

January 8, 2020

Mr. Mike Slenska
Beazer East, Inc.
c/o Three Rivers Management, Inc.
1910 Cochran Road
Manor Oak One, Suite 200
Pittsburg, PA 15220

Subject: Review of Supplemental Site Investigation Results

Former Koppers Tar Plant and Wabash Alloys Site
9100 South 5th Avenue, Oak Creek, WI 53154
FID #: 241379050; BRRTS #: 02-41-553761
VPLE BRRTS #: 06-41-561509

City of Oak Creek Utility Corridor Lot 1
9170 South 5th Avenue, Oak Creek, WI 53154
FID #: 341074470; BRRTS #: 02-41-561425
VPLE BRRTS #: 06-41-561426

Dear Mr. Slenska:

The Wisconsin Department of Natural Resources (DNR) has reviewed the *Supplemental Site Investigation, Former Koppers Tar Plant and Wabash Alloys Site, Oak Creek, WI* (Report), dated January 18, 2019, prepared by Tetra Tech, Inc. (Tetra Tech) on behalf of Beazer East, Inc. (Beazer). The DNR previously provided comments on the submittals, *Work Plan, Supplemental Site Investigation*, dated August 30, 2017, and *Revised Work Plan, Supplemental Site Investigation*, dated June 15, 2018, in two separate letters dated May 15, 2018, and June 29, 2018, respectively. The previous letters requested additional investigation to define the degree and extent of contamination.

The DNR reviewed the Report for compliance with Wis. Admin. Code ch. NR 716. Based on the review of all site information submitted to-date, the DNR has determined that the site investigation is not complete. An interim remedial action is needed to halt the migration of the contamination. The DNR believes that there is enough site-specific information to move forward with an interim remedial action. Collection of additional data during completion of the interim action will likely provide the information necessary to finalize the site investigation. Submittal of a work plan for completion of the interim remedial action, including collection of remaining site investigation information is required for DNR review. Detailed comments regarding the site investigation and interim remedial action components and are provided below.

Completion of the Site Investigation

The DNR has determined that additional work is necessary because the site investigation is incomplete. The degree and extent of contamination identified at the site has not been adequately evaluated and documented per Wis. Admin. Code ch. NR 716. The findings and interpretations by the DNR regarding the site investigation are summarized below:

Degree and extent of contamination in all affected media

Wis. Admin. Code § NR 716.11(3)(a) requires the field investigation to determine the nature, degree and extent, both areal and vertical, of the hazardous substances or environmental pollution in all affected media.

The depth of tar, identified as the contaminant source material, remains undefined in specific areas after the additional site investigation. Further delineation of the contaminant mass can occur during the pre-design sampling phase for the interim remedial action. The following areas (Refer to Figure 7, Observed Tar, dated December 12, 2018) are identified for further tar assessment and/or verification of tar depth:

- B-01-18 located between previous borings B-74 and B-05 near the former naphthalene ASTs
- B-02-18 located in the area of previous borings B-81, MW-122 and SB713 near the former Tar Barrel Platform
- B-03-18 located near previous boring B-38
- B-04-18 located in the area of previous B-92 and MW-123 near the former Pitch Bay

Potentially impacted areas must be delineated where a naphthalene odor is noted.

Interim Action

There are indications of an on-going discharge that is migrating off-site. Interim remedial action is required per Wis. Admin. Code chs. NR 708 and NR724, to address on-going discharges, expanding groundwater plumes, and off-site migration of source materials. The findings and interpretations by the DNR regarding an interim action are summarized below:

Immediate Actions to halt a discharge

Wis. Admin. Code § NR 708.05(3) requires responsible parties to take all necessary, non-emergency immediate actions to halt the discharge of a hazardous substance, and to contain, treat, or remove discharged hazardous substances environmental media or both, in order to minimize the harmful effects of the discharge to the air, lands, or waters of the state and to restore the environment to the extent practicable.

When comparing past and current data and figures, monitoring wells MW-130 and MW-134 (located in the utility corridor) show increasing concentrations of PAHs in an expanding plume. The DNR requires interim remedial action at the following areas (Refer to Figure 2, Site Layout - Former Koppers Tar Plant and Wabash Alloys Site, Oak Creek, WI, dated November 7, 2014) to contain the DNAPL tar from reaching the utility trench and continuing to migrate off-site:

- B1/E2 Area
- C1/F2 Area

Continued groundwater monitoring will be required after an interim action to determine groundwater plume stability. Groundwater monitoring should be included in the requested work plan.

Schedule

Per Wis. Admin. Code § NR 708.11(3), the DNR requires a work plan to be submitted for an interim remedial action, within 60 days, by March 6, 2020. The DNR recommends that this work plan include activities to complete the site investigation and continue monitoring groundwater conditions. The work plan should incorporate pre-design sampling to determine the depth of tar if not previously identified. The delineation of the contaminant source material, in terms of areal and vertical extent, must be defined. The work plan must include updated figures, specifically isoconcentration maps and cross sections with all data collected to-date, to justify the interim action and remedial design plan.

The DNR also recommends that a larger remedial action occurs in coordination with both responsible parties (Beazer and Connell). Connell can proceed with shallow excavations to address the PCBs, followed by excavations completed by Beazer to address the deeper tar source material. This type of coordinated remedial work may economically benefit both parties.

The subject site is currently enrolled in Wisconsin's Voluntary Party Liability Exemption (VPLE) process, related to environmental contamination and remediation. Progress is needed to remain in the VPLE program. As such, updates on the progress of the environmental investigation and remediation of this property are required on a regular basis for continuing participation in the VPLE program.

The DNR appreciates the efforts you are taking to investigate and restore the environment at this site. If you have any questions regarding this letter, please contact me at 414.263.8639 or at eric.amadi@wisconsin.gov.

Sincerely,

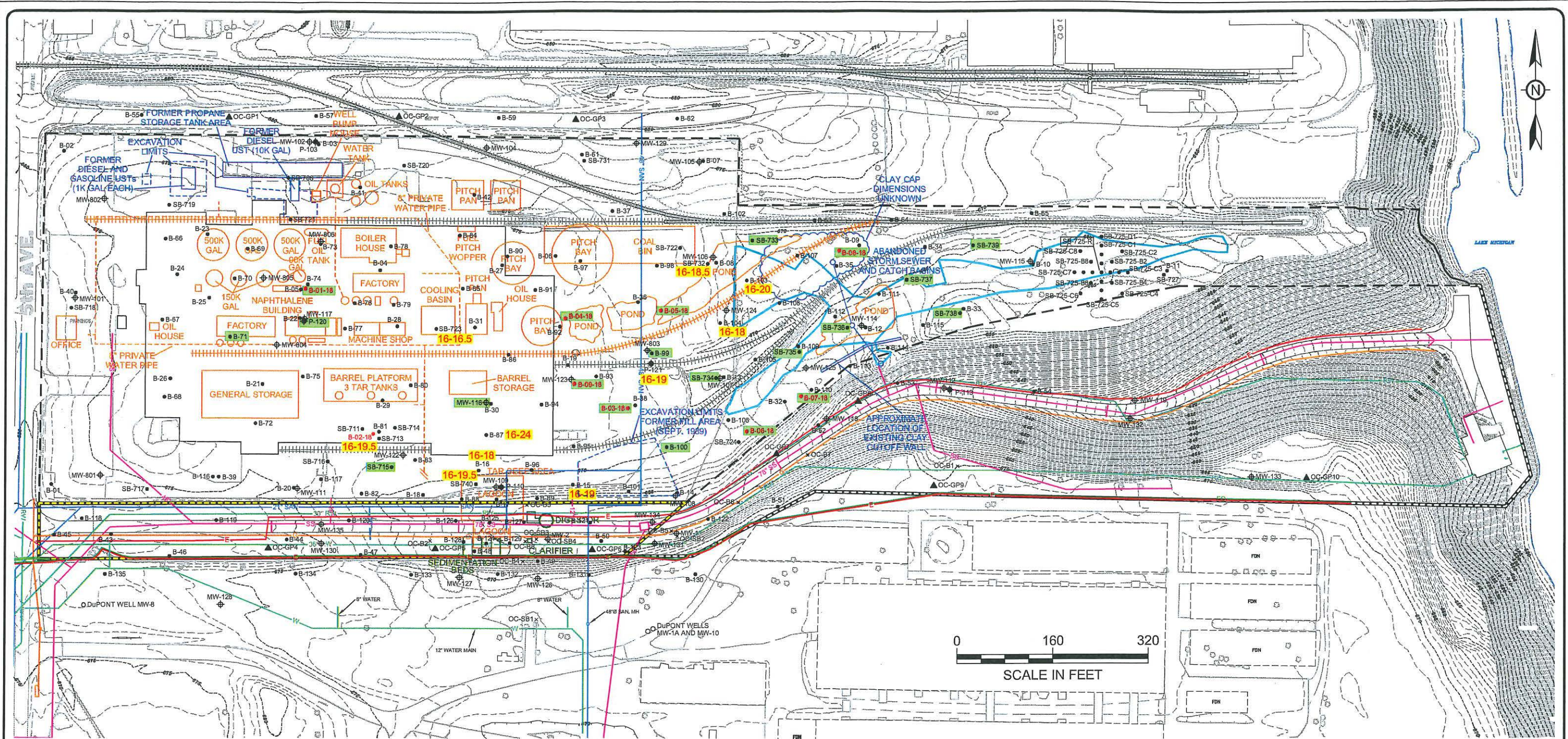


Eric Amadi - Hydrogeologist
Remediation & Redevelopment Program
SER - Milwaukee Service Center

Attachment:

- Figure 7: Former Koppers Tar Plant and Wabash Alloys Site, Observed Tar (16' - 20'), 12/12/2018
- Figure 2: Former Koppers Tar Plant and Wabash Alloys Site Layout, dated 11/7/14, 2018.05.14.

cc: Mike Kellogg - Connell Aluminum Properties, LLC
Mike Noel - Tetra Tech (electronic)
Julie Zimdars - NRT (electronic)
Larry Haskins - City of Oak Creek (electronic)
SER Case File #: FID #: 241379050; BRRTS #s: 02-41-553761 / 06-41-561509
SER Case File #: FID #: 341074470; BRRTS #s: 02-41-561425 / 06-41-561426



EXPLANATION

- ⊕ MW-101 WATER TABLE WELL
- P-103 NESTED PIEZOMETER
- B-01 SOIL BORING
- B-01-18 NEW SOIL BORING
- × OC-SB1 SOIL BORING (CITY OF OAK CREEK)
- ▲ OC-GP1 GEOPROBE (CITY OF OAK CREEK)
- APPROXIMATE WABASH PARCEL BOUNDARY (VPLE 06-41-560068)
- APPROXIMATE CITY PARCEL BOUNDARY (VPLE # TBD)

- ○ FORMER TAR PLANT STRUCTURES
- □ PAST REMEDIAL ACTIVITIES
- ○ FORMER WASTEWATER TREATMENT PLANT STRUCTURES
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE CITY UTILITY CORRIDOR PROPERTY BOUNDARY

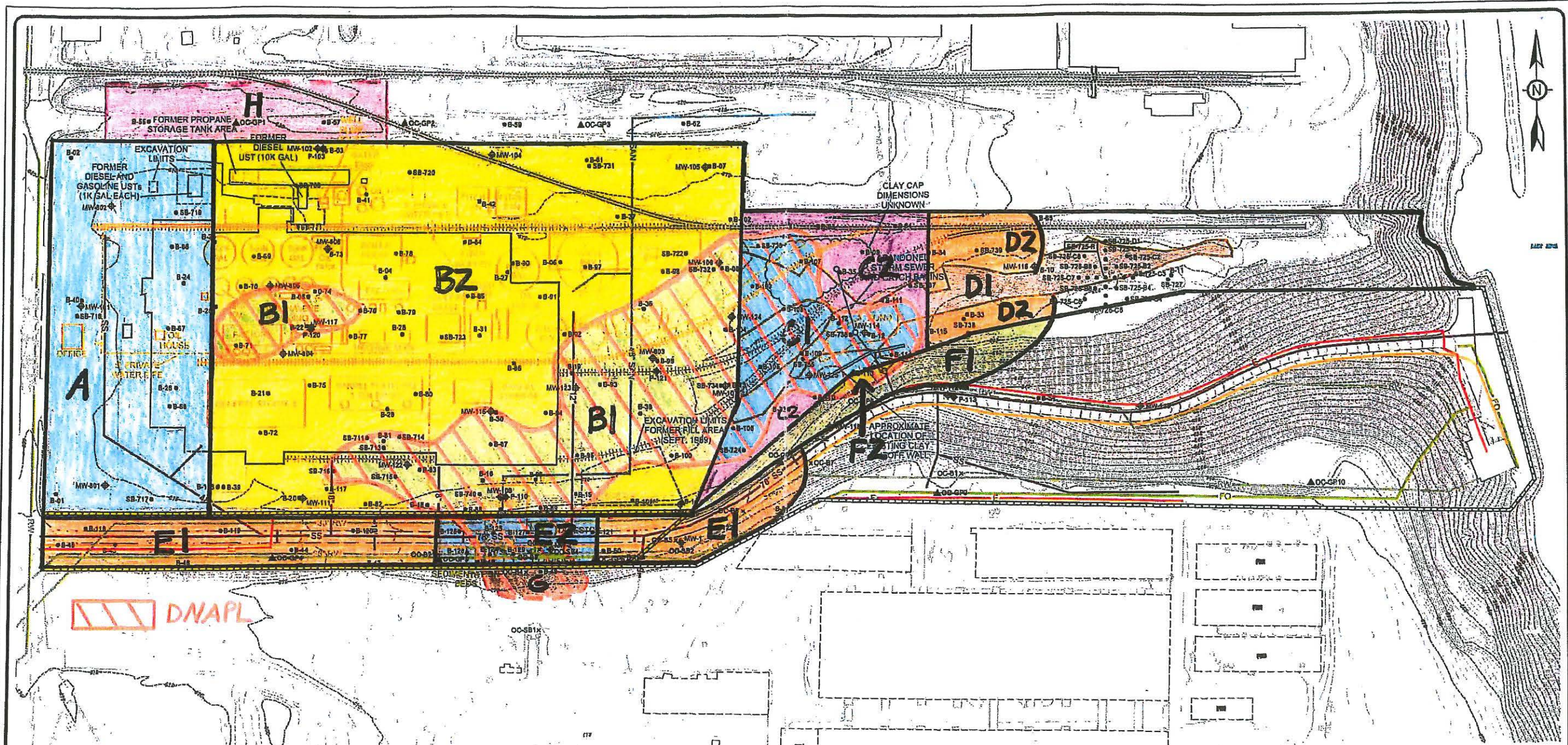
- E— ELECTRICAL
- G— NATURAL GAS
- RW— RAW WATER
- SAN— SANITARY
- SS— STORM SEWER
- FO— FIBER OPTIC

16-20 OBSERVED TAR (16-20' BGS) ● B-71 NO OBSERVED TAR

REFERENCE NOTES:

1. EXISTING TOPOGRAPHY AND SITE FEATURES FROM LAND INFORMATION SERVICES, INC. - ENVIRONMENTAL SURVEY, 12/21/2001.
2. FORMER TAR PLANT STRUCTURES FROM THE SANBORN LIBRARY - EDR INQUIRY 2284158.1s, ©1950.
3. FORMER POND AND LAGOON LOCATIONS FROM 1937-1968 AERIAL PHOTOGRAPHY - COMPILED BY AERO-DATA CORPORATION, APRIL 2013.
4. FORMER WASTEWATER TREATMENT PLANT STRUCTURES FROM HARTMAN-STRASS, INC. - FILE NO. 72051-C-303, 12/1/1971.

TITLE: FORMER KOPPERS TAR PLANT AND WABASH ALLOYS SITE OBSERVED TAR (16-20' BGS)			
LOCATION: OAK CREEK, WISCONSIN			
	CHECKED	MRN	FIGURE: 7
	DRAFTED	CMP	
	PROJECT	117-2201417	
DATE	12/12/18		



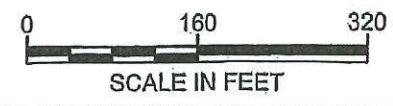
DNAPL

EXPLANATION

- | | | |
|--|--|---|
| <ul style="list-style-type: none"> ⊕ MW-101 WATER TABLE WELL ● P-103 NESTED PIEZOMETER ● B-01 SOIL BORING × OC-SB1 SOIL BORING (CITY OF OAK CREEK) ▲ OC-GP1 GEOPROBE (CITY OF OAK CREEK) --- APPROXIMATE WABASH PARCEL BOUNDARY (VPLE 06-41-560068) --- APPROXIMATE CITY PARCEL BOUNDARY (VPLE # TBD) | <ul style="list-style-type: none"> □ ○ FORMER TAR PLANT STRUCTURES □ ○ FORMER WASTEWATER TREATMENT PLANT STRUCTURES --- PAST REMEDIAL ACTIVITIES --- APPROXIMATE WETLAND BOUNDARY --- APPROXIMATE CITY UTILITY CORRIDOR PROPERTY BOUNDARY | <ul style="list-style-type: none"> —E— ELECTRICAL —G— NATURAL GAS —RW— RAW WATER —SAN— SANITARY —SS— STORM SEWER —FO— FIBER OPTIC |
|--|--|---|

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TITLE: FORMER KOPPERS TAR PLANT AND WABASH ALLOYS SITE SITE LAYOUT			
LOCATION: OAK CREEK, WISCONSIN			
	CHECKED	MRN	FIGURE: 2
	DRAFTED	HJW	
	PROJECT	117-2201323	
	DATE	11/7/14	



2018.05.14