



October 18, 2021

Mr. Sam 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 Luvata Appleton LLC property located at 908 North Lawe Street in Appleton, Wisconsin. The groundwater samples were collected on September 23, 2021 and analyzed for dissolved chromium, iron, and manganese. Groundwater samples were collected from monitoring wells 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 post-remedial 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 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**, except MW-20R, the wells sampled did not contain chromium at concentrations above the Preventative Action Limit. Both iron and manganese concentrations continue to decrease as 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 262-290-4001 or by email at [rhoverman@enviroforensics.com](mailto:rhoverman@enviroforensics.com). The WDNR project manager, David Neste, can be reached at 920-362-2072. We greatly appreciate your help and patience with this matter.

Sincerely,  
**EnviroForensics, LLC**














Rob Hoverman, P.G.  
*Regional Manager*

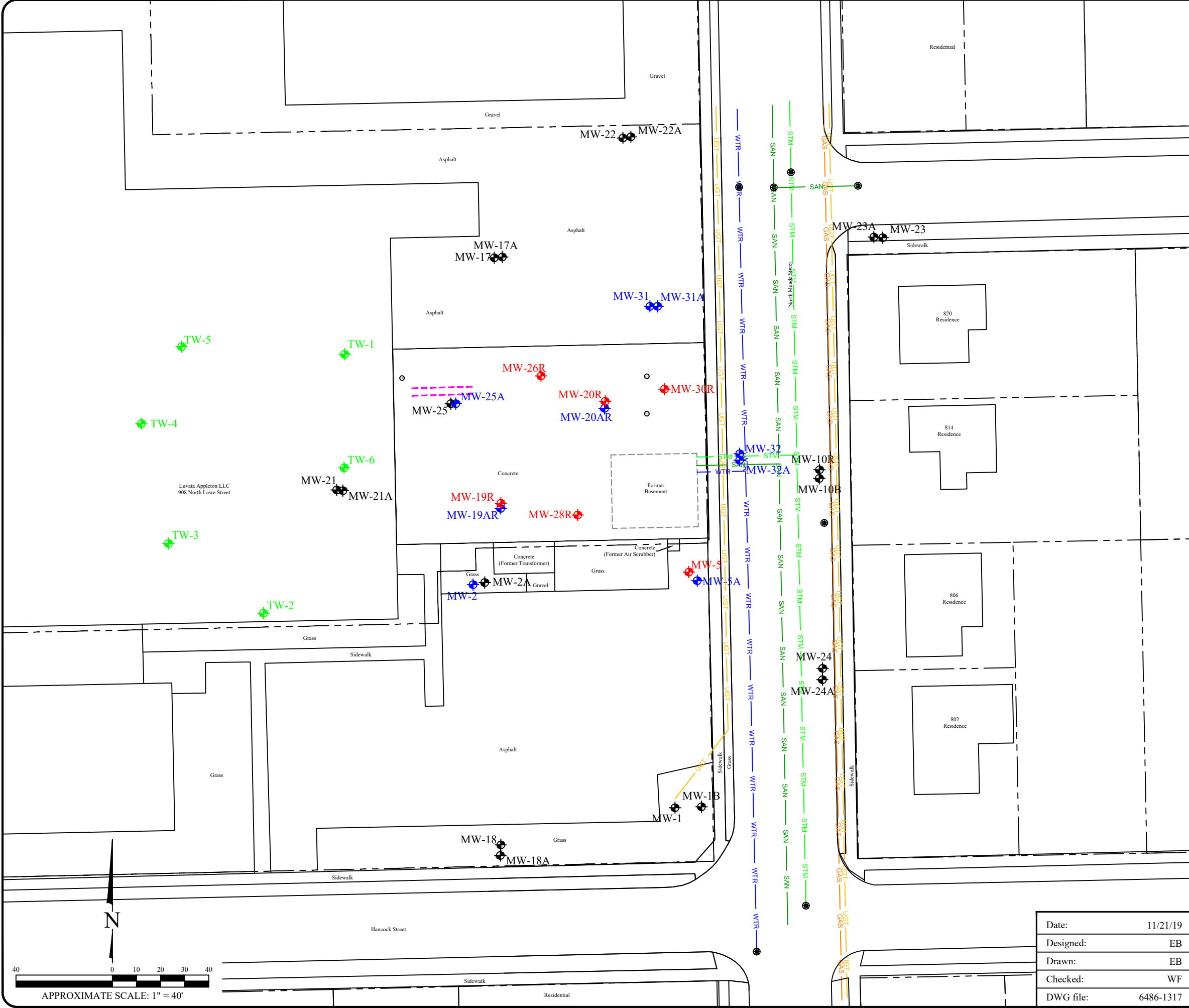
Copy: David Neste, Wisconsin Department of Natural Resources

Attachments:

Figure 1: Post-remediation Groundwater Monitoring Well Network  
Table 1: Groundwater Remediation Performance Monitoring Data  
Groundwater Laboratory Analytical Report

### Legend

-  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



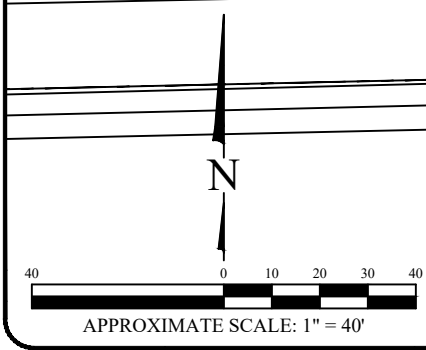
**POST-REMEDIATION GROUNDWATER MONITORING WELL NETWORK**

Albany International - Luvata Site  
 908 North Lawe Street  
 Appleton, Wisconsin

Date:	11/21/19
Designed:	EB
Drawn:	EB
Checked:	WF
DWG file:	6486-1317



Figure	1
Project	6486



**TABLE 1**  
**GROUNDWATER REMEDIATION PERFORMANCE MONITORING DATA**

Former Appleton Wire  
908 North Lawe Street, Appleton, Wisconsin

Monitoring Well Identification	Screen Interval	Remediation Status	Sample Date	Dissolved Metals			Field Parameters						
				Chromium	Manganese	Iron	Temperature	pH	Specific Conductance	Oxidation Reduction Potential	Turbidity	Dissolved Oxygen	
Reporting Units				µg/L	µg/L	µg/L	Celsius	S.U.	mS/cm	mV	NTU	mg/L	
NR 140 Enforcement Standard (ES)				100	300	300*							
NR 140 Preventative Action Limit (PAL)				10	60	150*							
MW-19/19R	4.8 - 14.8	Pre	06/29/17	23,600	NA	NA							
			08/31/17	13,600	NA	NA							
			04/23/18	18,900	<11.3	<155	16.60	7.53	1.31	177	0.0	10.17	
		Post Pilot Test	07/16/18	172	948	22,400	20.20	6.55	2.35	27	0.0	8.56	
			08/20/18	97.6	1640	88,200	19.66	6.26	2.67	-45	265	10.04	
		Post Pilot Test	1/21/2019**	16.1	608	12,200	18.30	7.52	2.56	-81	373	0.06	
		Post Full-Scale	04/10/20	<3.9	59.4	6,870	18.98	7.04	1.33	-56	118	2.17	
			06/30/20	<3.9	111	8,880	21.90	6.91	1.40	-71.2	176	1.34	
			09/29/20	<3.9	40.6	2,930	18.64	7.43	1.15	44.8	19.3	3.06	
			12/29/20	<3.9	32.1	120	13.55	7.47	1.25	-61.0	184.4	6.27	
			DUP-1	12/29/20	<3.9	23.3	30 J	13.55	7.47	1.25	-61.0	184.4	6.27
			MW-19R	03/17/21	<3.9	19.2	670 J	16.94	7.45	1.05	-42.7	48.75	5.23
				07/07/21	<3.9	28.5	1,400	19.50	7.34	1.12	272.3	3.83	5.84
DUP-1	09/23/21	2.49 J	57.5	2,080	20.59	7.33	1.24	-23.2	7.44	3.86			
DUP-1	09/23/21	1.66 J	95.7	4,340	20.59	7.33	1.24	-23.2	7.44	3.86			
MW-20/20R	5.1 - 15.1	Pre	06/28/17	265,000	NA	NA	NA	NA	NA	NA	NA	NA	
			08/31/17	331,000	NA	NA	NA	NA	NA	NA	NA	NA	
			04/23/18	296,000	<11.3	<155	15.73	7.21	2.70	282	50.4	NA	
		Post Pilot Test	07/16/18	161,000	99.1	929 J	20.33	7.10	2.73	78	47.8	8.76	
			08/20/18	174,000	73.1	156	19.93	7.54	2.52	103	0.0	10.05	
		Post Full-Scale	01/21/19	179,000	37.1	<35.4	17.09	8.20	2.55	126	1.9	5.02	
			04/10/20	7.0	114	9,250	17.90	7.48	1.41	-114	149	1.47	
			06/30/20	10.9	166	23,000	20.62	6.98	2.25	-102.7	934	1.01	
			09/29/20	16.7	178	17,800	20.36	7.09	2.15	-78.4	57.8	0.69	
			DUP-1	09/29/20	22.8	179	17,200	NA	NA	NA	NA	NA	NA
			MW-20R	12/29/20	<3.9	160	1,950	15.24	7.02	2.41	-81.9	235.4	4.09
				03/17/21	145	328	23,100	16.41	7.14	2.17	-51.2	59.96	2.58
		MW-20R	07/07/21	4.9 J	130	10,700	20.68	7.14	2.10	-80.6	36.16	4.60	
09/23/21	14.6		186	13,500	20.23	7.06	1.98	-100.7	72.74	1.91			
MW-26/26R	4.0 - 14.0	Pre	06/28/17	72,900	NA	NA							
			08/31/17	84,900	NA	NA							
		Post Pilot Test	07/16/18	21,600	115	3,550	19.66	7.45	1.39	-94	227	8.74	
			08/20/18	17,100	15.6	<15.5	20.48	7.36	1.24	72	0.0	9.94	
			01/21/19	26,700	1.5 J	<35.4	16.46	8.24	1.31	95	2.7	4.40	
		Post Full-Scale	04/10/20	<3.9	17.9	220	16.42	8.38	1.03	-117	194.0	2.15	
			07/01/20	<3.9	39.3	110	19.64	9.12	1.05	82.8	85.9	3.92	
			09/29/20	<3.9	98.3	910	19.95	7.73	1.30	-45.1	12.9	1.03	
			12/29/20	<3.9	87.2	40 J	15.08	7.84	1.44	-32.0	7.59	4.07	
			03/17/21	<3.9	94.5	600	15.92	7.63	1.45	-81.6	14.47	1.92	
			DUP-1	03/17/21	<3.9	16.3	1,130	NA	NA	NA	NA	NA	NA
			MW-26/26R	07/07/21	<3.9	173	2,690	18.95	7.69	1.47	-38.0	20.17	5.36
			09/23/21	<1.4	104	665	19.26	7.65	1.43	-42.7	11.10	3.62	
MW-28/28R	4.0 - 14.0	Pre	06/28/17	3,890	43.2	53.6 J	17.43	7.27	1.88	194	33.7	11.29	
			08/31/17	390	NA	NA	NA	NA	NA	NA	NA	NA	
		Post Full-Scale	4/10/2020**	<3.9	67.8	680 J	16.63	7.16	1.53	-46	94	0.34	
			06/30/20	<3.9	206	20,800	21.11	7.07	1.62	-114.5	208	1.49	
			09/29/20	<3.9	<4.2	90 J	19.15	7.27	1.11	138.2	16.5	2.23	
			12/29/20	<3.9	62.6	<30	15.71	7.50	1.39	-97.0	40.07	4.89	
			03/17/21	<3.9	82.0	2,510	16.46	7.35	1.38	-55.8	82.36	2.33	
			07/07/21	<3.9	123	4,700	19.12	7.54	1.35	29.8	15.39	5.85	
09/23/21	<1.4	155	5,940	19.75	7.28	1.36	-70.9	72.5	2.65				
MW-30/30R	4.8 - 14.8	Pre	08/31/17	3,540	NA	NA	NA	NA	NA	NA	NA	NA	
			04/10/20	<3.9	20.1	900	17.35	11.59	1.29	-175	230.0	0.97	
		Post Full-Scale	07/01/20	<3.9	<4.2	80 J	20.23	11.20	1.88	40.4	163.9	3.57	
			09/29/20	<3.9	52.2	2,240	20.16	11.46	1.56	-107.2	48.2	1.01	
			12/29/20	<3.9	<4.2	70 J	13.69	11.67	1.49	-89.6	148	4.78	
			03/17/21	<3.9	23.9	270	15.57	10.14	0.94	-88.4	5.58	3.54	
			07/07/21	<3.9	<4.2	50 J	20.03	11.58	1.43	186.9	6.05	4.38	
			09/23/21	<1.4	<0.934	23.2 J	17.75	11.60	1.35	-117.3	102.50	3.71	

**Notes:**

**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

\* = Values based on Public Welfare Groundwater Quality Standards

\*\* = Purging and sampling performed using low-flow methods. All other samples collected using a bailer.

NA = Not Analyzed

S.U. = Standard Units

mS/cm = Millisiemens per centimeter

mV = millivolt

NTU = Nephelometric Turbidity Unit

µg/L = micrograms per liter

mg/L = milligrams per liter

# Synergy Environmental Lab, INC

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

BRIAN KAPPEN  
ENVIROFORENSICS  
N16 W 23390 STONERIDGE DR  
WAUKESHA WI 53188

Report Date 06-Oct-21

Project Name ALBANY INTERNATIONAL  
Project # 6486 PO#2021-0576

Invoice # E39983

Lab Code 5039983A  
Sample ID 6486-MW-5  
Sample Matrix Water  
Sample Date 9/23/2021

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Chromium, Dissolved	2.99 "J"	ug/l	1.4	4.67	1	6010B		10/5/2021	ESC	1
Iron, Dissolved	3690	ug/l	18	60	1	6010B		10/5/2021	ESC	1
Manganese, Dissolved	313	ug/l	0.934	3.11	1	6010B		10/5/2021	ESC	1

Lab Code 5039983B  
Sample ID 6486-MW-19R  
Sample Matrix Water  
Sample Date 9/23/2021

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Chromium, Dissolved	2.49 "J"	ug/l	1.4	4.67	1	6010B		10/5/2021	ESC	1
Iron, Dissolved	2080	ug/l	18	60	1	6010B		10/5/2021	ESC	1
Manganese, Dissolved	57.5	ug/l	0.934	3.11	1	6010B		10/5/2021	ESC	1

Lab Code 5039983C  
Sample ID 6486-MW-20R  
Sample Matrix Water  
Sample Date 9/23/2021

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Chromium, Dissolved	14.6	ug/l	1.4	4.67	1	6010B		10/5/2021	ESC	1
Iron, Dissolved	13500	ug/l	18	60	1	6010B		10/5/2021	ESC	1
Manganese, Dissolved	186	ug/l	0.934	3.11	1	6010B		10/5/2021	ESC	1

**Project Name** ALBANY INTERNATIONAL  
**Project #** 6486 PO#2021-0576

**Invoice #** E39983

**Lab Code** 5039983D  
**Sample ID** 6486-MW-26R  
**Sample Matrix** Water  
**Sample Date** 9/23/2021

	<b>Result</b>	<b>Unit</b>	<b>LOD</b>	<b>LOQ</b>	<b>Dil</b>	<b>Method</b>	<b>Ext Date</b>	<b>Run Date</b>	<b>Analyst</b>	<b>Code</b>
Inorganic										
Metals										
Chromium, Dissolved	< 1.4	ug/l	1.4	4.67	1	6010B		10/5/2021	ESC	1
Iron, Dissolved	665	ug/l	18	60	1	6010B		10/5/2021	ESC	1
Manganese, Dissolved	104	ug/l	0.934	3.11	1	6010B		10/5/2021	ESC	1

**Lab Code** 5039983E  
**Sample ID** 6486-MW-28R  
**Sample Matrix** Water  
**Sample Date** 9/23/2021

	<b>Result</b>	<b>Unit</b>	<b>LOD</b>	<b>LOQ</b>	<b>Dil</b>	<b>Method</b>	<b>Ext Date</b>	<b>Run Date</b>	<b>Analyst</b>	<b>Code</b>
Inorganic										
Metals										
Chromium, Dissolved	< 1.4	ug/l	1.4	4.67	1	6010B		10/5/2021	ESC	1
Iron, Dissolved	5940	ug/l	18	60	1	6010B		10/5/2021	ESC	1
Manganese, Dissolved	155	ug/l	0.934	3.11	1	6010B		10/5/2021	ESC	1

**Lab Code** 5039983F  
**Sample ID** 6486-MW-30R  
**Sample Matrix** Water  
**Sample Date** 9/23/2021

	<b>Result</b>	<b>Unit</b>	<b>LOD</b>	<b>LOQ</b>	<b>Dil</b>	<b>Method</b>	<b>Ext Date</b>	<b>Run Date</b>	<b>Analyst</b>	<b>Code</b>
Inorganic										
Metals										
Chromium, Dissolved	< 1.4	ug/l	1.4	4.67	1	6010B		10/5/2021	ESC	1
Iron, Dissolved	23.2 "J"	ug/l	18	60	1	6010B		10/5/2021	ESC	1
Manganese, Dissolved	< 0.934	ug/l	0.934	3.11	1	6010B		10/5/2021	ESC	1

**Lab Code** 5039983G  
**Sample ID** 6486-DUP-1  
**Sample Matrix** Water  
**Sample Date** 9/23/2021

	<b>Result</b>	<b>Unit</b>	<b>LOD</b>	<b>LOQ</b>	<b>Dil</b>	<b>Method</b>	<b>Ext Date</b>	<b>Run Date</b>	<b>Analyst</b>	<b>Code</b>
Inorganic										
Metals										
Chromium, Dissolved	1.66 "J"	ug/l	1.4	4.67	1	6010B		10/5/2021	ESC	1
Iron, Dissolved	4340	ug/l	18	60	1	6010B		10/5/2021	ESC	1
Manganese, Dissolved	95.7	ug/l	0.934	3.11	1	6010B		10/5/2021	ESC	1

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

***Code***      ***Comment***

1              Laboratory QC within limits.

ESC denotes sub contract lab - Certification #998093910

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.

**Authorized Signature**



A handwritten signature in blue ink, appearing to read "Michael J. Steel", is written over a horizontal line.

