

Klauk, Robert H - DNR

From: Brand, Jeff <Jeff.Brand@stantec.com>
Sent: Wednesday, December 20, 2017 4:00 PM
To: Klauk, Robert H - DNR
Cc: Caine, Lynelle
Subject: MCABI-Tyco Redevelopment Property; BRRTS# 02-38-564236
Attachments: 2017.12.20 Tyco Figure 2 SB Locations.pdf; 2017.10.27 Site Layout with MW Locations.pdf; Table 3a - GW RCRA Metal Lab Result.pdf

Stantec is providing a project status update for the MCABI-Tyco Redevelopment Property (BRRTS# 02-38-564236), 1310-1330 Main Street, Marinette, Wisconsin (the Site). This email presents the results of the installation and sampling of an additional temporary groundwater monitoring well for the Site.

On October 27, 2017 Stantec oversaw the advancement of an additional soil boring (B2100) within the Ludington Street right-of-way. The soil boring was advanced downgradient to existing monitoring well MW1800 located on the MCABI property. Soil samples were collected continuously from the borehole to a depth of 12 feet below grade (fbg) and were subsequently field screened and classified. Unconsolidated material observed consisted of generally sandy topsoil overlying silty sands and intermixing layers of historic fill material/waste (i.e. wood chips, metal, slag, glass, paper, and plastic) from 6 to 8 fbg similar to that found on the MCABI property during Stantec's previous Phase II ESA. Boring B2100 was later converted into temporary monitoring well TW2100. Temporary monitoring well TW2100 was constructed of 1-inch inner diameter, schedule 40 PVC casing utilizing a 10-foot length of factory slotted screen (0.010-inch) to a total depth of approximately 12 fbg. Depth to water was found in the well to be approximately 2.33 feet fbg. Soil boring and monitoring well locations are shown on the attached Figures 2 and 3.

Following installation of the additional monitoring well, groundwater samples were collected from temporary monitoring well TW2100 and existing Site monitoring well MW1800. Groundwater samples were submitted for laboratory analysis for dissolved arsenic. Laboratory results indicated the presence of arsenic within TW2100 exceeding both the NR 140 preventive action limit (PAL) and enforcement standard (ES). Arsenic was also found to exceed the NR 140 PAL in monitoring well MW1800. Groundwater sampling results are summarized on the attached Table 3a.

Groundwater sampling results indicate that arsenic concentrations within monitoring well MW1800 have decreased to below the ES but still remain above the PAL. In addition, groundwater sample results show that arsenic concentrations exceeding the NR140 ES also exist within the Ludington Street right-of-way. During soil field screening, it was noted that historic fill/waste materials were observed in both boring B800 on the MCABI property and boring B2100 within the Ludington Street right-of-way. Likewise, elevated levels of arsenic were found in soil samples collected from three borings (B700-B900) advanced on the MCABI site which also contained historic fill/waste material. Arsenic results from B700 and B900 were collected from the interval in which the historic fill was present. The sample from B800 was collected from the 2-4 foot interval directly overlaying the historic fill found at approximately 4 fbg. This sample may have also contained a small portion of historic fill at the bottom of the sampling interval. Therefore, it appears that the elevated arsenic detected in the soil samples at the Site are representative of the historic fill material/waste identified at the Site. Based on current sampling results of this Site and adjacent historic sites, arsenic contamination in soil and groundwater appears to be widespread within the area and may be attributed to the historic fill/waste materials observed and not simply from a source originating from the MCABI /WMCOE property. Therefore, Stantec does not believe that a further downgradient monitoring well is needed beyond TW2100. Monitoring well MW1800 is scheduled to be resampled in January of 2018 to continue to document contaminant concentration trends. Upon sample completion, an update will be provided and recommendations made for the Site, likely case closure.

Since this site is a VPLE site, please let us know if you agree with our recommendations to conclude that the groundwater investigation is complete and that no additional monitoring wells are needed at the Site. Specifically, we do not believe that additional monitoring wells are needed beyond the MCABI property lines to chase the arsenic contamination identified in groundwater that appear to be a wide spread issue and not related to this site.

Please contact myself or Lynelle if you would have any questions. Thanks.

Jeffrey R Brand

Engineer in Training

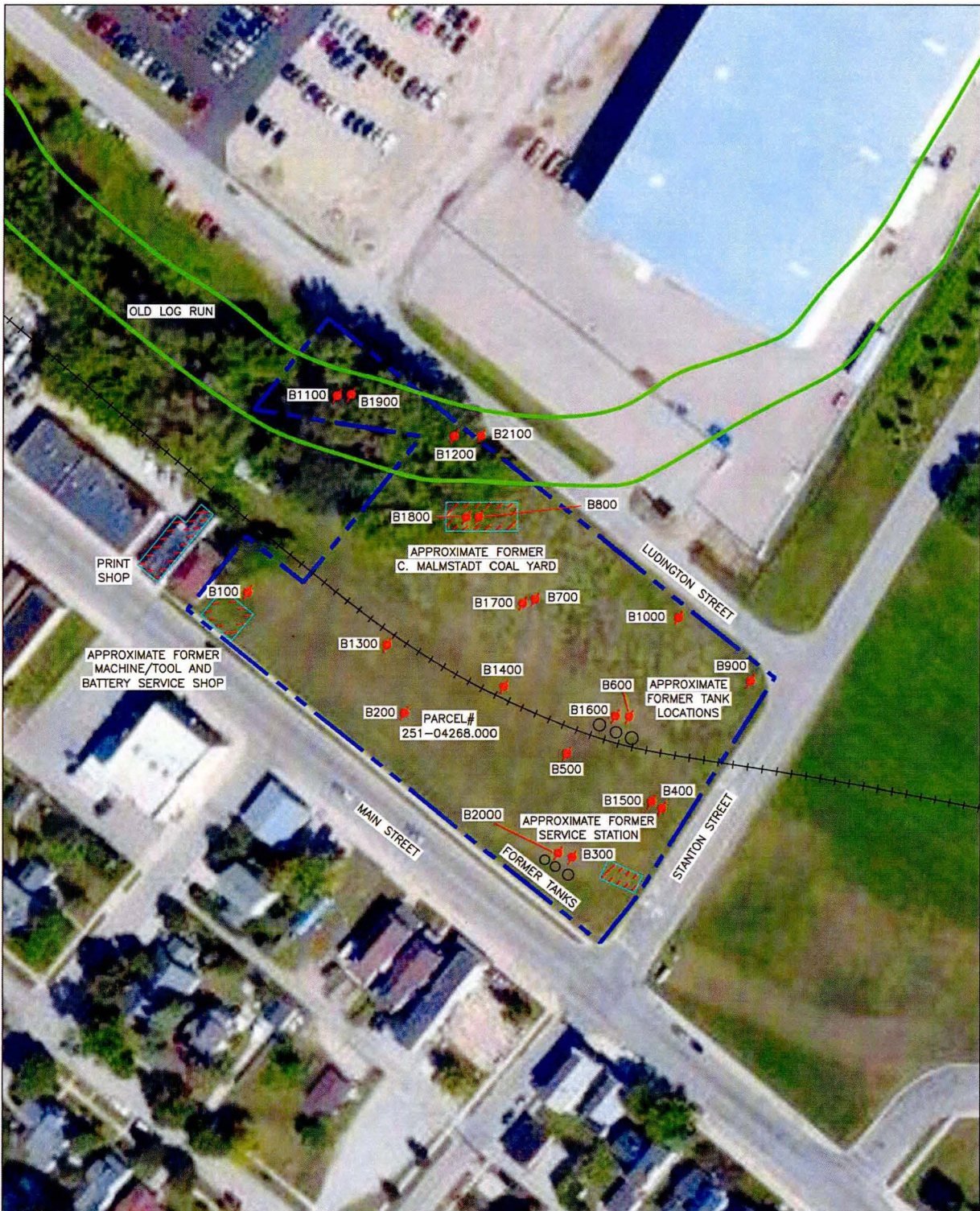
Direct: (920) 278-3208

Mobile: (920) 883-8501


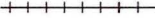

Fax: (920) 592-8444




The content of this email is the confidential property of Stantec and should not be copied, modified, retransmitted, or used for any purpose except with Stantec's written authorization. If you are not the intended recipient, please delete all copies and notify us immediately.




LEGEND

-  APPROXIMATE PROPERTY LINE
-  APPROXIMATE LOCATION OF FORMER CHICAGO NORTH WESTERN SIDING RAILROAD
-  SOIL BORING LOCATION



SCALE IN FEET





1165 Scheuring Road, De Pere, Wisconsin, 54115
Phone: 920-592-8400 Fax: 920-592-8444

This drawing and all information contained therein is the property of Stantec. Stantec will not be held liable for improper or incorrect usage. Professional seals and signatures do not apply to electronic drawing files. The user assumes all responsibility and risk for the accuracy and verification of all information contained in electronic files.

DATE: 12/20/17 DRAWN BY: JRB TASK NUMBER: 3.0.1

SOIL BORING LOCATIONS

MCABI - MARINETTE COUNTY
ASSOCIATION FOR BUSINESS &
INDUSTRY, INC.
MARITIME CENTER OF EXCELLENCE
MARINETTE, WISCONSIN

PROJECT NUMBER: 193704595 FIGURE 2

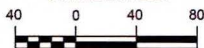


LEGEND

- APPROXIMATE PROPERTY LINE
- ◆ MW1800 MONITORING WELL LOCATION
- TW2100 TEMPORARY WELL LOCATION
- ◆ MW1500 ABANDONED MONITORING WELL LOCATION
- ⊗ TW100 ABANDONED TEMPORARY MONITORING WELL LOCATION



SCALE IN FEET



1165 Scheuring Road, De Pere, Wisconsin, 54115
 Phone: 920-592-8400 Fax: 920-592-8444

This drawing and all information contained thereon is the property of Stantec. Stantec will not be held liable for improper or incorrect usage. Professional seals and signatures do not apply to electronic drawing files. The user assumes all responsibility and risk for the accuracy and verification of all information contained in electronic files.

DATE: 10/27/17 DRAWN BY: JRB TASK NUMBER: 3.0.1 PROJECT NUMBER: 193704595 FIGURE 3

SITE LAYOUT WITH MONITORING WELL LOCATIONS

MCABI - MARINETTE COUNTY
 ASSOCIATION FOR BUSINESS &
 INDUSTRY, INC
 MARITIME CENTER OF EXCELLENCE
 MARINETTE, WISCONSIN

Table 3a Groundwater Sample RCRA Metals Laboratory Results, MCABI - Tyco Property, Marinette, Wisconsin

Well Number	Date Collected	Laboratory Results in micrograms per liter (µg/l)							
		RCRA Metals							
		Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
NR 140 Preventive Action Limit (µg/l)		1	400	0.5	10	1.5	0.2	10	10
NR 140 Enforcement Standard (µg/l)		10	2000	5	100	15	2	50	50
TW100	07/09/15	1.1	59.5	<0.26	<1.0	<1.5	<0.050	<12	<2.0
TW300	07/09/15	<0.50	32.1	<0.26	<1.0	<1.5	<0.050	<12	2.2 J
TW600	07/10/15	4.5	165	<0.26	<1.0	<1.5	<0.050	<12	<2.0
DUP (TW600)	07/10/15	5.2	170	<0.26	<1.0	<1.5	<0.050	<12	3.8 J
TW800	07/10/15	65.2	71.8	<0.26	<1.0	<1.5	<0.050	<12	<2.0
TW1100	07/10/15	9.7	140	<0.26	2.4 J	<1.5	<0.050	26.7 J	<2.0
MW1600	10/14/15	<0.44	---	---	---	---	---	---	---
MW1700	10/14/15	1.0	---	---	---	0.15 J	---	---	---
	08/04/16	0.74 J	---	---	---	---	---	---	---
MW1800	10/14/15	24	---	---	---	---	---	---	---
	08/04/16	5.5	---	---	---	---	---	---	---
	10/06/16	38	---	---	---	---	---	---	---
	04/13/17	38.9	---	---	---	---	---	---	---
	06/30/17	48.3	---	---	---	---	---	---	---
MW1900	10/14/15	7.0	---	---	---	---	---	<0.83	---
	08/04/16	4.0	---	---	---	---	---	---	---
TW2100	10/27/17	66	---	---	---	---	---	---	---

Notes:

- RCRA = Resource Conservation and Recovery Act
- <X = analyte not detected above method detection limit
- "J" = analyte detected between limit of detection and limit of quantitation
- X = concentration detected above Chapter NR 140, Wisconsin Administrative Code (NR 140, Wis. Adm. Code) preventive action limit (PAL)
- X** = concentration detected above NR 140, Wis. Adm. Code enforcement standard (ES)
- NE = not established
- = not analyzed