Additional Assessment or On To Remediation

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General Guidelines

- **Concerns**
  - This is not a science project.
  - How much time and phases will this take?
  - How much money will this take?
  - What if I find something else?
  - If I don't, what is the risk the estimated costs will be way off?

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General Guidelines

- **Balance**

  - Cost of additional fieldwork vs. Contractor Standby
  - Cost of additional fieldwork vs. Quantity Overruns
  - Schedule vs. Benefits
  - Waste Characterization
  - Step-out borings

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General Guidelines

- Established limits and volumes for remediation
- Eliminate or reduce remediation crew standby time
- Tighter bid package for remediation contractors
- No confirmation sampling - possibly
- Evaluation of treatment needs
- Reduced possibly of disposal surprises

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General Guidelines

- **Other Considerations**
  - Waste Characterization & Profiling
  - Treatability Studies
  - Stability
  - Trucking
  - Changes to PPE
  - Vapor Mitigation Limits
  - Structure and Infrastructure
  - Lump Sum vs. Unit Rate

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2 Case Studies

Former Chemical Site - Brownfield

Brownfield Site #2

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Former Chemical Site Brownfield

CHAMBLEE, GA

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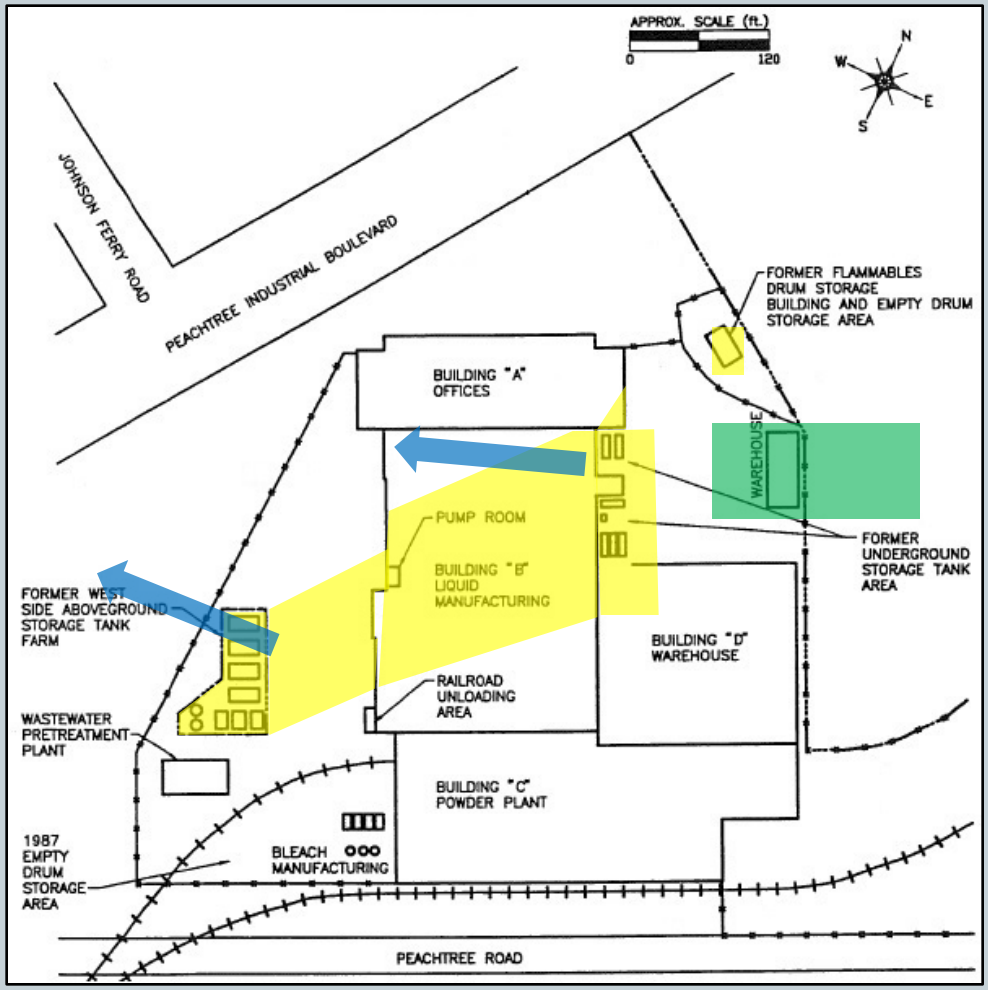
Historical Facilities Layout

Manufacturer of to 500 separate products ranging from waxes, soaps, solvents, disinfectants, polishes, deodorants, cleaners, paint strippers to insecticides based upon consumer demand.

Operated from the 1940's to 1991

Demolished in 2008



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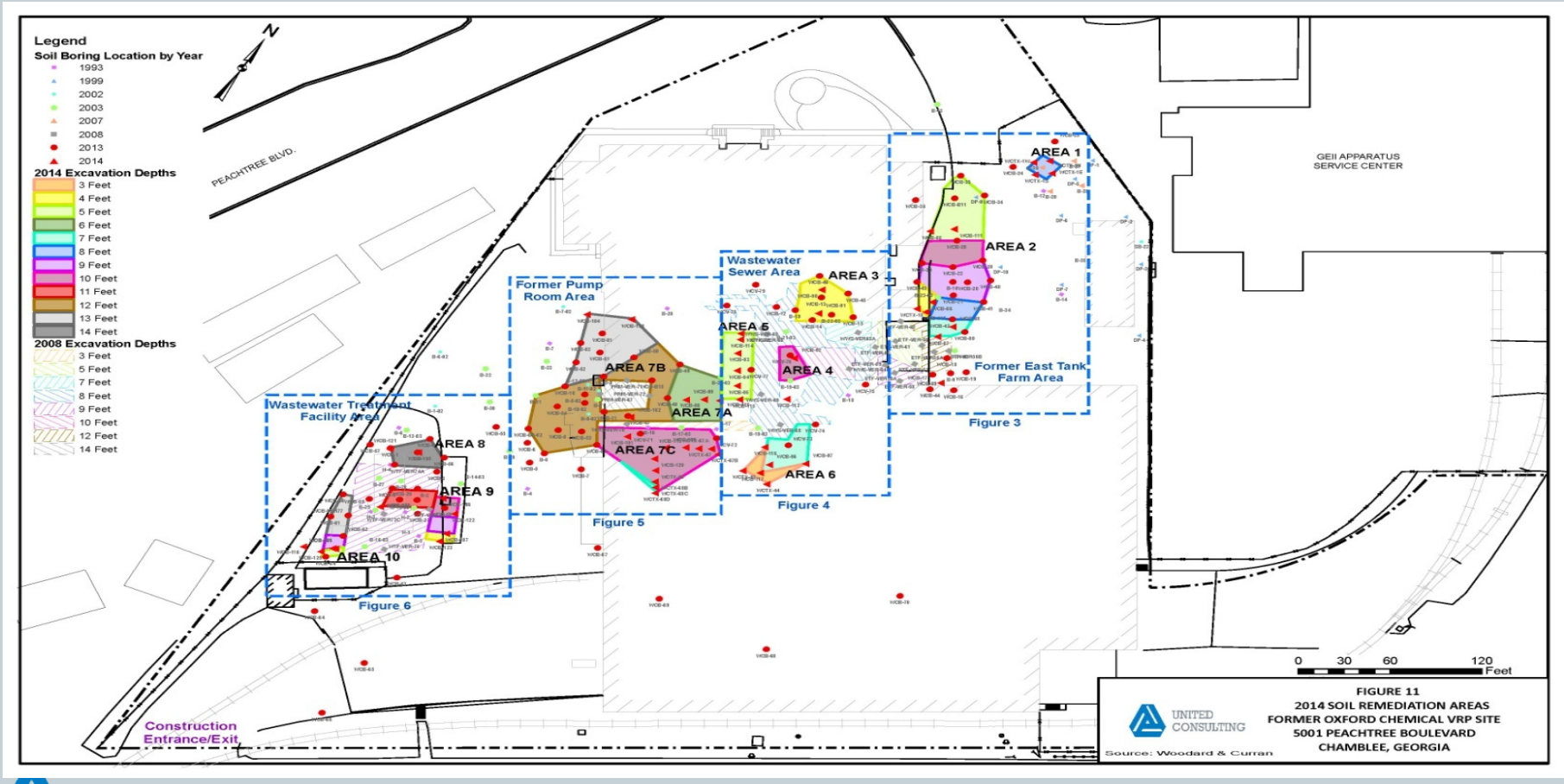
Soil Remediation



Additional Delineation

- Approximately $40,000 in additional soil sampling
- Limits of all excavations pre-established, except one
- No confirmation sampling required**
- Lump Sum Bids from Remediation Contractors
- Minimized onsite delays during remediation
- Estimated savings to client $350,000
  - Known/reduced boundaries and quantities
  - Planned Insitu treatment to render nonhazardous

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Brownfield Site #2

ATLANTA, GA

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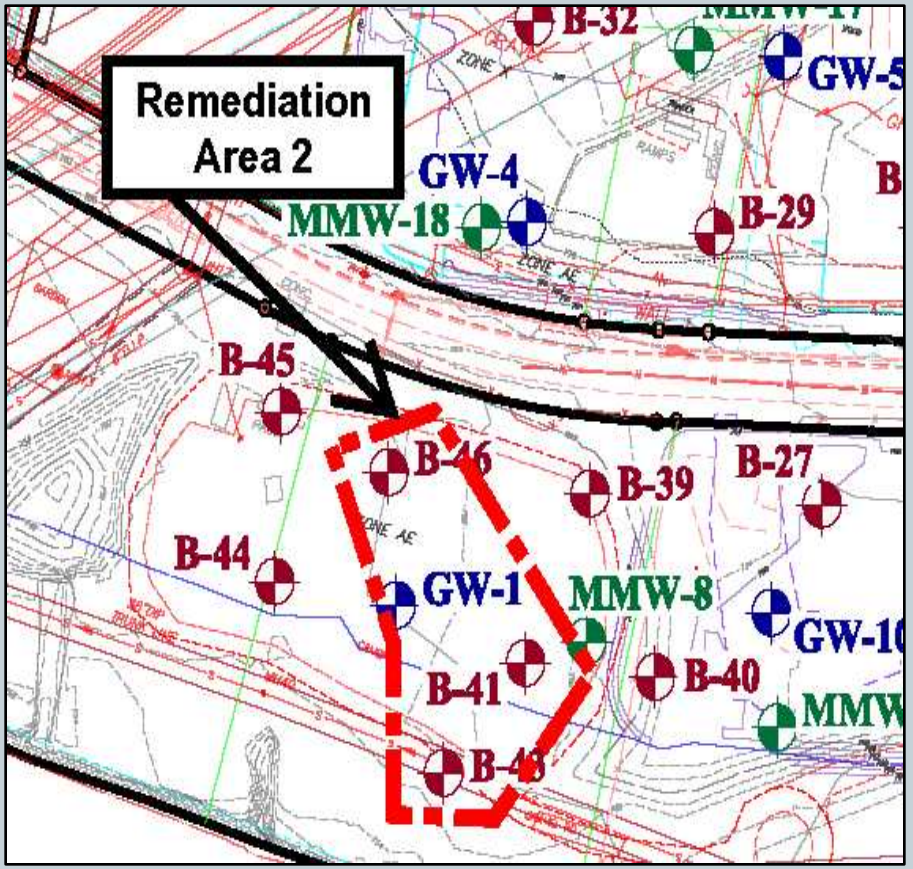
Initial Remediation Estimate

- **12,500 Tons for Disposal**
- **Potentially Hazardous levels of Lead**
- **Ballpark Estimated Cost = $568,000**
- **Deal Killer**



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Final Remediation Estimate

- **2,000 Tons for Disposal**
- **Non-Hazardous Lead**
- **Established Boundaries**
- **Estimated Cost = $110,000**
- **Deal Maker**

Additional Delineation Evaluation

- Two days of fieldwork (Get the most out of your day of drill rig time)
- Approximately $15,000 in additional delineation cost
- From potentially hazardous disposal or onsite treatment to nonhazardous disposal
- Sufficient sample density – No confirmation samples
- Total Tonnage Reduction = 10,500
- Total Cost Reduction = $458,000
- Lump Sum Remediation Bid

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