures
  - Cut off VOCs that may migrate from source areas during remedial activities
  - Reduce downgradient VOC concentrations moving back into the overburden
- Stage 1 – September 2025 (near Building 3) – 3 locations
- Stage 2 – January 2026 (near Building 5) – 2 locations



# Bedrock Injection – Stage 1 Results (concentrations in $\mu\text{g/L}$ )



# Bedrock Injection – Stage 1 Results (concentrations in $\mu\text{g/L}$ )



# Bedrock – Next Steps

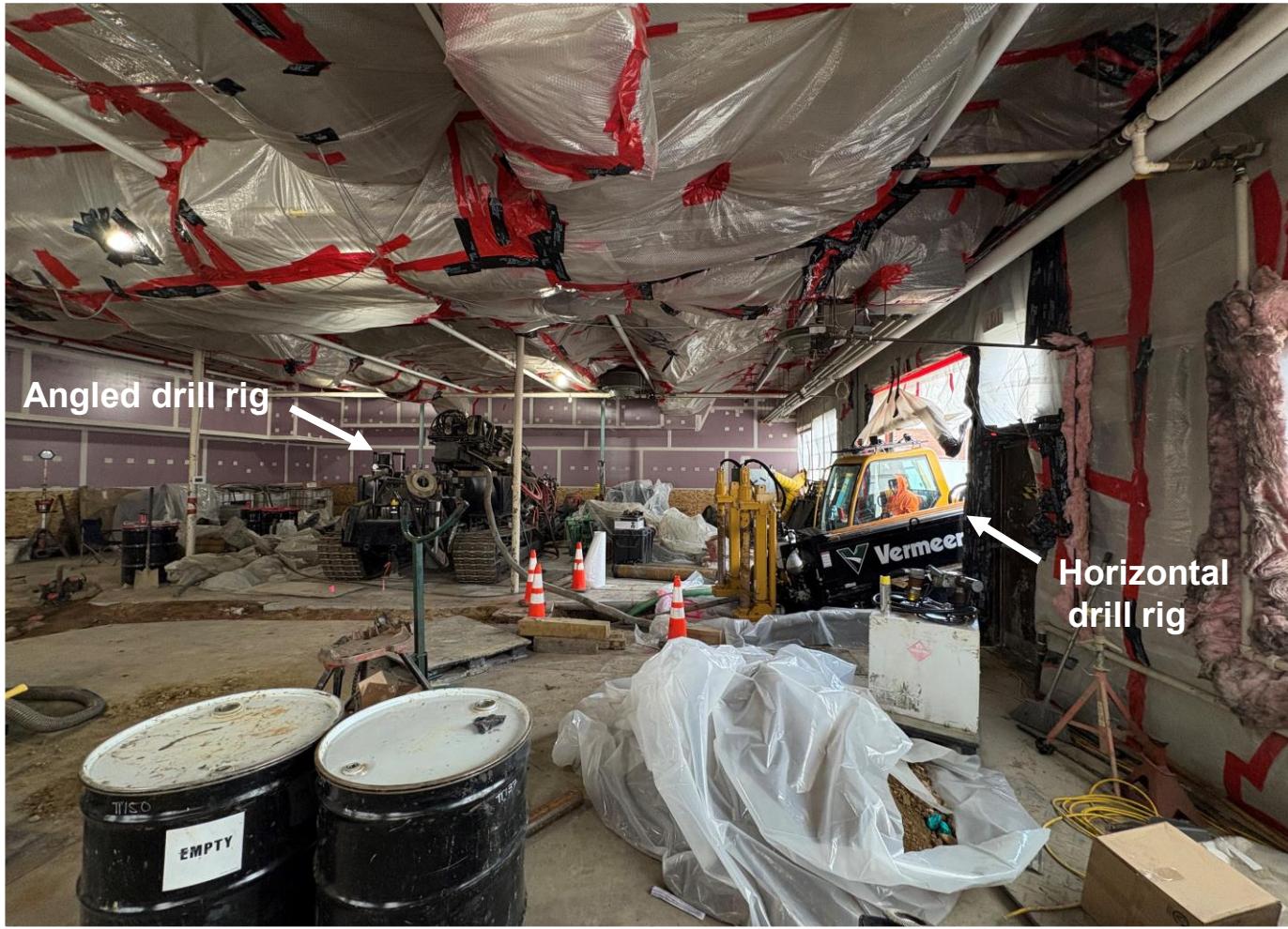


- Stage 1 performance monitoring (Feb, May, Aug, Nov)
- Stage 2 performance monitoring (Feb, March, April, Aug, Nov)
- Construction of Stage 2 injection wells
- Stage 3 anticipated in Spring/Summer 2026

# Building 3 Source Area

- ❖ In situ thermal treatment
- ❖ In situ bioremediation polish
- ❖ Continued soil vapor extraction (SVE)

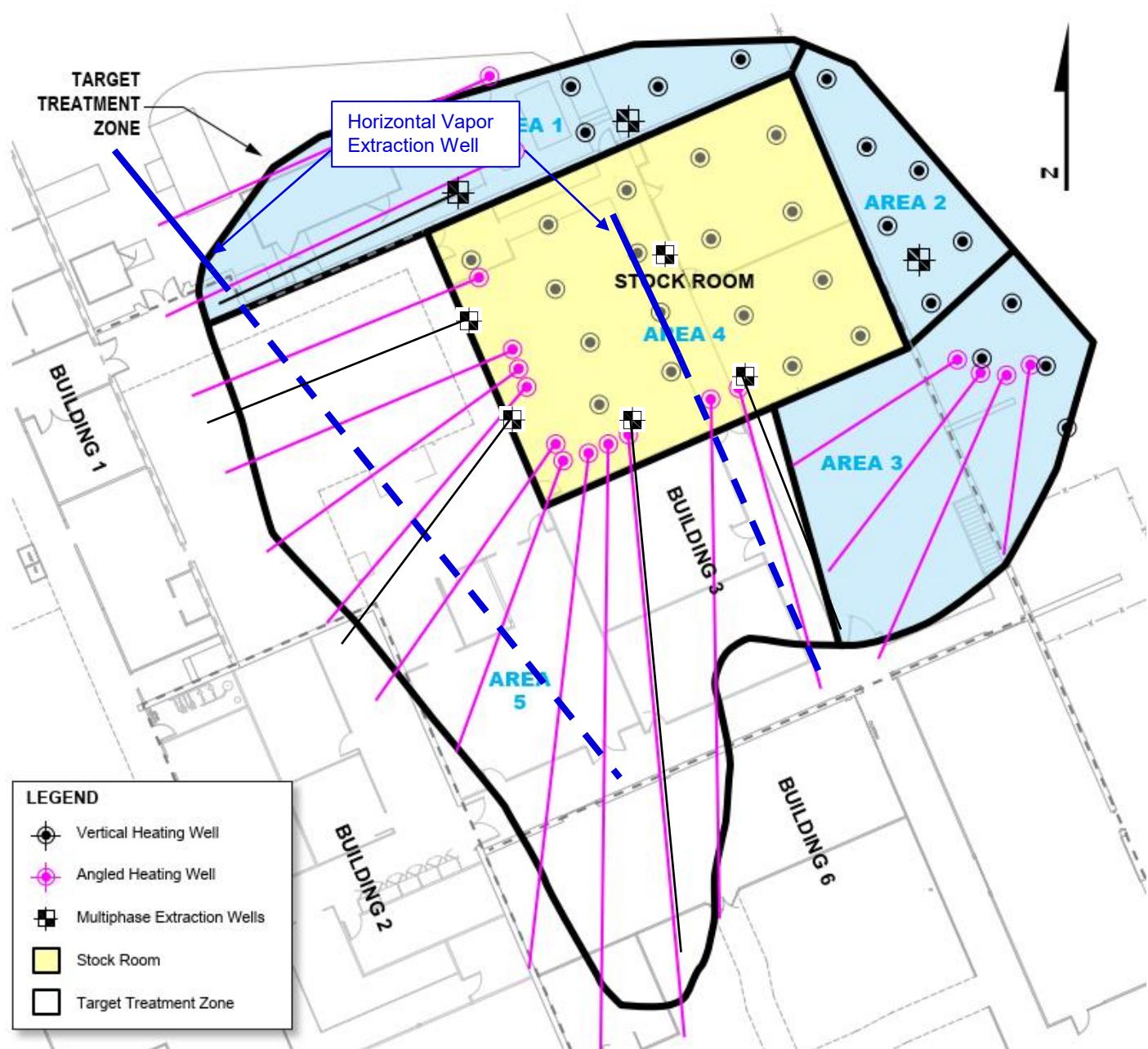
- Thermal treatment system construction continues
  - Stockroom drilling in progress (nightshifts)
  - Two horizontal vapor extraction wells installed earlier in January (day shift)
- Drilling observations remain consistent with conceptual model of VOC distribution underground
- 8,600 feet drilled (86% completion) as of January 12, 2026



Stockroom drilling

# Building 3 Treatment

- Subsurface heating mobilizes VOCs from soil and water
- Vapor extraction captures steam and VOCs
  - Recovery wells co-located with select heaters
  - Horizontal wells installed a few feet below the building floor
- Groundwater extraction
  - Provides hydraulic containment
  - Supplements VOC extraction
- Extracted VOC containing water and vapor treated at surface

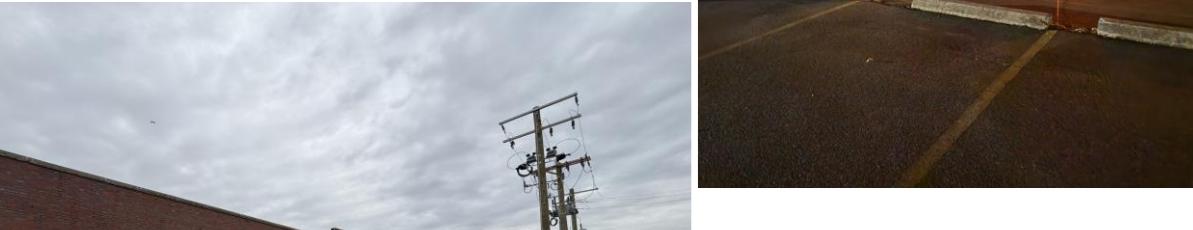


# Building 3 Treatment

Equipment delivery



Shop verification testing



System power supply

- Mobilization of treatment system equipment to the site is underway
- Shop fabrication of liners, heaters, and remaining equipment is ongoing
- Next Steps
  - Complete drilling
  - Install liners, heaters, and power conductors
  - Install vapor and liquid extraction system piping
  - Install groundwater and vapor treatment equipment
  - Verify equipment operation
  - System startup

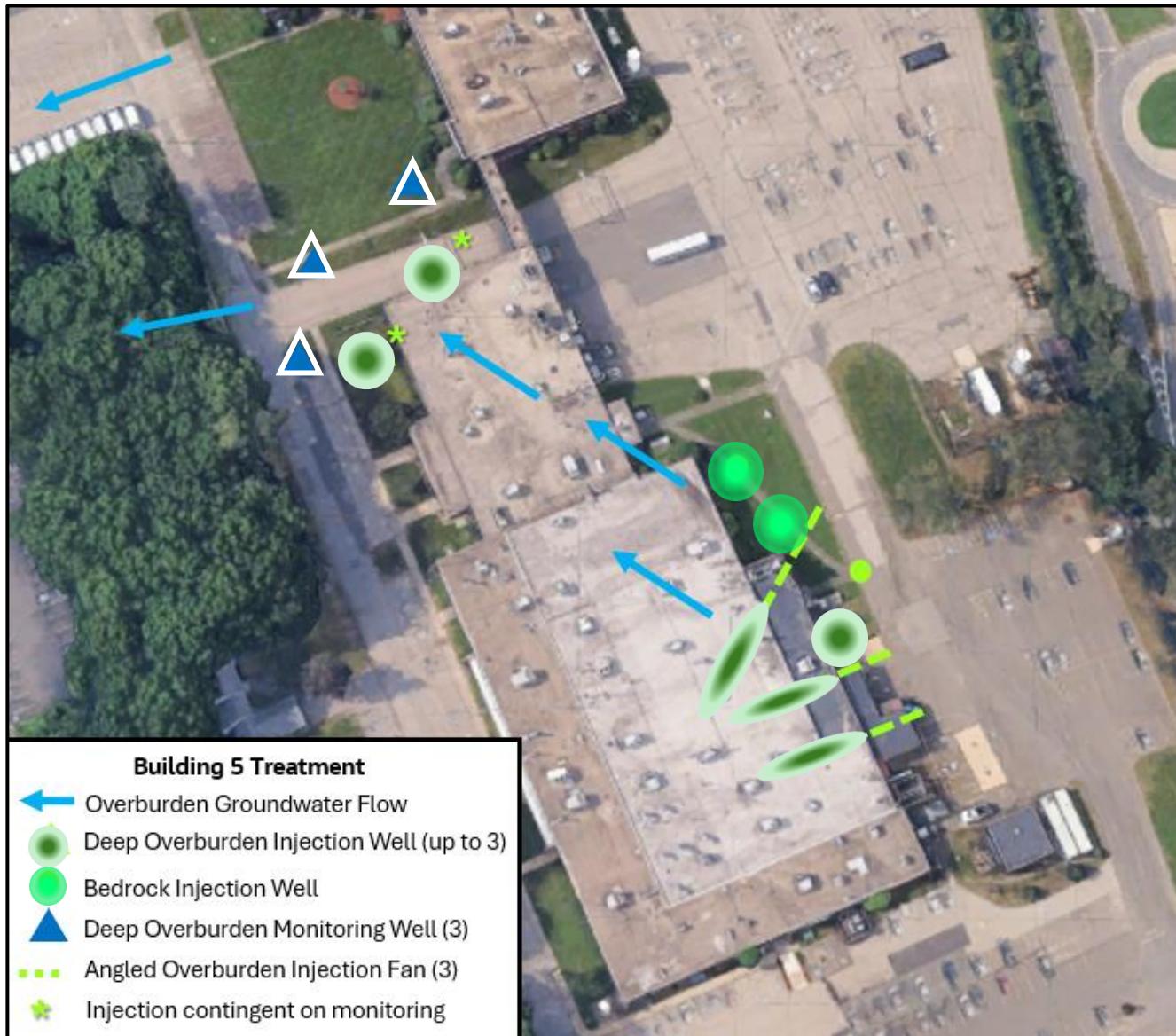
# Building 5

- ❖ In situ bioremediation
- ❖ Continued soil vapor extraction

- Treatment well drilling and installation started last week
- Based on test data collected during drilling, treatment intervals will be selected
- Pneumatic injection of sand will take place to enhance permeability, plus zero-valent iron (ZVI) and emulsified vegetable oil (EVO) for treatment
- After deep treatment, additional treatment will be conducted in shallow areas, as needed



# Building 5 Treatment Plan



- Drilling of treatment wells started
- Next Steps
  - Conduct drilling and treatment at each location
  - Drilling and injection is expected to take about four months to complete
  - Post-treatment monitoring will begin after the deep injections have been completed

# PSL-10 – Overview

## ❖ Subgrade biogeochemical reactor (SBGR)



- SBGR continues to operate
  - The system is pumping less water than previously estimated, but still providing treatment of groundwater
- Sampling was completed in September and November 2025
  - Results continue to indicate lower PCE and TCE concentrations next to the cell
  - VOC monitoring will continue to confirm anticipated decreases downgradient
  - Data will be in February 2026 status report

# System Installation Schedule\*

Treatment Area	System Design	System Installation	Start of Treatment	Monitoring
Building 3 (Thermal)	Complete	In Progress	Spring 2026	2026
PSL-10 (SBGR)	Complete	Complete	Complete	Ongoing
Building 5 (Bio)	Complete	In Progress	February 2026	2026
Bedrock (ISCR)	Complete	Stage 1 Complete Stage 2 Complete Stage 3 Summer 2026	Stage 1 Complete Stage 2 Complete Stage 3 Summer 2026	Ongoing
Stream A (Mat)	Complete	Complete	Complete	Ongoing

NOTES:

\* = Estimated schedule, subject to change

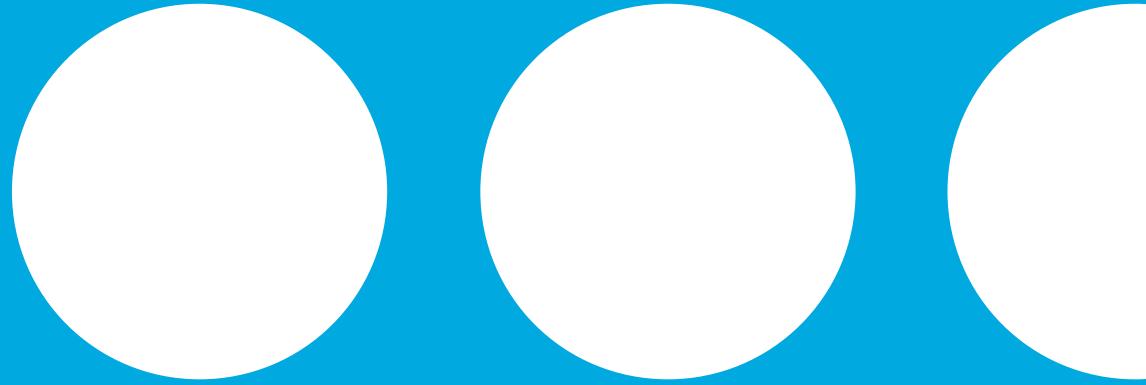
Bio = Bioremediation

ISCR = In situ chemical reduction

Mat = Reactive core mats

SBGR = Subgrade Biogeochemical Reactor

# Upcoming Submittals and Public Involvement



# Upcoming Submittals and Public Involvement Opportunities

## *Next Deliverables*

- Phase IV/Temporary Solution Status Report (Feb 2026) – semiannual status report

## *Upcoming Meetings*

- Quarterly – alternating PIP and TAG meetings
  - Spring PIP (Apr or May 2026)
  - Summer TAG (July or Aug 2026)

## *Monthly Updates*

- Sign the mailing list with your email address if you would like to receive updates by email only (no more paper mail)
- Website homepage updated first week of the month



[Sign-up Link](#)



# Reports Available

➤ Prior reports available here:

- Hard copy  
Beverly Public Library Reference Desk
- Or online  
<https://eeaonline.eea.state.ma.us/portal/dep/wastesite/viewer/3-0000485>

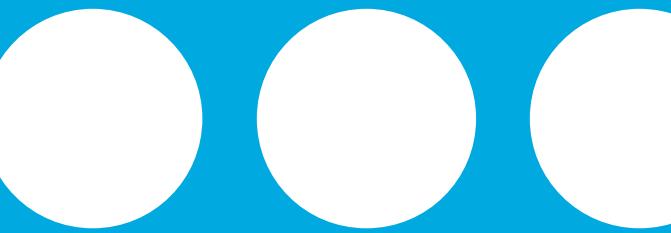
# For More Information

➤ Website: <https://beverlysitecleanup.com/>

- Homepage updated monthly
- Public meeting videos
- Presentation slides
- Overview of environmental investigation and treatment to date
- Links to MassDEP and EPA fact sheets on cleanup process and technologies
- Forms to submit comments or sign up for emailed site mailing list

➤ Email: [beverlysitecleanup@jacobs.com](mailto:beverlysitecleanup@jacobs.com)

# Questions



# varian

A Siemens Healthineers Company