

415 W. Washington – Environmental Summary



Outline

- Environmental History
- 2012 – 2013 Investigation
- Fall 2021 Investigation – Existing Conditions
- Spring 2022 Investigation – Offsite Primarily
- Path Forward for Remediation
- Fall 2022 – EGLE Ongoing Subslab / Indoor Air Sampling

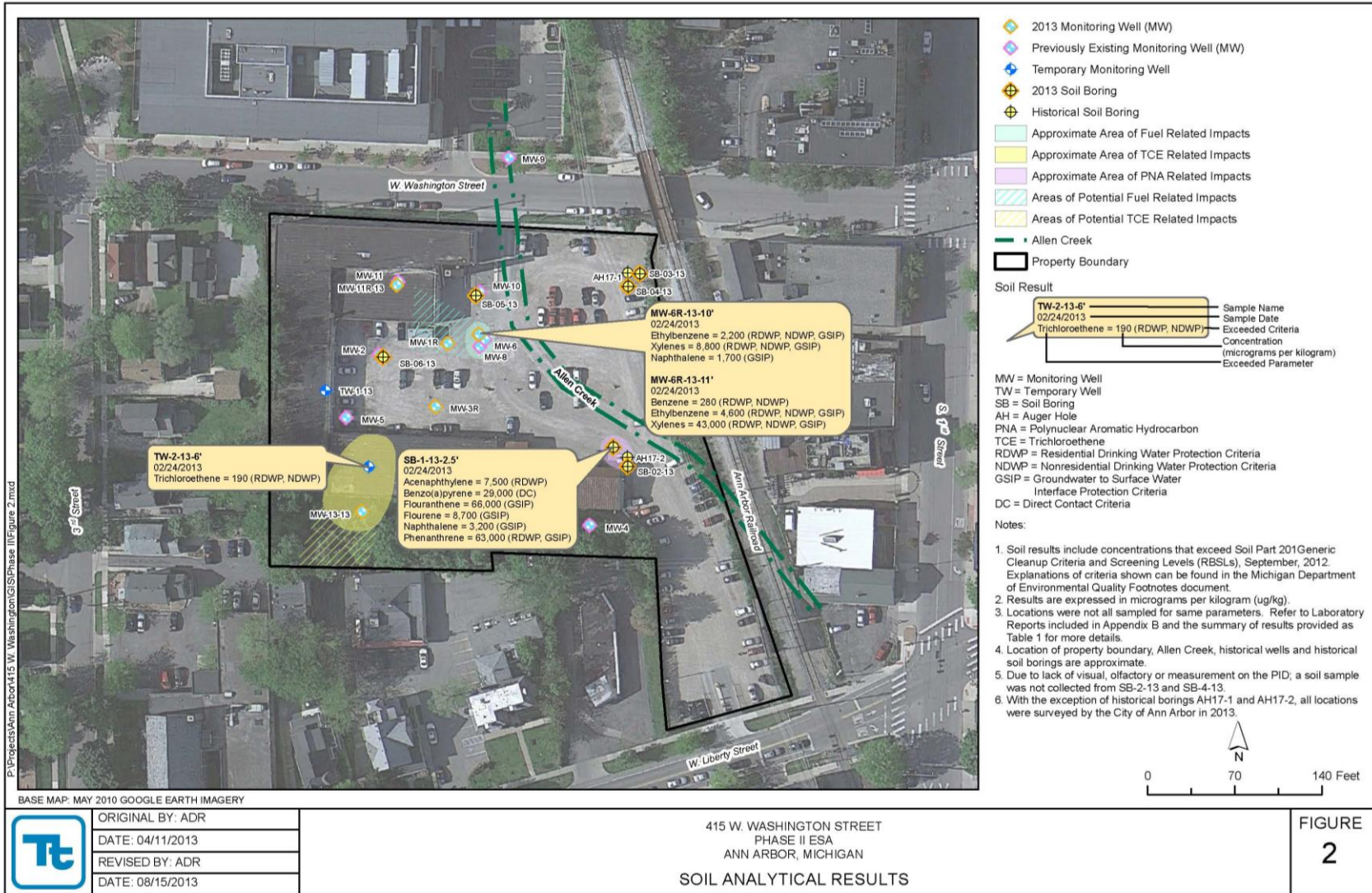
Environmental History

- Three leaking underground storage tanks:
 - 1989 1K gallon diesel
 - 1992 6K gallon gasoline
 - 1992 6K gallon diesel
- Tanks removed
 - ~200 cyds of soil / ~200 cyds of concrete excavated
 - ~3.5K gallons of LNAPL removed
 - Soil and groundwater impacts remained
- 1997 installation of remediation system, groundwater sampling
- December 2002 system turned off

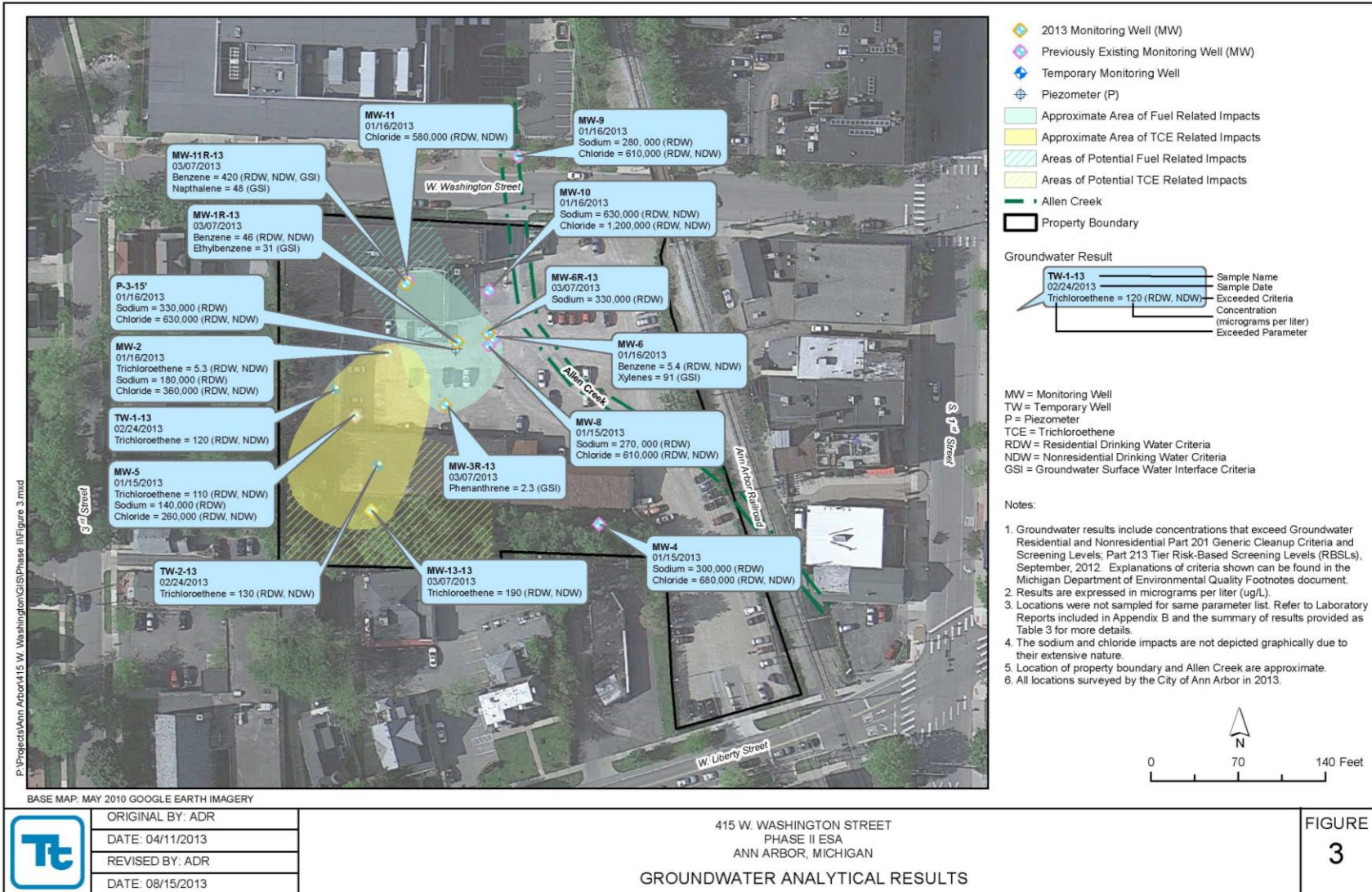
2012 - 2013 Investigation

- Completed Phase I ESA, RBMS, Phase II ESA
- Existing Monitoring Well Network Sampled from previous remediation system
- Drilling Investigation Monitoring Well Installation
 - Replaced previous wells that were damaged
 - Installed permanent and temporary monitoring wells
 - Collected soil and groundwater samples
- Findings – two plumes
 - Fuel related impacts to soil and groundwater to the north
 - Isolated area of diesel fuel impacts in shallow soil
 - TCE related impacts to the south
 - Elevated sodium and chloride due to previous salt storage

2012 - 2013 Investigation



2012 - 2013 Investigation



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415 W. WASHINGTON STREET
 PHASE II ESA
 ANN ARBOR, MICHIGAN
GROUNDWATER ANALYTICAL RESULTS

FIGURE 3

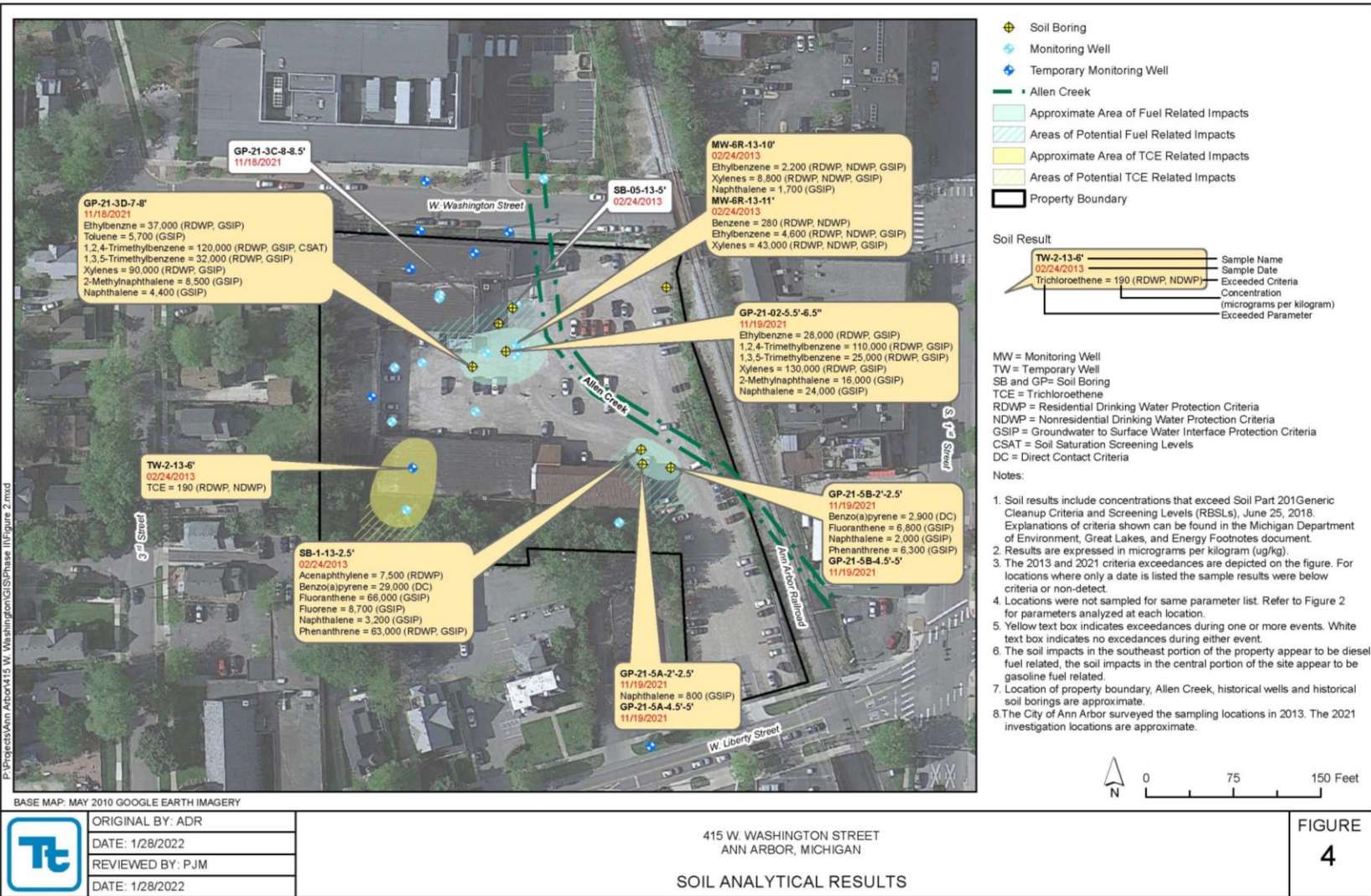
Fall 2021 Investigation – Existing Conditions

- Sampled Existing Monitoring Wells
- Monitoring Well Installation
 - Installed 8 temporary wells onsite and in ROW (north and south)
 - Installed 2 onsite permanent monitoring wells
- Groundwater and soil sampling
- Findings –
 - Potential benzene in groundwater migrating offsite to the north
 - Potential TCE in groundwater migrating onto property from south or west

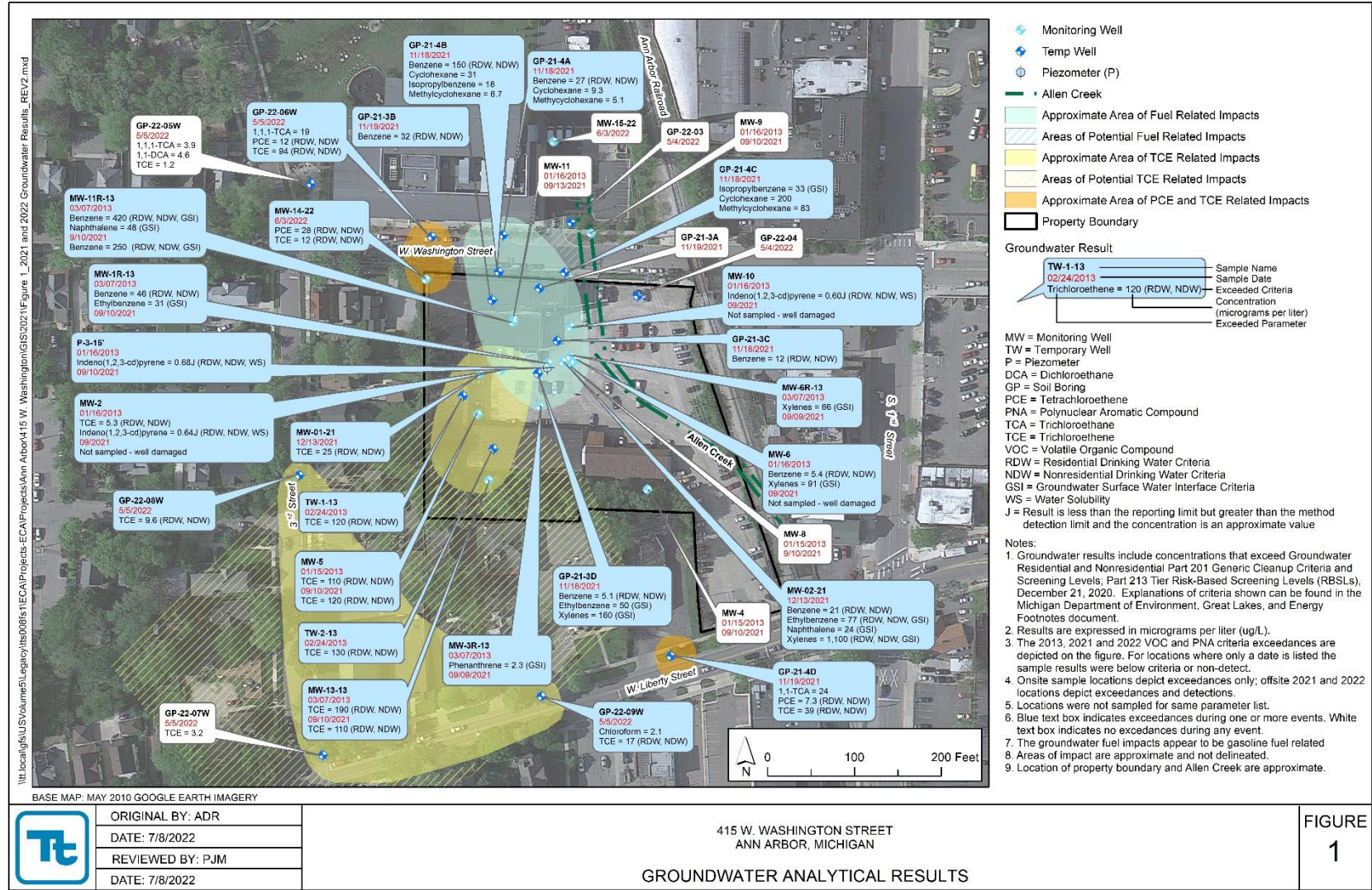
Spring 2022 Investigation – Offsite Primarily

- Monitoring Well Installation – permanent and temporary
 - Installed 7 temporary wells
 - Benzene plume – 1 onsite, 3 north of the site
 - TCE plume – 3 south and west of the site
 - Installed 2 permanent wells
 - Benzene – 1 onsite and 1 offsite
- Groundwater Sampling - VOCs
- Findings
 - Benzene offsite downgradient
 - TCE offsite upgradient
 - Notice of Migration filed

Existing Conditions - Soil Results



Existing Conditions - Groundwater Results



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Path Forward for Remediation

- Draft a brownfield plan to ‘pre-entitle’ the site for funding
- Remediation plan components:
 - Limited excavation and disposal of soil impacts
 - Complete bench testing for remediation options
 - Treat the onsite plumes with injections to reduce the concentrations
 - Create two barrier walls for migrating benzene to the north and for TCE migrating onsite from the west and south

Path Forward - Remediation



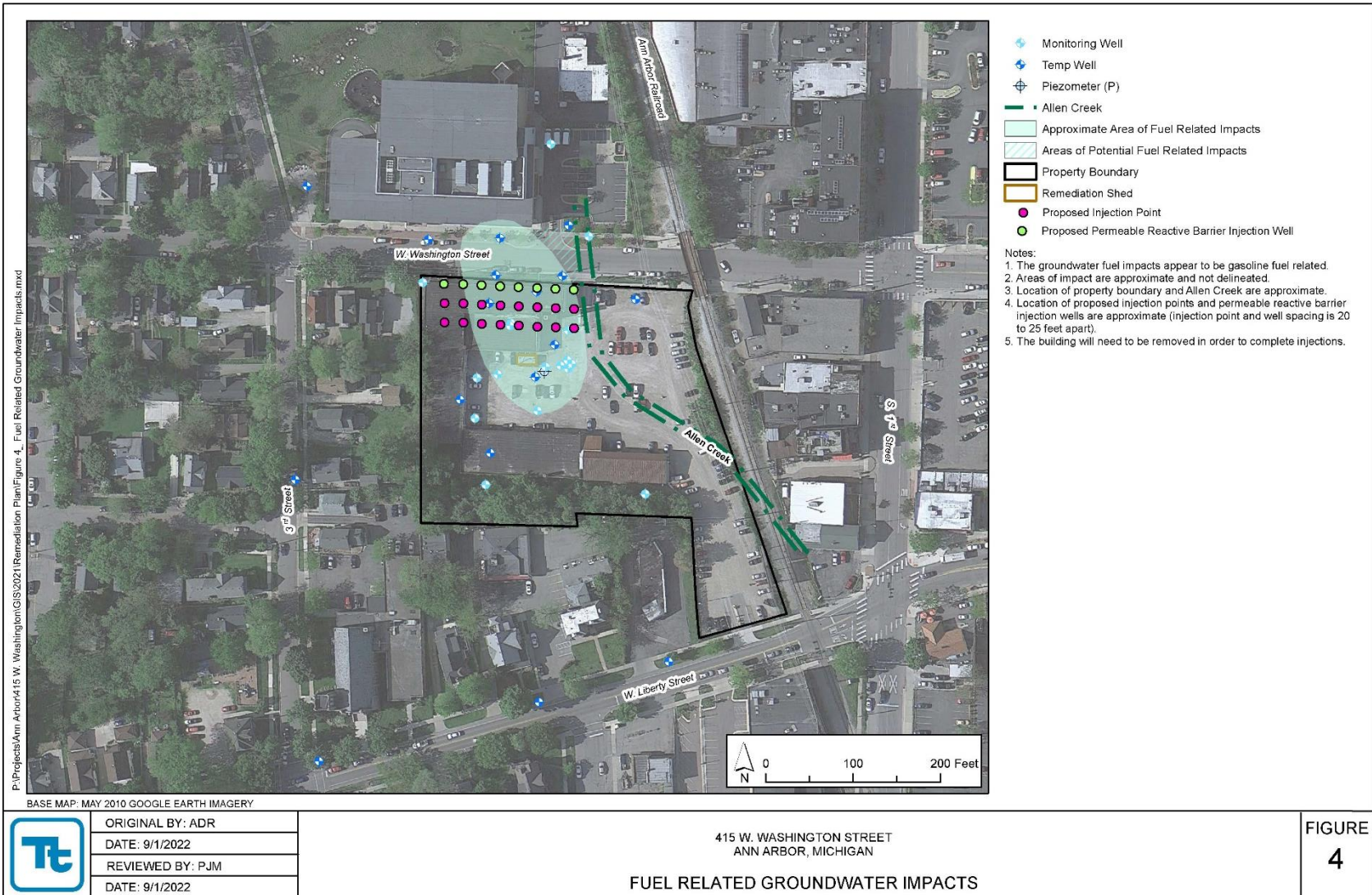
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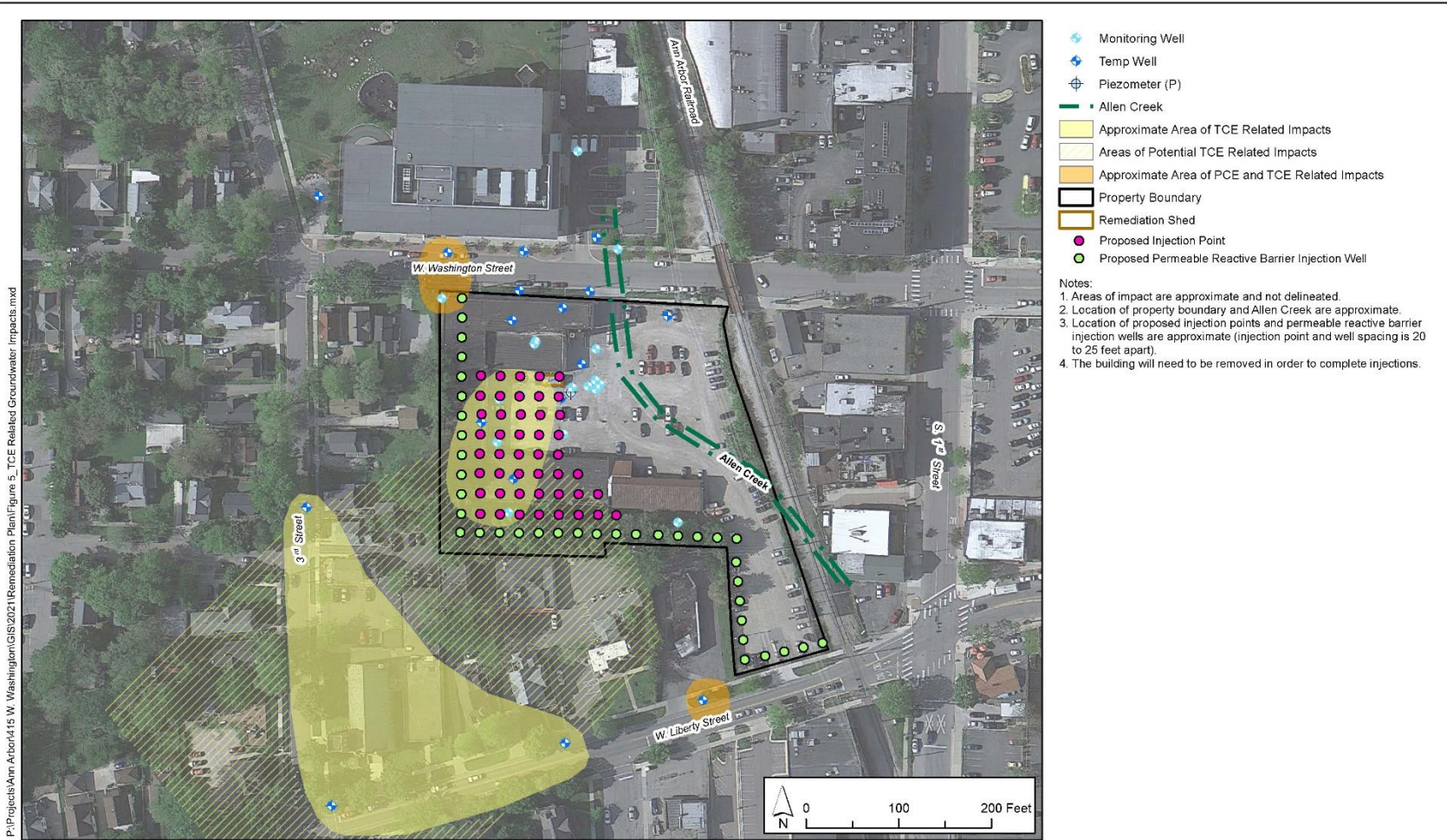
FUEL RELATED SOIL IMPACTS AND REMEDIATION SYSTEM

FIGURE
3

Path Forward - Remediation



Path Forward - Remediation



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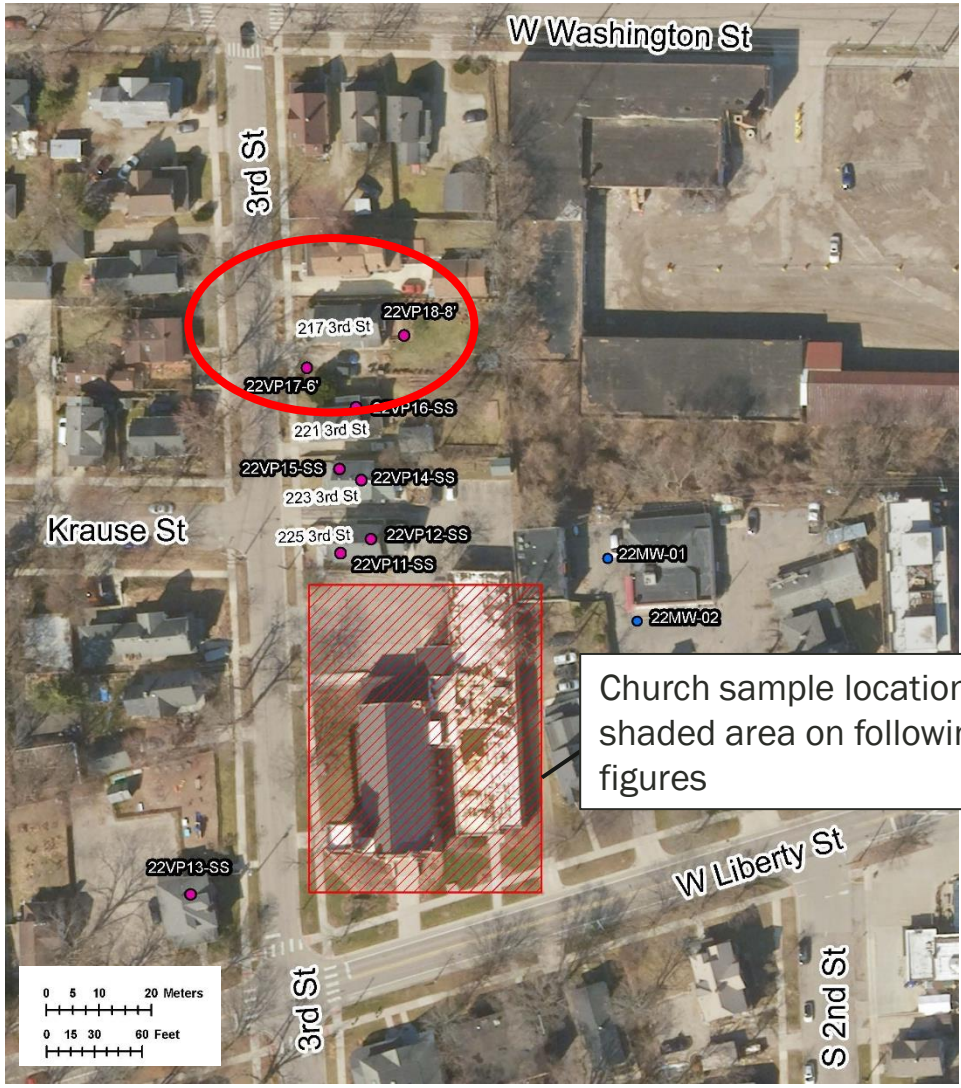
TCE RELATED GROUNDWATER IMPACTS

FIGURE
5

2022 – Ongoing EGLE Sampling

- EGLE is completing subslab and indoor air sampling due to TCE
- August 2022 – VOC sampling
 - Installed and sampled 15 SS vapor pins
 - Sampled 11 indoor air
 - Installed 2 permanent monitoring wells
 - Soil samples collected – no VOC detections
 - Dry wells to date
- December 2022
 - Installed 3 additional SS vapor pins,
 - Sampled 5 SS vapor pins
 - Sampled 1 indoor air
- March 2023 - next sampling event

2022 – Ongoing EGLE Sampling



Church sample locations in shaded area on following figures

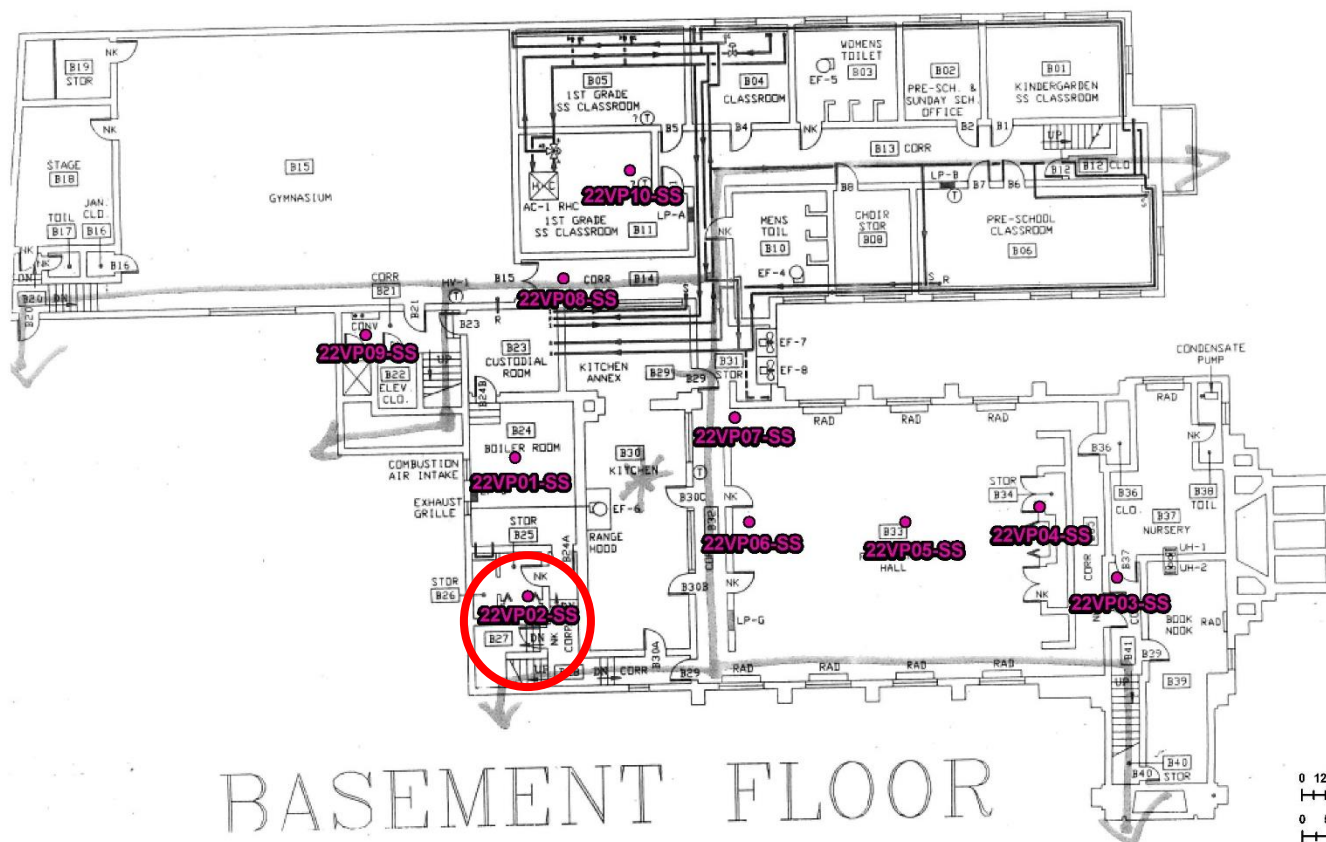
- Vapor Pin Location
- Monitoring Well

- 217 3rd Street - indoor air
 - August and December 2022 – No TCE exceedance
- 217 3rd Street – vapor pins
 - December 2022 – Benzene and ethylbenzene detected above residential volatilization to indoor air criteria at 6 and 8 feet bgs off the back deck

2022 - Ongoing EGLE Sampling Church Locations

NOTE: NORTH TO THE LEFT

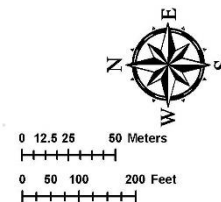
*Emergency Exits
Kitchen*



● Vapor Pin Location

- August 2022 - TCE exceeded criteria at 22VP-02-SS

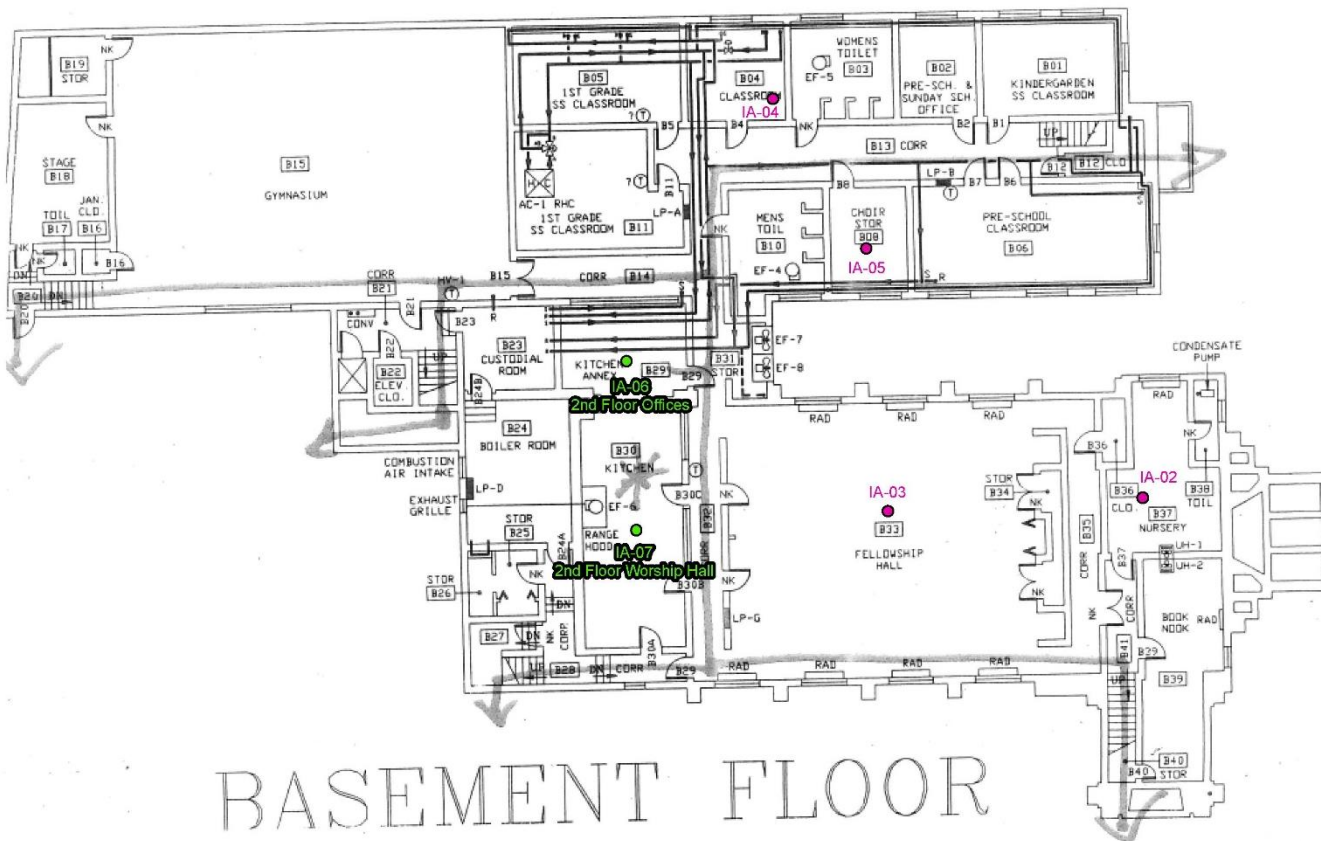
BASEMENT FLOOR



2022 - Ongoing EGLE Sampling Church Locations

NOTE: NORTH TO THE LEFT

*Emergency Exits
Kitchen*



- Basement Indoor Air Location
- Second Floor Indoor Air Location