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## MEMORANDUM

TO: Darlene Stringer, MDEQ  
Matt Gamble, MDEQ

REF. NO.: 017360

FROM: Jeni Quigley/eb/66/Pwl.

DATE: August 9, 2013

CC: David Favero, RACER

RE: **Proposed Sample Locations  
2013 Site-Wide Investigation – Stage V  
Former Grand Rapids Metal Plant  
Wyoming, Michigan**

Conestoga-Rovers & Associates (CRA), on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, conducted soil and groundwater investigation activities at the former Grand Rapids Metal Plant property located at 300 36<sup>th</sup> Street SW in Wyoming, Michigan (Site) in 2011, 2012 and 2013. This memorandum (Memorandum) has been prepared to present the Scope of Work (SOW) for additional assessment of the Site based on the results of previous investigations.

### SCOPE OF WORK

The SOW presented below describes additional proposed investigation activities. The Areas of Interest (AOIs) described were presented in the memorandum entitled *Proposed Sample Locations, 2013 Site-Wide Investigation – Stage IV, Former Grand Rapids Metal Plant, Wyoming, Michigan*, which was submitted to the Michigan Department of Environmental Quality (MDEQ) on February 20, 2013. The procedures employed during the implementation of the SOW in the above document were described in the Site-Wide Investigation Work Plan (Work Plan), submitted to the MDEQ on January 7, 2011 and in subsequent discussions and correspondence. The proposed activities will be completed in accordance with the protocols specified in the Work Plan. The implementation of the proposed on-Site investigation activities will be contingent upon access availability to the Site and timing of any redevelopment work being conducted by the new property owner.

### AOI 7.3 – Anti-Rust Spray Booth No.1 (Columns U to X, Row 16)

Anti-rust oil spray booth No. 1 operations, which included approximately 110-gallon oil tanks situated on the plant floor or in below-grade pits, were identified on a 1937 drawing to have been historically conducted at Columns U to X, Row 16. SB47-11 was advanced in this area during the 2011 Site-Wide Investigation – Stage I; however, refusal was encountered at 4.5 ft. below ground surface (bgs). Based on the review of historical drawings and noted depths of the pits, the boring was possibly installed within a former pit. To further evaluate this area, SB263-13 will be advanced approximately 20 feet to the north of SB47-11, which should be outside the former pit, and two soil samples will be collected, one from the interval below the anticipated bottom of the former pit presented on historical drawings and one from immediately above the water table, with additional soil samples collected if visual or olfactory evidence of

impact is observed, and submitted for laboratory analysis of Target Compound List (TCL) volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PNAs), polychlorinated biphenyls (PCBs), and Site-specific Target Analyte List (TAL) metals. Figure 1 presents the proposed sample location.

#### **AOI 14 - Former Sludge Bed (General area of Column Zc, Rows 13 to 16)**

A "present sludge bed to be filled in" was identified on a 1954/1955 drawing of the Site. Based on review of available aerial photographs, this sludge bed was located to the north of the Former Power House, and to the east of the cooling water spray pond. SB73-11 and SB74-11 were advanced in this area during the 2011 Site-Wide Investigation - Stage I. Both boring locations observed "white sludge-like debris" from 12 to 14 ft. bgs and a "paint-like odor" was noted in SB73-11. The analytical laboratory results did not identify any detection of VOCs; however, due to low surrogate compound recovery during the analysis, the VOC results were rejected following data validation. Low concentrations of PNAs were detected; however, due to matrix interference, the samples were diluted during analysis. In order to obtain an additional sample, SB254-13 will be advanced in the vicinity of SB73-11/SB74-11 and a sample will be collected based on visual observation of the interval of potential sludge and from the interval beneath the potential sludge interval. As a conservative approach based on the matrix interference issues encountered previously, the soil samples will be analyzed for TCL VOCs and TCL SVOCs to evaluate the potential sludge material and any potential impacts to the underlying soil. A grab groundwater sample will also be collected and submitted for laboratory analysis of TCL VOCs and TCL SVOCs to assess groundwater quality in the area of the former Sludge Bed. Figure 2 presents the proposed sample location.

#### **AOI 15.1 - Former Main Manufacturing Building Balers**

An area with two balers was identified on 1936 and 1950 drawings between Columns Q to O, Rows 20 ½ to 22. SB75-11 was advanced in this area during the Site-Wide Investigation - Stage I; however, refusal was encountered at 6 ft. bgs due to the presence of concrete. It is possible that SB75-11 was installed within the former pit. Based on the review of historical drawings and noted dimensions of the baler pits, SB264-13 will be advanced in the area of SB75-11 at a location believed to be outside the former pit, and two soil samples will be collected, one from the interval below the anticipated bottom of the former pit presented on historical drawings and one from immediately above the water table, with additional soil samples collected if visual or olfactory evidence of impact is observed, and submitted for laboratory analysis of TCL VOCs, PNAs, PCBs, and Site-specific TAL metals. Figure 1 presents the proposed sample location.

#### **AOI 16.2 - Former Heat Treat Area No. 2 (Columns U to W, Rows 26)**

A former Heat Treat area was located between Columns U and W, Rows 26 and 27 on a 1944 drawing. This drawing identifies a large quench pit in this area, with four tanks shown in the pit and at least one 12,000-gallon oil tank. SB81-11 was advanced in this area during the Site-Wide Investigation - Stage I; however, refusal was encountered at approximately 9.8 ft. bgs. The 1944 drawing indicates that the pit was designed to be 9.8 ft. deep. It is likely that SB81-11 was installed within the former pit. A dark brown to black sand was also discovered at 9.0 ft. bgs. To further evaluate this area, SB265-13 will be advanced at a location believed to be outside of the former pit, and two soil samples will be collected, one from the interval below the anticipated bottom of the former pit presented on historical drawings and one from immediately above the water table, with additional soil samples collected if visual or olfactory evidence of impact is observed. An additional boring, SB266-13, will be installed within the former pit to collect a sample of the dark brown to black sand interval encountered at 9.0 ft bgs. Samples collected from both

borings will be submitted for laboratory analysis of TCL VOCs, PNAs, PCBs, and Site-specific TAL metals. Figure 1 presents the proposed sample location.

#### **AOI 24 - Former Tar House**

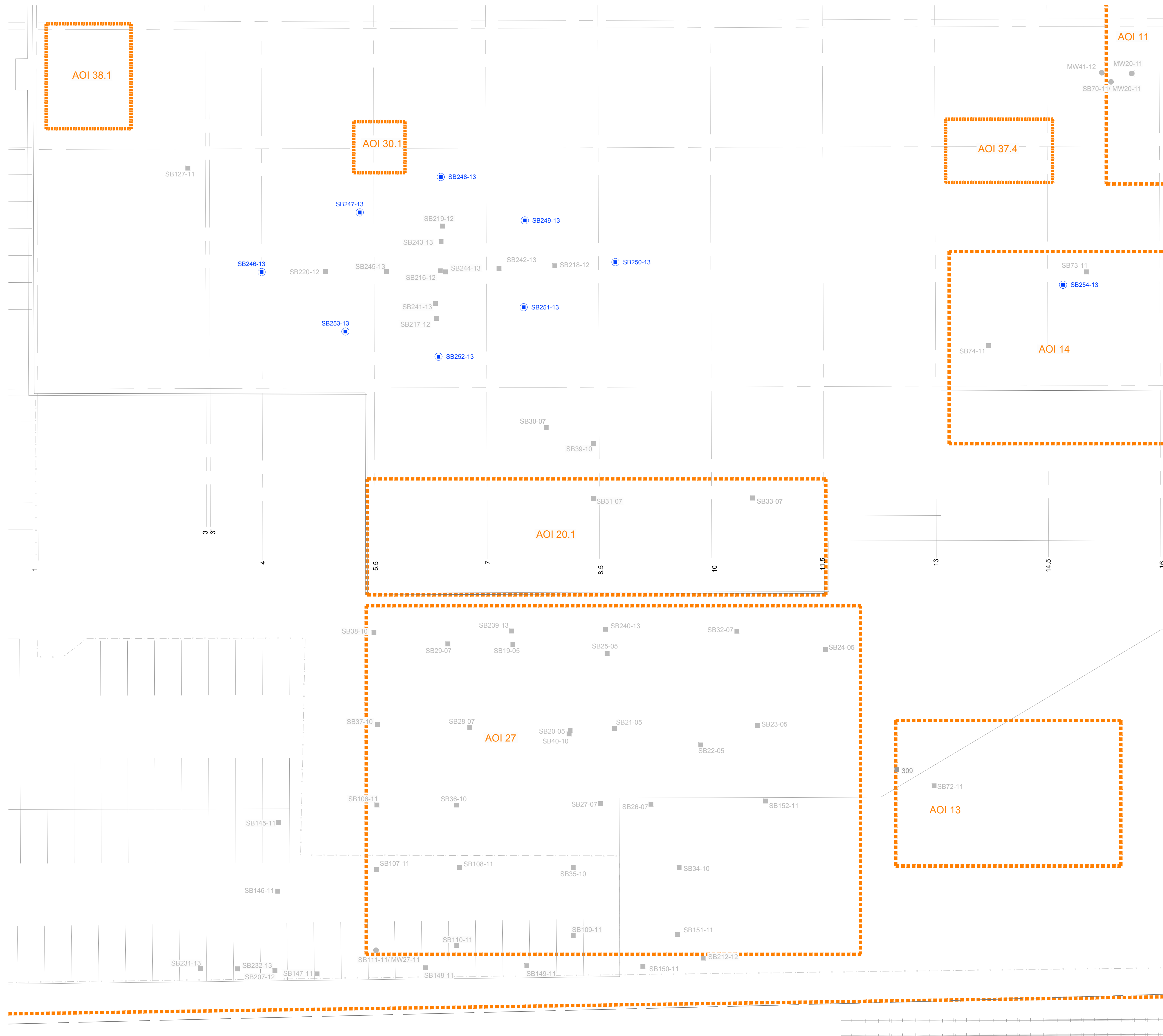
Based on the review of documentation from 1978, a "tar house," which was used to heat tar for floor block repairs, was located south of the former Main Manufacturing Building near the storm sewer pump house. Soil samples collected from this area have exhibited concentrations of PCBs above Part 201 Non-Residential Criteria and the Toxic Substances Control Act (TSCA) Criterion for bulk PCB remediation waste in High Occupancy Areas (40 CFR 761.61(a)(4)(i)). Eight soil borings (SB255-13 through SB262-13) will be advanced to the water table (assumed to be 16 ft. bgs) in this area, and soil samples will be collected in 2-foot intervals for laboratory analysis of PCBs. Figure 3 presents the proposed sample locations.

#### **AOI 40 - On-Site Fill Area (Column Zc, Rows 5.5-7)**

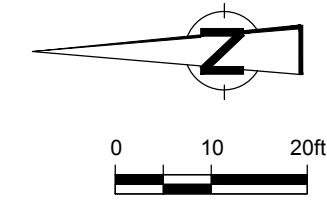
During Site demolition and re-grading activities in June 2012, a black fill material containing slag, metal fragments, and concrete rubble was uncovered beneath the slab in the former Main Manufacturing Building at Column Zc, Rows 5.5 through 7. A sample of the fill material was collected from 0.25 to 1 ft. bgs and the demolition contractor was instructed to leave the materials in place for evaluation at a later date. Several metals, PNAs, and trichloroethylene (TCE) were detected at concentrations above the Part 201 Non-Residential Cleanup Criteria in the soil sample collected. Subsequent soil samples collected during the 2012 and 2013 Site-wide investigation also exhibited concentrations of metals, PNAs, and TCE above the Part 201 Non-Residential Cleanup Criteria. In order to further delineate contamination associated with the fill material, eight soil borings (SB246-13 through SB253-13) will be advanced to a maximum depth of 10 ft. bgs and soil samples will be collected in 2-foot intervals for laboratory analysis of TCL VOCs, PNAs, and Site-specific TAL metals. Figure 2 presents the proposed sample locations.

Please contact David Favero at (217) 741-6235 or Jeni Quigley at (269) 685-5181 with any questions regarding this Memorandum or the enclosed information.

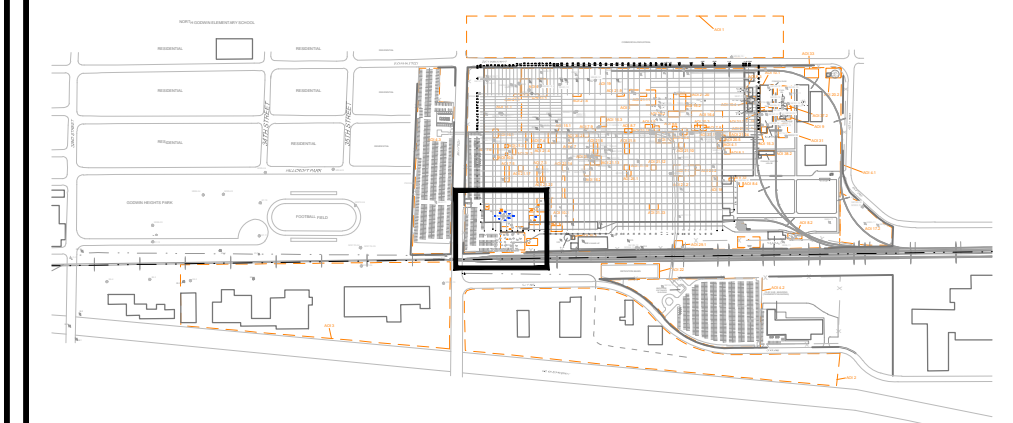




No	Revision	Date	Initial



- LEGEND**
- SB222-13 STAGE IV SITE-WIDE INVESTIGATION SOIL BORING LOCATIONS
  - TW20-2 HISTORICAL SAMPLE LOCATION
  - MW6-03 HISTORICAL MONITORING WELL LOCATION
  - MW58-13 STAGE IV SITE-WIDE INVESTIGATION SOIL BORING/MONITORING WELL LOCATION
  - MW25-11 DESTROYED MONITORING WELL LOCATION
  - SB254-13 PROPOSED SOIL BORING LOCATIONS
  - APPROXIMATE SITE BOUNDARY
  - - - FENCE
  - RAILROAD
  - - - COLE DRAIN
  - - - APPROXIMATE AOI



KEY MAP

**SCALE VERIFICATION**  
 THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

Approved

**DRAWING STATUS**

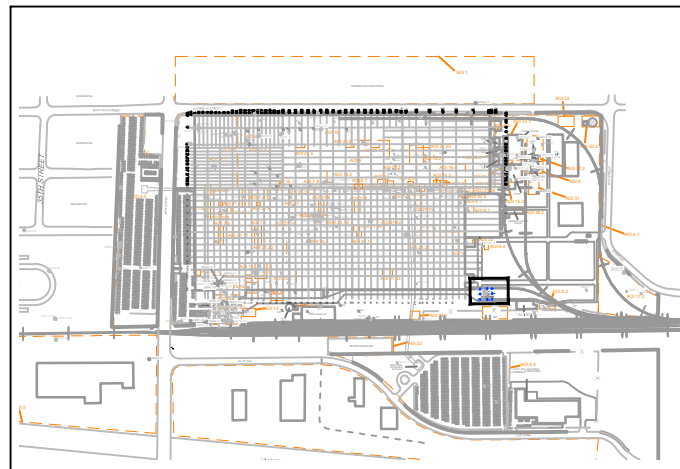
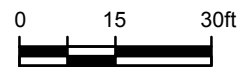
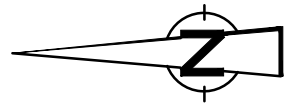
Status	Date	Initial

**PROPOSED SAMPLE LOCATIONS**  
 SITE-WIDE INVESTIGATION - STAGE V  
 FORMER GRAND RAPIDS METAL PLANT  
 WYOMING, MICHIGAN

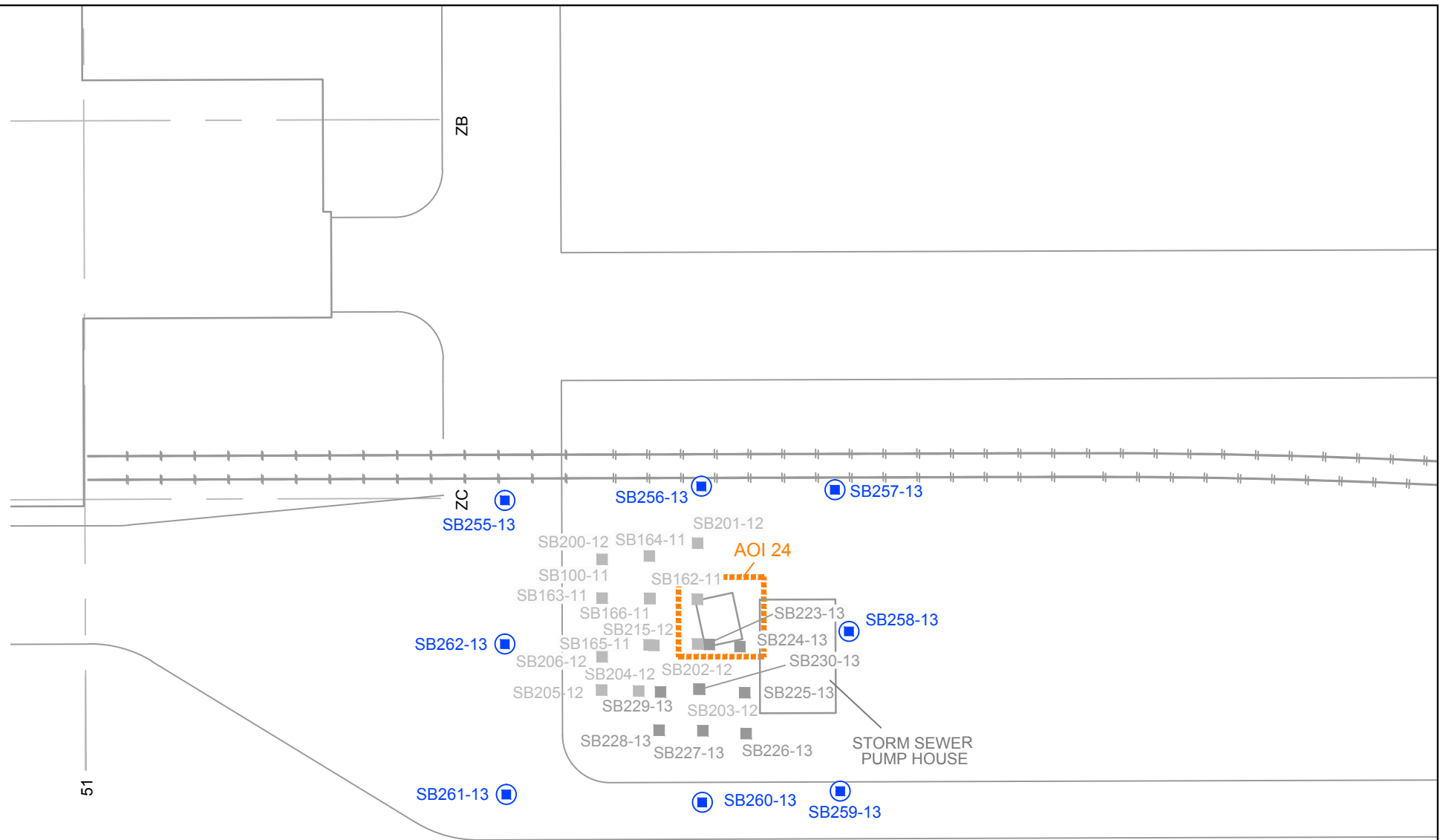


Source Reference:

Project Manager: J.Q.	Reviewed By: E.B.	Date: AUGUST 2013
Scale: 1:20	Project N°: 017360-T05	Report N°: MEMO066
		Drawing N°: Figure 2



KEY MAP



LEGEND

- SB222-13 STAGE IV SITE-WIDE INVESTIGATION SOIL BORING LOCATIONS
- SB205-12 HISTORICAL SAMPLE LOCATION
- SB261-13 PROPOSED SOIL BORING LOCATIONS
- — — — — APPROXIMATE SITE BOUNDARY
- - - - - FENCE
- + + + + + RAILROAD
- - - - - APPROXIMATE AOI



figure 3  
 PROPOSED SAMPLE LOCATIONS - FORMER TAR HOUSE  
 SITE-WIDE INVESTIGATION - STAGE V  
 FORMER GRAND RAPIDS METAL PLANT  
 Wyoming, Michigan