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ENVIRONMENT
& HEALTH

Mr. Eric Amadi
Hydrogeologist, SER R&R Program
Wisconsin Department of Natural Resources
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Addendum (Revision 1) to Remedial Action Options Report (RAOR) and Pre-Design Sampling Work Plan - *Connell Aluminum Properties, LLC*
Former Koppers Tar Plant and Wabash Alloys Site
9100 S. 5th Avenue, Oak Creek, WI 53154
BRRTS# 02-41-553761, FID#241379050
Connell VPLE BRRTS #:06-41-560068

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

January 11, 2021

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Dear Mr. Amadi:
On behalf of Connell Aluminum Properties, LLC, Ramboll (formerly Natural Resource Technology, NRT/OBG) is providing this Addendum (Revision 1 "R1") to the Remedial Action Options Report (RAOR) and Pre-Design Sampling Work Plan. As a reminder, the original RAOR was submitted jointly by NRT (on behalf of Connell) and Tetra Tech (on behalf of Beazer East, Inc.), dated December 30, 2014. This Addendum (R1) is intended to replace the March 13, 2020 Addendum. We are requesting approval of Connell's portion of the RAOR and also this Pre-Design Sampling Work Plan.

This Addendum (R1) letter addresses the WDNR's comment letter dated October 25, 2017 and the additional June 10, 2020 comment letter provided to Connell upon WDNR's review of the March 13, 2020 Addendum regarding *Review of Site Investigation and Remedial Action Options Reports, Former Koppers Tar Plant and Wabash Alloys Facility*. On July 7, 2020, Connell participated in a conference call with the WDNR in which we discussed our proposal for revising the Addendum to address the WDNR's June 2020 comments. We discussed increasing the cap extents in several areas to closely match the extents planned by Beazer for capping the creosote-impacted (PAHs) soil, for which WDNR did not have an objection. Reference is made in this letter report and/or on attached figures to the remedial actions proposed to be completed by Beazer East, Inc. including DNAPL tar removal, and barriers for PAH-contaminated soil using soil cover or potentially mobile tar capping using geomembrane.

RAOR SUMMARY AND WDNR COMMENTS

This Addendum letter follows the organization of the original WDNR comment letter starting with addressing Section A, Section B, and lastly Section C comments.

The Sections pertain to main concepts from the RAOR including:

Section A: Defining the Excavation Limits of PCBs above 10 mg/kg

Section B: Defining the Cap Extent for PCBs and arsenic over RCLs (Western Area)

Section C: Extending and Defining the Cap Extent for PCBs, arsenic and mercury over RCLs (Eastern Area)

The following items are described in detail that serve to supplement the original RAOR, and where needed, it is pointed out where a figure is meant to update a previous RAOR figure. Since many figures referenced were figures from the Site Investigation (SI) report, these too were included and pointed out that they originated from the SI report figure list.

SECTION A COMMENTS – EXCAVATION EXTENTS

Ramboll has revised the following figures to provide the locations of the additional borings for collecting PCB samples that WDNR suggested were needed for defining excavation limits above 10 mg/kg.

- Figure 1 – Revised RAOR Figure 9 – PCB Soil Excavation and Disposal (Alternative S-4) for purposes of showing all 6 planned excavation areas (Western Areas 1 through 5 and Eastern Area 6) and showing all 10 locations by comment number (A1 through A10) that WDNR identified as additional PCB sampling locations. Note 1 was revised and Notes 2 and 3 were added to include notes about the planned excavation confirmation sampling and sampling of the below grade concrete foundations where PCBs are identified in soil.
- Figure 2 – Revised Figure C40 SI Report - PCB Soil Data – North Yard TSCA Area for purposes of showing more specifically the additional PCB sampling locations related to comments A1 through A5, and A7.
- Figure 3 – Revised Figure C41 SI Report – PCB Soil Data – South Yard TSCA Area for purposes of showing more specifically the additional PCB sampling locations related to comments A6 and A8.
- Figure 4 – Revised Figure C42 SI Report – PCB Soil Data – South Exterior TSCA Area for purposes of showing more specifically the additional PCB sampling locations related to comments A9 and A10.

Pre-Design Sampling

Pre-design samples will be collected prior to completing the Remedial Design Report and are labeled as "PD" in Table 1. Depending on the sampling area (shown as A1 through A10), one or more borings are planned with samples to be collected in 1-foot intervals (0-1 ft, 1-2 ft, etc.) for PCB analysis, as done previously. Borings will be advanced to 4 or 8 feet total depth (Table 1). Initial samples to be analyzed will target those depth intervals that indicated the highest concentrations nearby, the intervals surrounding the highest and including all shallower intervals (marked as Analyze "A" in Table 1). The remaining samples will be kept cool for possible analysis, pending initial results (marked as Hold "H" in Table 1). The sample results will be used to refine the proposed excavation areas to be shown in the Remedial Design Report.

Pre-Remedial Implementation Sampling

Additional soil and concrete foundation samples that are needed for sufficient characterization for removal will be collected as part of the Pre-Remedial implementation step (labeled as "PR" in Table 1), which will be detailed in the Remedial Design Report. These samples will be discrete samples, to be analyzed with the same laboratory procedure as the excavation confirmation samples described below. The pre-remedial

samples will be collected using the excavator (as test pits) and concrete breaker equipment as needed. The main reasons for collection of these samples as pre-remedial (i.e. just prior to implementing the remediation) by the excavation subcontractor are:

1. If certain soil samples were not able to be collected due to accessibility issues (soil located below pit floors or thick foundations)
2. Concrete foundation/footer surfaces (vertical in particular) will be more easily accessible once an excavator and concrete breaker is mobilized for the remedial implementation
3. Using the soil results from pre-design sampling, sampling and analyzing select below grade concrete foundations that may have contamination will be easier to identify.
4. Additional critical excavation limit samples are determined to be needed as step-outs and/or deeper samples

Excavation Confirmation Sampling

The following is a brief description of the excavation confirmation sampling plan that is proposed following completion of the excavations, and will be expanded upon in the Remedial Design Report. The report will include a table of the Confirmation Sampling Plan by proposed excavation area and proposed labeling of the samples and the resamples as needed.

Excavation confirmation samples, to verify both TSCA removal extents are met and cleanup goals (<10 mg/kg) are met, will be collected at a grid/wall spacing appropriate for each excavation area (on the order of 15 to 30 ft). A mobile laboratory certified in Wisconsin for PCB Aroclor method 8082 may be used to expedite sample results and delineation of the required remedial extent. A fixed laboratory analyzing PCB Aroclor method 8082 with quick turn-around times may also be used. For PCB confirmation samples on base and sidewalls, a discrete sample is proposed to be collected.

Wherever a prior collected sample indicates that the PCB concentrations are less than or equal to 10 mg/kg and the excavation limit extends to this sample location and assuming that if all applicable (i.e. greater than 10 mg/kg) sample intervals have been analyzed, these samples will serve as the excavation confirmation samples. This will both: 1) reduce the required number of confirmation samples and 2) provide certainty for excavation extents and volumes. These locations where prior results will be used as confirmation will be listed on the Confirmation Sampling Plan table in the Remedial Design Report.

Resampling

If the clean-up goal is exceeded in base or sidewall confirmation samples (greater than 10 mg/kg total PCBs), additional excavation will be performed, and subsequent confirmation samples will be collected. This approach will continue until the clean-up goal is met, or other physical restrictions are encountered. Alternately and similar to the prior collected samples discussed above, the resamples may be collected using a test pit to pre-define the excavation lateral limit and those sample results will be used as the cleanup confirmation samples.

SECTION B COMMENTS – CAP EXTENTS WESTERN

Ramboll has revised the following figures to illustrate the new cap extents in the western area of the site that coincides with the property boundary and with the proposed cover for PAHs (Beazer plans). Because of this cap extension, the locations of the additional samples that WDNR suggested were needed for defining the cap extents for PCBs and arsenic are no longer required to be addressed (WDNR comments in Section B of the October 2017 letter).

- Figure 5 – Revised RAOR Figure 8 - PCB and Arsenic Soil Barrier (Alternative S-3) for purposes of showing the revised estimated cap extent in both the western and eastern areas.
- Figure 6 – Revised Figure C35 SI Report – PCB Aroclor 1242/1248/1254/1260 Soil Concentrations (0-4 feet bgs) for purposes of showing PCB sampling results and proposed cap extents.
- Figure 7 – Revised Figure C1 SI Report – Arsenic Soil Concentrations (0-4 ft bgs) for purposes of showing arsenic sampling results and proposed cap extents.

SECTION C COMMENTS – CAP EXTENTS EASTERN

Based on NRT's email dated November 22, 2017 and the WDNR's responses dated August 8, 2018 and August 10, 2018, the eastern remedial plan includes both capping and excavation for PCBs and capping for arsenic, in both wetland and non-wetland areas. One sample location (B-12) indicated an elevated mercury concentration above non-industrial RCLs but is planned to be excavated with the DNAPL tar removal effort. The WDNR Wetlands Program has confirmed that these wetlands can be disturbed to clean-up the contamination, with required wetland permits and possible mitigation credits.

Ramboll has prepared a new figure (Figure 8) to illustrate the additional proposed capping extent in the eastern area, to include both wetland and non-wetland areas that exceed respective non-industrial RCLs.

- Figure 8 – PCB and Arsenic Soil Barrier – East Area for purposes of showing the additional proposed cap extent. The additional pre-design PCB sampling locations related to comments C7 and C8 are shown (8 borings labeled SB741 to SB748). Four of the sampling locations are proposed to be performed on the City Utility Corridor property, and as such, access for these will be requested from the City. WDNR comments C1 through C6 are not applicable as the cap is being extended to the property boundary or beyond to the City property in these areas, and largely coincides with the proposed cover for PAHs (Beazer plans).

The following is a description of the pre-design and pre-cap extent verification sampling plan.

Pre-Design Sampling

Soil borings are planned in the southeastern corner of the proposed cap (near the boundary of the City and Connell properties) with samples to be collected in 2-foot intervals (both 0-2 ft, 2-4 ft) for PCB analysis as done previously (Table 1). Borings will be advanced to 4 feet total depth. The sample results will be used to refine the cap extent that is required for PCBs to be shown in the Remedial Design Report, where appropriate (the cap is not required for arsenic in these locations and therefore samples are not proposed to be analyzed for arsenic).

Pre-Cap Installation Extent Verification Sampling

Since the proposed cap boundary extends to the property line for most of the site, it is not expected that pre-cap installation samples for verification of cap extent will be needed. Also, the site investigation and pre-design sampling is expected to be complete enough to determine the needed cap extents for both PCBs and metals and will be shown in the Remedial Design Report. However, if certain samples are not able to be collected due to accessibility issues or additional samples are determined to be needed, these will be detailed in the Remedial Design Report and will be collected as part of the *Pre-Cap Installation Extent Sampling (similar to the Pre-Remedial Samples)*. These samples will be collected with an excavator (as test pits) and will be discrete samples collected in 2-foot intervals (both 0-2 ft, 2-4 ft). A mobile laboratory certified in Wisconsin for PCB Aroclor method 8082 may be used to expedite sample results and verification of the

required cap extent. A fixed laboratory analyzing PCB Aroclor method 8082 with quick turn-around times may also be used for PCBs, and will be used for analysis of metals verification samples (if any).

Chromium Data (Comment C2)

On January 27, 2014, NRT resubmitted the SI Report Figures C4 (Chromium, 0-4 ft bgs) and C8 (Silver, 0-4 ft bgs) after realizing an error on the figures that did not match the tables for chromium and silver (NRT transmittal dated January 27, 2014 is attached). Note that the data for B-08 has been corrected on these figures and are attached.

PLANNED FUTURE ACTIONS

Upon WDNR approval of Connell's portion of the RAOR and Pre-Design Work Plan, Ramboll will proceed with the pre-design sampling. Following this, a Remedial Design Report will be prepared to address Connell's NR 700 responsibilities as part of the VPLE program.

Please contact me if you have any questions or comments regarding this Addendum letter and Work Plan.

Sincerely,

Julie A. Zimdars, PE
Senior Managing Engineer

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julie.zimdars@ramboll.com

Attachments: Table 1 – Pre-Design Sampling and Analysis Plan
Figure 1 – Revised RAOR Figure 9 – PCB Soil Excavation and Disposal (Alternative S-4)
Figure 2 – Revised Figure C40 SI Report - PCB Soil Data – North Yard TSCA
Figure 3 – Revised Figure C41 SI Report – PCB Soil Data – South Yard TSCA Area
Figure 4 – Revised Figure C42 SI Report – PCB Soil Data – South Exterior TSCA Area
Figure 5 – Revised RAOR Figure 8 - PCB and Arsenic Soil Barrier (Alternative S-3)
Figure 6 – Revised Figure C35 SI Report – PCB Aroclor 1242/1248/1254/1260 Soil Concentrations (0-4 feet bgs)
Figure 7 – Revised Figure C1 SI Report – Arsenic Soil Concentrations (0-4 ft bgs)
Figure 8 – New Figure– PCB and Arsenic Soil Barrier – East Area
NRT Transmittal of the Corrected Figures C4 and C8, SI Report, dated January 27, 2014
Figure C4 SI Report (Revised) - Chromium Soil Concentrations (0-4 ft bgs) dated Jan. 23, 2014
Figure C8 SI Report (Revised) - Silver Soil Concentrations (0-4 ft bgs) dated Jan. 27, 2014

cc: Mike Kellogg, Connell Aluminum Properties, LLC
Mike Slenska/Mike Bollinger, Beazer
Mike Noel, Tetra Tech
Larry Haskins, City of Oak Creek

Table 1 - Pre-Design Sampling and Analysis Plan
Former Koppers Tar Plant and Wabash Alloys Site
9100 S. 5th Avenue, Oak Creek, WI 53154
BRRTS# 02-41-553761, FID#241379050
Connell VPLE BRRTS #:06-41-560068

Area	Area Description	Applicable WDNR Comments (Oct 2017 Letter)	General Boring #	Proposed Boring Location Label	Proposed Boring Depth (ft)	Media	Discrete Sample Depth (ft bgs) [6][7]	Analyze (A)/Hold (H) PCBs (Method 8082) [4]	Number of Soil Samples for PCBs proposed for Area "Analyzed"	Number of Soil Samples for PCBs proposed for Area "Held"	Number of Concrete Samples for PCBs proposed for Area	Pre-Design (PD) or Pre-Remedial (PR) [10]	Further Reasoning
A1	Main Excavation - North extent near driveway	Requested additional boring(s) for further definition of northern boundary of excavation zone.	1	SB541 1A	4	Soil	**0-1,** 1-2	A	**2**			**PD**	>10 mg/kg exceedance in sample SB541 (0-1) directly to south. Defines northern extent in this area.
						Soil	2-3, 3-4	H		2			
			2	SB541 1B	4	Soil	**0-1**, 1-2, 2-3, 3-4	H		4		**PD**	Additional Step out- HOLD. Same as above
A2	Main Excavation- Near NE corner of building	Requested an additional boring(s) to the northeast be advanced to determine whether high level, shallow PCB contamination is present beneath the foundation corner or whether the shallow contamination has impacted a portion of the foundation material itself.	3	SB512 4C	4	Concrete	Surface of foundation wall, 0-2 ft	A			3 [8]	PR	Concrete foundation to be tested next to 0-2 ft soil layer with exceedances as requested by WDNR.
						Soil	**0-1, 1-2,** 2-3	A	**3**			**PD**	Near exceedance at SB512 3A (86 mg/kg 0-1', 38 mg/kg 1-2') and at SB512 4B (0-1' 21 mg/kg) to the northeast and north respectively. However, exceedances are not observed to the south at B-91 (ND 0-2', 0.27 2-4', 1.1 4-8'). Samples to be collected will determine if contamination exists below slab foundation (0-4').
						Soil	3-4	H		1			
			4	SB512 3B	4	Concrete	Surface of foundation wall, 0-2 ft	A			3 [8]	PR	Same as above
						Soil	**0-1, 1-2,** 2-3	A	**3**			**PD**	
						Soil	3-4	H		1			
A3	Main excavation - "Back Pit" Area At Eastern extent of building	Requested shallow samples (above 5' bgs) be collected to supplement Back Pit data; Requested sampling of concrete foundations in areas identifying PCBs in soil beneath the foundation	5	Back Pit 1A	4	Concrete	Surface of Pit/below grade concrete walls, 0-2 ft	A			3 [8]	PR	Requested by DNR for foundation concrete sample in this area due to soil exceedances
						Soil	**0-1, 1-2, 2-3**	A	**3**			**PD**/PR	Follows high exceedances within the upper strata (0-1 ft); encompases the second strata of exceedance (1-2') as well as the deeper exceedance in SB515 5B (1-2 ft 1.6 mg/kg and 2-3 ft 20 mg/kg)
						Soil	3-4	H		1			Soil likely to be under thick concrete pit slabs and hard to sample locations; concrete to be removed at pre-remedial (PR) stage, followed by soil sampling
			6	Back Pit 1B	4	Concrete	Surface of Pit/below grade concrete walls, 0-2 ft	A			3 [8]	PR	Same as above
						Soil	**0-1, 1-2, 2-3**	A	**3**			**PD**/PR	
						Soil	3-4	H		1			
A4	Main Excavation - Northeastern boundary	Requested a boring or 2 west of SB516 to better define eastern extent of excavation.	7	SB515 1C	4	Soil	**0-1, 1-2**, 2-3	A	**3**			**PD**	>50 mg/kg exceedances in SB 515 1A at 1-2' and in SB515 1B to NW from 0-1'.
						Soil	3-4	H		1			
			8	SB515 1D	4	Soil	**0-1, 1-2**, 2-3	A	**3**			**PD**	Closer to SB516 where closest to 10 mg/kg was within the 1-2' interval.
						Soil	3-4	H		1			
A5	"Separate" Eastern Excavation	Separate excavation needs additional borings to define extent of excavation	9	SB521 1A	8	Soil	0-1, 1-2, 2-3, **3-4**, 4-5	A	**5**			**PD**	>10 mg/kg exceedances from 2-3 ft and 3-4 ft in SB535, and 3-4 ft in SB-521. Borings placed around planned excavation limits.
						Soil	5-6, 6-7, 7-8	H		3			
			10	SB521 2A	8	Soil	0-1, 1-2, 2-3, **3-4**, 4-5	A	**5**			**PD**	
						Soil	5-6, 6-7, 7-8	H		3			
			11	SB521 3A	8	Soil	0-1, 1-2, 2-3, **3-4**, 4-5	A	**5**			**PD**	
						Soil	5-6, 6-7, 7-8	H		3			
			12	SB521 4A	8	Soil	0-1, 1-2, 2-3, **3-4**, 4-5	A	**5**			**PD**	
						Soil	5-6, 6-7, 7-8	H		3			
			13	SB535 1A	8	Soil	0-1, 1-2, **2-3, 3-4**, 4-5	A	**5**			**PD**	
						Soil	5-6, 6-7, 7-8	H		3			
			14	SB535 2A	8	Soil	0-1, 1-2, **2-3, 3-4**, 4-5	A	**5**			**PD**	
						Soil	5-6, 6-7, 7-8	H		3			
			15	SB535 3A	8	Soil	0-1, 1-2, **2-3, 3-4**, 4-5	A	**5**			**PD**	
						Soil	5-6, 6-7, 7-8	H		3			
			16	SB535 4A	8	Soil	0-1, 1-2, **2-3, 3-4**, 4-5	A	**5**			**PD**	
						Soil	5-6, 6-7, 7-8	H		3			
A6	"Separate" Southeastern Excavation	Additional sampling NW and SW of SB-525 at lower depth is needed to determine limits of excavation area.	17	SB525 1A	8	Soil	0-1,1-2,2-3, 3-4, **4-5**, 5-6	A	**6**			**PD**	Located near approx. excavation limits, NW and SW of SB-525/525R. >10 mg/kg exceedance is at 4-5' depth.
						Soil	6-7,7-8	H		2			
			18	SB525 2A	8	Soil	0-1,1-2,2-3, 3-4, **4-5**, 5-6	A	**6**			**PD**	
						Soil	6-7,7-8	H		2			
			19	SB525 3A	8	Soil	0-1,1-2,2-3, 3-4, **4-5**, 5-6, 6-7, 7-8	H		8		**PD**	
A7	Below Slab in Eastern Former building	Requested additional borings to confirm that PCBs are <10 mg/kg beneath slab in vicnity of B-31. Requested sampling of concrete foundation slab in areas identifying PCBs in soil beneath the slab foundation	20	B-31 1A	4	Concrete	Underside Surface of Slab, or near-by foundation wall 0-2 feet	A			1 [9]	PR	Approximate 50' step out from B-31. Necessary due to sample at B-31 being close to excavation criteria (9.0 mg/kg 0-2 ft). DNR requested concrete foundation slab sample; to be done if soil has PCBs >1 mg/kg
						Soil	**0-1, 1-2**, 2-3	A	**3**			**PD**	
						Soil	3-4	H		1			
			21	B-31 2A	4	Concrete	Underside Surface of Slab, or near-by foundation wall 0-2 feet	A			1 [9]	PR	
						Soil	**0-1, 1-2**, 2-3	A	**3**			**PD**	
						Soil	3-4	H		1			
			22	B-31 3A	4	Concrete	Underside Surface of Slab, or near-by foundation wall 0-2 feet if present	A			1 [9]	PR	
						Soil	**0-1, 1-2**, 2-3	A	**3**			**PD**	
						Soil	3-4	H		1			
			23	B-31 4A	4	Concrete	Underside Surface of Slab, or near-by foundation wall 0-2 feet if present	A			1 [9]	PR	
						Soil	**0-1, 1-2**, 2-3	A	**3**			**PD**	
						Soil	3-4	H		1			

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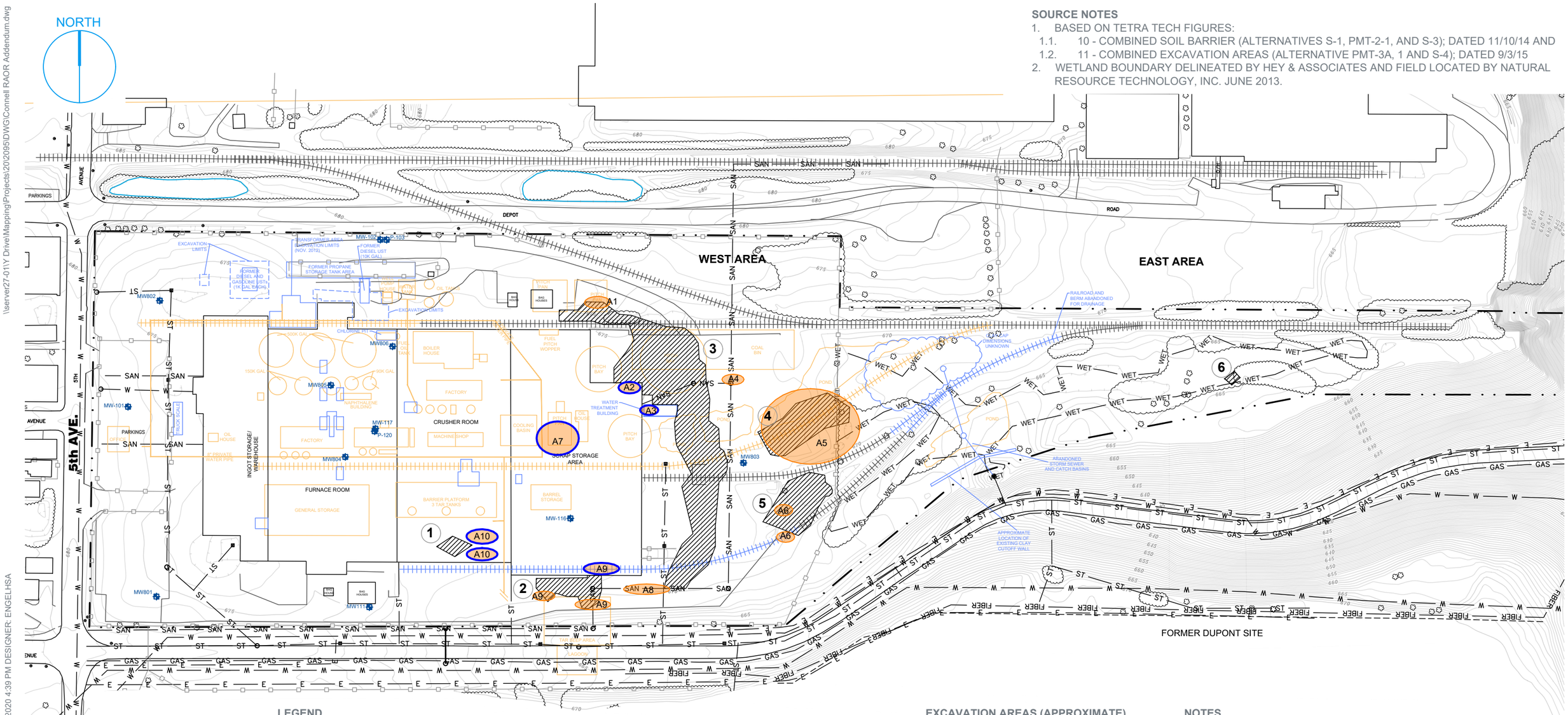
A8	Main Excavation - At southwest corner. Near SE corner of building	Requested Boring between SB-530 and SB-527 to confirm break in excavation is warranted	24	SB527 1A	4	Soil	0-1, **1-2, 2-3**, 3-4	A	**4**			**PD**	At SW boundary of excavation, > or equal to 10 mg/kg exceedances at SB-527 from 1-2 ft and 2-3 ft.
			25	SB527 1B	8	Soil	0-1, **1-2, 2-3**, 3-4	A	**4**			**PD**	Splits distance between SB530 and SB527.
						Soil	4-5, 5-6, 6-7, 7-8	H		4			
A9	Southern Excavation - Southeastern corner of building (interior and exterior)	Requested additional borings to WSW, NE, SE of SB531/1A to confirm limits of excavation	26	SB531 1A (R)	8	Soil	0-1, 1-2, 2-3	A	**3**			**PD**	Collect Samples 0-3 ft for additional characterization of shallow PCBs
						Soil	4-5,5-6	A	**2**				Collect Samples below 3-4 foot interval, which had >50 mg/kg exceedances
						Soil	6-7, 7-8	H		2			
			27	SB531 1C	8	Concrete	Surface of foundation wall/ footer, 2-4 ft	A			3 [8]	PR	Requested by DNR for foundation concrete sample in this area due to soil exceedances 2-4 ft layer
						Soil	0-1, 1-2, 2-3, **3-4**, 4-5	A	**5**			**PD**	Within building footprint. Northeast of SB531 1A & 1B with > 10 mg/kg exceedance from 3-4 ft (1B) and > 50 mg/kg exceedances from 3-4 ft (1A)
						Soil	5-6, 6-7, 7-8	H		3			
			28	SB531 2B	8	Soil	0-1, 1-2, 2-3, **3-4**, 4-5	A	**5**			**PD**	Southeast of SB531 1A & 1B with > 10 mg/kg exceedance from 3-4 ft (1B) and > 50 mg/kg exceedances from 3-4 ft (1A)
						Soil	5-6, 6-7, 7-8	H		3			
			29	SB531 2C	8	Soil	0-1, 1-2, 2-3, **3-4**, 4-5	A	**5**			**PD**	
						Soil	5-6, 6-7, 7-8	H		3			
			30	SB531 4B	8	Soil	0-1, 1-2, **2-3**, **3-4**, 4-5	A	**5**			**PD**	West-Southwest of SB 531 with >10 mg/kg exceedance from 2-3 ft and >50 mg/kg exceeedance from 3-4 ft
						Soil	5-6, 6-7, 7-8	H		3			
			31	SB531 4C	8	Soil	0-1, 1-2, **2-3**, **3-4**, 4-5	A	**5**			**PD**	West-Southwest of SB 531 with >10 mg/kg exceedance from 2-3 ft and >50 mg/kg exceeedance from 3-4 ft
						Soil	5-6, 6-7, 7-8	H		3			
A10	Small Excavation within building footprint towards center/south	Additional sampling needed to confirm easterly limit of excavation area. Borings to be added to NE and SE of B-81.	32	B-81 1A	4	Concrete	Underside Surface of Slab, or near-by foundation wall 0-2 feet if present	A			1 [9]	PR	Located N of SB714. Confirming extent of excavation is sufficient based on result of B-81 with 0-2' > 10 mg/kg exceedance. DNR requested concrete foundation slab sample; to be done if soil has PCBs >1 mg/kg.
						Soil	**0-1, 1-2**	A	**2**			**PD**	
						Soil	2-3, 3-4	H		2			
			33	B-81 1B	4	Concrete	Underside Surface of Slab, or near-by foundation wall 0-2 feet if present	A			1 [9]	PR	Located NE of SB714. Confirming extent of excavation is sufficient based on result of B-81 with 0-2' > 10 mg/kg exceedance. DNR requested concrete foundation slab sample; to be done if soil has PCBs >1 mg/kg.
						Soil	**0-1, 1-2**	A	**2**			**PD**	
						Soil	2-3, 3-4	H		2			
			34	B-81 2A	4	Concrete	Underside Surface of Slab, or near-by foundation wall 0-2 feet if present	A			1 [9]	PR	Located S of SB714. Confirming extent of excavation is sufficient based on result of B-81 with 0-2' > 10 mg/kg exceedance. DNR requested concrete foundation slab sample; to be done if soil has PCBs >1 mg/kg.
						Soil	**0-1, 1-2**	A	**2**			**PD**	
						Soil	2-3, 3-4	H		2			
			35	B-81 2B	4	Concrete	Underside Surface of Slab, or near-by foundation wall 0-2 feet if present	A			1 [9]	PR	Located SE of SB714. Confirming extent of excavation is sufficient based on result of B-81 with 0-2' > 10 mg/kg exceedance. DNR requested concrete foundation slab sample; to be done if soil has PCBs >1 mg/kg.
						Soil	**0-1, 1-2**	A	**2**			**PD**	
						Soil	2-3, 3-4	H		2			
C7 & C8	For Capping Extent: Southern border of Eastern Area PCB Cover	Additional borings to South of samples SB612, SB-727 and SB-728 that exceed non-industrial RCLs are requested. Note that City Utility Corridor property uses industrial RCLs and capping needs for this property is based on these.	36	SB741	4	Soil	0-2, 2-4	A	**2**			**PD**	
			37	SB742	4	Soil	0-2, 2-4	A	**2**			**PD**	South of exceedances at SB612 (0.37), SB727 (0.25) and SB728 (0.61) to potentially define/support cap extent within Connell property boundary (outside of proposed PAH dermal cover).
			38	SB743	4	Soil	0-2, 2-4	A	**2**			**PD**	
			39	SB744	4	Soil	0-2, 2-4	A	**2**			**PD**	
			40	SB745	4	Soil	0-2, 2-4	A	**2**			**PD**	
			41	SB746	4	Soil	0-2, 2-4	H		2		**PD**	On City property, South of exceedances at SB612 (0.37), SB727 (0.25) and SB728 (0.61) to potentially define/support cap extent on City/ Connell property boundary (outside of proposed PAH dermal cover).
			42	SB747	4	Soil	0-2, 2-4	H		2		**PD**	
			43	SB748	4	Soil	0-2, 2-4	H		2		**PD**	
		Total Boring Locations:	**43**				**Total Samples:**		**140**	**87**	**23**		

Notes:

1. Area A "excavation limit" borings to be advanced to 4 or 8' (1' sample intervals) and Area C "cap extent" borings to be advanced to 4' (2' sample intervals).
2. Proposed Boring label for Area A based on nearby "root" boring followed by [#] and [A/B/C] indicating step out
3. Proposed Boring label for Area C are a continuation of 700 boring series started in 2013
4. H = Hold, samples may be analyzed depending on the PCB results of the initial analyzed samples.
5. All Samples are discrete samples
6. **BOLD** represents the depth interval that has nearby elevated impacts
7. Concrete samples will be from 0-3 inch surface using 1" drill bit and collecting powder.
8. Three samples within each area are proposed at various depths of the concrete surfaces within soil impact zone for adequate characterization.
9. Concrete samples to be collected only if PCB soil impacts at location are indicated to be > 1 mg/kg.
10. See text for further explanation of Pre-Design vs Pre-remedial



SOURCE NOTES

1. BASED ON TETRA TECH FIGURES:
   - 1.1. 10 - COMBINED SOIL BARRIER (ALTERNATIVES S-1, PMT-2-1, AND S-3); DATED 11/10/14 AND
   - 1.2. 11 - COMBINED EXCAVATION AREAS (ALTERNATIVE PMT-3A, 1 AND S-4); DATED 9/3/15
2. WETLAND BOUNDARY DELINEATED BY HEY & ASSOCIATES AND FIELD LOCATED BY NATURAL RESOURCE TECHNOLOGY, INC. JUNE 2013.

LEGEND

- MONITORING WELL/PIEZOMETER
- FORMER TAR PLANT STRUCTURES
- PAST REMEDIAL ACTIVITIES
- ABANDONED STRUCTURE
- WABASH PARCEL PROPERTY BOUNDARY (CONNELL AND BEAZER VPLE)
- UTILITY CORRIDOR PROPERTY BOUNDARY
- WET — WETLAND BOUNDARY
- RAILROAD RAIL LINE
- SAN — SANITARY
- ST — STORM SEWER
- GAS — NATURAL GAS
- W — WATER MAIN
- E — ELECTRICAL
- FIBER — FIBER OPTIC
- MANHOLE
- INLET/CATCH BASIN
- PROPOSED EXCAVATION - PCBs
- PCB SOIL SAMPLING AREA
- PCB SOIL AND FOUNDATION / BOTTOM CONCRETE SAMPLING AREA
- A3 — COMMENT # (WDNR COMMENT LETTER OCTOBER 25, 2017)

EXCAVATION AREAS (APPROXIMATE)

1. AREA = 900 sq. ft.
2. AREA = 3,390 sq. ft.
3. AREA = 31,825 sq. ft.
4. AREA = 7,120 sq. ft.
5. AREA = 6,000 sq. ft.
6. AREA = 250 sq. ft.

NOTES

1. EXCAVATION AREAS ARE APPROXIMATE AND MAY BE REVISED DURING REMEDIAL DESIGN AND FURTHER REVISED DURING EXCAVATION CONFIRMATION SAMPLING.
2. PCB EXCAVATION CONFIRMATION SAMPLING IS PLANNED TO CONFIRM TSCA SOIL REMOVAL AND TO CONFIRM REMAINING SOIL EXTENTS ARE LESS THAN 10 MG/KG (TO BE CAPPED).
3. BELOW GRADE CONCRETE FOUNDATIONS WILL BE SAMPLED IN THE AREAS THAT IDENTIFY PCBs IN SOIL BENEATH THE FOUNDATION, INCLUDING THOSE CIRCLED IN BLUE AND OTHER POTENTIAL LOCATIONS IDENTIFIED.

PCB SOIL EXCAVATION AND DISPOSAL (ALTERNATIVE S-4)

RAOR ADDENDUM
FORMER WABASH ALLOYS
9100 SOUTH 5TH AVENUE
OAK CREEK, WISCONSIN

FIGURE 1
FIGURE 9 (REV. RAOR REPORT)

RAMBOLL US CORPORATION
A RAMBOLL COMPANY

RAMBOLL

PROJECT: 68002 DATED: 2/11/2020 4:39 PM DESIGNER: ENGELHSA
\\server27-01\Y Drive\Mapping\Projects\202095\DWG\Connell RAOR Addendum.dwg

Y:\GIS\Projects\20\2095\MXD\RAP\Rev_Dec2020\Figure 2_C40_PCB Soil Data - North Yard Area.mxd

PROJECT: 169000XXXX | DATED: 12/22/2020 | DESIGNER: galamnc

N

SB731 6/13/13
2-4 ft <0.0029 mg/kg
6-8 ft <0.0029 mg/kg

B-61 2/19/13
0-2 ft 0.21 mg/kg
4-6 ft <0.0029 mg/kg
14-15 ft <0.0095 mg/kg

B-07 11/9/11
0-2ft < 0.0033 mg/kg

SB709 5/6/13
0-2 ft 2.6 mg/kg
4-6 ft <0.0028 mg/kg

B-42 11/10/11
0-2ft 0.39 mg/kg
4-6ft < 0.004 mg/kg
8-10ft < 0.0029 mg/kg

SB506 5/7/12
0-1ft 0.64 mg/kg
1-2ft 1.6 mg/kg
2-3ft < 0.0033 mg/kg

SB 541 1B

SB508 4A 6/15/12
0-1ft 4.5 mg/kg
1-2ft 1.4 mg/kg

SB541 6/14/12
0-1ft 38 mg/kg
1-2ft 0.24 mg/kg

SB 541 1A

A1

SB508 3A 6/15/12
0-1ft 4.6 mg/kg
1-2ft 79 mg/kg

SB508 5/11/12
0-1ft 12 mg/kg
1-2ft 74 mg/kg
2-3ft 0.096 mg/kg

B-37 11/10/11
0-2ft < 0.0032 mg/kg

SB708 5/6/13
0-2 ft 1.8 mg/kg
4-6 ft 0.048 mg/kg

SB539 6/14/12
1-2ft 2.6 mg/kg

SB512 1A 6/15/12
0-1ft 32 mg/kg
1-2ft 830 mg/kg
2-3ft 0.94 mg/kg

B102 2/19/13
0-2 ft 0.7 mg/kg
4-6 ft <0.0029 mg/kg

HA-539 5/18/12
0-1ft 9.3 mg/kg

SB508 1A 6/14/12
0-1ft 6.9 mg/kg
1-2ft 0.73 mg/kg

SB508 3B 6/15/12
0-1ft 1.7 mg/kg
1-2ft 24 mg/kg

SB508 2A 6/14/12
0-1ft 15 mg/kg
1-2ft 14 mg/kg

SB509 5/11/12
0-1ft 5.1 mg/kg
1-2ft 3.7 mg/kg
2-3ft < 0.0028 mg/kg

SB722 5/7/13
0-2 ft 2.9 mg/kg
4-6 ft <0.0029 mg/kg
8-10 ft <0.0028 mg/kg

SB507 5/11/12
0-1ft 0.38 mg/kg
1-2ft < 0.003 mg/kg
2-3ft < 0.0028 mg/kg

B-06 11/10/11
0-2ft 27 mg/kg

SB732 6/13/13
4-6 ft 2 mg/kg
8-10 ft <0.0029 mg/kg

SB512 5/11/12
Concrete 4.3 mg/kg
0-1ft 360 mg/kg
1-2ft 1.8 mg/kg
2-3ft < 0.0028 mg/kg

SB512 5A 6/15/12
0-1ft 20 mg/kg

SB512 2A 6/15/12
0-1ft 93 mg/kg
1-2ft 23 mg/kg

SB513 5/11/12
Concrete 0.053 mg/kg
0-1ft 7.6 mg/kg
1-2ft 0.3 mg/kg
2-3ft < 0.0028 mg/kg

SB510 5/7/12
0-1ft 2 mg/kg
1-2ft 3.9 mg/kg
2-3ft 0.95 mg/kg

SB514 5/7/12
2-3ft 0.16 mg/kg

B-08 11/9/11
0-2ft 0.59 mg/kg

SB515 1B 6/15/12
0-1ft 200 mg/kg
1-2ft 48 mg/kg
2-3ft 0.11 mg/kg

SB512 4A 6/15/12
0-1ft 130 mg/kg

SB515 1C

SB515 1D

SB511 5/11/12
Concrete 0.13 mg/kg
0-1ft 0.58 mg/kg
1-2ft < 0.0027 mg/kg
2-3ft < 0.0028 mg/kg

SB515 1A 6/15/12
0-1ft 19 mg/kg
1-2ft 64 mg/kg
2-3ft 2.4 mg/kg

A4

SB516 5/11/12
0-1ft 5.5 mg/kg
1-2ft 9.5 mg/kg
2-3ft 2.1 mg/kg
3-4ft 0.085 mg/kg

SB518 5/7/12
0-1ft 5.4 mg/kg
1-2ft 8.5 mg/kg
2-3ft 0.66 mg/kg

SB535 5/7/12
0-1ft 0.46 mg/kg
1-2ft 0.076 mg/kg
2-3ft 11 mg/kg
3-4ft 15 mg/kg
4-5ft < 0.0029 mg/kg

SB512 4B 6/15/12
0-1ft 21 mg/kg
1-2ft 0.042 mg/kg

SB512 3B

A2

SB512 4C

SB515 2B 6/15/12
0-1ft 1.7 mg/kg
1-2ft 8.9 mg/kg

SB517 5/11/12
Concrete < 0.0025 mg/kg
0-1ft 0.17 mg/kg
1-2ft 2.1 mg/kg
2-3ft 2.1 mg/kg
3-4ft < 0.0027 mg/kg

SB535 3A

SB535 4A

B-85 2/11/13
0-2 ft 0.19 mg/kg
4-6 ft <0.003 mg/kg

B-31 1A

SB512 3A 6/15/12
0-1ft 86 mg/kg
1-2ft 38 mg/kg
2-3ft 0.57 mg/kg

BACK PIT 1A

SB515 2A 6/15/12
0-1ft 37 mg/kg
1-2ft 0.98 mg/kg

SB521 1A

SB535 1A

B-36 11/10/11
0-2ft 6.5 mg/kg

A3

B-91 2/11/13
0-2 ft <0.0028 mg/kg
2-4 ft 0.27 mg/kg
4-6 ft 1.1 mg/kg
6-8 ft 1.1 mg/kg

SB515 6A 6/15/12
0-1ft 160 mg/kg
1-2ft 60 mg/kg
2-3ft 2.9 mg/kg

BACK PIT 1B

SB515 4A 6/14/12
0-1ft 21 mg/kg
1-2ft 1.1 mg/kg

SB515 3A 6/15/12
0-1ft 16 mg/kg
1-2ft 0.25 mg/kg

A5

SB521 4A

SB535 2A

SB515 5B 6/15/12
0-1ft 47 mg/kg
1-2ft 1.6 mg/kg
2-3ft 20 mg/kg

B-31 4A

B-31 2A

A7

SB520 5A 6/15/12
0-1ft 5.0 mg/kg
1-2ft 110 mg/kg
2-3ft 0.15 mg/kg

SB520 1B 6/15/12
1-2ft 2.7 mg/kg
2-3ft 0.31 mg/kg

Back Pit 7/11/13
5-6 ft 0.43 mg/kg

B-31 11/9/11
0-2 ft 9.0 mg/kg
4-6 ft <0.0031 mg/kg
8-10 ft <0.003 mg/kg

SB515 5A 6/15/12
0-1ft 0.25 mg/kg
1-2ft 48 mg/kg

SB520 1A 6/15/12
0-1ft 0.41 mg/kg
1-2ft 1.7 mg/kg
2-3ft 57 mg/kg
3-4ft 0.87 mg/kg

SB521 3A

SB521 2A

SB520 4A 6/15/12
0-1ft 40 mg/kg
1-2ft 1.7 mg/kg

MW803 5/8/13
0-2 ft 1.3 mg/kg
4-6 ft 0.066 mg/kg
8-10 ft <0.0028 mg/kg

SB521 5/7/12
0-1ft 3.6 mg/kg
1-2ft 0.12 mg/kg
2-3ft 3.3 mg/kg
3-4ft 13 mg/kg
4-5ft 0.58 mg/kg

SB515 5/11/12
0-1ft 110 mg/kg
1-2ft 200 mg/kg
2-3ft 8.9 mg/kg
3-4ft 4.1 mg/kg
4-5ft 0.018 mg/kg

B-31 3A

SB520 3A 6/15/12
0-1ft 23 mg/kg
1-2ft 0.88 mg/kg

SB520 2B 6/15/12
1-2ft 16 mg/kg
2-3ft 1.6 mg/kg

B-99 2/13/13
0-2 ft 1.2 mg/kg
4-6 ft <0.003 mg/kg

SB523 5C 6/14/12
3-4 ft <0.0028 mg/kg
4-5 ft 0.11 mg/kg
5-6 ft 2.7 mg/kg

SB519 5/11/12
0-1ft 5.3 mg/kg
1-2ft 0.11 mg/kg

SB520 5/11/12
0-1ft 0.25 mg/kg
1-2ft 81 mg/kg
2-3ft 0.23 mg/kg

SB515 4B 6/14/12
0-1ft 0.46 mg/kg
1-2ft 0.70 mg/kg
2-3ft 0.049 mg/kg

SB520 2A 6/15/12
0-1ft 3.1 mg/kg
1-2ft 16 mg/kg
2-3ft 5.6 mg/kg
3-4ft < 0.0027 mg/kg
4-5ft 0.32 mg/kg

A6

Service Layer Credits:

SOIL SAMPLE LOCATIONS

- TOTAL PCB ≥ 50 mg/Kg
- TOTAL PCB >10 - <50 mg/Kg
- TOTAL PCB >1 - ≤10 mg/Kg
- TOTAL PCB ≤1 mg/Kg
- PROPOSED BORING LOCATION

0 25 50 Feet

- WETLAND BOUNDARY
- PROPERTY BOUNDARY
- BUILDING FOOTPRINT
- PCB SOIL AND FOUNDATION/BOTTOM CONCRETE SAMPLING AREA
- PCB SOIL SAMPLING AREA
- APPROXIMATE PROPOSED PCB EXCAVATION BOUNDARY
- ROOT BORING, STEP OUTS AROUND

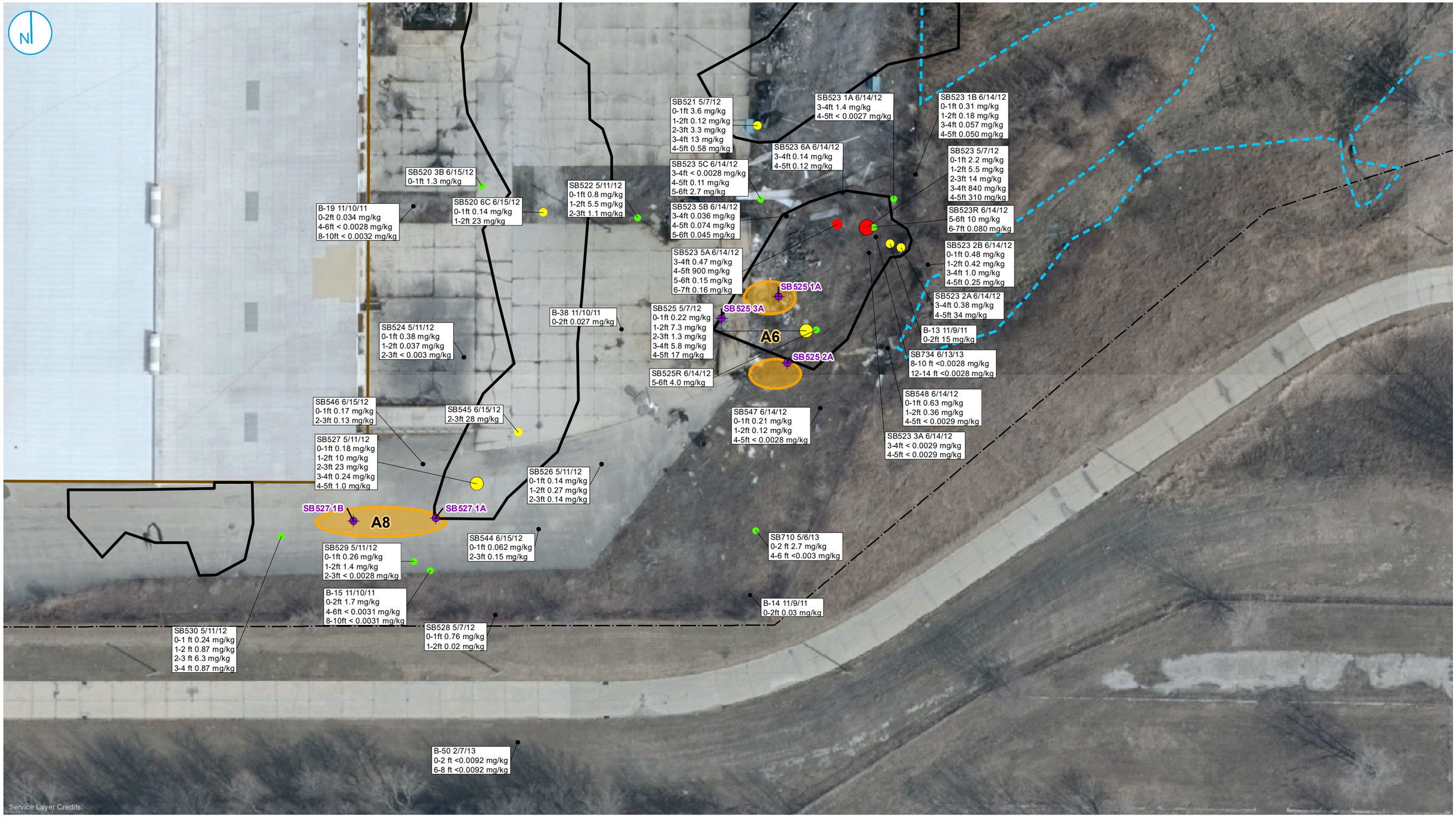
PCB SOIL DATA - NORTH YARD TSCA AREA

RAOR ADDENDUM
FORMER WABASH ALLOYS
9100 SOUTH 5TH AVENUE
OAK CREEK, WISCONSIN

FIGURE 2
FIGURE C40 (REV. SI REPORT)

RAMBOLL US CORPORATION
A RAMBOLL COMPANY

RAMBOLL



SOIL SAMPLE LOCATIONS

- TOTAL PCB ≥ 50 mg/Kg
- TOTAL PCB >10 - <50 mg/Kg
- TOTAL PCB >1 - ≤10 mg/Kg
- TOTAL PCB ≤1 mg/Kg
- PROPOSED BORING LOCATION

0 25 50 Feet

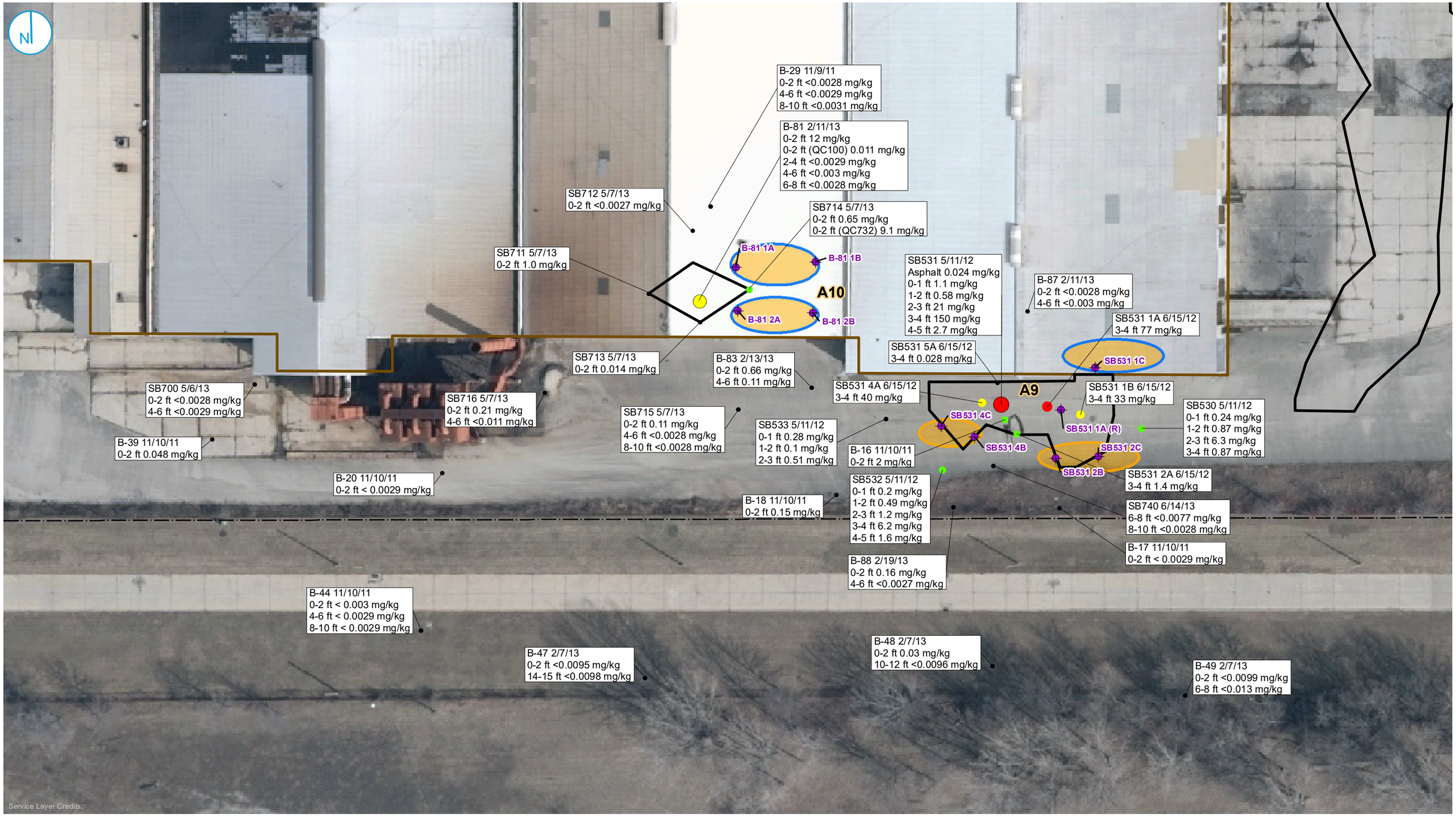
- WETLAND BOUNDARY
- PROPERTY BOUNDARY
- BUILDING FOOTPRINT
- PCB SOIL AND FOUNDATION/BOTTOM CONCRETE SAMPLING AREA
- PCB SOIL SAMPLING AREA
- APPROXIMATE PROPOSED PCB EXCAVATION BOUNDARY
- ROOT BORING, STEP OUTS AROUND

PCB SOIL DATA - SOUTH YARD TSCA AREA

RAOR ADDENDUM
FORMER WABASH ALLOYS
9100 SOUTH 5TH AVENUE
OAK CREEK, WISCONSIN

FIGURE 3
FIGURE C41 (REV. SI REPORT)

RAMBOLL US CORPORATION
A RAMBOLL COMPANY



PROJECT: 169000XXXX | DATED: 12/22/2020 | DESIGNER: galammc

Y:\GIS\Projects\20\2095\MXD\RAP\Rev_Dec2020\Figure 4_C42_PCB Soil Data - South Exterior Area.mxd

SOIL SAMPLE LOCATIONS

- TOTAL PCB ≥ 50 mg/Kg
- TOTAL PCB >10 - <50 mg/Kg
- TOTAL PCB >1 - ≤10 mg/Kg
- TOTAL PCB ≤1 mg/Kg
- PROPOSED BORING LOCATION

- PROPERTY BOUNDARY
- BUILDING FOOTPRINT
- PCB SOIL AND FOUNDATION/BOTTOM CONCRETE SAMPLING AREA
- PCB SOIL SAMPLING AREA
- APPROXIMATE PROPOSED PCB EXCAVATION BOUNDARY
- ROOT BORING, STEP OUTS AROUND

0 25 50 Feet

PCB SOIL DATA - SOUTH EXTERIOR TSCA AREA

RAOR ADDENDUM
FORMER WABASH ALLOYS
9100 SOUTH 5TH AVENUE
OAK CREEK, WISCONSIN

FIGURE 4
FIGURE C42 (REV. SI REPORT)

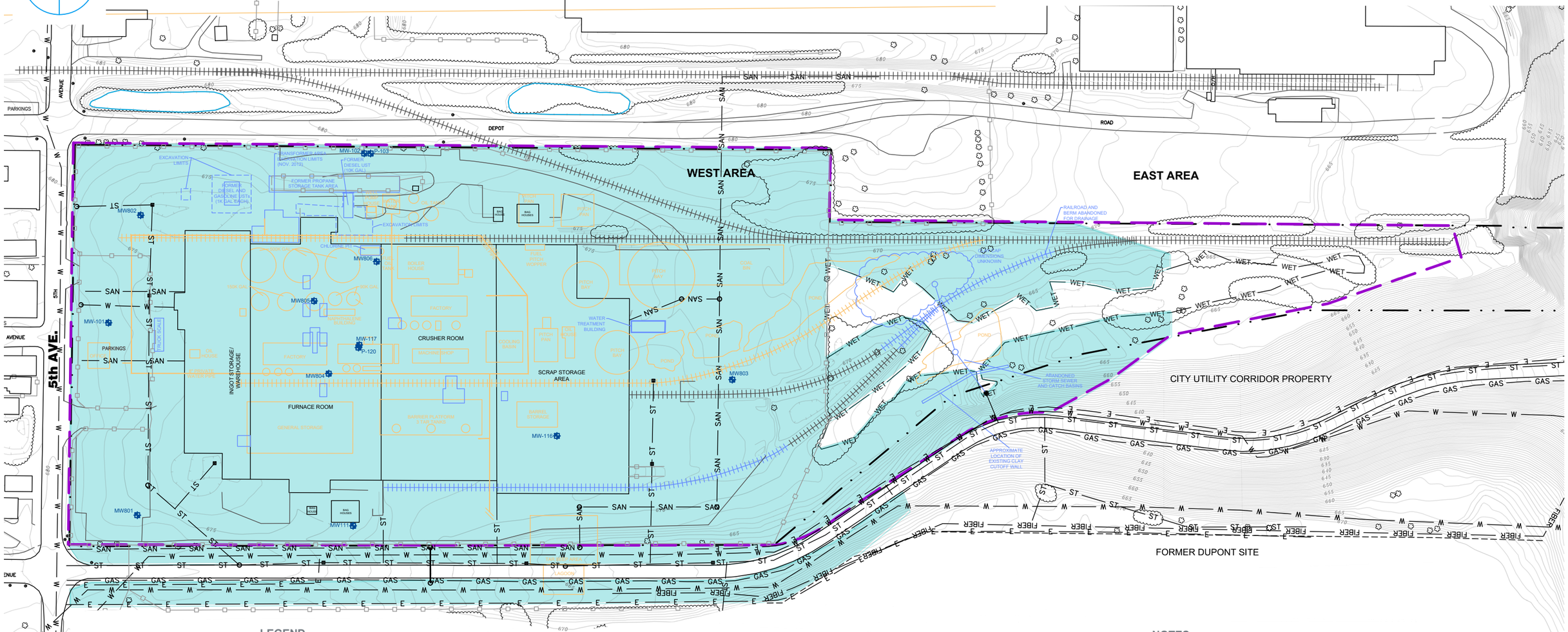
RAMBOLL US CORPORATION
A RAMBOLL COMPANY

RAMBOLL

NORTH

SOURCE NOTES

1. BASED ON TETRA TECH FIGURES:
   - 1.1. 10 - COMBINED SOIL BARRIER (ALTERNATIVES S-1, PMT-2-1, AND S-3); DATED 11/10/14 AND
   - 1.2. 11 - COMBINED EXCAVATION AREAS (ALTERNATIVE PMT-3A, 1 AND S-4); DATED 9/3/15
2. WETLAND BOUNDARY DELINEATED BY HEY & ASSOCIATES AND FIELD LOCATED BY NATURAL RESOURCE TECHNOLOGY, INC. JUNE 2013.



LEGEND

- MONITORING WELL/PIEZOMETER
- FORMER TAR PLANT STRUCTURES
- PAST REMEDIAL ACTIVITIES
- ABANDONED STRUCTURE
- WABASH PARCEL PROPERTY BOUNDARY (CONNELL AND BEAZER VPLE)
- UTILITY CORRIDOR PROPERTY BOUNDARY
- WET — WETLAND BOUNDARY
- RAILROAD RAIL LINE
- SAN — SANITARY
- ST — STORM SEWER
- GAS — NATURAL GAS
- W — WATER MAIN
- E — ELECTRICAL
- FIBER — FIBER OPTIC
- MANHOLE
- INLET/CATCH BASIN
- PROPOSED COVER - PCBs AND ARSENIC - 10" CLAY, 14" GENERAL FILL/ROOTING ZONE (932,454 FT^2)
- PROPOSED LIMIT OF DERMAL COVER - PAHs - 24" GENERAL FILL/ROOTING ZONE (910,114 FT^2)

150' 0 150'

NOTES

1. BARRIER LIMITS ARE APPROXIMATE AND MAY BE REVISED DURING REMEDIAL DESIGN AND POTENTIALLY FURTHER REVISED DURING REMEDY IMPLEMENTATION.

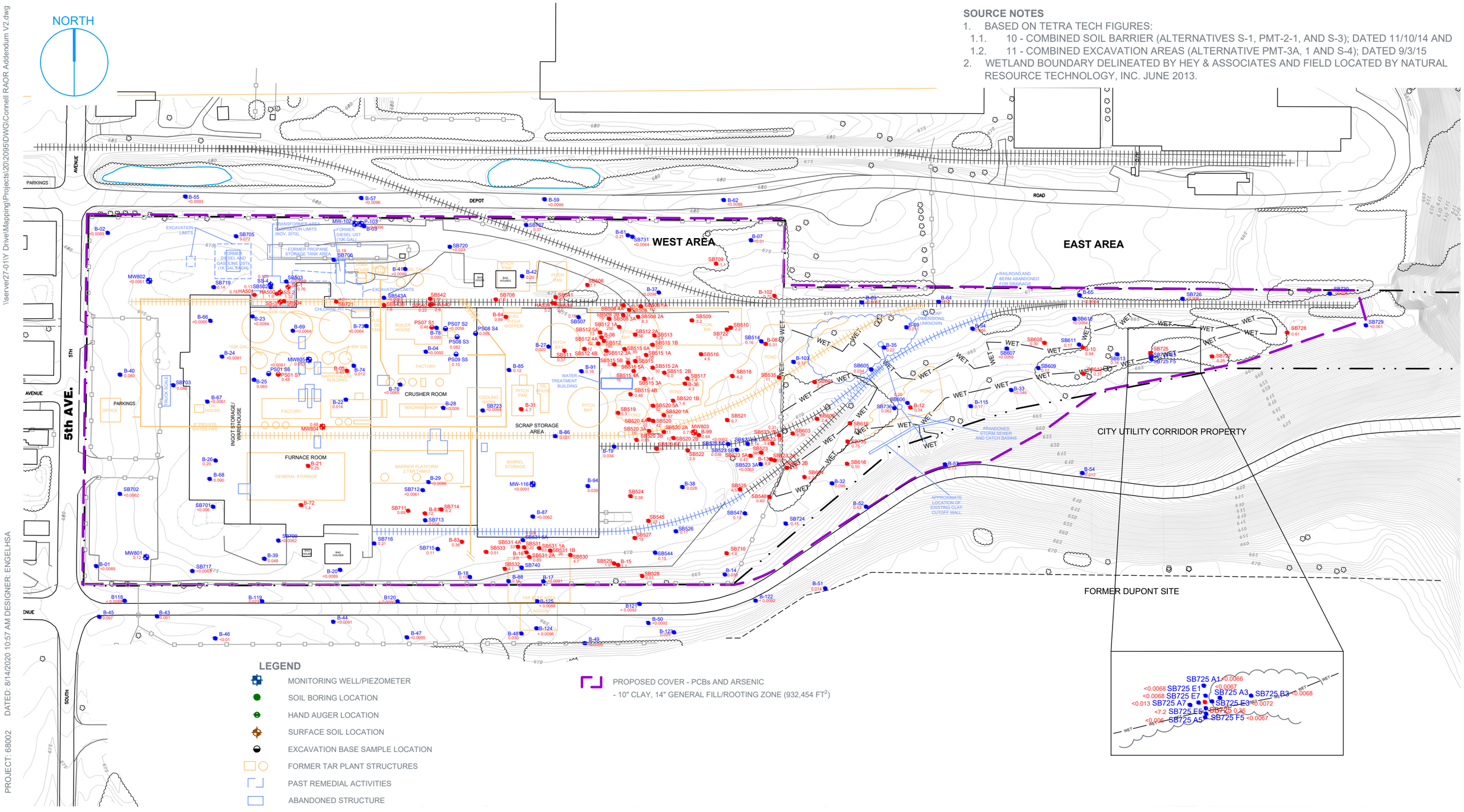
PCB AND ARSENIC SOIL BARRIER (ALTERNATIVE S-3)

RAOR ADDENDUM
FORMER WABASH ALLOYS
9100 SOUTH 5TH AVENUE
OAK CREEK, WISCONSIN

FIGURE 5
FIGURE 8 (REV. RAOR REPORT)

RAMBOLL US CORPORATION
A RAMBOLL COMPANY

RAMBOLL



SOURCE NOTES

1. BASED ON TETRA TECH FIGURES:
   - 1.1. 10 - COMBINED SOIL BARRIER (ALTERNATIVES S-1, PMT-2-1, AND S-3); DATED 11/10/14 AND
   - 1.2. 11 - COMBINED EXCAVATION AREAS (ALTERNATIVE PMT-3A, 1 AND S-4); DATED 9/3/15
2. WETLAND BOUNDARY DELINEATED BY HEY & ASSOCIATES AND FIELD LOCATED BY NATURAL RESOURCE TECHNOLOGY, INC. JUNE 2013.

LEGEND

- MONITORING WELL/PIEZOMETER
- SOIL BORING LOCATION
- HAND AUGER LOCATION
- SURFACE SOIL LOCATION
- EXCAVATION BASE SAMPLE LOCATION
- FORMER TAR PLANT STRUCTURES
- PAST REMEDIAL ACTIVITIES
- ABANDONED STRUCTURE
- SAMPLE LOCATION ABOVE THE NON- INDUSTRIAL DIRECT CONTACT RCL OF 0.222 mg/kg OR ABOVE THE INDUSTRIAL DIRECT CONTACT RCL OF 0.744 mg/kg FOR THE UTILITY CORRIDOR
- SAMPLE LOCATION BELOW THE APPROPRIATE NON-INDUSTRIAL DIRECT CONTACT
- 11.5 MAXIMUM PCB AROCHLOR 1242/1248/1254/1260 CONCENTRATION AT EACH LOCATION IN mg/kg FOR THE DEFINED DEPTH INTERVAL
- PROPOSED COVER - PCBs AND ARSENIC - 10" CLAY, 14" GENERAL FILL/ROOTING ZONE (932,454 FT^2)

150' 0 150'

PCB AROCLOR 1242/1248/1254/1260 SOIL CONCENTRATIONS (0-4 FEET BGS)

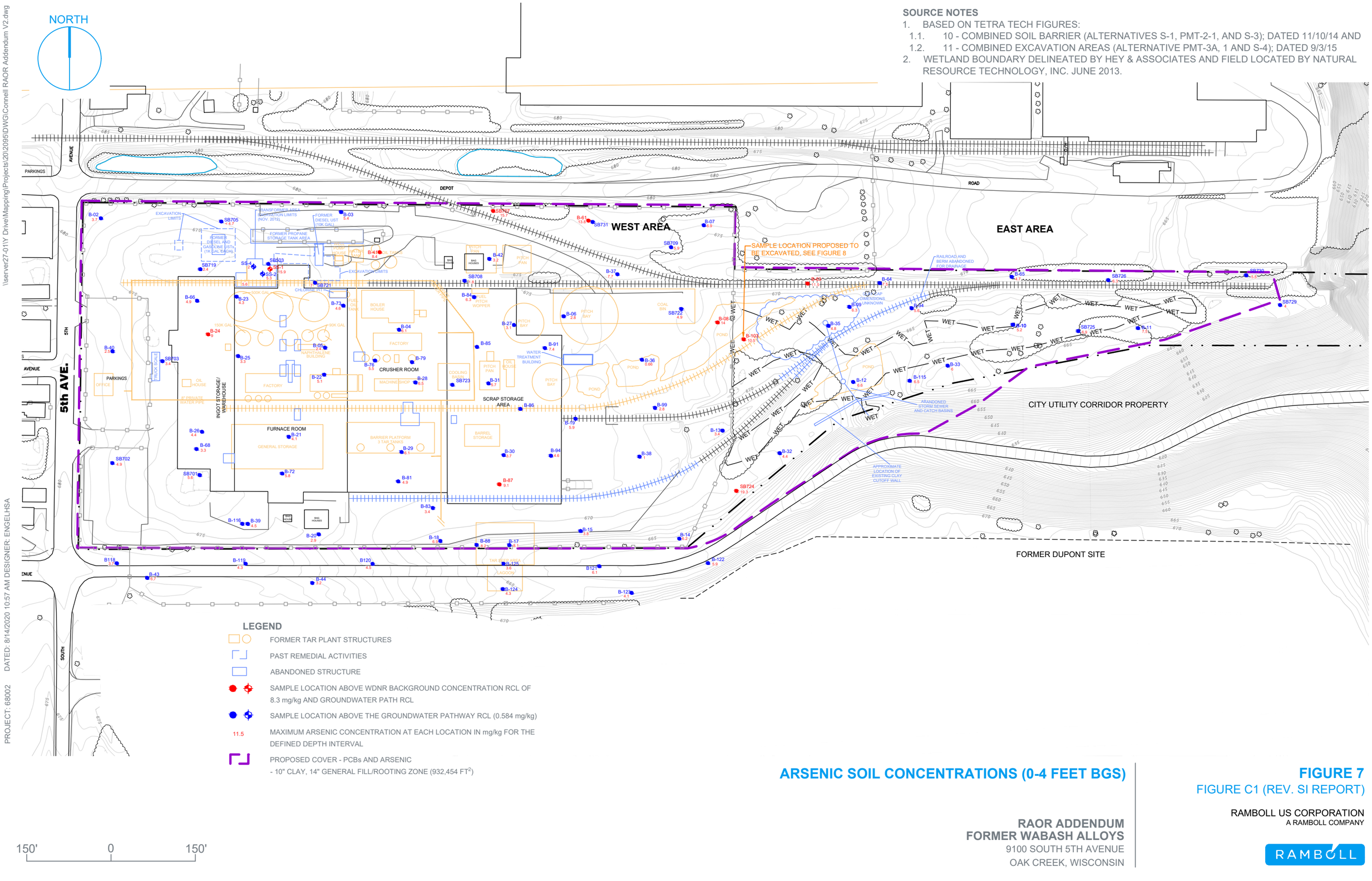
RAOR ADDENDUM
FORMER WABASH ALLOYS
9100 SOUTH 5TH AVENUE
OAK CREEK, WISCONSIN

FIGURE 6
FIGURE C35 (REV. SI REPORT)

RAMBOLL US CORPORATION
A RAMBOLL COMPANY

RAMBOLL

PROJECT: 68002 DATED: 8/14/2020 10:57 AM DESIGNER: ENGELHSA
\\server27-01\Y Drive\Mapping\Projects\2012095\DWG\Connell RAOR Addendum V2.dwg



SOURCE NOTES

1. BASED ON TETRA TECH FIGURES:
   - 1.1. 10 - COMBINED SOIL BARRIER (ALTERNATIVES S-1, PMT-2-1, AND S-3); DATED 11/10/14 AND
   - 1.2. 11 - COMBINED EXCAVATION AREAS (ALTERNATIVE PMT-3A, 1 AND S-4); DATED 9/3/15
2. WETLAND BOUNDARY DELINEATED BY HEY & ASSOCIATES AND FIELD LOCATED BY NATURAL RESOURCE TECHNOLOGY, INC. JUNE 2013.

LEGEND

- FORMER TAR PLANT STRUCTURES
- PAST REMEDIAL ACTIVITIES
- ABANDONED STRUCTURE
- SAMPLE LOCATION ABOVE WDNR BACKGROUND CONCENTRATION RCL OF 8.3 mg/kg AND GROUNDWATER PATH RCL
- SAMPLE LOCATION ABOVE THE GROUNDWATER PATHWAY RCL (0.584 mg/kg)
- 11.5 — MAXIMUM ARSENIC CONCENTRATION AT EACH LOCATION IN mg/kg FOR THE DEFINED DEPTH INTERVAL
- PROPOSED COVER - PCBs AND ARSENIC - 10" CLAY, 14" GENERAL FILL/ROOTING ZONE (932,454 FT^2)

ARSENIC SOIL CONCENTRATIONS (0-4 FEET BGS)

RAOR ADDENDUM
FORMER WABASH ALLOYS
9100 SOUTH 5TH AVENUE
OAK CREEK, WISCONSIN

FIGURE 7
FIGURE C1 (REV. SI REPORT)

RAMBOLL US CORPORATION
A RAMBOLL COMPANY

RAMBOLL

PROJECT: 68002 DATED: 8/14/2020 10:57 AM DESIGNER: ENGELHSA
\\server27-01\Y Drive\Mapping\Projects\2012095\DWG\Connell RAOR Addendum V2.dwg

NORTH

SOURCE NOTES

1. BASED ON TETRA TECH FIGURES:
   - 1.1. 10 - COMBINED SOIL BARRIER (ALTERNATIVES S-1, PMT-2-1, AND S-3); DATED 11/10/14
   - 1.2. 11 - COMBINED EXCAVATION AREAS (ALTERNATIVE PMT-3A, 1 AND S-4); DATED 9/3/15 AND
   - 1.3. 14 - EXTENT OF SOIL EXCEEDING INDSTRIAL DIRECT CONTACT RCL; DATED 2/16/12
2. WETLAND BOUNDARY DELINEATED BY HEY & ASSOCIATES AND FIELD LOCATED BY NATURAL RESOURCE TECHNOLOGY, INC. JUNE 2013.

WEST AREA

EAST AREA

ROAD

RAILROAD AND BERM ABANDONED FOR DRAINAGE

CLAY CAP DIMENSIONS UNKNOWN

ABANDONED STORM SEWER AND CATCH BASINS

APPROXIMATE LOCATION OF EXISTING CLAY CUTOFF WALL

LAKE MICHIGAN

CITY UTILITY CORRIDOR PROPERTY

C7 AND C8 AREAS

FORMER DUPONT SITE

COAL BIN

POND

B-83 PCB-1016 < 0.0094 ARSENIC 11.5
B-64 PCB-1254 0.12
B-65 PCB-1016 <0.0089
SB726 PCB-1016 0.18
SB730 PCB-1016 <0.0084
SB729 PCB-1016 <0.085
SB728 PCB-1260 0.61
SB744
B-09 PCB-1260 0.011
B-34 PCB-1260 0.046
SB608 PCB-1254 0.3
SB607 PCB-1016 <0.0083
SB610 PCB-1016 <0.0089
SB611 PCB-1254 0.17
B-10 PCB-1260 0.94
SB613 PCB-1254 0.16
SB609 PCB-1254 0.17
SB612 PCB-1254 0.37
SB725 PCB-1254 0.36
SB725 FS PCB-1016 0.17
SB725 FS PCB-1016 0.098
SB727 PCB-1260 0.25
B-35 PCB-1248 0.22
B-103 PCB-1254 0.17
SB605 PCB-1248 0.034
SB601 PCB-1254 0.19 PCB-1248 2.3
SB602 PCB-1248 2.4
SB603 PCB-1248 0.39
SB615 PCB-1248 0.43
SB735 PCB-1254 0.75
SB736 PCB-1016 0.081
B-12 PCB-1248 0.34 MERCURY 4.1
B-115 PCB-1248 0.17
B-33 PCB-1242 < 0.046
SB741
SB742
SB743
SB748
SB747
SB746
SB745
B-53 PCB-1242 0.73
B-54 PCB-1254 0.012
SB616 PCB-1254 0.5
SB604 PCB-1248 0.74
B-32 PCB-1254 0.096
B-52 PCB-1254 0.43
SB724 PCB-1254 0.15 ARSENIC 19.3
B-51 PCB-1254
B-122 PCB-1260 <0.0092

LEGEND

- WABASH PARCEL PROPERTY BOUNDARY
- SOIL BORING LOCATION
- FORMER TAR PLANT STRUCTURES
- PAST REMEDIAL ACTIVITIES
- ABANDONED STRUCTURE
- SAMPLE LOCATION ABOVE THE NON- INDUSTRIAL DIRECT CONTACT RCL FOR PCBs AND/OR METALS OR ABOVE THE INDUSTRIAL DIRECT CONTACT RCL FOR PCBs IN THE UTILITY CORRIDOR.
- PCB-1016 < 0.0094 — MAXIMUM PCB AROCHLOR CONCENTRATION AT EACH LOCATION IN mg/kg WITHIN THE 0-4 FT DEPTH INTERVAL.
- ARSENIC 11.5 — MAXIMUM METAL CONCENTRATION AT EACH LOCATION EXCEEDING NON-INDUSTRIAL DIRECT CONTACT RCL IN mg/kg WITHIN THE 0-4 FT DEPTH INTERVAL.
- PROPOSED EXCAVATION - PCBs
- PROPOSED EXCAVATION - TAR
- GEOMEMBRANE
- PROPOSED COVER - PCBs AND ARSENIC - 10" CLAY, 14" GENERAL FILL/ROOTING ZONE (932,454 FT^2)
- PROPOSED LIMIT OF DERMAL COVER - PAHs - 24" GENERAL FILL/ROOTING ZONE (910,114 FT^2)
- SB746 — PROPOSED PRE-DESIGN BORING LOCATION

100' 0 100'

PCB AND ARSENIC SOIL BARRIER - EAST AREA

FIGURE 8

RAOR ADDENDUM
FORMER WABASH ALLOYS
9100 SOUTH 5TH AVENUE
OAK CREEK, WISCONSIN

RAMBOLL US CORPORATION
A RAMBOLL COMPANY

RAMBOLL

NATURAL RESOURCE TECHNOLOGY

www.naturalrt.com

TRANSMITTAL

To:	Mr. Eric Amadi	**Date:**	January 27, 2014
	Wisconsin Department of Natural Resources	**Project #:**	2095
	2300 N. Martin Luther King Jr Drive	**From:**	Rick Guenther, Julie Zimdars
	Milwaukee, WI 53212		
Attn:		**Direct No:**	(414) 837-3606
Copy to:	Mike Kellogg, Mike Slenska, Mike Noel		
Re:	Site Investigation Report Former Koppers Tar Plant and Wabash Alloys Site – Revised Figures		

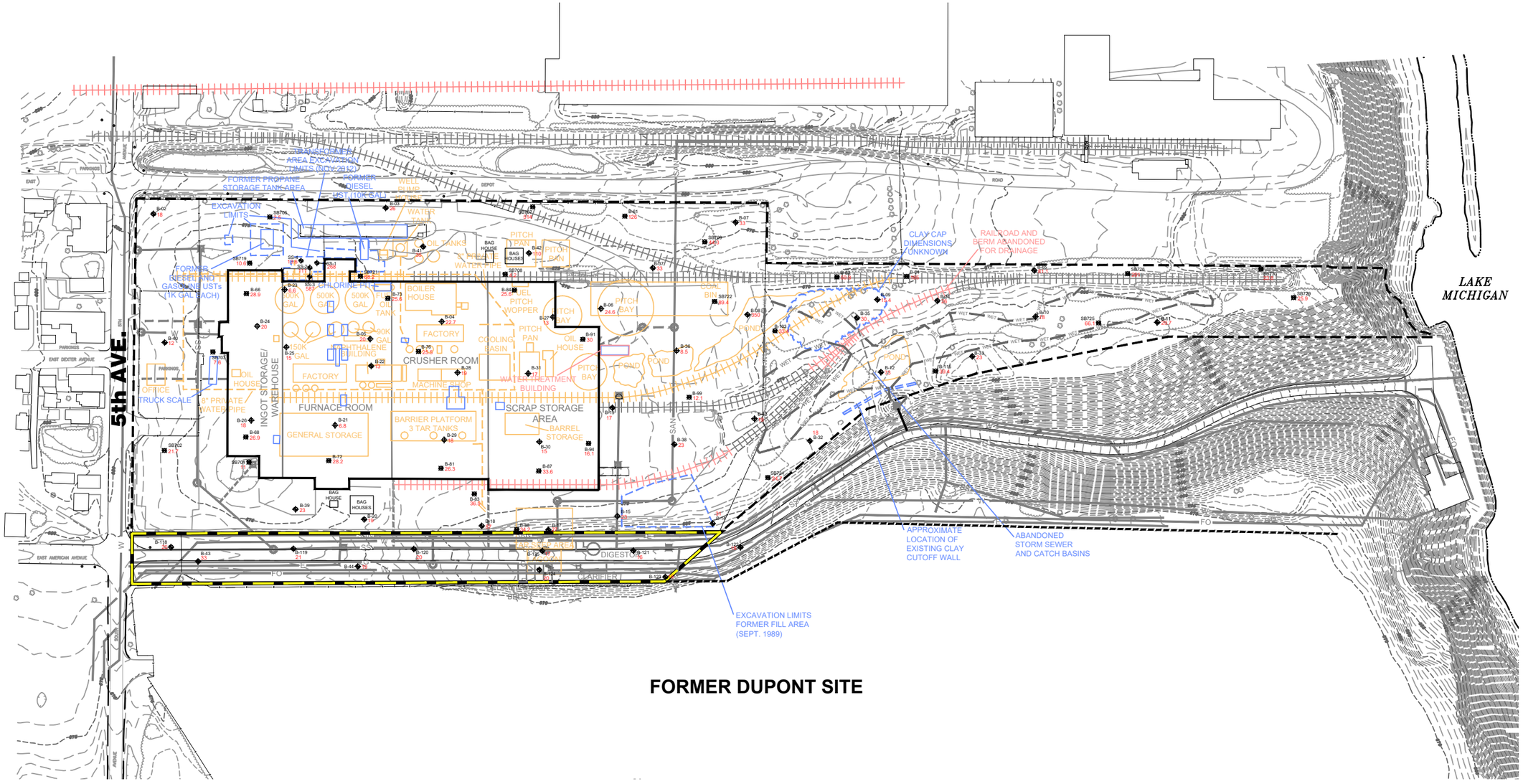
For Your Files X **As Requested** ____ **For Review** ____ **Approve & Return** ____

Copies:	**Description**
3	Revised hard copies of Figure C4 and Figure C8
3 CDs	Electronic version of the Complete Updated Report (report date 1/13/14, CD update 1/27/14)

Message:

Eric – Attached are 3 hard copies of the revised figures and 3 full report CDs for the Site Investigation Report (VPLE BRRTS Activity #06-41-560068). As I mentioned over the phone, we made edits to Figures C4 and C8 and are providing updated versions. You may recycle the current Figures C4 and C8 and the CDs provided with each report. If you have any questions, please let me know.

Thanks – Rick Guenther



FORMER DUPONT SITE

WABASH PARCEL PROPERTY BOUNDARY (CONNELL AND BEAZER VPLE)
CITY PARCEL PROPERTY BOUNDARY (BEAZER VPLE)
UTILITY CORRIDOR PROPERTY BOUNDARY
WETLAND BOUNDARY
RAILROAD RAIL LINE
SANITARY
ABANDONED SANITARY
STORM SEWER
ASSUMED STORM SEWER
NATURAL GAS
WATER MAIN
ELECTRICAL
FIBER OPTIC
MANHOLE
INLET/CATCH BASIN

EXISTING MONITORING WELL/PIEZOMETER
SOIL BORING (2010 AND 2011)
SOIL BORING LOCATION (2012)
SOIL BORING LOCATION (2013)
SURFACE SOIL LOCATION (2012)
SAMPLE LOCATION ABOVE THE NON-INDUSTRIAL DIRECT CONTACT RCL OF 100,000 mg/kg
SAMPLE LOCATION ABOVE THE GROUNDWATER PATHWAY RCL OF 360,000 mg/kg AND DIRECT CONTACT RCL
MAXIMUM CHROMIUM CONCENTRATION AT EACH LOCATION IN mg/kg FOR THE DEFINED DEPTH INTERVAL

ABANDONED STRUCTURE
FORMER TAR PLANT STRUCTURES
PAST REMEDIAL ACTIVITIES
FORMER PITS OR TANKS, WABASH
FORMER WASTEWATER TREATMENT PLANT STRUCTURES

NOTES:

1. CHROMIUM III WAS USED FOR DIRECT CONTACT AND THE TOTAL CHROMIUM WAS USED FOR GROUNDWATER PATHWAY.

SOURCE NOTES:

1. TETRA TECH FIGURE 14, EXTENT OF SOIL EXCEEDING INDUSTRIAL DIRECT CONTACT RCL, DATED 2/16/12, 4436D-REVISED-OAK CREEK.DWG.
2. TETRA TECH FIGURE 11, PROPOSED INVESTIGATION/SAMPLING LOCATIONS, DATED 11/20/12, FIGURE 11 - PROPOSED INVESTIGATION-SAMPLING LOCATIONS.DWG.
3. TETRA TECH FIGURE 1, SITE LAYOUT, DATED 06/07/13, SITE LAYOUT.DWG.
4. WETLAND BOUNDARY DELINEATED BY HEY & ASSOCIATES AND FIELD LOCATED BY NATURAL RESOURCE TECHNOLOGY, INC. JUNE 2013

N

0 50 100 200

SCALE IN FEET

DRAWN BY: RLH/NWD DATE: 01/10/14
CHECKED BY: RJG DATE: 01/10/14
APPROVED BY: JAZ DATE: 01/23/14
DRAWING NO: FIG C4_2095-61-BC4C-CHROMIUM 0-4
REFERENCE: SEE INFO BLOCK

CHROMIUM SOIL CONCENTRATIONS 0-4 FEET BGS

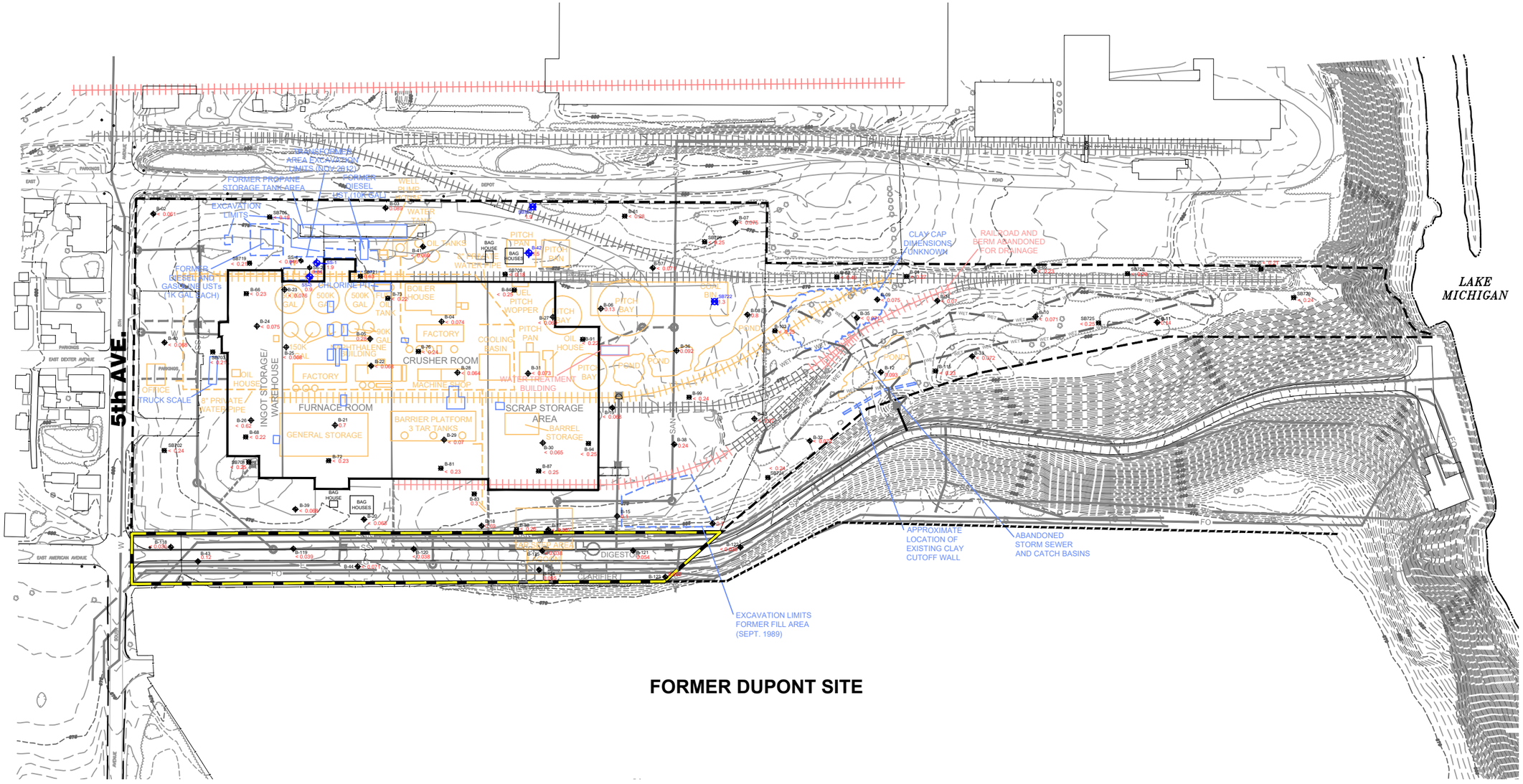
SITE INVESTIGATION REPORT
FORMER WABASH ALLOYS
9100 SOUTH 5TH AVENUE
OAK CREEK, WISCONSIN

NATURAL RESOURCE TECHNOLOGY

PROJECT NO.
2095/6.1

FIGURE NO.
C4

Jan 23, 2014 10:37am PLOTTED BY: rhopkins SAVED BY: rhopkins
X:\ACAD\Data\Projects\2095\6-1\fig C4_2095-61-BC4C-Chromium 0-4.dwg Layout1
IMAGES:
XREFS: _2095-61-BASEMAP.dwg



- WABASH PARCEL PROPERTY BOUNDARY (CONNELL AND BEAZER VPLE)
- CITY PARCEL PROPERTY BOUNDARY (BEAZER VPLE)
- UTILITY CORRIDOR PROPERTY BOUNDARY
- WETLAND BOUNDARY
- RAILROAD RAIL LINE
- SANITARY
- ABANDONED SANITARY
- STORM SEWER
- ASSUMED STORM SEWER
- NATURAL GAS
- WATER MAIN
- ELECTRICAL
- FIBER OPTIC
- MANHOLE
- INLET/CATCH BASIN
- EXISTING MONITORING WELL/PIEZOMETER
- SOIL BORING (2010 AND 2011)
- SOIL BORING LOCATION (2012)
- SOIL BORING LOCATION (2013)
- SURFACE SOIL LOCATION (2012)
- SAMPLE LOCATION ABOVE THE NON-INDUSTRIAL DIRECT CONTACT RCL OF 391 mg/kg AND GROUNDWATER PATHWAY RCL
- SAMPLE LOCATION ABOVE THE GROUNDWATER PATHWAY RCL OF 0.850 mg/kg
- MAXIMUM SILVER CONCENTRATION AT EACH LOCATION IN mg/kg FOR THE DEFINED DEPTH INTERVAL
- ABANDONED STRUCTURE
- FORMER TAR PLANT STRUCTURES
- PAST REMEDIAL ACTIVITIES
- FORMER PITS OR TANKS, WABASH
- FORMER WASTEWATER TREATMENT PLANT STRUCTURES

SOURCE NOTES:

1. TETRA TECH FIGURE 14, EXTENT OF SOIL EXCEEDING INDUSTRIAL DIRECT CONTACT RCL, DATED 2/16/12, 4436D-REVISED-OAK CREEK.DWG.
2. TETRA TECH FIGURE 11, PROPOSED INVESTIGATION/SAMPLING LOCATIONS, DATED 11/20/12, FIGURE 11 - PROPOSED INVESTIGATION-SAMPLING LOCATIONS.DWG.
3. TETRA TECH FIGURE 1, SITE LAYOUT, DATED 06/07/13, SITE LAYOUT.DWG.
4. WETLAND BOUNDARY DELINEATED BY HEY & ASSOCIATES AND FIELD LOCATED BY NATURAL RESOURCE TECHNOLOGY, INC. JUNE 2013

N

0 50 100 200

SCALE IN FEET

DRAWN BY: RLH/NWD DATE: 01/10/14
CHECKED BY: RJG DATE: 01/10/14
APPROVED BY: JAZ DATE: 01/27/14
DRAWING NO: FIG C8_2095-61-BC8C-SILVER 0-4
REFERENCE: SEE INFO BLOCK

SILVER SOIL CONCENTRATIONS 0-4 FEET BGS

SITE INVESTIGATION REPORT
FORMER WABASH ALLOYS
9100 SOUTH 5TH AVENUE
OAK CREEK, WISCONSIN

NATURAL RESOURCE TECHNOLOGY

PROJECT NO.
2095/6.1

FIGURE NO.
C8

Jan 27, 2014 2:45pm PLOTTED BY: rhopkins SAVED BY: rhopkins
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