



May 14, 2018

City of Manitowoc
Attn: Kathleen McDaniel
900 Quay Street
Manitowoc, WI 54220

SUBJECT: Additional Investigation for Manitowoc City / Former Newton Tn Gravel Pit
3130 Hecker Road, Manitowoc, Wisconsin
BRRTS #: 02-36-000268

Dear Ms. McDaniel:

As follow up to our April 6, 2018, meeting and the May 3, 2018, meeting between Dave Henderson of AECOM and the Northeast Region (NER) closure committee, the site investigation is not complete based on more recent information and data provided to the Department of Natural Resources (DNR). Additional investigation is primarily based on recent interviews and site visits conducted from 2013 to 2015 and recent sampling results received by a private property owner in September 2017 for another impacted private well, which spurred further private well sampling efforts by the DNR. The following activities need to be completed per Wis. Admin. Code ch. NR 716 to finish the site investigation (refer to attached figures for referenced locations below):

Source Property:

- Based on the meeting with AECOM on May 3, 2018, AECOM verbally provided justifications to the DNR that investigation is not warranted in the other potential dumping areas (Locations 1 through 4 on the attached figure) as identified in the interviews and site visits, which the DNR agrees with. These were potential locations in addition to the other dumping areas that have already been investigated. AECOM will need to formally document those justifications in a report to the DNR,
- Groundwater monitoring is needed in the northern source area for volatile organic compounds (VOCs) and Resource Conservation & Recovery Act (RCRA) metals. This action will require installation of a water table monitoring well in the northern source area in the area of B-16 and B-19, and
- Polychlorinated biphenyls (PCBs) need to be sampled in the soil at the western source area since this was not previously completed. This sampling can be conducted during the soil vapor extraction (SVE) system well installations.

Off-Site and Private Well Investigation:

- Additional private well investigation is needed in the South 26th Street area in the Town of Newton and Town of Manitowoc. The area along Silver Creek Rd, southeast of Thunder Ridge Rd shall also be sampled to ensure those wells are not impacted. Private well sampling for chlorinated volatile organic compounds (CVOCs) will need to continue until a clean downgradient extent can be determined. A private well sampling work plan will need to be submitted for this additional sampling.
- Installation of monitoring wells and sampling for CVOCs is needed in the area within the city limits north of Viebahn Street to define degree and extent. This area can be evaluated to determine the correct depth(s) and number of monitoring wells/piezometers needed to define the northern extent.
- If the City accepts the responsibility for the northeast CVOC groundwater contaminant plume, no additional investigation work is required to define the area between the two currently designated southeast

and northeast plumes. If the City does not accept the responsibility for the northeast CVOC groundwater contaminant plume, then multiple lines of evidence will need to be provided to determine if the northeast plume is not the City's responsibility.

Site investigation work plans shall be submitted per Wis. Admin. Code § 716.09 for the additional site investigation work prior to field work being conducted.

This letter refers only to the conditions described for additional investigation and does not constitute completion of the ongoing remedy at the source property, any other remedial actions needed such as well replacement to address concerns to public health and/or the environment, any sampling that is needed to document the effectiveness of implemented remedial actions, and the surface water, groundwater and private well monitoring. The site investigation is based on the available information and data that has been submitted to the DNR to date and the additional activities required above. In the future, if the DNR becomes aware of new information concerning the presence of existing or new contaminants discovered as part of additional investigation activities, the DNR will evaluate that information to determine if any additional response actions are required.

The Bureau for Remediation and Redevelopment Tracking System (BRRTS) identification number for this activity is shown at the top of this letter. The DNR tracks information on all case determinations such as this letter in a public database that is available at: <http://dnr.wi.gov/topic/Brownfields/botw.html>.

If you have any questions, please contact Tauren Beggs at 920-662-5178, by writing to the address at the top of this letter or by email to Tauren.Beggs@wisconsin.gov.

Sincerely,



Roxanne N. Chronert
Team Supervisor, Northeast Region
Remediation & Redevelopment Program

ec: Dave Henderson, AECOM (Dave.Henderson@aecom.com)

Attachments:

- Potential Dumping Locations from Interviews
- Investigation Location References



Potential Dumping Locations from Interviews



Legend

- Open Site (ongoing cleanup)
- Closed Site (completed cleanup)
- Municipality
- State Boundaries
- County Boundaries
- Major Roads
 - Interstate Highway
 - State Highway
 - US Highway
- County and Local Roads
 - County HWY
 - Local Road
- + Railroads
- Tribal Lands

0.1 0 0.06 0.1 Miles

NAD_1983_HARN_Wisconsin_TM

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1:3,960



DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/legal/>

Note: Not all sites are mapped.

Notes

INVESTIGATION LOCATION REFERENCES

CITY LIMITS NORTH OF VIEBAHN ST

SPECIAL WELL CASING DEPTH AREA

NORTHERN SOURCE AREA

WESTERN SOURCE AREA

AREA BETWEEN NE AND SE CVOC PLUMES

NE CVOC GROUNDWATER PLUME

SE CVOC GROUNDWATER PLUME






SILVER CREEK RD AREA, SE OF THUNDER RIDGE RD

S 26TH AREA

S 26TH AREA

LEGEND		POTABLE WELL SAMPLE LOCATIONS (CONTINUED)	SAMPLING ZONES		
---	PROPERTY BOUNDARY - GRAVEL PIT	●	- WITHIN SENTINEL ZONE-5 YEAR, WITH NO DETECTS	■	TARGET ZONE
---	PROPERTY BOUNDARY - CITY LIMITS	●	-REPLACEMENT WELL WITHIN TARGET ZONE, WITH NO CURRENT DETECTS	■	SENTINEL ZONE-3 YEAR
---	UTILITIES	▲	-UPGRADATION AND HISTORICALLY SAMPLED WELLS, WITH NO DETECTS	■	SENTINEL ZONE-5 YEAR
---	POTABLE WATER SUPPLY (from City of Manitowish)	○	-FORMER TARGET ZONE WELL, WITH DETECTS, BUT NOW ON CITY WATER	■	FORMER GRAVEL PIT ZONE
●	POTABLE WELL SAMPLE LOCATIONS	■	-WELL OUT OF SERVICE		
●	- WITHIN TARGET ZONE, WITH NO DETECTS				
●	-WITHIN TARGET ZONE, WITH NO DETECTS				
●	-WITHIN SENTINEL ZONE-3 YEAR, WITH NO DETECTS				

POTABLE WELL SAMPLE LOCATIONS (CONTINUED)

-  -WITHIN SENTINEL ZONE-5 YEAR, WITH NO DETECTS
-  -REPLACEMENT WELL WITHIN TARGET ZONE, WITH NO CURRENT DETECTS
-  -UPGRADIENT AND HISTORICALLY SAMPLED WELLS, WITH NO DETECTS
-  -FORMER TARGET ZONE WELL, WITH DETECTS, BUT NOW ON CITY WATER
-  -WELL OUT OF SERVICE

SAMPLING ZONES

- TARGET ZONE
- SENTINEL ZONE-3 YEAR
- SENTINEL ZONE-5 YEAR
- FORMER GRAVEL PIT ZONE



AECOM
Milwaukee Office
1555 RiverCenter Dr
Milwaukee, WI
414.944.6080



FORMER NEWTON GRAVEL PIT

OCTOBER 2017
POTABLE WELL SAMPLING RESULTS

Project Number:
60135471

Drawn By:
SAE

Date:
12/21/2017

Figure No. 2