| | |
|---|---|
| **From:** | Hallett, Heather L |
| **To:** | Keller, Ethan J - DNR |
| **Cc:** | Meller, Bob; McCuskey Zahn, Jessica A; Johnston, Matt F; Mayer, Gary O; Everett, Hope H; Campoli, Karen L - DNR |
| **Subject:** | [External] RE: Follow up meeting request for Former Chilton Metal Products Site |
| **Date:** | Tuesday, August 29, 2023 10:44:56 PM |
| **Attachments:** | image001.png<br>L-DNR Response to Review of 2022 GW Monitoring Update.pdf |

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Mr. Keller
Please find attached a response to the Review of the 2022 Groundwater Monitoring Update letter sent by DNR to Worthington Cylinders on May 23, 2023, regarding the Former Chilton Metal Products site (Site) located at 300 East Breed Street in Chilton, Wisconsin (BRRTS #s 03-08-000802 and 02-08-561133). This letter has been prepared by Foth on behalf of Worthington Cylinders and Foth will follow up with a Supplemental Site Investigation Work Plan, expected to be completed by the end of September.
Please let me know if you have any questions in the meantime.
Thank you,

*Heather*

**Heather Hallett, PG, CPG**
**(she/her/hers)**
Lead Hydrogeologist
Licensed in WI and PA

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August 29, 2023

Ethan Keller
Wisconsin Department of Natural Resources
2984 Shawano Avenue
Green Bay, WI 54313-6727

Re: Review of the 2022 Groundwater Monitoring Update, Chilton Metal Products (Former)
300 East Breed Street, Chilton, Wisconsin, BRRTS #s 03-08-000802 and 02-08-561133

Dear Ethan Keller:

This letter has been prepared on behalf of Worthington Cylinders Corporation (Worthington Cylinders) by Foth Infrastructure & Environment, LLC (Foth) in response to the Review of the 2022 Groundwater Monitoring Update letter sent by Wisconsin Department of Natural Resources (DNR) on May 23, 2023, regarding the Former Chilton Metal Products site (Site) located at 300 East Breed Street in Chilton, Wisconsin (BRRTS #s 03-08-000802 and 02-08-561133). During a call with Worthington Cylinders, Foth, and DNR on June 30, 2023, Foth agreed to prepare a letter clarifying some details about the site history and current status of the on-site plume before proceeding to prepare a Supplemental Site Investigation Work Plan. This letter will reiterate and respond to the points in DNR's response. DNR's text from DNR's Review of the 2022 Groundwater Monitoring Update letter are provided in italics below followed by Foth's response to each item.

## Long-Term Groundwater Monitoring Request

*Sampling all wells on a time frame less than annually will not be approved. A subset of wells must be sampled annually.*

As demonstrated in the annual groundwater monitoring report, Foth feels that the groundwater quality trends in the Site monitoring wells have been stable or decreasing overall over recent years. However, Worthington Cylinders agrees to continue annual sampling of a subset of monitoring wells with additional wells sampled on a monitoring schedule less than annual. Foth feels that sampling wells with free product, or even traces of free product, is less informative to the interpretation of groundwater conditions at the Site, as it can be assumed that the wells are impacted by high concentrations of volatile organic compounds (VOCs) and chlorinated volatile organic compounds (CVOCs). Wells that typically have free product will continue to be sampled less frequently but will still be sampled periodically.

## Completion of the Site Investigation

*The degree and extent of contamination currently identified at the site has not been adequately defined and documented with respect to Wis. Admin. Code ch. NR 716. The findings and interpretations by the DNR regarding the incomplete site investigation are summarized below:*

1. *Soil*

*The degree and extent of soil contamination currently identified at the site has not been adequately defined and documented with respect to Wis. Admin. Code ch. NR 716. Evaluate the need for additional soil investigation.*

Several soil investigations have been completed at the Site since the 1990s. Soil borings were advanced at numerous locations across the Site and extending off site, some of which were used to install monitoring wells. Figure 1 shows the locations of current and abandoned monitoring wells at the Site along with the locations of soil borings that have been advanced during multiple site investigations. Figures 2 through 4 show historical unsaturated soil sample results with isoconcentration contours. These are new figures that were developed at the request of DNR to summarize historical soil sample results by individual constituent, rather than in terms of all Residual Contaminant Level (RCL) exceedances, as in the figure produced by Foth in 2018. It should be noted that fewer shallow (1 to 4-foot depth) samples have collected and analyzed at the Site, partly due to asphalt cover, so more data is available for comparison to the Wisconsin Administrative Code NR 712 groundwater pathway RCL than is available for comparison to the Wisconsin Administrative Code NR 712 Industrial Direct Contact RCL. Trichloroethene, naphthalene, and benzene were selected for these figures because they have historically had the most RCL exceedances. Figure 2 depicts trichloroethene concentrations in soil exceeding the Wisconsin Administrative Code NR 712 groundwater pathway RCL as well as shallower soil impacts. Trichoroethene was detected in B-39, located west of the West Loading Dock, B-41, located under the building near the West Loading Dock and in 1997 samples FE-1 and FE-2 collected from the trench for the West Loading Dock footings. The naphthalene and benzene impacts (Figures 3 and 4) are similarly limited to the west but extend further east beneath the building. Based on these figures, the soil impacts have historically been isolated to a central area near the West Loading Dock. The horizontal extent of benzene, trichloroethene, and naphthalene in soils is well defined by the historical sampling information.

2. *Groundwater*

*The degree and extent of groundwater contamination currently identified at the site has not been adequately defined and documented with respect to Wis. Admin. Code ch. NR 716. Evaluate the need for additional groundwater investigation.*

Groundwater monitoring wells have been positioned to cover different portions of the Site over the history of the Site, though some have been abandoned if they have not had any detections of contaminants of potential concern. Foth agrees with the comment made by DNR in the June 30th call that there is not a clean well west of MW-35 and S-19, in terms of trichloroethene, however, that is the upgradient direction. Trichloroethene was not detected in unsaturated zone soil samples in the MW-35 soil boring. This is an area where some consideration could be given to further investigation.

3. *Vapor*

*Evaluate the vapor intrusion pathway on-site and off-site for PVOCs and CVOCs per the DNR guidance document RR-800, "Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin Wis. Stat. ch. 292; Wis. Admin. Code ch. NR 700." If the screening evaluation indicates that further vapor assessment is needed, prepare a vapor intrusion work plan, and submit for DNR review. Trichloroethylene (TCE) poses a short-term (i.e., acute) health risk in indoor air at certain concentrations that justifies expedited assessment, investigation, and mitigation as immediate or interim actions. Because TCE is a contaminant of concern at the site,*

*assessment of the vapor intrusion pathway should be prioritized and completed as soon as possible.*

A simple soil vapor study was completed during tank removal activities under the plant building in 1991. Locations S-1 and S-2, heading east from the tank excavation showed high VOC readings using field screening techniques. Indoor air monitoring was also completed during site investigation activities that occurred in 2016-2018. SUMMA canister samples were collected from three indoor locations in 2018 for VOC analysis, two within the area where the early site investigation activities were completed. Samples were collected during an 8-hour shift at locations near potential VOC sources associated with historic remedial activities and/or ongoing VOC-generating activities (i.e., spray paint, solvents). VOC concentrations were well below the applicable Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits or recommended American Conference of Governmental Industrial Hygienists standards. Very low detections of PVOCs were detected at all three sampling locations, but CVOCs, tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, vinyl chloride, and dichloroethane were not detected. On the June 30th call, DNR requested sub-slab vapor sampling under the plant building for PVOCs and CVOCs per the DNR guidance document RR-800, "Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin Wis. Stat. ch. 292; Wis. Admin. Code ch. NR 700." Sub-slab vapor sampling has not been done at the Site because the indoor air sample results were favorable and there are significant access issues due to equipment lay out and OSHA Process Safety Management concerns for working with equipment with a spark potential in an area with high potential for flammable gases. Indoor work in this area would need to be performed when the plant is shut down.

*4. <u>Other Media (Emerging Contaminants)</u>*
*Emerging contaminants include perfluoroalkyl and polyfluoroalkyl substances (PFAS), 1,4-dioxane and others. Per Wis. Admin. Code § NR 716.07 and Wis. Admin. Code § NR 716.09, site investigation scoping and work plans should include an evaluation of potential PFAS compounds and other applicable emerging contaminants that were historically or are presently produced, used, handled, or stored at the site. The evaluation should include any available information on whether any products containing PFAS were used in any process services, the duration of PFAS-containing product use, the type of PFAS contained in the product, and any areas of the site where PFAS-containing products may have been used, stored, managed, or discarded. Site investigation work plans should also include a sampling and analysis strategy to be used during field investigation that considers all information in the evaluation conducted under Wis. Admin. Code § NR 716.07*

Some internal investigation and conversations have taken place in regards to emerging contaminants such as PFAS and 1,4-dioxane and Worthington Cylinders does not have any evidence to suggest that these substances have been used at the Site in the past or associated with the compounds found here. This information will be further discussed in a future submittal.

## Schedule

Worthington Cylinders will not be able to meet the investigation schedule proposed in DNR's letter. The schedule was discussed in the June 30th meeting and DNR indicated that the schedule is flexible. Foth anticipates submitting a limited supplemental site investigation plan on behalf of Worthington Cylinders by the end of September for DNR approval.

Sincerely,

Foth Infrastructure & Environment, LLC

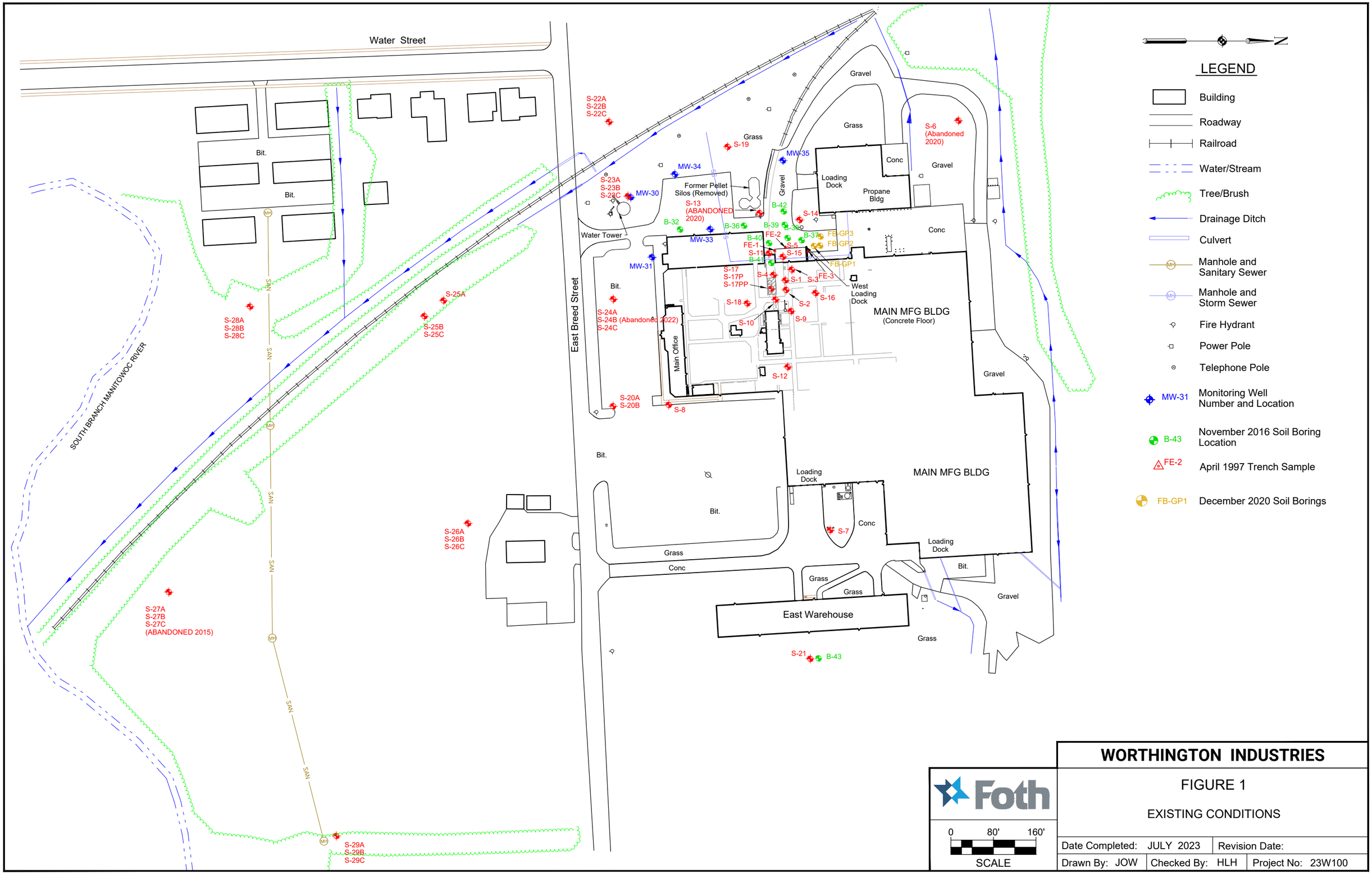
Heather L. Hallett

Heather L. Hallett, P.G., C.P.G.
Lead Hydrogeologist
Licensed in WI and PA

Robert J. Meller

Robert J. Meller, P.G.
Lead Environmental Scientist
Licensed in WI

Attachment
Figures



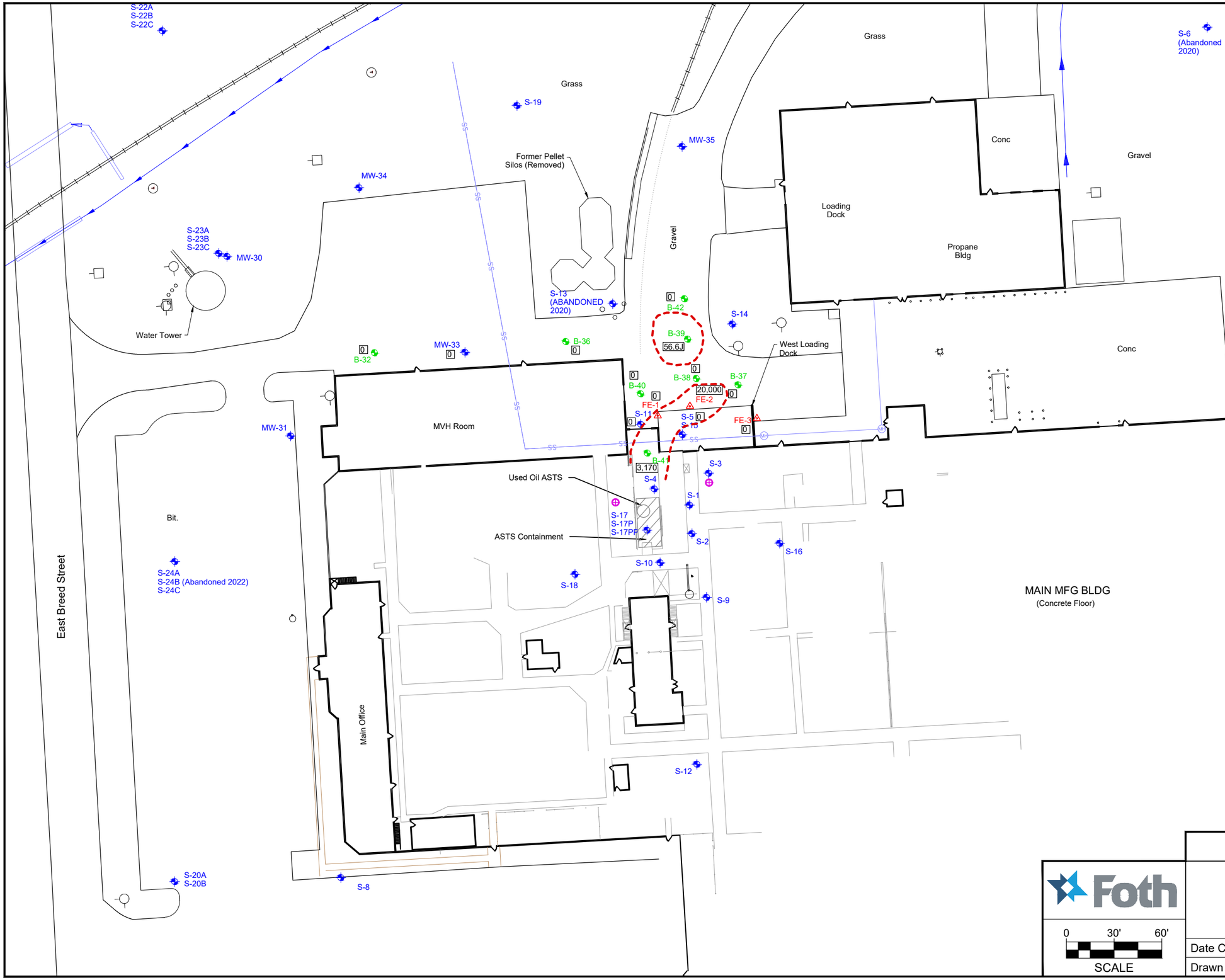

**WORTHINGTON INDUSTRIES**

FIGURE 1

EXISTING CONDITIONS

| | | |
|---|---|---|
| Date Completed: JULY 2023 | Revision Date: | |
| Drawn By: JOW | Checked By: HLH | Project No: 23W100 |

Tuesday, August 15, 2023 3:37:21 PM
DWG Filename: 23w100 figure 1 - existing conditions.dwg Layout: layout2
DWG Folder Location: Worthington Cylinders/23w100/CAD/Figures/Soil Analysis




## LEGEND

- Building
- Roadway
- Railroad
- Water/Stream
- Tree/Brush
- Drainage Ditch
- Culvert
- Manhole and Sanitary Sewer
- Manhole and Storm Sewer
- Fire Hydrant
- Power Pole
- Telephone Pole
- MW-33 / 0 — Monitoring Well Number and Location with Trichloroethene Concentration
- B-43 / 3,170 — November 2016 Soil Boring Location Trichloroethane Concentration
- FE-2 / 20,000 — April 1997 Trench Sample with Trichloroethane Concentration
- April 2018 Indoor Air Monitoring Locations
- Trichloroethane Groundwater Protection RCL (3.6 ug/kg)

NOTES:

1. All Soil Concentrations in ug/lg.
2. If no Sample Results are shown, no data is available at that location.

Foth

0 30' 60'
SCALE

**WORTHINGTON INDUSTRIES**

FIGURE 2

TRICHLOROETHENE HISTORICAL SOIL CONCENTRATION MAP

| | | |
|---|---|---|
| Date Completed: JULY 2023 | Revision Date: | |
| Drawn By: JOW | Checked By: HLH | Project No: 23W100 |

Tuesday, August 29, 2023 2:49:07 PM
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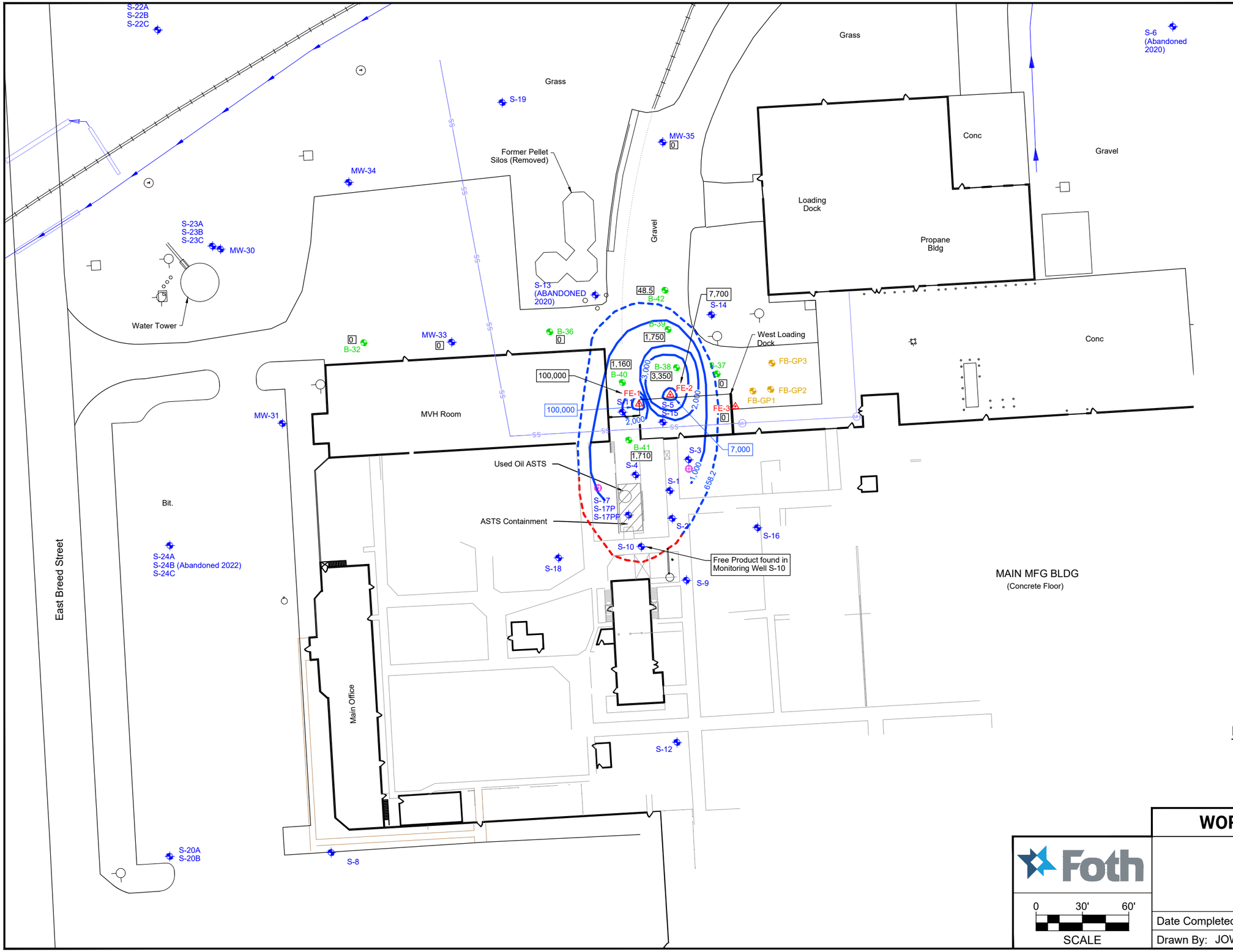
DWG Folder Location: Worthington Cylinders/23w100/CAD/Figures/Soil Analysis




## LEGEND

- Building
- Roadway
- Railroad
- Water/Stream
- Tree/Brush
- Drainage Ditch
- Culvert
- Manhole and Sanitary Sewer
- Manhole and Storm Sewer
- Fire Hydrant
- Power Pole
- Telephone Pole
- MW-33 / 0 — Monitoring Well Number and Location with Naphthalene Concentration
- B-41 / 1,710 — November 2016 Soil Boring Location Naphthalene Concentration
- Estimated Naphthalene Groundwater Protection RCL
- Naphthalene Groundwater Protection RCL (658.2 ug/kg)
- 1,000 — Naphthalene Soil Concentration (ug/kg)
- FE-2 / 7,700 — April 1997 Trench Sample with Naphthalene Concentration
- April 2018 Indoor Air Monitoring Locations
- FB-GP1 — December 2020 Soil Borings

## NOTES:

1. All Soil Concentrations in ug/lg.
2. If no Sample Results are shown, no data is available at that location.

Foth

0 30' 60'
SCALE

**WORTHINGTON INDUSTRIES**

FIGURE 3

NAPHTHALENE HISTORICAL SOIL CONCENTRATION MAP

| | | |
|---|---|---|
| Date Completed: JULY 2023 | | Revision Date: |
| Drawn By: JOW | Checked By: HLH | Project No: 23W100 |

Tuesday, August 29, 2023 2:52:09 PM
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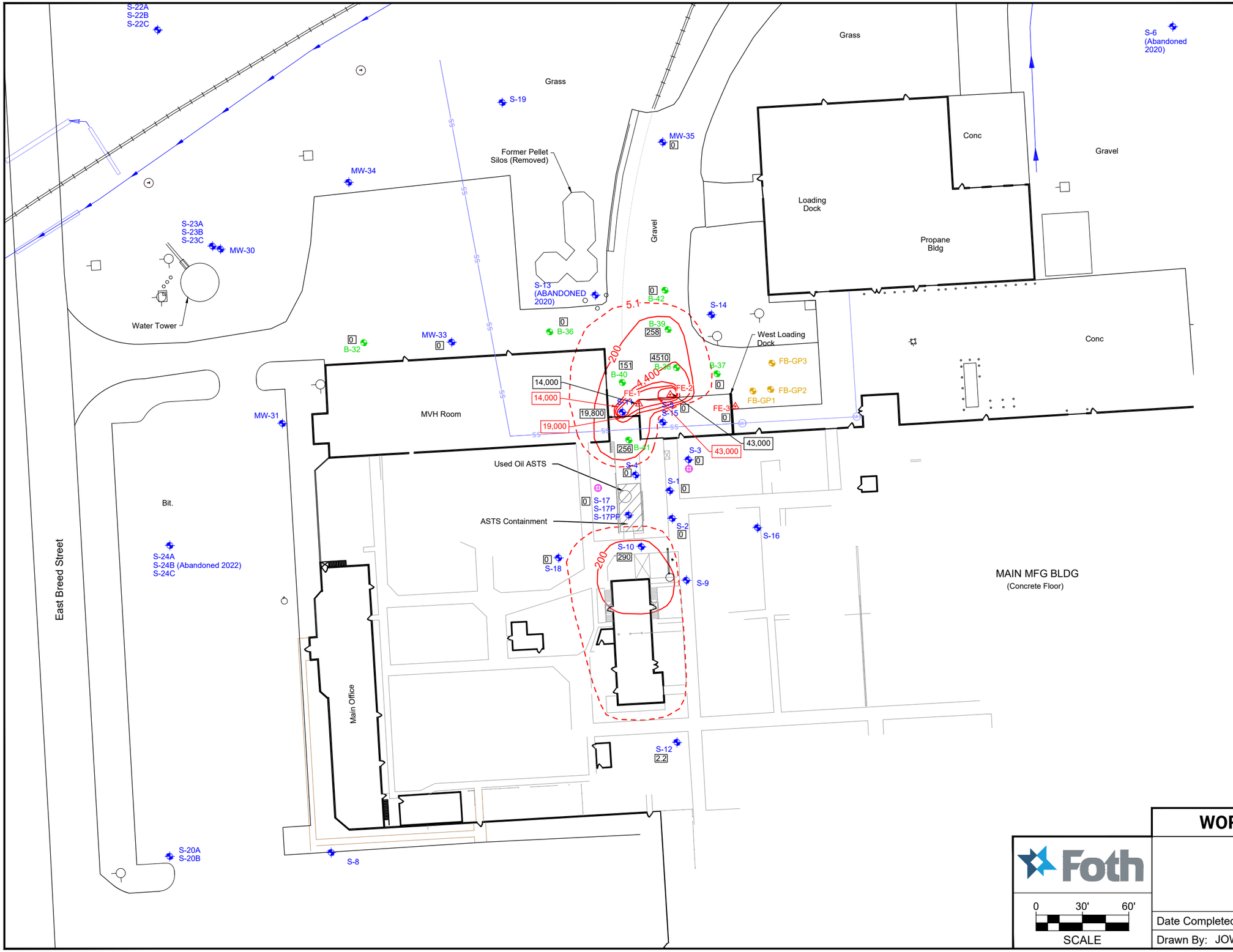
DWG Folder Location: Worthington Cylinders/23w100/CAD/Figures/Soil Analysis




## LEGEND

- Building
- Roadway
- Railroad
- Water/Stream
- Tree/Brush
- Drainage Ditch
- Culvert
- Manhole and Sanitary Sewer
- Manhole and Storm Sewer
- Fire Hydrant
- Power Pole
- Telephone Pole
- MW-33 / 0 — Monitoring Well Number and Location with Benzene Concentration
- B-38 / 148J — November 2016 Soil Boring Location Benzene Concentration
- Benzene Groundwater Protection RCL (5.1 ug/kg)
- 200 — Benzene Soil Concentration (ug/kg)
- FE-1 / 14,000 — April 1997 Trench Sample with Benzene Concentration
- April 2018 Indoor Air Monitoring Locations
- FB-GP1 — December 2020 Soil Borings

NOTE:

1. All Soil Concentrations in ug/lg.
2. J indicates Estimated Value.
3. If no Sample Results are shown, no data is available at that location.

Foth

0 30' 60'
SCALE

**WORTHINGTON INDUSTRIES**

FIGURE 4

BENZENE HISTORICAL SOIL CONCENTRATION MAP

| | | |
|---|---|---|
| Date Completed: JULY 2023 | | Revision Date: |
| Drawn By: JOW | Checked By: HLH | Project No: 23W100 |

Tuesday, August 29, 2023 2:54:44 PM
DWG Filename: 23w100 figure 4 - benzene historical soil concentration map.dwg Layout: layout2
DWG Folder Location: Worthington Cylinders/23w100/CAD/Figures/Soil Analysis