

PIP Presentation
Groundwater Pilot Studies

430 Boston Post Road
Wayland, MA

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Background

- Volatile Organic Compounds (VOCs) in groundwater
 - Trichloroethene (TCE)
 - Tetrachloroethene (PCE)
 - Degradation Products (DCE & VC)
- Groundwater Classified as GW-1
 - Attempted cleanup to drinking water standards required

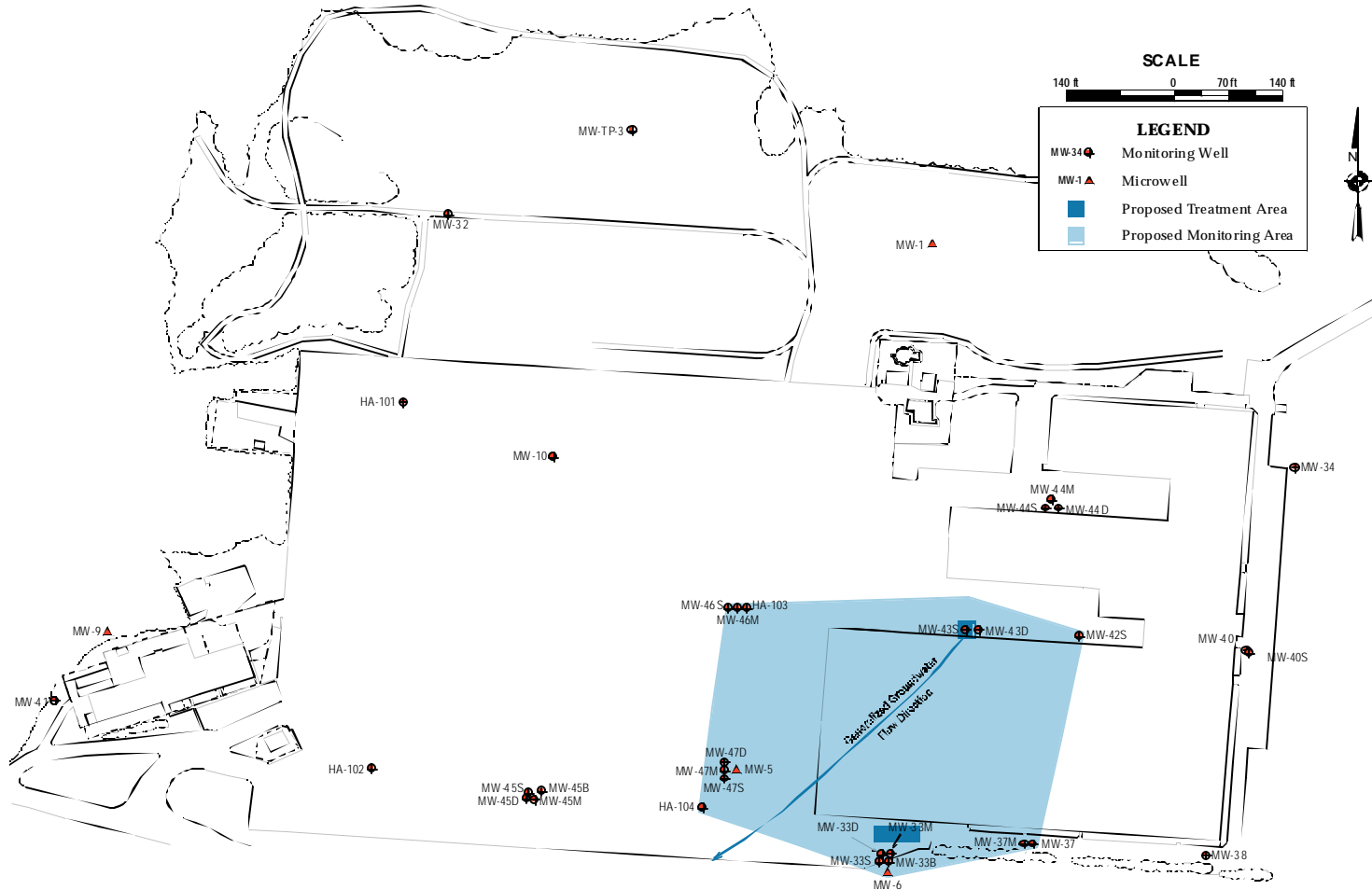
Chemical Oxidation Pilot Studies

- In Situ Process - treatment occurs in subsurface
- Destructive Chemical Reaction
 - permanganate or persulfate used as oxidant
 - effective at treating PCE, TCE, DCE, VC
- Non-Toxic By-Products
 - water, carbon dioxide & chloride
 - does not create harmful intermediaries
 - does not cause volatilization of VOCs

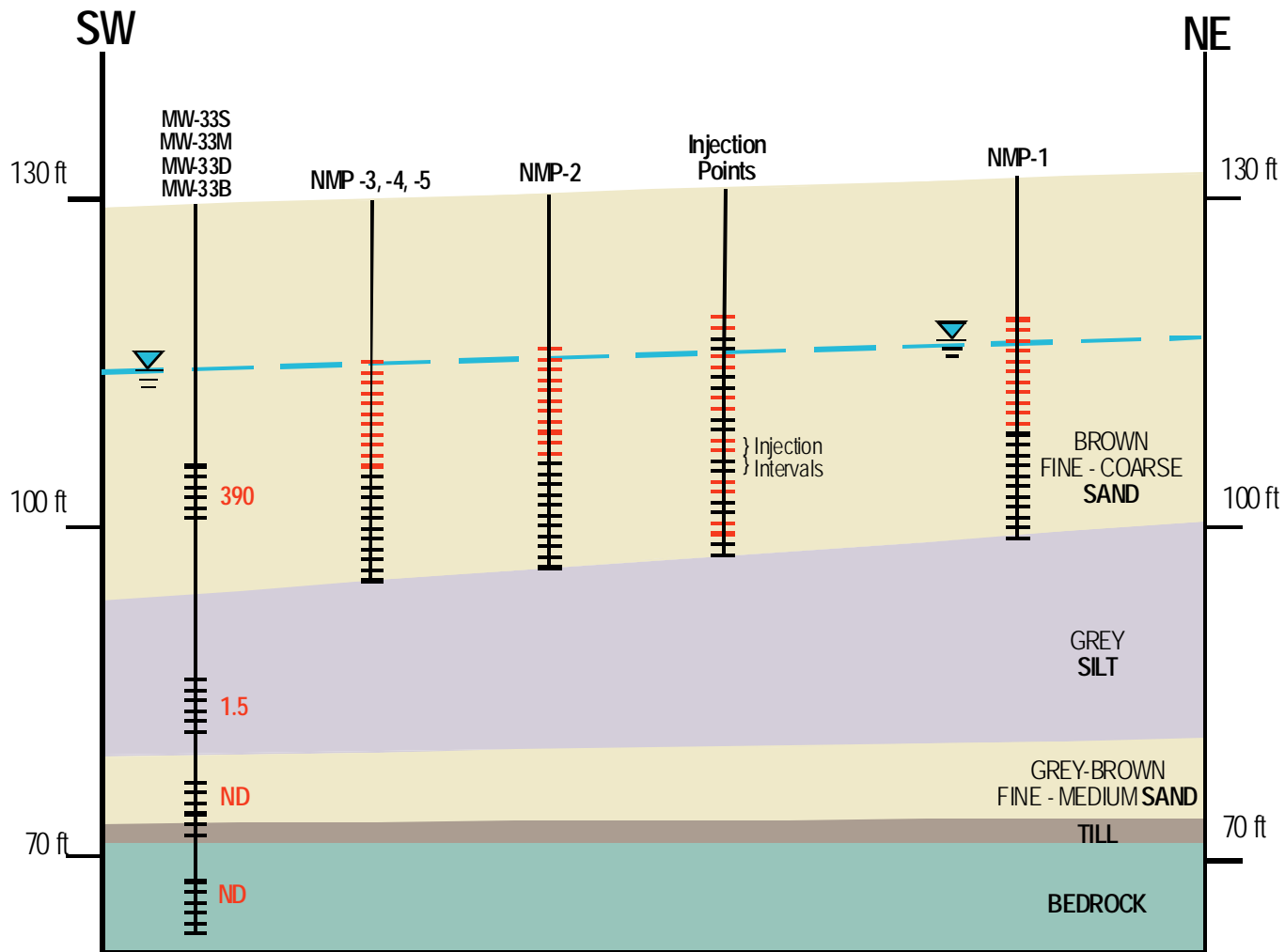
Chemical Oxidation Pilot Study

- Two Pilot Study Areas
 - Vicinity of MW-33S
 - low or high pressure injection upgradient of MW-33S
 - extensive down-gradient monitoring to evaluate migration of oxidant & effectiveness of treatment
 - MW-43S
 - gravity feed into MW-43S
 - evaluate ability to treat former suspect source & area beneath building

Pilot Study & Monitoring Areas



MS-33S Pilot Study Area



MS-43S Pilot Study Area

