

October 27, 2020

Mr. Samuel Edwards Luvata Appleton, LLC 553 Carter Street Kimberly, WI 54136

Subject: Post-remedial Groundwater Sampling Results BRRTS#: 02-45-000015

Dear Mr. Edwards:

In accordance with the executed Agreement to Provide Access for Sampling Activities, and in accordance with Wisconsin Department of Natural Resources (WDNR) regulation NR 716.14, EnviroForensics, LLC (EnviroForensics) is providing the results of groundwater samples collected on the Luvata Appleton LLC property located at 908 North Lawe Street in Appleton, Wisconsin. The groundwater samples were collected on September 29, 2020 and analyzed for total dissolved chromium, iron, and manganese. Groundwater samples were collected from monitoring wells MW-5, MW-19R, MW-20R, MW-26R, MW-28R, and MW-30R, which are located as shown on attached **Figure 1**.

The sampling activities were conducted at the direction of the WDNR as part of the postremedial monitoring that they require. The WDNR has assigned the following identification to the former cleaning facility: BRRTS# 02-45-000015. The chemical of concern (COC) is total dissolved chromium.

The Responsible Party is:

Albany International. P.O. Box 1939 Appleton, WI 54913

Sampling Results

The sample analytical results are summarized and compared to public health criteria in the attached **Table 1**. Excerpts from the laboratory reports that relate to the groundwater samples



are also attached.

As can be seen in the attached **Table 1**, total dissolved chromium was detected in the duplicate groundwater sample collected from MW-20R at a concentration of 22.8 micrograms per liter (μ g/L). This concentration is above the preventative action limit of 10 μ g/L, but below the enforcement standard of 100 μ g/L set by the WDNR for protection of public health. The other wells sampled did not contain chromium at concentrations above the laboratory detection limits. Both iron and manganese were detected in various monitoring wells at concentrations exceeding public health or public welfare standards; however, these minerals are reactants that either drive or result from the chromium sequestering reaction and are expected to diminish over time.

If you have any questions or concerns, please contact me at 414-982-3988 or by email at wfassbender@enviroforensics.com. The WDNR project manager, Bruce Leroy, can be reached at 920-889-0151. We greatly appreciate your help and patience with this matter.

Sincerely, EnviroForensiscs, LLC

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Wayne Fassbender, PG, PMP Senior Project Manager

Copy: BJ Leroy, Wisconsin Department of Natural Resources

Attachments:

Figure 1: Post-remediation Groundwater Monitoring Well Network Table 1: Post-remedial Groundwater Analytical Results Groundwater Laboratory Analytical Report Excerpts



	Property boundary
GAS	Underground gas utility line
WTR	Underground water utility line
SAN	Underground sanitary utility line
UGT	Fiber optics line
STM	Underground storm utility line
	Pipe chase
	Floor drain
- 🛞	Manhole
TW-1 🔶	1-inch diameter groundwater monitoring well for sampling of chlorinated compounds
•	Monitoring well designated for remediation performance monitoring
-	Monitoring well designated for plume distribution evaluation
+	Monitoring well designated to be sampled once pre-closure

TABLE 1 GROUNDWATER REMEDIATION PERFORMANCE MONITORING DATA Former Appleton Wire Facility

908 North Lawe Street, Appleton, Wisconsin

				Dissolved Metals									
Monitoring Well Identification	Screen Interval	Remediaion Status	Sample Date	Chromium	Manganese	Iron							
Reporting Units			μg/L	μg/L	μg/L								
NR-	140 Preventative A	Action Limit (PAL)		10	60	150*							
N	100	300	300*										
		MW-5+9:23	8/31/2017	256	NA	NA							
MW-5	10.4 - 20.4		4/10/2020	12.7 J	462	13,800							
14144-5	10.4 - 20.4	Post Full Scale	7/1/2020	<3.9	408	11,500							
			9/29/2020	<3.9	346	10,100							
		Pre	4/23/18	18,900	<11.3	<155							
MW-19/19R		Post Pilot Test	7/16/18	172	948	22,400							
		Post Pilot Test	8/20/18	97.6	1640	88,200							
	4.8 - 14.8	Post Pilot Test	1/21/2019*	16.1	608	12,200							
			4/10/2020	<3.9	59.4	6,870							
		Post Full Scale	6/30/2020	<3.9	111.0	8,880							
			9/29/2020	<3.9	40.6	2,930							
		Pre	6/28/2017	265,000	NA	NA							
			8/31/2017	331,000	NA	NA							
			04/23/18	296,000	<11.3	<155							
		Post Pilot Test	07/16/18	161,000	99.1	929 J							
MW-20/20R		Post Pilot Test	08/20/18	174,000	73.1	156							
	5.1 - 15.1	Post Pilot Test	1/21/2019	179,000	37.1	<35.4							
			4/10/2020	7.0	114	9,250							
			6/30/2020	10.9	166	23,000							
		Post Full Scale	9/29/2020	16.7	178	17,800							
DUP-1			9/29/2020	22.8	179	17,200							
		Post Pilot Test	07/16/18	21,600	115	3,550							
		Post Pilot Test	08/20/18	17,100	15.6	<15.5							
		Post Pilot Test	1/21/2019	26,700	1.5 J	<35.4							
MW-26/26R	4.0 - 14.0		4/10/2020	<3.9	17.9	220							
		Post Full Scale	7/1/2020	<3.9	39.3	110							
			9/29/2020	<3.9	98.3	910							
		Pre	06/28/17	3,890	43.2	53.6 J							
		Pre	8/31/2017	390	NA	NA							
MW-28/28R	4.0 - 14.0		4/10/2020*	<3.9	67.8	680 J							
		Post Full Scale	6/30/2020	<3.9	206	20,800							
			9/29/2020	<3.9	<4.2	90 J							
		Pre	8/31/2017	3,540	NA	NA							
			4/10/2020	<3.9	20.1	900							
MW-30/30R	4.8 - 14.8	Post Full Scale	7/1/2020	<3.9	<4.2	80 J							
			9/29/2020	<3.9	52.2	2,240							

Notes:

* = Values based on Public Welfare Groundwater Quality Standards

Bolded values are above laboratory detection limits Bolded and blue colored values are above the groundwater preventative action limit (PAL)



Bolded and orange colored values are above the groundwater enforcement standard (ES) J = Analyte concentration detected between the laboratory Reporting Limit and Method Detection Limit $\mu g/L =$ micrograms per liter

Synergy Environmental Lab, INC

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

WAYNR FASSBENDER ENVIROFORENSICS N16 W 23390 STONERIDGE DR WAUKESHA WI 53188

Report Date 07-Oct-20

Project Name Project #	APPLETON 6486 ALBA	', WI NY INTL.					Invo	ice # E385	51	
Lab Code Sample ID Sample Matrix Sample Date	5038551A 6486-MW- Water 9/29/2020	19R								
		Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date Analy	yst Code
Inorganic Metals										
Chromium, Dissolv	red	< 3.9	ug/L	3.9	12.8	1	200.7		10/1/2020 CWT	1
Iron, Dissolved		2.93	mg/l	0.03	0.1	1	200.7		10/1/2020 CWT	1
Manganese, Dissolv	ved	40.6	ug/L	4.2	13.8	1	200.7		10/1/2020 CWT	1
Lab Code	5038551B									
Sample ID Sample Matrix Sample Date	6486-MW- Water 9/29/2020	28R								
I I I I I I		Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date Anal	yst Code
Inorganic Metals										
Chromium, Dissolv	red	< 3.9	ug/L	3.9	12.8	1	200.7		10/1/2020 CWT	1
Iron, Dissolved		0.09 "J"	mg/l	0.03	0.1	1	200.7		10/1/2020 CWT	1
Manganese, Dissolv	ved	< 4.2	ug/L	4.2	13.8	1	200.7		10/1/2020 CWT	1
Lab Code Sample ID Sample Matrix Sample Date	5038551C 6486-MW- Water 9/29/2020	30R								
		Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date Analy	yst Code
Inorganic Metals										
Chromium, Dissolv	red	< 3.9	ug/L	3.9	12.8	1	200.7		10/1/2020 CWT	1
Iron, Dissolved		2.24	mg/l	0.03	0.1	1	200.7		10/1/2020 CWT	1
Manganese, Dissolv	ved	52.2	ug/L	4.2	13.8	1	200.7		10/1/2020 CWT	1

Project Name A Project # 6	APPLETON 5486 ALBAI	, WI NY INTL.					Invo	ice # E385	551	
Lab Code Sample ID Sample Matrix Sample Date	5038551D 6486-MW- Water 9/29/2020	20R								
		Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date Analys	t Code
Inorganic Metals										
Chromium, Dissolve	ed	16.7	ug/L	3.9	12.8	1	200.7		10/1/2020 CWT	1
Iron, Dissolved		17.8	mg/l	0.03	0.1	1	200.7		10/1/2020 CWT	1
Manganese, Dissolv	red	178	ug/L	4.2	13.8	1	200.7		10/1/2020 CWT	1
Lab Code Sample ID Sample Matrix Sample Date	5038551E 6486-MW- Water 9/29/2020	26R								
		Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date Analys	t Code
Inorganic Metals										
Chromium, Dissolve	ed	< 3.9	ug/L	3.9	12.8	1	200.7		10/1/2020 CWT	1
Iron, Dissolved		0.91	mg/l	0.03	0.1	1	200.7		10/1/2020 CWT	1
Manganese, Dissolv	red	98.3	ug/L	4.2	13.8	1	200.7		10/1/2020 CWT	1
Lab Code Sample ID Sample Matrix Sample Date	5038551F 6486-MW- Water 9/29/2020	5								
-		Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date Analys	t Code
Inorganic Metals										
Chromium, Dissolve	ed	< 3.9	ug/L	3.9	12.8	1	200.7		10/1/2020 CWT	1
Iron, Dissolved		10.1	mg/l	0.03	0.1	1	200.7		10/1/2020 CWT	1
Manganese, Dissolv	red	346	ug/L	4.2	13.8	1	200.7		10/1/2020 CWT	1
Lab Code Sample ID Sample Matrix Sample Date	5038551G 6486-DUP- Water 9/29/2020	-1								
		Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date Analys	t Code
Inorganic Metals										
Chromium, Dissolve	ed	22.8	ug/L	3.9	12.8	1	200.7		10/1/2020 CWT	1
Iron, Dissolved		17.2	mg/l	0.03	0.1	1	200.7		10/1/2020 CWT	1
Manganese, Dissolv	red	179	ug/L	4.2	13.8	1	200.7		10/1/2020 CWT	1

Project Name APPLETON, WI

Project # 6486 ALBANY INTL.

Invoice # E38551

LOQ Limit of Quantitation

"J" Flag: Analyte detected between LOD and LOQ

1

Code Comment

Laboratory QC within limits.

CWT denotes sub contract lab - Certification #445126660

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

LOD Limit of Detection

Authorized Signature

Michaelplul

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