



August 3, 2020

Mr. Mike Bollinger
Beazer East, Inc.
c/o Three Rivers Management, Inc.
600 River Avenue, Suite 200
Pittsburgh, PA 15212

Subject: Review of Updated Site Investigation Figures

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. Bollinger:

The Wisconsin Department of Natural Resources (DNR) has completed a preliminary review of Beazer's updated site investigation figures as received on June 11, 2020. The DNR has identified numerous instances where it appears site data has not been accurately depicted on the figures. A full review of all information has not been completed by the DNR, as multiple issues need to be addressed. The DNR is requesting that Beazer revise the figures and reevaluate the information collected to date to ensure that it is presented accurately prior to the DNR continuing its review of the data.

The DNR has provided the attached document to provide examples of the following issues:

- Tar identified in boring logs has not been accurately and/or consistently identified in the tar observation figures, isoconcentration maps, and cross-section figures.
- The degree and extent of impacts in multiple locations is not adequately defined to meet the requirements for VPLE, to move forward with the selection of a remedial alternative, or to complete a remedial design. In many instances, there are several hundred feet between data points which will make development of an acceptable remedial design challenging, especially with respect to estimating quantities and costs. It is possible that other lines of evidence could be presented in these areas to provide adequate information to move forward without additional site characterization information obtained through further sampling. The DNR requests that Beazer evaluate the information available in the identified areas and provide evidence, if available, to better define the conditions in the identified data gap areas. In the areas where direct observation, sample analysis results, or other lines of evidence are not available to support the delineation of the extent of impacts, additional data collection may be recommended as remedial design activities.

- Several locations have been identified as having high levels of contamination that appear to be independent of adjacent areas of impacts. Provide conceptual site model type information to explain the origins and justify the separation of these high concentration areas.

Please update the figures to address these issues or provide information to describe why revisions are not required. Also, conduct a detailed review of the information previously provided to identify any other areas that warrant revision. DNR's review was not all inclusive as it appears that further review should be completed by Beazer to address inconsistencies in data interpretation prior to the DNR completing its review. Providing this information will assist the DNR in review and approval of the site investigation and remedial action plan. Going forward, naphthalene must be considered as a primary contaminant of concern and incorporated within the evaluation of remedial options.

Once Beazer's review of the data is completed, resubmit the figures and provide a summary of any changes made to the revised documents. In addition, in areas identified as not having adequate direct evidence of the nature and extent of impacts, provide other lines of evidence to support the extent of contamination defined on the figures, with supplemental text as necessary. The DNR will complete its review of the documents after this information is provided. The DNR is requesting submittal of this information within 30 days, by September 3, 2020.

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

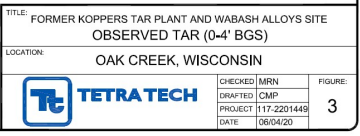
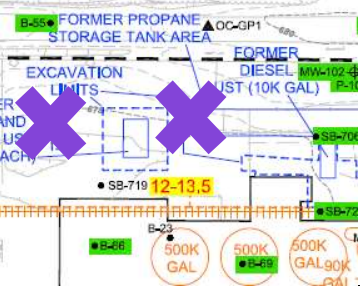
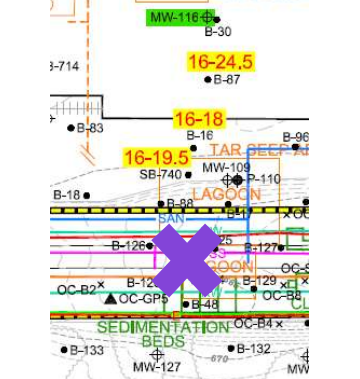
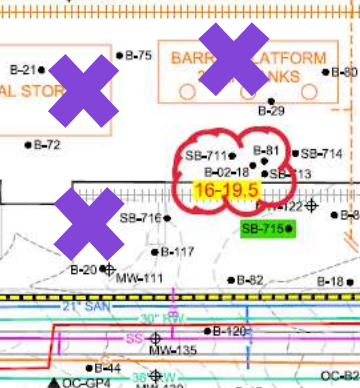
Attachment:

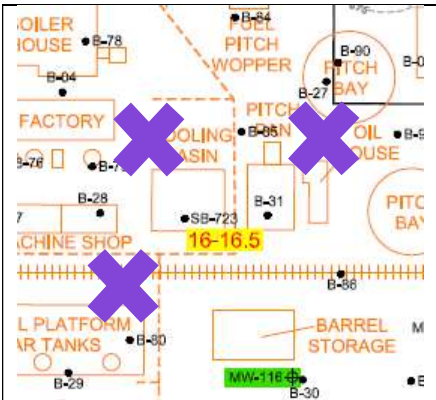
DNR Review of Beazer Figures (July 31, 2020)

cc: Mike Slenska – Beazer (electronic)
Mike Noel - Tetra Tech (electronic)
SER Case File #: FID #: 241379050; BRRTS #: 02-41-553761 / 06-41-561509
SER Case File #: FID #: 341074470; BRRTS #: 02-41-561425 / 06-41-561426

DNR Review of Beazer Figures (July 31, 2020)

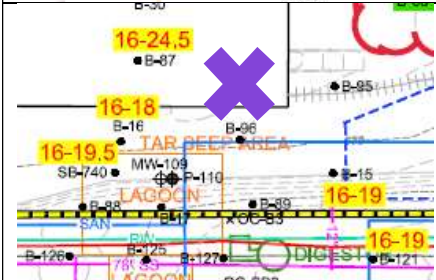
This document summarizes information requested by the DNR after review of Beazer’s updated site investigation figures received on June 11, 2020. The purple “X” indicates specific areas where additional information is requested.

	<p>Figure 3: Observed Tar (0-4’ BGS), 06/04/20 Figure B1: Total BTEXTM Soil Concentrations – 0-4’ BGS Figure B10: Total PAH Soil Concentrations – 0-4’ BGS</p> <p>The 2014 SI Report includes boring logs for B-08-11 and B-13-11. Tar is noted at both locations at 2 feet. Identify these sampling locations on the figures and highlight them as containing tar.</p>
	<p>From Figure 6: Observed Tar (12-16’ BGS), 06/04/20</p> <p>Describe how the tar extent is defined northwest, north, and northeast of SB-719. The closest tar observation points in these directions appear to be more than 100 feet from SB-719.</p>
	<p>From Figure 7: Observed Tar (16-20’ BGS), 06/04/20</p> <p>Describe how the tar extent is defined south of the B-87/B-16/SB-740 area in the utility trench at the 16-20 foot depth.</p>
	<p>From Figure 7: Observed Tar (16-20’ BGS), 06/04/20</p> <p>Describe how the tar extent is defined southwest, west, northwest, and north of the tar observed at B-02-18. The closest tar observation points in these directions appear to be more than 100 feet from B-02-18.</p>



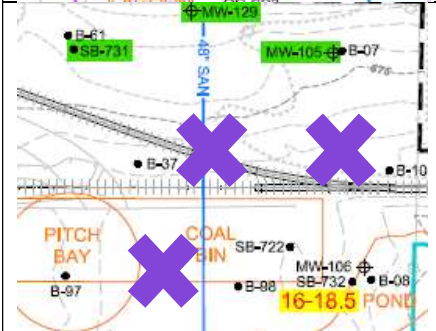
From Figure 7: Observed Tar (16-20' BGS), 06/04/20

Describe how the tar extent is defined southwest, northwest, north, and northeast of the tar observed at SB-723. The closest tar observation points in these directions appear to be more than 100 feet from SB-723.



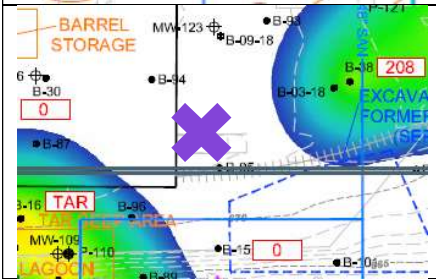
From Figure 7: Observed Tar (16-20' BGS), 06/04/20

Describe how the vertical extent of tar is defined at B-96. Tar is noted as being observed on the boring log from 5-15 feet, and the boring ends at 15 feet. Surrounding tar depths range from 18-24.5 feet.



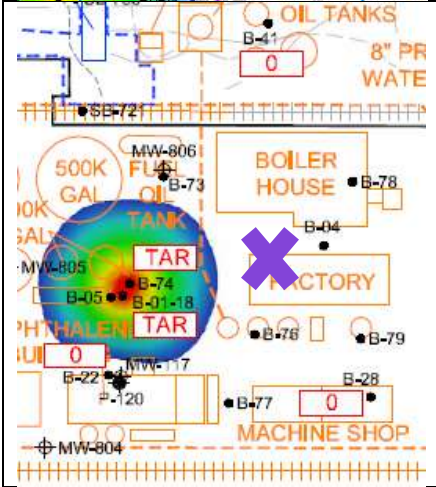
From Figure 7: Observed Tar (16-20' BGS), 06/04/20

Describe how the tar extent is defined west, northwest and north of the tar observed at SB-722. The closest tar observation points in these directions appear to be more than 100 feet from SB-722.



From Figure B1: Total BTEXTM Soil Concentrations – 0-4' BGS

Discuss if these two areas should be connected, since no tar observation and/or sampling locations are present in the 0-4 foot interval.



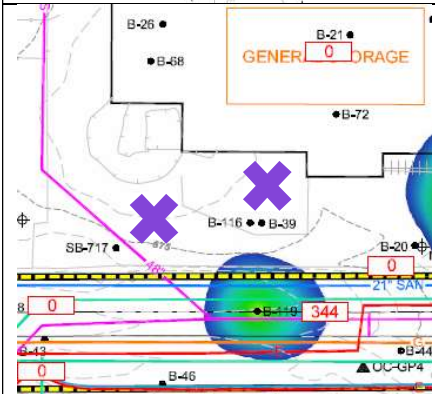
From Figure B2: Total BTEXTM Soil Concentrations – 4-8' BGS

Discuss the sharp definition around B-74 and the separation from B-04. B-04 was shown on Figure B1 as having contamination in the 0-4 foot interval. Since no tar observation and/or sampling locations are present in the 4-8 foot interval between B-74 and B-04, describe what is separating the contamination at B-04 from the B-74 area.



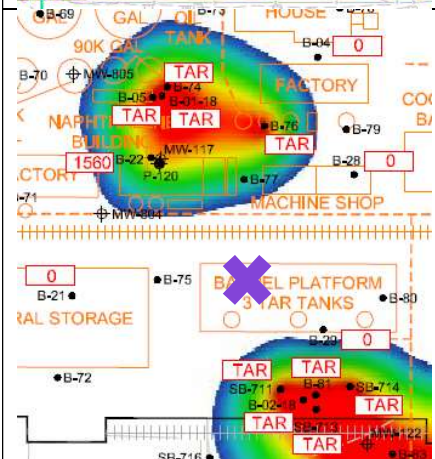
From Figure B2: Total BTEXTM Soil Concentrations – 4-8' BGS

Discuss the sharp definition around OC-B1 and the lateral extent of contamination in all directions. The closest tar observation and/or sampling locations are to the west and northwest and appear to be more than 100 feet from OC-B1.



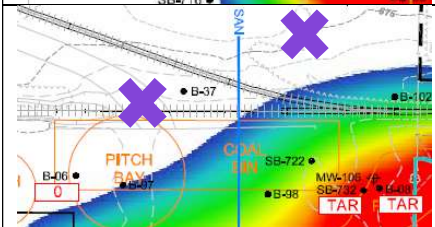
From Figure B2: Total BTEXTM Soil Concentrations – 4-8' BGS

Discuss the extent of contamination northwest and north of B-119. The closest sampling point in these directions is B-21, which appears to be more than 200 feet from B-119.



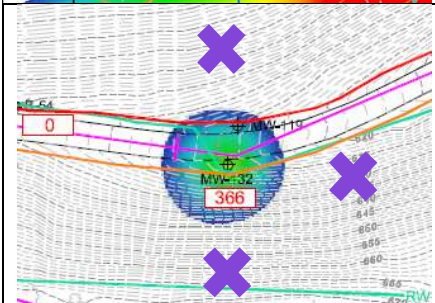
From Figure B3: Total BTEXTM Soil Concentrations – 8-12' BGS

Discuss if these two areas should be connected, since no tar observation and/or sampling locations are present in the 8-12 foot interval.



From Figure B3: Total BTEXTM Soil Concentrations – 8-12' BGS

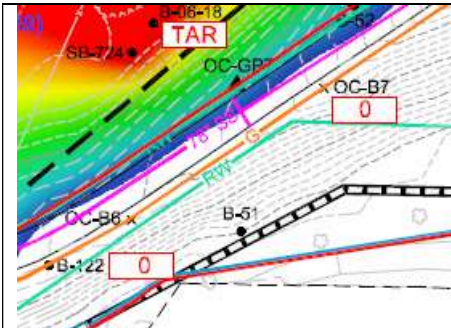
Discuss how the extent of contamination is defined to the northwest and north of SB-722. The closest sampling locations appear to be almost 300 feet from SB-722.



From Figure B3: Total BTEXTM Soil Concentrations – 8-12' BGS

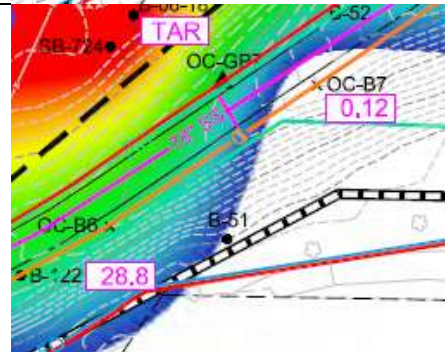
Discuss how the extent of contamination is defined to the north, east, and south of MW-132.

	<p>From Figure B4: Total BTEXTM Soil Concentrations – 12-16' BGS</p> <p>The boring log for SB-723 indicates thick tar from 12.9-16.5 ft. Explain the reason that no tar is labelled or "red" color used to approximate the soil concentration at SB-723 from 12-16 ft bgs.</p>
	<p>From Figure B5: Total BTEXTM Soil Concentrations – 16-20' BGS</p> <p>The boring log for SB-723 indicates thick tar from 12.9-16.5 ft. Explain the reason "red" is not indicated at SB-723 to approximate the soil concentration of the identified tar.</p>
	<p>From Figure B1: Total BTEXTM Soil Concentrations – 0-4' BGS</p> <p>Boring log for SB-734 indicates hardened tar and/or thick tar from 1-10 ft. Explain the reason that no tar is labelled on this figure.</p>
	<p>From Figure B1: Total PAH Soil Concentrations – 0-4' BGS</p> <p>Boring log for SB-734 indicates hardened tar and/or thick tar from 1-10 ft. Explain the reason that no tar is labelled on this figure.</p>
	<p>From Figure 4: Observed Tar (4-8' BGS) Figure 5: Observed Tar (8-12' BGS)</p> <p>Boring log for B-51 indicates hardened tar from 7-8.5 ft. Explain the reason that no tar is identified on these figures.</p>



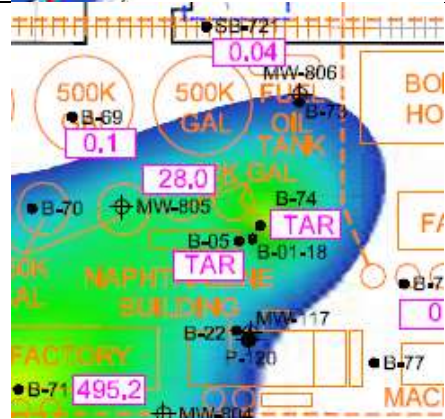
From Figure B2: Total BTEXTM Soil Concentrations – 4-8 ft BGS
 Figure B3: Total BTEXTM Soil Concentrations – 8-12 ft BGS

Boring log for B-51 indicates hardened tar from 7-8.5 ft. Explain the reason that no tar is identified on these figures.



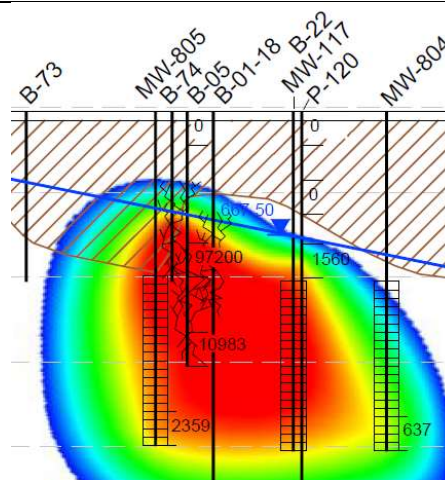
From Figure B11: Total PAH Soil Concentrations – 4-8 ft BGS
 Figure B12: Total PAH Soil Concentrations – 8-12 ft BGS

Boring log for B-51 indicates hardened tar from 7-8.5 ft. Explain the reason that no tar is identified on these figures.



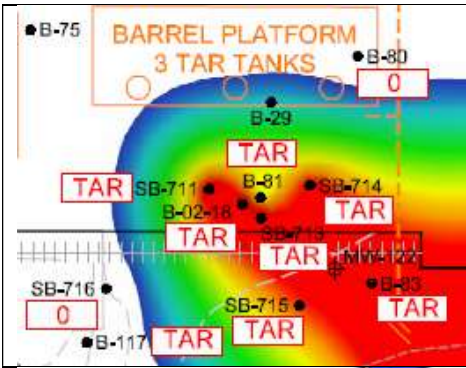
From Figure B13: Total PAH Soil Concentrations – 12-16 ft BGS

Boring log for B-74 indicates thick tar from 5-15 ft. Explain the reason “red” is not indicated at B-74 to approximate the soil concentration of the identified tar.



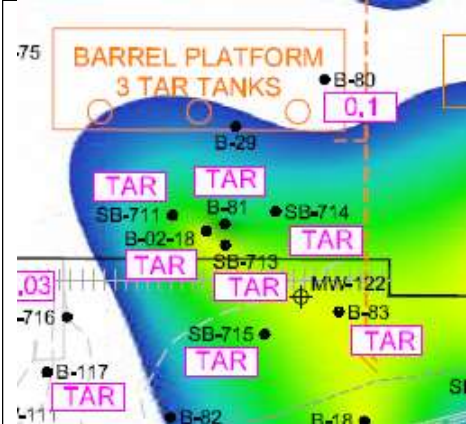
From Figure B6: Geologic Cross-Section A-A' – BTEXTM

Boring log for B-74 indicates thick tar from 5-15 ft. The depth of this boring on the cross-section appears to end at 10 feet bgs. Confirm if the depth of this boring should be extended to 15 feet bgs, as indicated in the boring log.



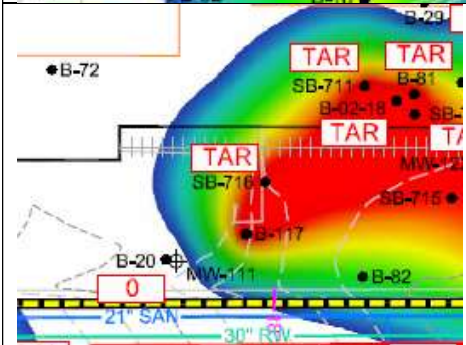
From Figure B4: Total BTEXTM Soil Concentrations – 12-16 ft BGS

Boring log for B-81 indicates thick tar from 5-15 ft. Explain the reason “red” is not indicated at B-81 to approximate the soil concentration of the identified tar.



From Figure B13: Total PAH Soil Concentrations – 12-16 ft BGS

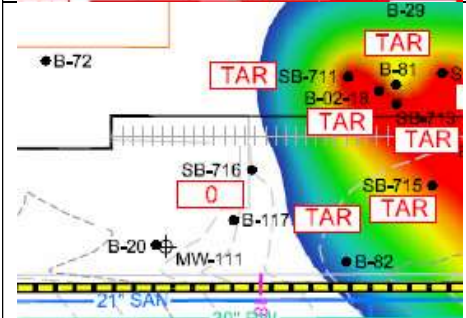
Boring log for B-81 indicates thick tar from 5-15 ft. Explain the reason “red” is not indicated at B-81 to approximate the soil concentration of the identified tar.



From Figure B2: Total BTEXTM Soil Concentrations – 4-8 ft BGS

Figure B11: Total PAH Soil Concentrations – 4-8 ft BGS

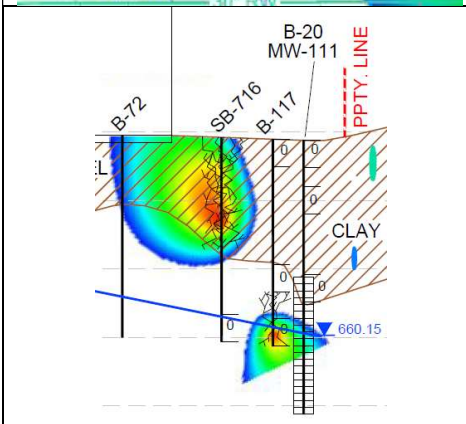
Boring log for B-117 indicates hardened tar from 5-8 ft. Explain the reason that no tar is labelled on these figures at B-117.



From Figure B4: Total BTEXTM Soil Concentrations – 12-16 ft BGS

Figure B13: Total PAH Soil Concentrations – 12-16 ft BGS

Boring log for B-117 indicates hardened tar from 5-8 ft. Explain the reason that tar is labelled, without the area being “red” on these figures at B-117.



From Figure B6: Geologic Cross-Section A-A' – BTEXTM

Boring log for B-117 indicates hardened tar from 5-8 ft, however the cross-section shows the tar as being deeper, from approximately 12-15 feet. Discuss if the tar at B-117 should be illustrated as being located at a shallower depth and if the impacted tar area should be connected to the tar shown in SB-716.