

August 21, 2018

Mr. Keld Lauridsen
Hydrogeologist/Project Manager
WDNR-Northeast Region RR
2984 Shawano Avenue
Green Bay, WI 54313-6727

RE: Summary of the June 12 & 13, 2018 groundwater sampling events at the former Better Brite Chrome and Zinc Shops.

Dear Keld:

The purpose of this letter report is to summarize the groundwater sampling events conducted on June 12 & 13, 2018 at the former Better Brite chrome and zinc shops. The former Better Brite facilities are located at 519 Lande Street (chrome shop, BRRTS # 02-05-000030) and 315 S. 6th Street (zinc shop, BRRTS # 02-05-000031), De Pere, Wisconsin. (See Figure 1 – Site Location Map.) This report includes:

- Figure 1 – Site Location Map
- Figure 2 – Monitoring Wells – Chrome Site
- Figure 3 – Monitoring Wells – Zinc Site
- Well Specific Field Sheets
- Table 1 – Groundwater Analytical Summary, Better Brite – Chrome Shop
- Table 2 – Groundwater Analytical Summary, Better Brite – Zinc Shop
- Monitoring Well Photograph Summary
- Laboratory Report

Groundwater elevations were only taken at the monitoring points that were sampled. Groundwater elevations were recorded on the well specific field sheets. (See Well Specific Field Sheets.)

Monitoring points W-1, W-1A, and MW-2 would allow the water level meter probe to be placed down the PVC pipe. However, a standard bailer would not freely go down the PVC pipe. (See Monitoring Well Photograph Summary.) A peristaltic pump was used to collect the samples. FOTH previously purged these monitoring points (on May 25 and June 10, 2018) prior to OMNNI's sampling.

Monitoring well MW6 was found to have a hornets nest inside of the pro-top pipe at the time of sampling. The pro-top cover was sprayed with Eliminator Wasp and Hornet Killer before sampling was conducted. MW6's pro-top cover was rinsed with distilled water before pulling out the J plug on top of the PVC pipe.

Monitoring well covers were inspected at all monitoring points that could be located during the sampling event. The conditions of the covers were noted on the well specific field sheets and photographs of the covers were taken. (See Well Specific Field Sheets and Monitoring Well Photograph Summary.)

Color, odor, and turbidity observations were recorded on well specific field sheets. The well specific field sheets also list the measured depth to water from the top of the PVC pipe, mean sea level groundwater elevation, the length of time spent purging and the approximate gallons of groundwater purged from each monitoring well/piezometer prior to taking the groundwater sample. (See Well Specific Field Sheets.)

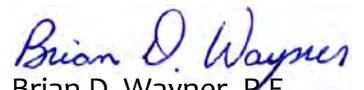
Purged groundwater from the monitoring wells and piezometers was collected in 5-gallon buckets. The purged groundwater was placed into the sump in the treatment building located at the former zinc shop site for treatment.

Unfiltered groundwater samples collected from the monitoring wells and zinc shop sump were submitted for laboratory hexavalent chromium analysis. Unfiltered groundwater from the zinc shop sump was also analyzed for cyanide and volatile organic compounds (VOCs). Unfiltered groundwater from monitoring well MW-116 was also analyzed for VOCs. Groundwater analytical methods are included with the laboratory report. (See Laboratory Report.) The laboratory analysis has been summarized in Table 1 and Table 2. (See Table 1 – Groundwater Analytical Summary, Better Brite – Chrome Shop and Table 2 - Groundwater Analytical Summary, Better Brite – Zinc Shop.)

In general, results of the laboratory analysis were similar when compared to past sampling events. Some of the monitoring locations had results lower than recent events and a couple of the monitoring locations had results higher than recent events. Groundwater enforcement standard exceedances for hexavalent chromium remain at both locations. At the former chrome shop site, the hexavalent chromium groundwater enforcement standard exceedance remains in MW-116. Groundwater enforcement standard and preventive action limit exceedances of VOCs remain in MW-116. At the former zinc shop site, the hexavalent chromium groundwater enforcement standard was exceeded in monitoring points W-1, W-1A, MW-3R, MW-5, MW-6, MW-9, MW-10 and the sump. Groundwater preventive action limit exceedance for cyanide was found in the sump.

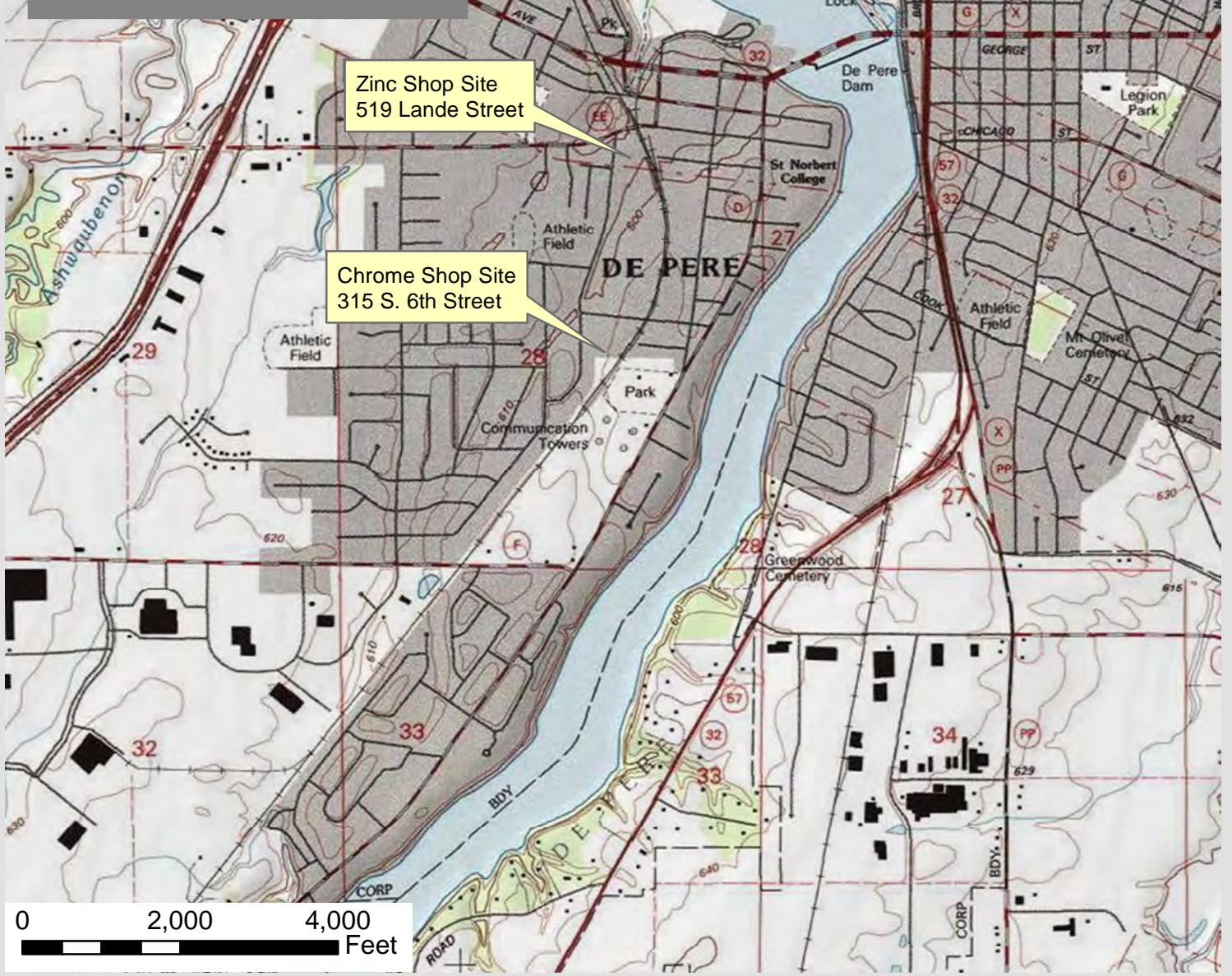
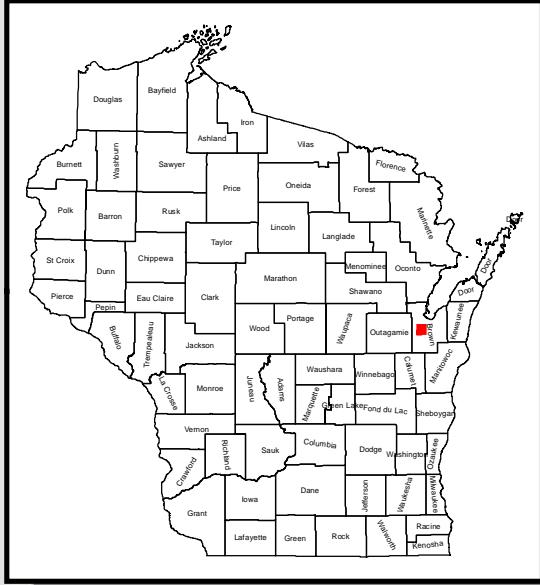
If you have any questions on the enclosed information, please contact me at 920/830-6141 or by email at bwayner@omnni.com.

Sincerely,
OMNNI Associates, Inc.



Brian D. Wayner, P.E.
Environmental Manager

Attachments



OMNI
ASSOCIATES

ONE SYSTEMS DRIVE PHONE (920) 735-6900
APPLETON, WI 54914 FAX (920) 830-6100



FORMER BETTER BRITE SITE LOCATION MAP

315 S. 6TH STREET AND 519 LANDE STREET
CITY OF DEPERE, BROWN COUNTY, WISCONSIN

Project Manager:	BDW	SCALE:
Project Engineer:	BDW	1 " = 2,000 feet
Drawn By:	JCW	PROJECT NO.
Checked By:	BDW	N1969A07
Date:	1/13/2014	FIGURE NO.
		1



Project Manager: BDW	Project Engineer: JCW
Drawn By: BDW	Checked By: BDW
Date: 11/5/2015	
F:\ENVIRON\1969A07 (Better Brite State Lead)\GIS\Basemap_Chrome.mxd	
OMNI ASSOCIATES ONE SYSTEMS DRIVE PHONE (920) 755-6900 APPLETON, WI 54914 FAX (920) 830-6100 CITY OF DE PERE BROWN COUNTY, WISCONSIN	



		N	
		W	E
		S	
Project Manager:	BDW	Project Engineer:	BDW
Drawn By:	JCW	Checked By:	BDW
Date:	11/5/2015		

BETTER BRITE MONITORING WELLS - ZINC SITE

OMNI ASSOCIATES
ONE SYSTEMS DRIVE
APPLETON, WI 54914
PHONE (920) 755-6900 FAX (920) 830-6100

CITY OF DE PERE
BROWN COUNTY, WISCONSIN

F:\ENV\ROI\V1969A07 (Better Brite Zinc Site Lead)\GIS\Basemap_Zinc.mxd

SCALE:
1 " = 50'

PROJECT NO.
N1969A07

FIGURE NO.
3

Well Specific Field Sheets

Facility Name: Former Better Brite - Chrome Shop

Date: June 13, 2018

Weather Conditions: Sunny, 80°

Person(s) Sampling: Kim Kennedy

Sampling Equipment: Dedicated bailers, Solonist 101 water level meter.

Well Name	MW101	MW104A	MW106	MW106A	MW107	MW107A	MW108	MW108A	MW110	MW110A	MW111	MW112	MW13	MW115	MW115A	MW116
Top of PVC Casing Elevation (MSL)			606.21	606.36	608.41	608.33	604.22	604.44	603.05	603.31	600.76	600.61	611.08	601.04	601.01	604.28
Depth to Bottom of Well (ft)		18.30	14.65	32.09		39.33	15.82	33.27	14.76	23.80	14.38	15.86	15.08	14.48	23.45	18.88
Water Elevation (MSL)	—	—	—	—	—	—	—	—	—	—	596.10	—	—	597.47	590.23	600.52
Measured Depth to Water (ft)	—	—	—	—	—	—	—	—	—	—	4.66	—	—	3.57	10.78	3.76
Time Purging Begun	—	—	—	—	—	—	—	—	—	—	1:08 PM	—	—	2:30 PM	2:10 PM	1:35 PM
Time Purging Completed	—	—	—	—	—	—	—	—	—	—	1:16 PM	—	—	2:39 PM	2:20 PM	1:45 PM
Amount Purged (gal)	—	—	—	—	—	—	—	—	—	—	6.3	—	—	7.0	5.0	9.8
Purged Dry? (Y/N)	—	—	—	—	—	—	—	—	—	—	N	—	—	Y	Y	N
Color (Y/N)	—	—	—	—	—	—	—	—	—	—	N	—	—	N	N	Yellow
Odor (Y/N)	—	—	—	—	—	—	—	—	—	—	N	—	—	Y	Y	N
Turbidity (Y/N)	—	—	—	—	—	—	—	—	—	—	Y	—	—	Y	Y	N
Time Sample Withdrawn	—	—	—	—	—	—	—	—	—	—	1:16 PM	—	—	2:39 PM	2:20 PM	1:45 PM
Well secured? (Y/N)	—	—	—	—	—	—	—	—	—	Y	—	—	Y	Y	Y	Y
Cover Condition	Cover in good condition. Both bolts secure.	One bolt snapped off. Cover in good condition.	—	—	—	—	Cover in good condition. Both bolts secure.	—	—	Cover in good condition. Both bolts secure.	—	—	Cover in good condition. Both bolts secure.			

Well Specific Field Sheets

Facility Name: Former Better Brite - Zinc Shop

Date: June 12 and 13, 2018

Weather Conditions: Sunny, 80°

Person(s) Sampling: Kim Kennedy

Sampling Equipment: Dedicated bailers, Solonist 101 water level meter, perastaltic pump for W-1, W-1A, MW2.

Well Name	W-1 (1,2,4)	W-1A (1,2,4)	MW2 (2,4)	MW3R	MW5	MW5A	MW6 (4)	MW6A (4)	MW7	MW7A	MW8	MW8A	MW9	MW10 (4)	MW11	MW12	Zinc Sump (3)
Top of PVC Casing Elevation (MSL)				602.88	600.81	600.81			600.60	600.51	598.18	598.59	601.66		602.41	599.65	603.99
Depth to Bottom of Well (ft)	19.7	31.55	17.65	16.73	15.31	29.72	18.43		15.86	26.73	11.41	21.73	16.32	14.78	15.62	10.04	20.40
Water Elevation (MSL)	—	—	—	594.40	592.69	—	—	—	—	—	—	—	594.51	—	—	—	—
Measured Depth to Water (ft)	14.83	16.05	9.38	8.48	8.12	—	11.20	—	—	—	—	—	7.15	7.95	—	—	18.11
Time Purging Begun	Grab Sample (3)	Grab Sample (3)	Grab Sample (3)	12:30 PM	2:42 PM	—	12:35 PM	—	—	—	—	—	10:05 AM	2:07 PM	—	—	—
Time Purging Completed				12:37 PM	2:51 PM	—	12:43 PM	—	—	—	—	—	10:20 AM	2:14 PM	—	—	—
Amount Purged (gal)				5.4	4.7	—	3.0	—	—	—	—	—	6.0	4.5	—	—	—
Purged Dry? (Y/N)				N	N	—	N	—	—	—	—	—	N	Y	—	—	—
Color (Y/N)	N	Yellow	N	N	N	—	N	—	—	—	—	—	N	N	—	—	Yellow
Odor (Y/N)	N	N	N	N	N	—	N	—	—	—	—	—	N	N	—	—	N
Turbidity (Y/N)	Y	N	N	Y	Y	—	N	—	—	—	—	—	Y	Y	—	—	N
Time Sample Withdrawn	1:30 PM	1:13 PM	11:30	12:37 PM	2:51 PM	—	12:43 PM	—	—	—	—	—	10:20 AM	2:15 PM	—	—	10:58 AM
Well secured? (Y/N)	Y	Y	Y	Y	Y	—	Y	—	—	—	—	—	Y	Y	—	—	Y
Cover Condition	Cover in good condition. Bath bolts secure.	Cover in good condition. Bath bolts secure.	Pro-top in good condition (some rust). Lock secure.	One bolt snapped off. Cover in good condition. Both bolts secure.	Cover in good condition. Both bolts secure.	Cover in good condition. Both bolts secure.	Hornet nest under locked cover. Pro-top in good condition (some rust).	Pro-top in good condition (some rust). Lock secure.	Cover in good condition. Both bolts secure.	Cover in good condition. Both bolts secure.	Cover in good condition. Both bolts secure.	Very hard to remove cover. Seal under cover mostly torn off. Both bolts secure.	Cover is flush when bolted, but well and plug are raised when cover is off. Both bolts secure.	Cover in good condition. Both bolts secure.	Cover in good condition. Both bolts secure.	Cover in good condition. Both bolts secure.	Cover overgrown with vegetation. Cover in good condition. Locks secure.

1 Depth to bottom of the well is suspect. Felt like soft bottom (sediment).

2 A standard bailer would not fit down the monitoring well.

3 Sump was not running at time of sample collection.

4 Well height modified. New elevation unknown.

Table 2 Groundwater Analytical Summary, Better Brite - Zinc Shop

315 6th Street, De Pere, WI BRRTS # 02-05-000031

Sample Location	Date	Detected Parameters ($\mu\text{g/L}$)																		
		Hexavalent Chromium	Chromium	Iron	Sulfate	Sulfide	Antimony	Arsenic	Cadmium	Cyanide	Nickel	Silver	Thallium	Cobalt	Vanadium	1,1-DCA	1,1-DCE	PCE	1,1,1-TCA	TCE
NR140 Preventive Action Limit	10	10	150	125,000	NO PAL	1.2	1	0.5	40	20	10	0.4	8	6	85	0.7	0.5	40	0.5	0.02
NR140 Enforcement Standard	100	100	300	250,000	NO ES	6	10	5	200	100	50	2	40	30	850	7	5	200	5	0.2
MW-4 (Abandoned)	Aug-94	<10	<3.4	NA	NA	NA														
	DUP	<10	<3.4	NA	NA	NA														
	Oct-94	<10 J	<3.4 J	NA	NA	NA														
	DUP	<10 J	<3.4 J	NA	NA	NA														
	Apr-98	<10	<5	NA	NA	NA														
	May-00	<4.2	4.6	NA	NA	NA														
	Nov-00	<4.2	2.4	NA	NA	NA														
	Jun-01	<4.2	12	NA	NA	NA														
	Nov-01	<4.2	7.4	NA	NA	NA														
	May-02	<4.2	1.4	NA	NA	NA														
	Nov-02	<4.2	15	NA	NA	NA														
	May-03	<4.2	27	NA	NA	NA														
	May-04	<2.5	1.8	NA	NA	NA														
	May-05	<5.0	9	NA	NA	NA														
	Nov-05	<5.0	12	NA	NA	NA														
MW-4A (Abandoned)	Aug-94	<10	<3.4	NA	NA	NA														
	Oct-94	<10 J	6.0 B	NA	NA	NA														
	Apr-98	<10	<5	NA	NA	NA														
	May-00	<4.2	8.7	NA	NA	NA														
	Nov-00	<4.2	3.7	NA	NA	NA														
	Jun-01	<4.2	3.7	NA	NA	NA														
	Nov-01	<4.2	13	NA	NA	NA														
	May-02	<4.2	38	NA	NA	NA														
	Nov-02	<4.2	28	NA	NA	NA														
	May-03	<4.2	32	NA	NA	NA														
	May-04	<2.5	0.75	NA	NA	NA														
	May-05	<5.0	2	NA	NA	NA														
	Nov-05	<5.0	2.8	NA	NA	NA														
MW-4B (Abandoned)	Oct-94	<10	<0.70	NA	NA	NA														
	Nov-94	<10	<2.5	NA	NA	NA														

NA - Compound not analyzed

Underlined - Concentration exceeds preventive action limit

Bolded - Concentration exceeds enforcement standard











June 15, 2018

Brian Wayner
Omnni Associates, Inc.
One Systems Drive
Appleton, WI 549141654

RE: Project: N1969A07/009 BETTER BRITE
Pace Project No.: 40170650

Dear Brian Wayner:

Enclosed are the analytical results for sample(s) received by the laboratory on June 12, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Steven Mleczko
steve.mleczko@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Chris Rogers, OMNNI ASSOCIATES, INC.



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: N1969A07/009 BETTER BRITE
Pace Project No.: 40170650

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302	Virginia VELAP ID: 460263
Florida/NELAP Certification #: E87948	South Carolina Certification #: 83006001
Illinois Certification #: 200050	Texas Certification #: T104704529-14-1
Kentucky UST Certification #: 82	Wisconsin Certification #: 405132750
Louisiana Certification #: 04168	Wisconsin DATCP Certification #: 105-444
Minnesota Certification #: 055-999-334	USDA Soil Permit #: P330-16-00157
New York Certification #: 12064	Federal Fish & Wildlife Permit #: LE51774A-0
North Dakota Certification #: R-150	

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SAMPLE SUMMARY

Project: N1969A07/009 BETTER BRITE

Pace Project No.: 40170650

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40170650001	MW9	Water	06/12/18 10:20	06/12/18 15:45
40170650002	MW3R	Water	06/12/18 12:37	06/12/18 15:45
40170650003	W1A	Water	06/12/18 13:13	06/12/18 15:45
40170650004	W1	Water	06/12/18 13:30	06/12/18 15:45
40170650005	MW10	Water	06/12/18 14:15	06/12/18 15:45
40170650006	MW5	Water	06/12/18 14:51	06/12/18 15:45

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SAMPLE ANALYTE COUNT

Project: N1969A07/009 BETTER BRITE
 Pace Project No.: 40170650

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40170650001	MW9	SM 3500-Cr B (Online)	DEY	1	PASI-G
40170650002	MW3R	SM 3500-Cr B (Online)	DEY	1	PASI-G
40170650003	W1A	SM 3500-Cr B (Online)	DEY	1	PASI-G
40170650004	W1	SM 3500-Cr B (Online)	DEY	1	PASI-G
40170650005	MW10	SM 3500-Cr B (Online)	DEY	1	PASI-G
40170650006	MW5	SM 3500-Cr B (Online)	DEY	1	PASI-G

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ANALYTICAL RESULTS

Project: N1969A07/009 BETTER BRITE

Pace Project No.: 40170650

Sample: MW9		Lab ID: 40170650001		Collected: 06/12/18 10:20		Received: 06/12/18 15:45		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	<0.13	mg/L	0.43	0.13	25		06/13/18 08:50		D3
Sample: MW3R		Lab ID: 40170650002		Collected: 06/12/18 12:37		Received: 06/12/18 15:45		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	<0.13	mg/L	0.43	0.13	25		06/13/18 08:50		D3
Sample: W1A		Lab ID: 40170650003		Collected: 06/12/18 13:13		Received: 06/12/18 15:45		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	2.7	mg/L	0.43	0.13	25		06/13/18 08:50		
Sample: W1		Lab ID: 40170650004		Collected: 06/12/18 13:30		Received: 06/12/18 15:45		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	6.6	mg/L	0.43	0.13	25		06/13/18 08:50		
Sample: MW10		Lab ID: 40170650005		Collected: 06/12/18 14:15		Received: 06/12/18 15:45		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	3.2	mg/L	0.43	0.13	25		06/13/18 08:50		
Sample: MW5		Lab ID: 40170650006		Collected: 06/12/18 14:51		Received: 06/12/18 15:45		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	0.18	mg/L	0.043	0.013	2.5		06/13/18 08:50		

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QUALITY CONTROL DATA

Project: N1969A07/009 BETTER BRITE

Pace Project No.: 40170650

QC Batch:	291705	Analysis Method:	SM 3500-Cr B (Online)
QC Batch Method:	SM 3500-Cr B (Online)	Analysis Description:	Chromium, Hexavalent by 3500
Associated Lab Samples:	40170650001, 40170650002, 40170650003, 40170650004, 40170650005, 40170650006		

METHOD BLANK: 1705648 Matrix: Water

Associated Lab Samples: 40170650001, 40170650002, 40170650003, 40170650004, 40170650005, 40170650006

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Chromium, Hexavalent	mg/L	<0.0051	0.017	06/13/18 08:50	

LABORATORY CONTROL SAMPLE: 1705649

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Chromium, Hexavalent	mg/L	.3	0.30	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1705650 1705651

Parameter	Units	40170650001	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		Result	Spike	Spike										
Chromium, Hexavalent	mg/L	<0.13	7.5	7.5	7.3	7.4	98	98	90-110	0	20			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: N1969A07/009 BETTER BRITE
Pace Project No.: 40170650

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: N1969A07/009 BETTER BRITE
 Pace Project No.: 40170650

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40170650001	MW9	SM 3500-Cr B (Online)	291705		
40170650002	MW3R	SM 3500-Cr B (Online)	291705		
40170650003	W1A	SM 3500-Cr B (Online)	291705		
40170650004	W1	SM 3500-Cr B (Online)	291705		
40170650005	MW10	SM 3500-Cr B (Online)	291705		
40170650006	MW5	SM 3500-Cr B (Online)	291705		

REPORT OF LABORATORY ANALYSIS

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(Please Print Clearly)

Company Name: OMNNI ASSOCIATES
 Branch/Location: Appleton
 Project Contact: Brian Wayner
 Phone: 920.830.6141
 Project Number: NI969A07/009
 Project Name: Better Brite
 Project State: WI
 Sampled By (Print): Kim Kennedy
 Sampled By (Sign): *Kim Kennedy*
 PO #: *TRIP BLANK*

Data Package Options
 (billable)
 EPA Level III
 EPA Level IV

MS/MSD
 On your sample
 (billable)
 NOT needed on
 your sample

Matrix Codes
 A = Air W = Water
 B = Biota DW = Drinking Water
 C = Charcoal GW = Ground Water
 O = Oil SW = Surface Water
 S = Soil WW = Waste Water
 Sl = Sludge WP = Wipe

FILTERED?
 (YES/NO)
 PRESERVATION
 (CODE)*

A=None B=HCL C=H₂SO₄ D=HNO₃ E=DI Water F=Methanol G=NaOH
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Y / N N N

Pick Letter A B

Analyses Requested Hex Chromium VOCs

COLLECTION MATRIX

DATE TIME

PACE LAB # CLIENT FIELD ID

001 MW9 6/12 0900 GW

002 MW3R 6/12 1020 GW

003 WIA 1237

004 WI 1313

005 MW10 1330

006 MW5 1415

007 1451

UPPER MIDWEST REGION

MN: 612-607-1700 WI: 920-469-2436



Page 1 of

Page 9 of 11

CHAIN OF CUSTODY

*Preservation Codes

*SM**40170650*

Quote #:		
Mail To Contact:	BRIAN WAYNER	
Mail To Company:	OMNNI ASSOCIATES	
Mail To Address:	ONE SYSTEMS DR. APPLETON, WI 54914	
Invoice To Contact:	<i>SAME</i>	
Invoice To Company:	<i>SAME</i>	
Invoice To Address:	Brian.Wayner@omni.com	
Invoice To Phone:	920.735.6900	
CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #

Rush Turnaround Time Requested - Prelims
 (Rush TAT subject to approval/surcharge)
 Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:

Email #2:

Telephone:

Fax:

Samples on HOLD are subject to
special pricing and release of liability

Relinquished By:

Kim Kennedy

Date/Time:

6/12 1548

Received By:

Allen Hall

Date/Time:

6/12/06 1548

PACE Project No.

*40170650*Receipt Temp = *79* °C

Sample Receipt pH

OK / Adjusted

Cooler Custody Seal

Present / Not Present

Intact / Not Intact

Client Name: Omni

Sample Preservation Receipt Form

Project # Y0170680

All containers needing preservation have been checked and noted below: Yes No N/A

Lab Lot# of pH paper:

Lab Std #ID of preservation (if pH adjusted):

Initial when completed:

Date/
Time:

Pace Lab #	Glass					Plastic					Vials					Jars			General			VOA Vials (>6mm)*	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3C	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN		
001																												2.5 / 5 / 10
002																												2.5 / 5 / 10
003																												2.5 / 5 / 10
004																												2.5 / 5 / 10
005																												2.5 / 5 / 10
006																												2.5 / 5 / 10
007																												2.5 / 5 / 10
008																												2.5 / 5 / 10
009																												2.5 / 5 / 10
010																												2.5 / 5 / 10
011																												2.5 / 5 / 10
012																												2.5 / 5 / 10
013																												2.5 / 5 / 10
014																												2.5 / 5 / 10
015																												2.5 / 5 / 10
016																												2.5 / 5 / 10
017																												2.5 / 5 / 10
018																												2.5 / 5 / 10
019																												2.5 / 5 / 10
020																												2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other:

Headspace in VOA Vials (>6mm) : Yes No N/A *If yes look in headspace column

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3C	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO# : 40170650



40170650

Client Name: Omnip

Courier: CS Logistics Fed Ex Speedee UPS Waltco

Client Pace Other: _____

Tracking #:

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Custody Seal on Samples Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used SR - NH Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 20 /Corr: 20

Temp Blank Present: yes no

Biological Tissue is Frozen: yes no

Temp should be above freezing to 6°C.

Biota Samples may be received at ≤ 0°C.

Person examining contents:

Date: 6/12/15

Initials: DRS

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>no page</u> eff <u>06/12/15</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:	8.	
For Analysis <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12. <u>no times</u> <u>06/12/15</u>
-Includes date/time/ID/Analysis Matrix: <u>N</u>		
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

If checked, see attached form for additional comments

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 6/13/15

June 22, 2018

Brian Wayner
Omnni Associates, Inc.
One Systems Drive
Appleton, WI 549141654

RE: Project: N1969A07/009 BETTER BRITE
Pace Project No.: 40170746

Dear Brian Wayner:

Enclosed are the analytical results for sample(s) received by the laboratory on June 13, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Steven Mleczko
steve.mleczko@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Chris Rogers, OMNNI ASSOCIATES, INC.



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: N1969A07/009 BETTER BRITE
Pace Project No.: 40170746

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302	Virginia VELAP ID: 460263
Florida/NELAP Certification #: E87948	South Carolina Certification #: 83006001
Illinois Certification #: 200050	Texas Certification #: T104704529-14-1
Kentucky UST Certification #: 82	Wisconsin Certification #: 405132750
Louisiana Certification #: 04168	Wisconsin DATCP Certification #: 105-444
Minnesota Certification #: 055-999-334	USDA Soil Permit #: P330-16-00157
New York Certification #: 12064	Federal Fish & Wildlife Permit #: LE51774A-0
North Dakota Certification #: R-150	

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SAMPLE SUMMARY

Project: N1969A07/009 BETTER BRITE

Pace Project No.: 40170746

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40170746001	TRIP BLANK	Water	06/13/18 00:00	06/13/18 15:48
40170746002	ZINC SUMP	Water	06/13/18 10:58	06/13/18 15:48
40170746003	MW2	Water	06/13/18 11:30	06/13/18 15:48
40170746004	MW6	Water	06/13/18 12:43	06/13/18 15:48
40170746005	MW111	Water	06/13/18 13:16	06/13/18 15:48
40170746006	MW116	Water	06/13/18 13:45	06/13/18 15:48
40170746007	MW115A	Water	06/13/18 14:20	06/13/18 15:48
40170746008	MW115	Water	06/13/18 14:39	06/13/18 15:48

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SAMPLE ANALYTE COUNT

Project: N1969A07/009 BETTER BRITE
 Pace Project No.: 40170746

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40170746001	TRIP BLANK	EPA 8260	HNW	64	PASI-G
40170746002	ZINC SUMP	EPA 8260 SM 3500-Cr B (Online) EPA 335.4	HNW DEY DAW	64 1 1	PASI-G
40170746003	MW2	SM 3500-Cr B (Online)	DEY	1	PASI-G
40170746004	MW6	SM 3500-Cr B (Online)	DEY	1	PASI-G
40170746005	MW111	SM 3500-Cr B (Online)	DEY	1	PASI-G
40170746006	MW116	EPA 8260 SM 3500-Cr B (Online)	HNW DEY	64 1	PASI-G
40170746007	MW115A	SM 3500-Cr B (Online)	DEY	1	PASI-G
40170746008	MW115	SM 3500-Cr B (Online)	DEY	1	PASI-G

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: N1969A07/009 BETTER BRITE

Pace Project No.: 40170746

Sample: TRIP BLANK	Lab ID: 40170746001	Collected: 06/13/18 00:00	Received: 06/13/18 15:48	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		06/15/18 08:00	108-86-1	
Bromo-chloromethane	<0.34	ug/L	1.0	0.34	1		06/15/18 08:00	74-97-5	
Bromo-dichloromethane	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		06/15/18 08:00	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		06/15/18 08:00	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		06/15/18 08:00	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		06/15/18 08:00	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		06/15/18 08:00	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		06/15/18 08:00	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		06/15/18 08:00	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		06/15/18 08:00	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		06/15/18 08:00	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		06/15/18 08:00	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		06/15/18 08:00	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		06/15/18 08:00	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		06/15/18 08:00	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		06/15/18 08:00	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		06/15/18 08:00	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		06/15/18 08:00	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		06/15/18 08:00	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		06/15/18 08:00	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		06/15/18 08:00	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		06/15/18 08:00	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		06/15/18 08:00	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		06/15/18 08:00	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		06/15/18 08:00	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		06/15/18 08:00	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		06/15/18 08:00	630-20-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: N1969A07/009 BETTER BRITE
 Pace Project No.: 40170746

Sample: TRIP BLANK	Lab ID: 40170746001	Collected: 06/13/18 00:00	Received: 06/13/18 15:48	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		06/15/18 08:00	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		06/15/18 08:00	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		06/15/18 08:00	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		06/15/18 08:00	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		06/15/18 08:00	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		06/15/18 08:00	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		06/15/18 08:00	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		06/15/18 08:00	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		06/15/18 08:00	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		06/15/18 08:00	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		1		06/15/18 08:00	1868-53-7	
Toluene-d8 (S)	102	%	70-130		1		06/15/18 08:00	2037-26-5	
Sample: ZINC SUMP	Lab ID: 40170746002	Collected: 06/13/18 10:58	Received: 06/13/18 15:48	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		06/15/18 01:21	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		06/15/18 01:21	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		06/15/18 01:21	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		06/15/18 01:21	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		06/15/18 01:21	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		06/15/18 01:21	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		06/15/18 01:21	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		06/15/18 01:21	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		06/15/18 01:21	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		06/15/18 01:21	106-93-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: N1969A07/009 BETTER BRITE

Pace Project No.: 40170746

Sample: ZINC SUMP	Lab ID: 40170746002	Collected: 06/13/18 10:58	Received: 06/13/18 15:48	Matrix: Water
--------------------------	----------------------------	---------------------------	--------------------------	---------------

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Dibromomethane	<0.43	ug/L	1.0	0.43	1		06/15/18 01:21	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		06/15/18 01:21	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		06/15/18 01:21	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		06/15/18 01:21	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		06/15/18 01:21	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		06/15/18 01:21	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		06/15/18 01:21	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		06/15/18 01:21	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		06/15/18 01:21	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		06/15/18 01:21	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		06/15/18 01:21	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		06/15/18 01:21	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		06/15/18 01:21	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		06/15/18 01:21	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		06/15/18 01:21	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		06/15/18 01:21	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		06/15/18 01:21	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		06/15/18 01:21	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		06/15/18 01:21	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		06/15/18 01:21	120-82-1	
1,1,1-Trichloroethane	2.1	ug/L	1.0	0.50	1		06/15/18 01:21	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		06/15/18 01:21	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		06/15/18 01:21	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		06/15/18 01:21	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		06/15/18 01:21	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		06/15/18 01:21	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		06/15/18 01:21	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	93	%	70-130		1		06/15/18 01:21	460-00-4	
Dibromofluoromethane (S)	107	%	70-130		1		06/15/18 01:21	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		06/15/18 01:21	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: N1969A07/009 BETTER BRITE

Pace Project No.: 40170746

Sample: ZINC SUMP Lab ID: **40170746002** Collected: 06/13/18 10:58 Received: 06/13/18 15:48 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	9.9	mg/L	1.7	0.51	100				06/14/18 09:00
335.4 Cyanide, Total	Analytical Method: EPA 335.4 Preparation Method: EPA 335.4								
Cyanide	0.051	mg/L	0.045	0.014	1	06/21/18 08:50	06/21/18 10:29	57-12-5	

Sample: MW2 Lab ID: **40170746003** Collected: 06/13/18 11:30 Received: 06/13/18 15:48 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	<0.026	mg/L	0.086	0.026	5				06/14/18 09:00 D3

Sample: MW6 Lab ID: **40170746004** Collected: 06/13/18 12:43 Received: 06/13/18 15:48 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	1.4	mg/L	0.086	0.026	5				06/14/18 09:00

Sample: MW111 Lab ID: **40170746005** Collected: 06/13/18 13:16 Received: 06/13/18 15:48 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	<0.13	mg/L	0.43	0.13	25				06/14/18 09:00 D3

Sample: MW116 Lab ID: **40170746006** Collected: 06/13/18 13:45 Received: 06/13/18 15:48 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	<1.0	ug/L	2.0	1.0	2			06/15/18 04:13	71-43-2
Bromobenzene	<0.46	ug/L	2.0	0.46	2			06/15/18 04:13	108-86-1
Bromoform	<0.68	ug/L	2.0	0.68	2			06/15/18 04:13	74-97-5
Bromochloromethane	<1.0	ug/L	2.0	1.0	2			06/15/18 04:13	75-27-4
Bromodichloromethane	<1.0	ug/L	2.0	1.0	2			06/15/18 04:13	75-25-2
Bromomethane	<4.9	ug/L	10.0	4.9	2			06/15/18 04:13	74-83-9
n-Butylbenzene	<1.0	ug/L	2.0	1.0	2			06/15/18 04:13	104-51-8
sec-Butylbenzene	<4.4	ug/L	10.0	4.4	2			06/15/18 04:13	135-98-8

REPORT OF LABORATORY ANALYSIS

ANALYTICAL RESULTS

Project: N1969A07/009 BETTER BRITE

Pace Project No.: 40170746

Sample: MW116	Lab ID: 40170746006	Collected: 06/13/18 13:45	Received: 06/13/18 15:48	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Trichlorofluoromethane	<0.37	ug/L	2.0	0.37	2		06/15/18 04:13	75-69-4	
1,2,3-Trichloropropane	<1.0	ug/L	2.0	1.0	2		06/15/18 04:13	96-18-4	
1,2,4-Trimethylbenzene	<1.0	ug/L	2.0	1.0	2		06/15/18 04:13	95-63-6	
1,3,5-Trimethylbenzene	<1.0	ug/L	2.0	1.0	2		06/15/18 04:13	108-67-8	
Vinyl chloride	<0.35	ug/L	2.0	0.35	2		06/15/18 04:13	75-01-4	
m&p-Xylene	<2.0	ug/L	4.0	2.0	2		06/15/18 04:13	179601-23-1	
o-Xylene	<1.0	ug/L	2.0	1.0	2		06/15/18 04:13	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		2		06/15/18 04:13	460-00-4	
Dibromofluoromethane (S)	110	%	70-130		2		06/15/18 04:13	1868-53-7	
Toluene-d8 (S)	101	%	70-130		2		06/15/18 04:13	2037-26-5	
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	12.1	mg/L	0.86	0.26	50		06/14/18 09:00		
Sample: MW115A	Lab ID: 40170746007	Collected: 06/13/18 14:20	Received: 06/13/18 15:48	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	<0.13	mg/L	0.43	0.13	25		06/14/18 09:00		D3
Sample: MW115	Lab ID: 40170746008	Collected: 06/13/18 14:39	Received: 06/13/18 15:48	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	<0.13	mg/L	0.43	0.13	25		06/14/18 09:00		D3

REPORT OF LABORATORY ANALYSIS

QUALITY CONTROL DATA

Project: N1969A07/009 BETTER BRITE

Pace Project No.: 40170746

QC Batch:	291896	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples:	40170746001, 40170746002, 40170746006		

METHOD BLANK: 1706812 Matrix: Water

Associated Lab Samples: 40170746001, 40170746002, 40170746006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	06/14/18 17:50	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	06/14/18 17:50	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	06/14/18 17:50	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	06/14/18 17:50	
1,1-Dichloroethane	ug/L	<0.24	1.0	06/14/18 17:50	
1,1-Dichloroethene	ug/L	<0.41	1.0	06/14/18 17:50	
1,1-Dichloropropene	ug/L	<0.44	1.0	06/14/18 17:50	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	06/14/18 17:50	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	06/14/18 17:50	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	06/14/18 17:50	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	06/14/18 17:50	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	06/14/18 17:50	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	06/14/18 17:50	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	06/14/18 17:50	
1,2-Dichloroethane	ug/L	<0.17	1.0	06/14/18 17:50	
1,2-Dichloropropane	ug/L	<0.23	1.0	06/14/18 17:50	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	06/14/18 17:50	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	06/14/18 17:50	
1,3-Dichloropropane	ug/L	<0.50	1.0	06/14/18 17:50	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	06/14/18 17:50	
2,2-Dichloropropane	ug/L	<0.48	1.0	06/14/18 17:50	
2-Chlorotoluene	ug/L	<0.50	1.0	06/14/18 17:50	
4-Chlorotoluene	ug/L	<0.21	1.0	06/14/18 17:50	
Benzene	ug/L	<0.50	1.0	06/14/18 17:50	
Bromobenzene	ug/L	<0.23	1.0	06/14/18 17:50	
Bromochloromethane	ug/L	<0.34	1.0	06/14/18 17:50	
Bromodichloromethane	ug/L	<0.50	1.0	06/14/18 17:50	
Bromoform	ug/L	<0.50	1.0	06/14/18 17:50	
Bromomethane	ug/L	<2.4	5.0	06/14/18 17:50	
Carbon tetrachloride	ug/L	<0.50	1.0	06/14/18 17:50	
Chlorobenzene	ug/L	<0.50	1.0	06/14/18 17:50	
Chloroethane	ug/L	<0.37	1.0	06/14/18 17:50	
Chloroform	ug/L	<2.5	5.0	06/14/18 17:50	
Chloromethane	ug/L	<0.50	1.0	06/14/18 17:50	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	06/14/18 17:50	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	06/14/18 17:50	
Dibromochloromethane	ug/L	<0.50	1.0	06/14/18 17:50	
Dibromomethane	ug/L	<0.43	1.0	06/14/18 17:50	
Dichlorodifluoromethane	ug/L	<0.22	1.0	06/14/18 17:50	
Diisopropyl ether	ug/L	<0.50	1.0	06/14/18 17:50	
Ethylbenzene	ug/L	<0.50	1.0	06/14/18 17:50	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: N1969A07/009 BETTER BRITE

Pace Project No.: 40170746

METHOD BLANK: 1706812

Matrix: Water

Associated Lab Samples: 40170746001, 40170746002, 40170746006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	06/14/18 17:50	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	06/14/18 17:50	
m&p-Xylene	ug/L	<1.0	2.0	06/14/18 17:50	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	06/14/18 17:50	
Methylene Chloride	ug/L	<0.23	1.0	06/14/18 17:50	
n-Butylbenzene	ug/L	<0.50	1.0	06/14/18 17:50	
n-Propylbenzene	ug/L	<0.50	1.0	06/14/18 17:50	
Naphthalene	ug/L	<2.5	5.0	06/14/18 17:50	
o-Xylene	ug/L	<0.50	1.0	06/14/18 17:50	
p-Isopropyltoluene	ug/L	<0.50	1.0	06/14/18 17:50	
sec-Butylbenzene	ug/L	<2.2	5.0	06/14/18 17:50	
Styrene	ug/L	<0.50	1.0	06/14/18 17:50	
tert-Butylbenzene	ug/L	<0.18	1.0	06/14/18 17:50	
Tetrachloroethene	ug/L	<0.50	1.0	06/14/18 17:50	
Toluene	ug/L	<0.50	1.0	06/14/18 17:50	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	06/14/18 17:50	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	06/14/18 17:50	
Trichloroethene	ug/L	<0.33	1.0	06/14/18 17:50	
Trichlorofluoromethane	ug/L	<0.18	1.0	06/14/18 17:50	
Vinyl chloride	ug/L	<0.18	1.0	06/14/18 17:50	
4-Bromofluorobenzene (S)	%	95	70-130	06/14/18 17:50	
Dibromofluoromethane (S)	%	96	70-130	06/14/18 17:50	
Toluene-d8 (S)	%	108	70-130	06/14/18 17:50	

LABORATORY CONTROL SAMPLE: 1706813

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	50.7	101	70-133	
1,1,2,2-Tetrachloroethane	ug/L	50	46.5	93	67-130	
1,1,2-Trichloroethane	ug/L	50	48.6	97	70-130	
1,1-Dichloroethane	ug/L	50	49.1	98	70-134	
1,1-Dichloroethene	ug/L	50	50.3	101	75-132	
1,2,4-Trichlorobenzene	ug/L	50	50.7	101	68-130	
1,2-Dibromo-3-chloropropane	ug/L	50	41.1	82	60-126	
1,2-Dibromoethane (EDB)	ug/L	50	50.2	100	70-130	
1,2-Dichlorobenzene	ug/L	50	50.8	102	70-130	
1,2-Dichloroethane	ug/L	50	49.4	99	73-134	
1,2-Dichloropropane	ug/L	50	47.6	95	79-128	
1,3-Dichlorobenzene	ug/L	50	51.4	103	70-130	
1,4-Dichlorobenzene	ug/L	50	50.4	101	70-130	
Benzene	ug/L	50	49.4	99	69-137	
Bromodichloromethane	ug/L	50	49.0	98	70-130	
Bromoform	ug/L	50	42.1	84	64-133	
Bromomethane	ug/L	50	23.8	48	29-123	

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QUALITY CONTROL DATA

Project: N1969A07/009 BETTER BRITE

Pace Project No.: 40170746

LABORATORY CONTROL SAMPLE: 1706813

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/L	50	48.3	97	73-142	
Chlorobenzene	ug/L	50	49.6	99	70-130	
Chloroethane	ug/L	50	46.2	92	59-133	
Chloroform	ug/L	50	45.6	91	80-129	
Chloromethane	ug/L	50	33.1	66	27-125	
cis-1,2-Dichloroethene	ug/L	50	48.8	98	70-134	
cis-1,3-Dichloropropene	ug/L	50	43.9	88	70-130	
Dibromochloromethane	ug/L	50	45.5	91	70-130	
Dichlorodifluoromethane	ug/L	50	25.0	50	12-127	
Ethylbenzene	ug/L	50	52.1	104	86-127	
Isopropylbenzene (Cumene)	ug/L	50	52.7	105	70-130	
m&p-Xylene	ug/L	100	104	104	70-131	
Methyl-tert-butyl ether	ug/L	50	45.5	91	65-136	
Methylene Chloride	ug/L	50	47.7	95	72-133	
o-Xylene	ug/L	50	51.2	102	70-130	
Styrene	ug/L	50	51.4	103	70-130	
Tetrachloroethene	ug/L	50	48.4	97	70-130	
Toluene	ug/L	50	49.7	99	84-124	
trans-1,2-Dichloroethene	ug/L	50	49.2	98	70-133	
trans-1,3-Dichloropropene	ug/L	50	42.5	85	67-130	
Trichloroethene	ug/L	50	50.6	101	70-130	
Trichlorofluoromethane	ug/L	50	49.9	100	69-147	
Vinyl chloride	ug/L	50	40.0	80	48-134	
4-Bromofluorobenzene (S)	%			101	70-130	
Dibromofluoromethane (S)	%			106	70-130	
Toluene-d8 (S)	%			101	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1706920 1706921

Parameter	Units	MS		MSD		MS Result	% Rec	MSD % Rec	% Rec Limits	RPD RPD	Max Qual
		40170718005 Result	Spike Conc.	Spike Conc.	MS Result						
1,1,1-Trichloroethane	ug/L	<0.50	50	50	54.0	52.4	108	105	70-136	3	20
1,1,2,2-Tetrachloroethane	ug/L	<0.25	50	50	50.4	49.7	101	99	67-133	1	20
1,1,2-Trichloroethane	ug/L	<0.20	50	50	51.4	51.0	103	102	70-130	1	20
1,1-Dichloroethane	ug/L	<0.24	50	50	52.0	51.0	104	102	70-139	2	20
1,1-Dichloroethene	ug/L	<0.41	50	50	52.5	51.6	105	103	72-137	2	20
1,2,4-Trichlorobenzene	ug/L	<2.2	50	50	53.6	53.9	107	108	68-130	1	20
1,2-Dibromo-3-chloropropane	ug/L	<2.2	50	50	46.0	44.1	92	88	60-130	4	21
1,2-Dibromoethane (EDB)	ug/L	<0.18	50	50	52.7	51.5	105	103	70-130	2	20
1,2-Dichlorobenzene	ug/L	<0.50	50	50	53.5	53.6	107	107	70-130	0	20
1,2-Dichloroethane	ug/L	<0.17	50	50	52.2	51.5	104	103	71-137	2	20
1,2-Dichloropropane	ug/L	<0.23	50	50	49.0	48.5	98	97	78-130	1	20
1,3-Dichlorobenzene	ug/L	<0.50	50	50	53.1	53.8	106	108	70-130	1	20
1,4-Dichlorobenzene	ug/L	<0.50	50	50	52.0	52.9	104	106	70-130	2	20

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REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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QUALITY CONTROL DATA

Project: N1969A07/009 BETTER BRITE

Pace Project No.: 40170746

Parameter	Units	40170718005		MS		MSD		1706921				
		Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max		
										RPD	RPD	Qual
Benzene	ug/L	<0.50	50	50	51.4	51.1	103	102	66-143	0	20	
Bromodichloromethane	ug/L	<0.50	50	50	49.7	50.1	99	100	70-130	1	20	
Bromoform	ug/L	<0.50	50	50	44.7	44.5	89	89	64-134	0	20	
Bromomethane	ug/L	<2.4	50	50	26.9	28.4	54	57	29-136	5	25	
Carbon tetrachloride	ug/L	<0.50	50	50	51.0	49.9	102	100	73-142	2	20	
Chlorobenzene	ug/L	<0.50	50	50	52.2	51.3	104	103	70-130	2	20	
Chloroethane	ug/L	<0.37	50	50	47.9	46.3	96	93	58-138	3	20	
Chloroform	ug/L	<2.5	50	50	47.9	47.0	96	94	80-131	2	20	
Chloromethane	ug/L	<0.50	50	50	34.3	31.2	69	62	24-125	10	20	
cis-1,2-Dichloroethene	ug/L	<0.26	50	50	52.8	51.5	106	103	68-137	3	22	
cis-1,3-Dichloropropene	ug/L	<0.50	50	50	45.1	44.8	90	90	70-130	1	20	
Dibromochloromethane	ug/L	<0.50	50	50	48.1	47.2	96	94	70-131	2	20	
Dichlorodifluoromethane	ug/L	<0.22	50	50	26.2	25.5	52	51	10-127	3	20	
Ethylbenzene	ug/L	<0.50	50	50	54.9	53.6	110	107	81-136	3	20	
Isopropylbenzene (Cumene)	ug/L	<0.14	50	50	55.6	54.5	111	109	70-132	2	20	
m&p-Xylene	ug/L	<1.0	100	100	109	107	109	107	70-135	2	20	
Methyl-tert-butyl ether	ug/L	<0.17	50	50	47.3	46.7	95	93	58-142	1	23	
Methylene Chloride	ug/L	<0.23	50	50	51.0	49.0	102	98	69-137	4	20	
o-Xylene	ug/L	<0.50	50	50	54.5	53.3	109	107	70-132	2	20	
Styrene	ug/L	<0.50	50	50	53.9	53.4	108	107	70-130	1	20	
Tetrachloroethene	ug/L	<0.50	50	50	51.4	50.5	103	101	70-132	2	20	
Toluene	ug/L	<0.50	50	50	52.6	51.9	105	103	81-130	1	20	
trans-1,2-Dichloroethene	ug/L	<0.26	50	50	52.8	51.1	106	102	70-136	3	20	
trans-1,3-Dichloropropene	ug/L	<0.23	50	50	45.6	45.3	91	91	67-130	1	20	
Trichloroethene	ug/L	<0.33	50	50	51.9	52.3	104	105	70-131	1	20	
Trichlorofluoromethane	ug/L	<0.18	50	50	53.1	51.6	106	103	66-150	3	20	
Vinyl chloride	ug/L	<0.18	50	50	42.2	39.9	84	80	46-134	6	20	
4-Bromofluorobenzene (S)	%						102	101	70-130			
Dibromofluoromethane (S)	%						107	106	70-130			
Toluene-d8 (S)	%						102	100	70-130			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: N1969A07/009 BETTER BRITE

Pace Project No.: 40170746

QC Batch: 291845 Analysis Method: SM 3500-Cr B (Online)

QC Batch Method: SM 3500-Cr B (Online) Analysis Description: Chromium, Hexavalent by 3500

Associated Lab Samples: 40170746002, 40170746003, 40170746004, 40170746005, 40170746006, 40170746007, 40170746008

METHOD BLANK: 1706527 Matrix: Water

Associated Lab Samples: 40170746002, 40170746003, 40170746004, 40170746005, 40170746006, 40170746007, 40170746008

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Chromium, Hexavalent	mg/L	<0.0051	0.017	06/14/18 09:00	

LABORATORY CONTROL SAMPLE: 1706528

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Chromium, Hexavalent	mg/L	.3	0.31	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1706529 1706530

Parameter	Units	40170746002	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		Result	Spike	Spike										
Chromium, Hexavalent	mg/L	9.9	30	30	39.3	38.6	98	96	90-110	90-110	2	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: N1969A07/009 BETTER BRITE

Pace Project No.: 40170746

QC Batch:	292442	Analysis Method:	EPA 335.4
QC Batch Method:	EPA 335.4	Analysis Description:	335.4 Cyanide, Total
Associated Lab Samples:	40170746002		

METHOD BLANK: 1709720 Matrix: Water

Associated Lab Samples: 40170746002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	<0.0068	0.023	06/21/18 10:21	

LABORATORY CONTROL SAMPLE: 1709721

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.092	92	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1709722 1709723

Parameter	Units	40170795001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
Cyanide	mg/L	<0.014	.2	.2	0.19	0.19	92	92	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1709724 1709725

Parameter	Units	10435935003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
Cyanide	mg/L	<0.014	.2	.2	0.21	0.19	101	90	90-110	11	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: N1969A07/009 BETTER BRITE

Pace Project No.: 40170746

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

REPORT OF LABORATORY ANALYSIS

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: N1969A07/009 BETTER BRITE

Pace Project No.: 40170746

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40170746001	TRIP BLANK	EPA 8260	291896		
40170746002	ZINC SUMP	EPA 8260	291896		
40170746006	MW116	EPA 8260	291896		
40170746002	ZINC SUMP	SM 3500-Cr B (Online)	291845		
40170746003	MW2	SM 3500-Cr B (Online)	291845		
40170746004	MW6	SM 3500-Cr B (Online)	291845		
40170746005	MW111	SM 3500-Cr B (Online)	291845		
40170746006	MW116	SM 3500-Cr B (Online)	291845		
40170746007	MW115A	SM 3500-Cr B (Online)	291845		
40170746008	MW115	SM 3500-Cr B (Online)	291845		
40170746002	ZINC SUMP	EPA 335.4	292442	EPA 335.4	292482

REPORT OF LABORATORY ANALYSIS

(Please Print Clearly)

Company Name:	OMNNI ASSOCIATES	
Branch/Location:	Appleton	
Project Contact:	Brian Wayne	
Phone:	920.830.6141	
Project Number:	N19U9A07/009	
Project Name:	BETTER BRIDE.	
Project State:	WI	
Sampled By (Print):	Kim Kennedy	
Sampled By (Sign):	KJ Kennedy	
PO #:	Regulatory Program:	

Data Package Options (billable)**MS/MSD****Matrix Codes**

- EPA Level III
 EPA Level IV

- On your sample (billable)
 NOT needed on your sample

A = Air W = Water
B = Biota DW = Drinking Water
C = Charcoal GW = Ground Water
O = Oil SW = Surface Water
S = Soil WW = Waste Water
Sl = Sludge WP = Wipe

FILTERED?
(YES/NO)
PRESERVATION
(CODE)*

Y / N

N

N

N

Analyses Requested

Pick Letter

A

B

G

Hex Chromium

VOCS

Cyanide

PACE LAB # **CLIENT FIELD ID**

001 TRIP BLANK

6/13

002 ZINC SUMP

1058

003 MW2

1130

004 MW6

1243

005 MW111

1316

006 MW1116

1345

007 MW115A

1420

008 MW115

1439

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:

Email #2:

Telephone:

Fax:

Relinquished By:

Kim Kennedy

Date/Time:

6/13/18 1548

Received By:

H/Paa

Date/Time:

6/13/18 1548

PACE Project No.

40170746

Receipt Temp = ROT °C

Sample Receipt pH

OK / Adjusted

Cooler Custody Seal

Present / Not Present

Intact / Not Intact

Samples on HOLD are subject to
special pricing and release of liability

UPPER MIDWEST REGION

MN: 612-607-1700 WI: 920-469-2436

40170746

Quote #:		
Mail To Contact:	Brian Wayne	
Mail To Company:	OMNNI ASSOCIATES	
Mail To Address:	one systems DR. Appleton, WI 54914	
Invoice To Contact:	Brian Wayne	
Invoice To Company:	Brian.Wayne@omni-.com	
Invoice To Address:	SAM	
Invoice To Phone:	920.735.6900	
CLIENT COMMENTS	LAB COMMENTS	Profile #
(Lab Use Only)		

Sample Preservation Receipt Form

Client Name: Omni

Project # Y0170746

All containers needing preservation have been checked and noted below: Yes No N/A

Lab Lot# of pH paper: 1245 0781

Lab Std #ID of preservation (if pH adjusted):

Initial when completed:

Date/
Time:

Pace Lab #	Glass					Plastic					Vials					Jars			General			VOA Vials (>6mm)*	Volume (mL)			
	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3C	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WG FU	WPFU	SP5T	ZPLC	GN
001																										2.5 / 5 / 10
002																										2.5 / 5 / 10
003																										2.5 / 5 / 10
004																										2.5 / 5 / 10
005																										2.5 / 5 / 10
006																										2.5 / 5 / 10
007																										2.5 / 5 / 10
008																										2.5 / 5 / 10
009																										2.5 / 5 / 10
010																										2.5 / 5 / 10
011																										2.5 / 5 / 10
012																										2.5 / 5 / 10
013																										2.5 / 5 / 10
014																										2.5 / 5 / 10
015																										2.5 / 5 / 10
016																										2.5 / 5 / 10
017																										2.5 / 5 / 10
018																										2.5 / 5 / 10
019																										2.5 / 5 / 10
020																										2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : Yes No N/A *If yes look in headspace column

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCl	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WG FU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3C	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO# : 40170746



40170746

Client Name: Omni

Courier: CS Logistics Fed Ex Speedee UPS Waltco

Client

Pace Other:

Tracking #:

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Custody Seal on Samples Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used: SR - N/A Type of Ice: Wet Blue Dry None

Cooler Temperature: Uncorr: R01 Corr: _____ Samples on ice, cooling process has begun

Temp Blank Present: yes no

Biological Tissue is Frozen: yes no

Temp should be above freezing to 6°C.

Biota Samples may be received at ≤ 0°C.

Person examining contents:

Date: 6/13/18

Initials: JH

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>Collect dates 002-003, page 1</u> , <u>6/13/18 JH</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time: - VOA Samples frozen upon receipt	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Date/Time:
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:	8.	
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used: -Pace Containers Used: -Pace IR Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):	<u>402</u>	

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ If checked, see attached form for additional comments

Comments/ Resolution:

Client returned unused 250 ml poly cups

Project Manager Review:

Date:

6/14/18

ENGINEERING
ARCHITECTURE
ENVIRONMENTAL



Received 8/22/18

OMNNI ASSOCIATES, INC.
ONE SYSTEMS DRIVE
APPLETON, WI 54914-1654
1-800-571-6677 920-735-6900
FAX 920-830-6100

August 8, 2018

Mr. Keld Lauridsen
Hydrogeologist/Project Manager
WDNR-Northeast Region RR
2984 Shawano Avenue
Green Bay, WI 54313-6727

**RE: Former Better Brite Chrome Shop and Zinc Shop – groundwater sampling
OMNNI Invoice**

Dear Keld:

Enclosed is OMNNI's invoice for services performed at the former Better Brite facilities. Invoice #N1969A07_009-1 is for groundwater sampling, laboratory analysis, reporting, and correspondence. A paper copy and pdf of the summary report were sent to you. Copies of the laboratory invoices has been enclosed for reference.

If you have any questions regarding this invoice or the project in general, please contact me.

Sincerely,
OMNNI Associates, Inc.

A handwritten signature in black ink that reads "Brian D. Wayner".

Brian D. Wayner, P.E.
Environmental Manager

Attachments

ENGINEERING
ARCHITECTURE
ENVIRONMENTAL



OMNNI Associates, Inc.
One Systems Drive
Appleton, WI 54914-1654
920-735-6900
Fax 920-830-6100

Keld Lauridsen
Wisconsin Department of Natural Resources
2984 Shawano Avenue
Green Bay, WI 54313

INVOICE

No. N1969A07_009-1

08/08/2018

Better Brite Superfund Site, De Pere, WI

N1969A07_009

For Services Rendered Through 7/31/2018

Project Manager: Brian Wayner

Labor	Hours	Rate	Amount
Better Brite Superfund Site, De Pere, WI			
Kennedy, Kimberly M	29.00	\$75.00	\$2,175.00
Wayner, Brian	2.50	\$110.00	\$275.00
Weis, Jason C	1.00	\$105.00	\$105.00
	Sub-total		\$2,555.00

Expenses	Qty	Rate	Amount
Mileage-OMNNI Vehicle	148.00	\$.73	\$108.04
Pace Analytical Services Inc	1.00	\$215.00	\$215.00
Pace Analytical Services Inc	1.00	\$405.00	\$405.00
	Sub-total		\$728.04
	Invoice Total		\$3,283.04

Project Manager: Brian Wayner

Approved for payment
Keld Lauridsen 8/22/18



INVOICE

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
Phone: (920)469-2436

Sold To:

Omni Associates, Inc.
Omni Associates, Inc.
One Systems Drive
Appleton, WI 54914-1654
(920) 830-6141

Invoice Number: 1840052272
Date: 06/15/2018
Total Amount Due: \$215.00

Please Remit To:

Pace Analytical Services, LLC
P.O. Box 684056
Chicago, IL 60695-4056

Client Number/Client ID	Purchase Order No	Pace Project Mgr	Terms**	Page
40-000578 / OMNNI ASSOC.		Steven Mleczko	Net 30 Days	1

Client Project: N1969A07/009 BETTER BRITE

Client Name: OMNNI ASSOCIATES, INC.

Pace Project No: 40170650

Sample Received: 6/12/2018

Report Sent To: Brian Wayner, Omni Associates, Inc.

Comments:

Description	Quantity	Price	Total
Chromium, Hexavalent	6	\$35.00	\$210.00
Environmental Impact Fee	1	\$5.00	\$5.00
Total Number of Charges 7		Total Invoice Amount	\$215.00

If you have any questions, please contact Steven Mleczko at Pace.

Phone: (920)469-2436 Email: steve.mleczko@pacelabs.com

Page 1 of 1

****1.5% MONTHLY FINANCE CHARGE ASSESSED AFTER 30 DAYS OR TERMS OF CONTRACT.**

PLEASE REFERENCE THE INVOICE NUMBER ON ALL REMITTANCE ADVICE.

AN EQUAL OPPORTUNITY EMPLOYER

Please complete and return copy of invoice with your payment.

INVOICE TOTAL **\$215.00**

Amount Paid: \$ _____

Check No: _____

Customer No: 40-000578 Invoice No: 1840052272



INVOICE

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
Phone: (920)469-2436

Sold To:

Omni Associates, Inc.
Omni Associates, Inc.
One Systems Drive
Appleton, WI 54914-1654
(920) 830-6141

Invoice Number: 1840052595
Date: 06/22/2018
Total Amount Due: \$405.00

Please Remit To:

Pace Analytical Services, LLC
P.O. Box 684056
Chicago, IL 60695-4056

Client Number/Client ID	Purchase Order No	Pace Project Mgr	Terms**	Page
40-000578 / OMNNI ASSOC.		Steven Mleczko	Net 30 Days	1

Client Project: N1969A07/009 BETTER BRITE

Client Name: OMNNI ASSOCIATES, INC.

Pace Project No: 40170746

Sample Received: 6/13/2018

Report Sent To: Brian Wayner, Omni Associates, Inc.

Comments:

Description	Quantity	Price	Total
335.4 Cyanide, Total	1	\$25.00	\$25.00
8260 MSV	1	\$0.00	\$0.00
8260 MSV	2	\$65.00	\$130.00
Chromium, Hexavalent	7	\$35.00	\$245.00
Environmental Impact Fee	1	\$5.00	\$5.00
Total Number of Charges 12		Total Invoice Amount	\$405.00

If you have any questions, please contact Steven Mleczko at Pace.
Phone: (920)469-2436 Email: steve.mleczko@pacelabs.com

Page 1 of 1

****1.5% MONTHLY FINANCE CHARGE ASSESSED AFTER 30 DAYS OR TERMS OF CONTRACT.**

PLEASE REFERENCE THE INVOICE NUMBER ON ALL REMITTANCE ADVICE.

AN EQUAL OPPORTUNITY EMPLOYER

Please complete and return copy of invoice with your payment.

INVOICE TOTAL **\$405.00**

Amount Paid: \$ _____

Check No: _____

Customer No: 40-000578 Invoice No: 1840052595

Lauridsen, Keld B - DNR

From: Lauridsen, Keld B - DNR
Sent: Friday, May 11, 2018 1:51 PM
To: 'Brian Wayner'
Subject: RE: SOW for groundwater sampling at Better Brite

Brian:

This email serves as Department approval of your cost estimate of approximately \$3,300 and a notice to proceed with the requested groundwater sampling SOW.

I will have groundwater monitoring wells W1, W1A and MW2 purged by Foth prior to your arrival.

Let me know when you have it scheduled.

Thanks,

-Keld

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Keld B. Lauridsen

Phone: (920) 662-5420
Keld.Lauridsen@wisconsin.gov

From: Brian Wayner [mailto:Brian.Wayner@omnni.com]
Sent: Thursday, May 10, 2018 11:36 AM
To: Lauridsen, Keld B - DNR <Keld.Lauridsen@wisconsin.gov>
Subject: RE: SOW for groundwater sampling at Better Brite

Keld,

Attached is our proposed scope of work and level of effort cost to complete the groundwater sampling for the Better Brite sites. Let me know if you have any questions on the attachment. Thank you for allowing us with an opportunity to submit a proposal.

Brian D. Wayner, P.E.

Environmental Manager

OMNNI Associates, Inc.
One N. Systems Drive, Appleton, WI 54914-1654
800.571.6677, 920.830.6141 (D), 920.830.6100 (F)
bwayner@omnni.com

From: Lauridsen, Keld B - DNR <Keld.Lauridsen@wisconsin.gov>
Sent: Monday, May 7, 2018 2:01 PM
To: Brian Wayner <Brian.Wayner@omnni.com>
Cc: Ryan, William J <ryan.williamj@epa.gov>
Subject: SOW for groundwater sampling at Better Brite

Brian:

Please provide the Department a cost estimate for the following SOW for a groundwater sampling event at the former Better Brite Zinc and Chrome Shop sites in De Pere, WI. Sampling can be completed anytime when your schedule allows.

Chrome Shop:

Collect groundwater samples from monitoring wells MW111, MW115, MW115A and MW116 using conventional sampling techniques. Groundwater samples are to be analyzed for hexavalent chromium.

Monitoring well MW116 is also to be analyzed for VOC.

Zinc Shop:

Collect groundwater samples from monitoring points W1, W1A, MW2, MW3R, MW5, MW6, MW9, MW10 and the Zinc Shop sump using conventional sampling techniques. Grab sampling without any purging is acceptable for monitoring points W1, W1A and MW2 due damaged well screens/casings. The Department will make an effort to have the current treatment plant operator (Foth Infrastructure & Environment) purge these 3 wells prior to the next sampling event using plastic tubing and a pump. Groundwater samples from all the monitoring points are to be analyzed for hexavalent chromium.

The Zinc Shop sump is also to be analyzed for cyanide and VOC.

Groundwater elevations are to be determined for all groundwater monitoring points sampled. The groundwater elevation at the Zinc Shop sump should also be determined and included on the well specific field sheets.

Visually inspect all wells not sampled and note if any repairs are needed. If possible, minor repairs can be completed during this sampling event. Any cost associated with well repairs will be paid in addition to the cost estimate for the sampling activities.

All data is to be provided in tabular format attached to a letter update report.

Please let me know if you have any questions.

Thanks,

-Keld

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Keld B. Lauridsen

Hydrogeologist – Remediation & Redevelopment Program

Wisconsin Department of Natural Resources

2984 Shawano Avenue

Green Bay, WI 54313

Phone: (920) 662-5420

Keld.Lauridsen@wisconsin.gov



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http://www.omnni.org/legal/OMNNI_Email_Disclaimer.pdf

May 10, 2018

Mr. Keld Lauridsen
Hydrogeologist/Project Manager
DNR-Northeast Region RR
P.O. Box 10448
Green Bay, WI 54307-0448

**RE: Better Brite Superfund Site, De Pere, WI
Groundwater Sampling Proposal**

Dear Keld:

Attached is our proposed level of effort for the groundwater sampling services requested at the Better Brite Superfund site. Our proposal is in response to your request for a cost estimate emailed on May 7, 2018.

Our level of effort is broken down as follows:

- Preparing for sampling, which includes notifying the Wisconsin Department of Natural Resources (DNR) project manager, coordinating with the laboratory, obtaining sampling containers, preparing labels, preparing chain of custody, Geo7X setup, and mobilization.
- Visual inspection, which includes locating and visually inspecting the cover of the 21 monitoring points which do not require groundwater analysis.
 - We estimated 10 minutes per monitoring point to locate the point, verify the GPS location, take a picture of the monitoring point cover, and note any general issues with the monitoring point cover.
 - If possible, minor repairs would be made to the monitoring well cover. Any cost associated with the monitoring well repairs would be paid in addition to the cost estimate provided for the sampling services.
- Monitoring well sampling, which includes determining the depth of groundwater and collecting a sample from 12 monitoring points.
 - We estimated 45 minutes per sampled monitoring point to locate the point, open the cover, take and record water elevation, decontaminate the water

level meter, purge the monitoring point with the provided bailer, take an unfiltered sample, which will be analyzed for hexavalent chromium, process the sample, complete the chain of custody, clean the cover, note any issues with the monitoring point, and secure the cover. Monitoring well MW116 will also be analyzed for VOCs.

- Sump sampling.
 - We estimated 30 minutes to access the Zinc Shop sump, measure the water level in the sump, collect an unfiltered sample, which will be analyzed for hexavalent chromium, VOCs, and cyanide, process the sample, complete the chain of custody, and secure the sump enclosure.
- Travel time.
 - We estimated 2.5 hours to travel to the site, travel between the sites, travel to the laboratory, and return to our office.
- Because of the short holding time for hexavalent chromium analysis, we are planning on delivering the samples to Pace Analytical rather than arranging for courier pickup.
- Purge water would be disposed at the treatment facility located at 315 South Sixth Street.
- Reporting/Project Management.
 - The letter report would consist of brief discussion of the sampling activities, the analytical report from the laboratory, summary tables of the analysis, a site location map, monitoring well locations maps with updated monitoring point locations, photographic summary, and well specific field sheets.
 - Project management will consist of reporting to the DNR project manager, and processing invoices.

Assumptions:

- The Zinc Shop sump can be readily accessed (building can be entered, sump enclosure gate can be unlocked and we can access the sump in a straightforward manner).
- All monitoring points can be accessed. The owner of the property that MW-111 is located is home and/or the dogs are not outside.

- W1, W1A and MW2, due to damaged well screens/casings, will be purged by others prior to the sampling event.
- The sampling event can be performed before the ground is snow covered.

We are not intending to provide, but can provide if requested, the following services:

- Groundwater elevations at monitoring points not sampled.
- Groundwater contour maps.
- Monitoring well cover repair, beyond minor repairs.
- Bailer replacement.
- Duplicate samples and analysis.
- pH/Conductivity/Temperature readings.

What we will need from the DNR:

- Access to the properties and treatment facility.
- Authorization to provide the services, in the form of a purchase order, service agreement, contract, or email notification.

We value the relationship built with the DNR on similar projects in the past, and we look forward to continuing to work with you. If you have any questions on our proposed services, please contact me at 920/830-6141 or bwayner@omnni.com.

Very truly yours,
OMNNI Associates, Inc.



Brian D. Wayner, P.E.
Environmental Manager

Enclosures

Better Brite Groundwater Sampling Level-of-Effort 2018		Consultant Fees	Equipment/Commodity Costs		Total	
		Hours	Rate	Quantity	Unit	Unit Cost
Groundwater Sampling Event						
Brian	Project Manager/Engineer	3	\$110			\$330
Jason	GIS/Mapping Engineer	2	\$105			\$210
Kim	Environmental Technician	16	\$75			\$1,200
Pace	Mileage			160	mile	\$0.80
	Laboratory Analysis - Groundwater					\$128
	Hexavalent Chromium			13	sample	\$40
	VOCs			2	sample	\$65
	VOCs - Trip Blank			1	sample	\$0
	Antimony			0	sample	\$12
	Cyanide			1	sample	\$35
						\$2,553
Reporting/Project Management						
Brian	Project Manager/Engineer	4	\$110			\$440
Kim	Environmental Technician	4	\$75			\$300
						\$740

Total Proposed Cost: **\$3,293**

Clarifications:

1. We do not markup subcontractor or commodity items. We have included the subcontractor proposals that we used to prepare the above level-of-effort for your review.
2. If any additional clarification on our proposed level-of-effort is required, please contact us.

Laboratory Quote Reference Number:

Pace Analytical Better Brite

Analytical Parameter	Analysis Method	Estimated Annual Quantity	Unit Price	Extended Price
Groundwater				
Hexavalent Chromium	SW-846-7196A	13	\$40	\$520.00
VOC	SW-846-8260	2	\$65	\$130.00
VOC Trip Blank	SW-846-8260	1	\$0	\$0.00
Antimony		1	\$12	\$12.00
Total Cyanide	EPA 335.4	1	\$35	\$35.00
Total Extended Price: \$697.00				

Scope of Services:

Laboratory analysis of groundwater samples collected from a former plating facility.

Site: Better Brite, De Pere, WI
Client: OMNNI Associates, Inc., One Systems Drive, Appleton, WI 54914-1654
Invoice to: OMNNI Associates
Report to: OMNNI Associates

Additional Terms:

- 1) Laboratory shall perform all tests listed above for the unit prices listed during the term June 2018 – December 2018.
- 2) Unit prices shall include all necessary sampling containers and vial holders.
- 3) Subcontracted tests shall be noted on bid form
- 3) Analysis report shall be available within 14 days after laboratory received samples.
- 4) An electronic copy of the report shall be provided.
- 5) The original invoice shall be included with each analysis report for the work done on that report.
- 6) Contract may be terminated upon failure by the successful bidder to comply with the above terms.