From: Paul Lindquist <PLINDQUIST@ramboll.com>
Sent: Tuesday, February 16, 2021 10:52 AM
To: Beggs, Tauren R - DNR; Adam Tegen

Cc: Kristin Jones (Kristin.Jones@newellco.com); Kathleen McDaniel; Rodriguez,

Gabriel M.; Walton, Katherine S.; Witte, Edward; Byers, Harris; Jeanne Tarvin;

Susan Petrofske

**Subject:** FW: 0236545108: RTC Site Investigation Work Plan Mirro Plant No. 9

(Former)

Attachments: REH RTC\_BRRTS No. 02-36-545108.pdf

Good morning Tauren and Adam,

I hope you both are doing well and staying warm and healthy.

Ramboll, on behalf of Newell Operating Company (NOC), has prepared a response to comment letter (attached) for the Mirro Plant No. 9 (Former) (BRRTS: 02-36545108) facility to address comments made by the Wisconsin Department of Natural Resources (WDNR) in the *Review of Site Investigation Work Plan* letter received by NOC on November 17, 2020. The WDNR comments were evaluated prior to- and post-baseline groundwater sampling activities in order to effectively address potential work planned for the spring.

The response to comment letter has been uploaded to the WDNR portal and the confirmation e-mail of the upload is provided below.

Please let us know if you have any questions.

#### **Paul Lindquist**

Senior Consultant

D 262-901-3510 M 612-209-8676 plindquist@ramboll.com

From: Kelly Otis < kotis@ramboll.com >
Sent: Tuesday, February 16, 2021 10:36 AM
To: Paul Lindquist < PLINDQUIST@ramboll.com >

Subject: FW: 0236545108: Other

From: no-reply@wisconsin.gov < no-reply@wisconsin.gov >

**Sent:** Tuesday, February 16, 2021 10:36 AM

**To:** Kelly Otis < <u>kotis@ramboll.com</u>>

Subject: 0236545108: Other

Please do not reply to this email.

**Dear Kelly Otis** 

Thank you for your submittal.

Confirmation Number: 33808

BRRTS #: 0236545108

Site Name: MIRRO PLT 9 (FORMER) - LGU

Type of Report: Other

Other document comments: Response to comments on SI Work Plan

Fee Amount:\$0 Name: Kelly Otis

Company: Ramboll US Corporation

Other DNR RR Contact: This submittal contains:

A workplan proposing or discussing a field investigation or sampling of PFAS.

Additional Information:

<u>Please send the paper copy of your submittal to TAUREN BEGGS</u>. Please see the <u>DNR staff directory</u> to look up the address.

A submittal is not considered complete until the fee (if applicable), paper and electronic copy of the document or report are received, per Wis. Admin. Code § NR 749.04 (1) and § NR 700.11 (3g) respectively.

For more information please see the <u>Guidance for submitting Documents to the Remediation and Redevelopment Program (RR-690)</u>.

If you have questions please contact: DENISE DANELSKI denise.danelski@wisconsin.gov (920) 510-4537

Be reminded that site investigations shall include an evaluation of hazardous substance discharges and environmental pollution including emerging contaminants in accordance with Wis. Admin. Code §NR 716.07, and evaluations shall be submitted as part of scoping to the Department in accordance with Wis. Admin. Code §NR. 716.09(2)(d).





Mr. Tauren Beggs Wisconsin Department of Natural Resources 2984 Shawano Avenue Green Bay, WI 54313-6727

### RESPONSES TO WDNR'S COMMENTS ON THE SITE INVESTIGATION WORK PLAN **FORMER MIRRO PLANT NO. 9 SITE** 1512 WASHINGTON STREET, MANITOWOC, WISCONSIN **BRRTS NO. 02-36-545108**

Dear Mr. Beggs:

Ramboll US Consulting, Inc. (Ramboll), on behalf of Newell Operating Company (NOC), would like to thank you for the timely review of the NR 716 Site Investigation Work Plan (SIWP) submitted to the Wisconsin Department of Natural Resources (WDNR) on October 16, 2020 for the Former Mirro Plant No. 9 site (the "site") located at 1512 Washington Street in Manitowoc, WI. As outlined in the SIWP, the following are involved parties at the site.

February 16, 2021

Ramboll 234 W. Florida Street Fifth Floor Milwaukee, WI 53204 USA

T +1 414 837 3607

www.ramboll.com

Ref. 1690019647

Current Property Owner: City of Manitowoc Community Development Authority

900 Quay Street

Manitowoc, WI 54220

Adam Tegen 920-686-6931

Former Property Owner: Newell Operating Company

6655 Peachtree Dunwoody Road

Atlanta, GA 30328

Kristin Jones 770-418-7822

**Consultant:** 

Ramboll US Consulting, Inc.

234 West Florida Street, Fifth Floor

Milwaukee, WI 53204

Jeanne Tarvin 262-901-0085

We have reviewed the comments provided in your letter dated November 17, 2020. This letter was prepared to provide our responses by comment as presented below. For ease of review, the WDNR's comments are included in italicized font below.

#### **WDNR Comments Regarding Historic Sample Locations:**

AMEC MW-16A had elevated concentrations of benzo(a)pyrene and other PAHs (polycyclic aromatic hydrocarbons) detected in soil. Evaluate if further sampling is needed in this area.

#### Response

Nested monitoring wells AMEC MW-16 and AMEC MW-16A are located immediately off-site in the sidewalk along Franklin Street. During review of historic soil boring



logs and soil analytical data associated with AMEC MW-16A from the *Targeted Brownfields Assessment (TBA) Report* submitted by the United States Environmental Protection Agency (USEPA) in March 2011, Ramboll noted that the material from the shallow sample depth (2 to 4 feet below ground surface [bgs]) was described as "fill" and PAH values were compared with the corresponding TestAmerica laboratory report (work order WTJ0823). The value for benzo(a)pyrene and three other PAHs (benzo(b)fluoranthene, benzo(ghi)perylene, and benzo(k)fluoranthene) were incorrectly transcribed from the laboratory report to the data table included in the March 2011 report. The benzo(a)pyrene value from the laboratory report was 1,000 micrograms per kilogram ( $\mu$ g/kg), not 1,200  $\mu$ g/kg as depicted in the table. Using the correct value, a comparison of the detected concentrations to the current NR720 Residual Contaminant Levels (RCLs) indicates all observed PAH detections are below industrial criteria. The soil analytical table from the *TBA Report* (Table 4C), soil boring log for AMEC MW-16A, and corresponding laboratory report are provided in Attachment A.

Additionally, soil boring GP-2, completed by AECOM in 2009 and documented in the *Phase II Subsurface Assessment*, is located off-site, approximately 50 feet west of nested wells AMEC\_MW-16/16A, in the sidewalk. Based on analytical results from soil boring GP-2. only fluoranthene was detected at a "J" qualified¹ concentration of 16.9  $\mu$ g/kg, which is below its non-industrial and industrial NR720 RCL (2,390,000  $\mu$ g/kg and 30,100,000  $\mu$ g/kg, respectively). Benzo(a)pyrene was not detected in soil at GP-2. Similar to AMEC MW-16A, the soil boring log for GP-2 indicated fill soils from immediately below the surficial concrete to a depth of 6 ft-bgs. GP-2 was collected in the fill material from 4 to 6 feet below ground surface. The soil analytical table from the AECOM Phase II (Table 2) and soil boring log for GP-2 are provided in Attachment B.

Based on the information provided above, further soil sampling for PAHs in the off-site historic fill located near AMEC MW-16A is not proposed at this time. Should the results from the investigation activities described in the SIWP indicate that a PAH source area is present in the northeast portion of the site then further investigation work will be recommended in the proposed *Site Investigation Report*.

• GP-2 had petroleum and chlorinated VOCs (volatile organic compounds) detected in soil and/or groundwater. Evaluate if further sampling is needed in this area.

#### Response

Detected concentrations of petroleum and chlorinated volatile organic compounds (VOCs) in the 2009 soil and groundwater samples collected from GP-2 were primarily qualified with a "J" flag indicating that they were estimated concentrations. Additionally, the detected concentrations are believed to be associated with the fill soil observed in the shallow soils at this location (Attachment B). Ramboll acknowledges the presence of VOCs within the general northern portion of the site and GP-2 specifically; however, the observed concentrations at GP-2 do not appear to be indicative of a VOC source area. Should the results of the investigation activities described in the SIWP indicate that a VOC source area is present in this area, then further investigation will be proposed.

• GP-5 had elevated concentrations of trichloroethene (TCE). Soil and groundwater sampling (SB-208/MW-208) is proposed at this location. Depending on additional sampling, a piezometer may be needed in this area to define vertical extent.

<sup>&</sup>lt;sup>1</sup> A "J" qualified value indicates the laboratory data result was reported between the method detection limit and limit of quantification.



#### Response

Ramboll will evaluate the potential need for a piezometer at this location after completion of the activities proposed in the SIWP.

• SB-3/MW-3 had elevated concentrations of TCE. Depending on additional sampling, a piezometer may be needed in this area to define vertical extent.

#### Response

Ramboll will evaluate the potential need for a piezometer at this location after completion of the activities proposed in the SIWP.

#### **WDNR Comments Regarding Proposed Sample Locations:**

Soil sampling is needed for PFAS (polyfluoroalkyl substances) at the proposed SB-206/PZ-206 location.

#### Response

Ramboll will collect soil samples for per- and polyfluoroalkyl substances (PFAS) analysis at the proposed SB-206/PZ-206 boring location. Table 1 from the SIWP has been updated to reflect this change and is included in Attachment C.

• A monitoring well is needed at the proposed SB-210 location to sample groundwater for VOCs, PCBs (polychlorinated biphenyls), and PFAS.

#### Response

Ramboll will install a monitoring well at the SB-210 location. Following installation, the monitoring well (MW-210) will be sampled for VOCs, PCBs, and PFAS. Table 1 and Figure 5 from the SIWP have been modified to reflect this change and are included in Attachment C.

Remove analysis for PAHs and metals at the off-site proposed SB-216 and SB-219 soil sample locations.

#### Response

Ramboll will remove the PAHs and metal soil analyses from SB-216 and SB-219. Table 1 from the SIWP has been updated to reflect this change and is included in Attachment C.

• There are still data gap areas on-site in the west (around SB-99 area), east (east and northeast of Area 8), south (southern 1/3 of site), and northeast portions of the site (around the SB-10 & SB-82 area). Additional sampling is needed to better characterize PCBs, VOCs, and/or PAHs within these areas. It is highly recommended this additional sampling is completed during this proposed work to determine if there are further concerns in any of these areas that would require additional investigation.

#### Response

Ramboll acknowledges the identified areas with limited investigation data; however, based on the documented historic operations in these portions of the site (e.g., equipment storage and office space there is no indication that these areas were impacted with hazardous substances. To date, three Phase I Environmental Site Assessments (ESAs) and numerous phases of Phase II investigation activities have taken place at the Site. None of these assessment activities identified a source area or a documented or suspected release in these areas identified by the WDNR. Should the results of the investigation activities described in the SIWP indicate that a source area is present in these areas, then further investigation will be proposed as appropriate.



#### **Other WDNR Comments**

- 1. Depending upon the results of the sampling from this proposed work, additional investigation may be necessary to define the degree and extent of contamination.
- 2. Sampling results must be sent to the DNR and property owner, including owners of off-site properties from which samples have been collected, within 10 days of receipt (Wis. Admin. Code NR § 716.14).
- 3. All Wis. Admin. Code ch. NR 700 submittals must be submitted in an electronic format through the RR Submittal Portal.
- 4. NR 700 semi-annual progress reports will be required until the case is closed.

#### Response to Other WDNR Comments 1 through 4

Comments acknowledged.

In addition to the sampling locations and/or analysis discussed above, Ramboll is proposing to complete supplemental sampling near monitoring well MW-9 because light non-aqueous phase liquid (LNAPL) was encountered in monitoring well MW-9 during the baseline groundwater sampling event completed by Ramboll in December 2020. This observation was noted in the NR 716.14 data transmittal to the WDNR on January 20, 2021. To facilitate anticipated site investigation efforts, additional investigation activities are proposed near MW-9 as described further below.

#### **Limited LNAPL Investigation**

LNAPL was encountered in monitoring well MW-9 during the baseline groundwater sampling event completed in December 2020. To supplement the investigation activities proposed in the SIWP, Ramboll is recommending the installation of four soil borings (SB/TMP-229 through SB/TMP-232) installed radially 10 feet from MW-9 and advanced to approximately 15 feet bgs. The four soil borings will be completed as temporary NR 141 monitoring points with one-inch diameter polyvinyl chloride casing and 10-feet of 0.010-inch slotted well screen. The four additional soil borings/temporary monitoring points will be sampled and installed using methods described in the SIWP with up to three soil samples collected for laboratory analysis from each soil boring. Table 1 and Figure 5 from the SIWP have been updated to reflect the supplemental soil borings.

If soils encountered during the limited LNAPL field investigation indicate additional soil borings are necessary for additional delineation, "step-out" soil borings will be completed, and temporary NR 141 monitoring points will be installed. If step-out soil borings are completed, the soil boring initiating the additional delineation will be abandoned according to NR 141. The decision to complete step-out borings will be discussed by Ramboll during field activities and determined through evaluating the data obtained in the field using soil boring descriptions and observations (e.g., discolorations, petroleum odors, etc.) and photoionization detector (PID) measurements.

As noted in the *Phase II ESA* submitted to the WDNR on March 19, 2020 by the City of Manitowoc Community Development Authority's environmental consultant (Stantec), LNAPL was not encountered during monitoring well MW-9 installation in March 2019 nor in two subsequent groundwater sampling events completed in April and May 2019. Due to the gradual percolation of LNAPL from the surrounding soils into MW-9, the proposed temporary monitoring points and MW-9 will be monitored for LNAPL during site investigation activities. LNAPL observations will be documented in the dedicated site field book.



If you have any questions, please do not hesitate to contact us at any time.

Yours sincerely,

**Paul Lindquist** Senior Consultant 2

D 262 901 3510 plindquist@ramboll.com

Jeanne M. Tarvin, PG, CPG

Managing Principal

D 262 901 0085 jtarvin@ramboll.com

cc: Kristin Jones, Newell (electronic copy)

Kathleen McDaniel, City of Manitowoc Edward Witte, Godfrey and Kahn, S.C.

Harris Byers, Stantec

**Enclosures** 

Attachment A: AMEC MW-16A Information

Attachment B: GP-2

Attachment C: Updated SIWP Table 1 and Figure 5



## ATTACHMENT A AMEC MW-16A

SOURCE: EPA/AECOM/AES

Targeted Brownfields Assessment:

Former Mirro Plant No. 9

March 2011

# Table 4C PAHs Soil Analytical Data Former Mirro Plant No. 9 Property Manitowoc, Wisconsin

				IVI	anitowoc, wisco	nsin					
	WDNR Generi	c RCLs-Data Qua	lity Objectives				Results				
	Direct Conta	act Pathway	Groundwater	MB-SB-MW-15	MB-SB-MW-17	MB-SB-MW-16A DUP	MB-SB-TW-5	MB-SB-1	MB-SB-8	MB-SB-3	MB-SB-4
Parameters	Non-Industrial	Industrial	Pathway	2-4'	2.5-4'	2-4'	2-4'	2-4'	6.5-8'	2-4'	3.5-4'
Sample Date				18-Oct	10/18/2010	10/19/2010	10/29/2010	10/29/2010	10/28/2010	10/26/2010	10/26/2010
Acenaphthene	900,000	60,000,000	38,000	2,000	ND	430	ND	ND	ND	280	ND
Acenaphthylene	18,000	360,000	700	ND	ND	ND	ND	ND	ND	480	ND
Anthracene	5,000,000	300,000,000	3,000,000	2,300	ND	550	8	ND	41	28	500
Benzo(a)anthracene	<del>88</del>	3,900	<del>17,000</del>	2,900	ND	1,300	ND	ND	160	28	1,500
Benzo(a)pyrene	<del>8.8</del>	<del>390.</del>	<del>48,000</del>	2,000	ND	<del>-1,200</del> 1,000	ND	ND	140	28	940
Benzo(b)fluoranthene	88	3,900	360,000	1,000	ND	<b>380</b> _ 1,200	ND	ND	45	28	550
Benzo(ghi)perylene	1,800	39,000	6,800,000	1,900	ND	<del>1,000</del> 800	ND	ND	110	28	890
Benzo(k)fluoranthene	880	39,000	870,000	1,100	ND	<del>800-</del> 380	ND	ND	110	28	900
Chrysene	8,800	390,000	37,000	3,300	ND	1,500	ND	ND	150	28	1,300
Dibenzo(a,h,)anthracene	<del>8.8</del>	<del>390</del>	<del>38,000</del>	990	ND	570	ND	ND	58	42	540
Fluroanthene	600,000	40,000,000	500,000	9,500	ND	3,200	47	17	640	56	4,500
Fluorene	600,000	40,000,000	100,000	1,700	ND	280	ND	ND	20	56	430
Indeno(1,2,3-cd)pyrene	<del>-88</del>	3 <del>,900</del>	680,000	1,000	ND	750	ND	ND	95	28	990
1-Methylnaphthalene	1,100,000	70,000,000	23,000	600	ND	360	ND	ND	ND	170	510
2-Methylnaphthalene	600,000	40,000,000	20,000	6,600	ND	1,700	ND	ND	130	170	2,300
Naphthalene	20,000	110,000	400	2,200	ND	830	ND	ND	68	170	1,400
Phenanthrene	18,000	390,000	1,800	8,800	ND	2,200	24	9	180	28	2,600
Pyrene	500,000	30,000,000	8,700,000	8,900	ND	3,200	ND	ND	540	28	4,000

Notes:

WDNR =

Concentrations noted in *italics* exceed the Groundwater Pathway standards.

Concentrations noted in **bold** exceed the WDNR non-industrial direct contact pathway standard.

Concentrations in grey cells exceed the WDNR industrial direct contact pathway standard.

Please note WDNR residual contaminant levels (RCLs) shown on the March 2011 table are not current. Select updated PAH WDNR RCLs are below:

Benzo(a)anthracene: 1,140 micrograms per kilograms (µg/kg) [Non-Industrial]

20,800 µg/kg [Industrial]

No Established Groundwater Pathway Criteria

Benzo(a)pyrene: 115 µg/kg [Non-Industrial]

2,110 µg/kg [Industrial]

470 µg/kg [Groundwater Pathway]

Dibenzo(a,h)anthracene: 115 µg/kg [Non-Industrial]

2,110 µg/kg [Industrial]

No Established Groundwater Pathway Criteria

Indeno(1,2,3-cd)pyrene: 1,150 µg/kg [Non-Industrial] 21,100 µg/kg [Industrial]

No Established Groundwater Pathway Criteria

State of Wisconsin Department of Natural Resources

# SOURCE: EPA/AECOM/AES Targeted Brownfields Assessment: Former Mirro Plant No. 9 March 2011

SOIL BORING LOG INFORMATION

Form 4400-122

Rev. 7-98

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December 03, 2010

SOURCE: EPA/AECOM/AES

Targeted Brownfields Assessment:

Former Mirro Plant No. 9

March 2011

Client: Advanced Environmental Solutions, Inc. Work Order: WTJ0823

90 Madison Street Project Name: Former Mirro Plant

Worcester, MA 01608 Project Number: 60163491 Plant No. 9 Manitowoc, WI

Attn: Mr. Michael Bingham Date Received: 10/22/10

An executed copy of the chain of custody is also included as an addendum to this report.

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-833-7036

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
MB-SB-MW-14@6-8'	WTJ0823-01	10/18/10 14:10
MB-SB-MW-15@2.2-4'	WTJ0823-02	10/18/10 14:40
MB-SB-MW-15@5.5-6.5'	WTJ0823-03	10/18/10 14:50
MB-SB-MW-17@2.5-4'	WTJ0823-04	10/18/10 15:05
MB-SB-MW-17@5-7'	WTJ0823-05	10/18/10 15:15
MB-SB-MW-16A@2-4'	WTJ0823-06	10/19/10 09:10
MB-SB-MW-16A@2-4' DUP	WTJ0823-07	10/19/10 09:10
MB-SB-MW-16A@6-8'	WTJ0823-08	10/19/10 09:20
MB-SB-MW-16A@29-30'	WTJ0823-09	10/19/10 09:30

Case Narrative: Dry weight containers were not received for the VOC samples. These are reported wet weight at the direction of the client. Sample MB-SB-MW-16A@2-4' was impacted by melted ice during shipment, and was cancelled at the direction of the client.

Samples were received on ice into laboratory at a temperature of 0 °C.

Wisconsin Certification Number: 128053530

The Chain(s) of Custody, -1 pages, are included and are an integral part of this report.

Unless subcontracted, volatiles analyses (including VOC, PVOC, GRO, BTEX, and TPH gasoline) performed by TestAmerica Watertown at 1101 Industrial Drive, Units 9&10. All other analyses performed at the address shown in the heading of this report.

Approved By





Work Order:

WTJ0823 Former Mirro Plant

10/22/10 Received:

90 Madison Street Worcester, MA 01608

Mr. Michael Bingham

Project:

Reported: 12/03/10 12:49

Project Number: 60163491 Plant No. 9 Manitowoc,

#### ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	MRL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: WTJ0823-01 (MB-S	SB-MW-14@6-8'	- Soil)				Sampled: 10	/18/10 14:1	0	
VOCs by SW8260B									
Benzene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Bromobenzene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Bromochloromethane	<35		ug/kg wet	35	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Bromodichloromethane	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Bromoform	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Bromomethane	<100		ug/kg wet	100	1	10/25/10 15:45	ABA	10J0706	SW 8260B
n-Butylbenzene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
sec-Butylbenzene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
tert-Butylbenzene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Carbon Tetrachloride	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Chlorobenzene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Chlorodibromomethane	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Chloroethane	<50		ug/kg wet	50	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Chloroform	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Chloromethane	<50		ug/kg wet	50	1	10/25/10 15:45	ABA	10J0706	SW 8260B
2-Chlorotoluene	<50		ug/kg wet	50	1	10/25/10 15:45	ABA	10J0706	SW 8260B
4-Chlorotoluene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
1,2-Dibromo-3-chloropropane	<50		ug/kg wet	50	1	10/25/10 15:45	ABA	10J0706	SW 8260B
1,2-Dibromoethane (EDB)	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Dibromomethane	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
1,2-Dichlorobenzene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
1,3-Dichlorobenzene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
1,4-Dichlorobenzene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Dichlorodifluoromethane	<50		ug/kg wet	50	1	10/25/10 15:45	ABA	10J0706	SW 8260B
1,1-Dichloroethane	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
1,2-Dichloroethane	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
1,1-Dichloroethene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
cis-1,2-Dichloroethene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
trans-1,2-Dichloroethene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
1,2-Dichloropropane	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
1,3-Dichloropropane	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
2,2-Dichloropropane	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
1,1-Dichloropropene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
cis-1,3-Dichloropropene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
trans-1,3-Dichloropropene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
2,3-Dichloropropene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Isopropyl Ether	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Ethylbenzene	<25				1	10/25/10 15:45	ABA	10J0706	
Hexachlorobutadiene	<35		ug/kg wet ug/kg wet	25 35	1	10/25/10 15:45	ABA	10J0706	SW 8260B SW 8260B
Isopropylbenzene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
			ug/kg wet	25	1				SW 8260B
p-Isopropyltoluene Methylene Chloride	<25 <50		ug/kg wet	50	1	10/25/10 15:45 10/25/10 15:45	ABA ABA	10J0706 10J0706	SW 8260B SW 8260B
Methyl tert-Butyl Ether	<25		ug/kg wet	25	1	10/25/10 15:45		10J0706 10J0706	SW 8260B SW 8260B
	<50		0 0	50	1	10/25/10 15:45	ABA	10J0706 10J0706	SW 8260B SW 8260B
Naphthalene n-Propylbenzene			ug/kg wet ug/kg wet	25	1	10/25/10 15:45	ABA		SW 8260B SW 8260B
**	<25 <50						ABA	10J0706	
Styrene	<50 <25		ug/kg wet	50	1	10/25/10 15:45	ABA	10J0706	SW 8260B
1,1,1,2-Tetrachloroethane	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
1,1,2,2-Tetrachloroethane	<25		ug/kg wet	25 25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Tetrachloroethene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B





THE LEADER IN ENVIRONMENTAL TESTING

Advanced Environmental Solutions, Inc. Work Order: WTJ0823 Received: 10/22/10

90 Madison Street Project: Former Mirro Plant Reported: 12/03/10 12:49

Worcester, MA 01608 Project Number: 60163491 Plant No. 9 Manitowoc, Mr. Michael Bingham

Analyte	Sample Result	Data Qualifiers	Units	MRL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: WTJ0823-01 (MB-SB-M	MW-14@6-8' -	- Soil) - cont.				Sampled: 10	/18/10 14:1	0	
VOCs by SW8260B - cont.	O	,				Sumpreur 10	10,10 1111	•	
Toluene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
1,2,3-Trichlorobenzene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
1,2,4-Trichlorobenzene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260E
1,1,1-Trichloroethane	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
1,1,2-Trichloroethane	<35		ug/kg wet	35	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Trichloroethene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Trichlorofluoromethane	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
1,2,3-Trichloropropane	<50		ug/kg wet	50	1	10/25/10 15:45	ABA	10J0706	SW 8260B
1,2,4-Trimethylbenzene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
1,3,5-Trimethylbenzene	<25		ug/kg wet	25	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Vinyl chloride	<35		ug/kg wet	35	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Xylenes, total	<85		ug/kg wet	85	1	10/25/10 15:45	ABA	10J0706	SW 8260B
Surr: Dibromofluoromethane (80-120%)	108 %								
Surr: Toluene-d8 (80-120%)	103 %								
Surr: 4-Bromofluorobenzene (80-120%)	99 %								
•	AVV 15@2.2.4	u e-:n				G 1 1 40	404044		
Sample ID: WTJ0823-02 (MB-SB-M General Chemistry Parameters	v1 w -15@2.2-4	- 5011)				Sampled: 10	/18/10 14:4	0	
% Solids	81		%	NA	1	10/27/10 08:19	kjk	10J0808	SM 2540G
PNAs by SW8310	01		70	1471	1	10/2//10 00.19	КјК	1030000	5141 25 100
Acenaphthene	2000		ug/kg dry	290	4.8	11/02/10 22:05	CLJ	10J0940	SW 8310
Acenaphthylene	<500		ug/kg dry	500	4.8	11/02/10 22:05	CLJ	10J0940 10J0940	SW 8310
Anthracene	2300		ug/kg dry	290	4.6	11/02/10 22:03	CLJ	10J0940 10J0940	SW 8310
Benzo (a) anthracene	2900		ug/kg dry	290	47.6	11/02/10 20:03	CLJ	10J0940 10J0940	SW 8310
Benzo (b) fluoranthene	2000			290	47.6	11/02/10 20:03	CLJ	10J0940 10J0940	SW 8310
Benzo (k) fluoranthene	1000		ug/kg dry ug/kg dry	29	4.8	11/02/10 22:05	CLJ	10J0940 10J0940	SW 8310
* *	1900		0 0 3	29	4.8	11/02/10 22:05	CLJ	10J0940 10J0940	SW 8310
Benzo (a) pyrene Benzo (g,h,i) perylene	1100		ug/kg dry ug/kg dry	29	4.8	11/02/10 22:05	CLJ	10J0940 10J0940	SW 8310
Chrysene	3300		ug/kg dry	290	4.6	11/02/10 22:03	CLJ	10J0940 10J0940	SW 8310
Dibenzo (a,h) anthracene	990		ug/kg dry	290 44	47.6	11/02/10 20:03	CLJ	10J0940 10J0940	SW 8310
Fluoranthene	9500		ug/kg dry	580	4.6	11/02/10 22:03	CLJ	10J0940 10J0940	SW 8310
Fluorene	1700			58	4.8	11/02/10 20:03	CLJ	10J0940 10J0940	SW 8310
	1000		ug/kg dry	29	4.8	11/02/10 22:05	CLJ	10J0940 10J0940	SW 8310
Indeno (1,2,3-cd) pyrene	600		ug/kg dry	180	4.8	11/02/10 22:05	CLJ	10J0940 10J0940	SW 8310 SW 8310
1-Methylnaphthalene 2-Methylnaphthalene	6600		ug/kg dry	180	4.8	11/02/10 22:05	CLJ	10J0940 10J0940	SW 8310 SW 8310
• •			ug/kg dry				CLJ		
Naphthalene	2200		ug/kg dry	180	4.8	11/02/10 22:05		10J0940	SW 8310
Phenanthrene	8800		ug/kg dry	290	47.6	11/02/10 20:03	CLJ	10J0940	SW 8310
Pyrene	8900		ug/kg dry	290	47.6	11/02/10 20:03	CLJ	10J0940	SW 8310





90 Madison Street

Work Order:

WTJ0823

Received:

Reported:

10/22/10 12/03/10 12:49

Worcester, MA 01608 Mr. Michael Bingham Project: Former Mirro Plant

Project Number: 60163491 Plant No. 9 Manitowoc,

A a laste	Sample	Data	TT24-	MDI	Dilution	Date	A 1 4	Seq/	N. 41 1
Analyte	Result	Qualifiers	Units	MRL	Factor	Analyzed	Analyst	Batch	Method
Sample ID: WTJ0823-03 (MB-S	SB-MW-15@5.5-6	5.5' - Soil)				Sampled: 10	/18/10 14:5	0	
VOCs by SW8260B						-			
Benzene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Bromobenzene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Bromochloromethane	<35		ug/kg wet	35	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Bromodichloromethane	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Bromoform	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Bromomethane	<100		ug/kg wet	100	1	10/25/10 16:11	ABA	10J0706	SW 8260B
n-Butylbenzene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
sec-Butylbenzene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
tert-Butylbenzene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Carbon Tetrachloride	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Chlorobenzene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Chlorodibromomethane	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Chloroethane	<50		ug/kg wet	50	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Chloroform	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Chloromethane	<50		ug/kg wet	50	1	10/25/10 16:11	ABA	10J0706	SW 8260B
2-Chlorotoluene	<50		ug/kg wet	50	1	10/25/10 16:11	ABA	10J0706	SW 8260B
4-Chlorotoluene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
1,2-Dibromo-3-chloropropane	<50		ug/kg wet	50	1	10/25/10 16:11	ABA	10J0706	SW 8260B
1,2-Dibromoethane (EDB)	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Dibromomethane	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
1,2-Dichlorobenzene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
1,3-Dichlorobenzene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
1,4-Dichlorobenzene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Dichlorodifluoromethane	<50		ug/kg wet	50	1	10/25/10 16:11	ABA	10J0706	SW 8260B
1,1-Dichloroethane	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
1,2-Dichloroethane	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
1,1-Dichloroethene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
cis-1,2-Dichloroethene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
trans-1,2-Dichloroethene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
1,2-Dichloropropane	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
1,3-Dichloropropane	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
2,2-Dichloropropane	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
1,1-Dichloropropene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
	<25			25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
cis-1,3-Dichloropropene	<25		ug/kg wet	25	_	10/25/10 16:11	ABA	10J0706 10J0706	
trans-1,3-Dichloropropene			ug/kg wet	25	1 1	10/25/10 16:11	ABA	10J0706 10J0706	SW 8260B SW 8260B
2,3-Dichloropropene	<25		ug/kg wet		1	10/25/10 16:11			
Isopropyl Ether	<25		ug/kg wet	25	1		ABA	10J0706	SW 8260B
Ethylbenzene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Hexachlorobutadiene	<35		ug/kg wet	35	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Isopropylbenzene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
p-Isopropyltoluene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Methylene Chloride	<50		ug/kg wet	50	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Methyl tert-Butyl Ether	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Naphthalene	<50		ug/kg wet	50	1	10/25/10 16:11	ABA	10J0706	SW 8260B
n-Propylbenzene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Styrene	<50		ug/kg wet	50	1	10/25/10 16:11	ABA	10J0706	SW 8260B
1,1,1,2-Tetrachloroethane	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
1,1,2,2-Tetrachloroethane	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Tetrachloroethene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Toluene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
1,2,3-Trichlorobenzene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B





Work Order: WTJ0823

Received: 10/22/10

90 Madison Street

Project: Former Mirro Plant

Reported: 12/03/10 12:49

Worcester, MA 01608 Mr. Michael Bingham

Analyte	Sample Result	Data Qualifiers	Units	MRL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: WTJ0823-03 (MB-SB-M	AW-15@5.5-6	5.5' - Soil) - co	nt.			Sampled: 10	/18/10 14:5	50	
VOCs by SW8260B - cont.	O	,				Sumpreur 10	,10,10 1110		
1,2,4-Trichlorobenzene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
1,1,1-Trichloroethane	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
1,1,2-Trichloroethane	<35		ug/kg wet	35	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Trichloroethene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Trichlorofluoromethane	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
1,2,3-Trichloropropane	<50		ug/kg wet	50	1	10/25/10 16:11	ABA	10J0706	SW 8260B
1,2,4-Trimethylbenzene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
1,3,5-Trimethylbenzene	<25		ug/kg wet	25	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Vinyl chloride	<35		ug/kg wet	35	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Xylenes, total	<85		ug/kg wet	85	1	10/25/10 16:11	ABA	10J0706	SW 8260B
Surr: Dibromofluoromethane (80-120%)	111 %			-	_				2 0
Surr: Toluene-d8 (80-120%)	102 %								
Surr: 4-Bromofluorobenzene (80-120%)	100 %								
, , ,									
Sample ID: WTJ0823-04 (MB-SB-N	AW-17@2.5-4	' - Soil)				Sampled: 10	/18/10 15:0	)5	
General Chemistry Parameters									
% Solids	93		%	NA	1	10/27/10 08:19	kjk	10J0808	SM 2540G
PNAs by SW8310									
Acenaphthene	<53		ug/kg dry	53	1.0	11/02/10 19:43	CLJ	10J0940	SW 8310
Acenaphthylene	<90		ug/kg dry	90	1.0	11/02/10 19:43	CLJ	10J0940	SW 8310
Anthracene	<5.3		ug/kg dry	5.3	1.0	11/02/10 19:43	CLJ	10J0940	SW 8310
Benzo (a) anthracene	< 5.3		ug/kg dry	5.3	1.0	11/02/10 19:43	CLJ	10J0940	SW 8310
Benzo (b) fluoranthene	<5.3		ug/kg dry	5.3	1.0	11/02/10 19:43	CLJ	10J0940	SW 8310
Benzo (k) fluoranthene	<5.3		ug/kg dry	5.3	1.0	11/02/10 19:43	CLJ	10J0940	SW 8310
Benzo (a) pyrene	<5.3		ug/kg dry	5.3	1.0	11/02/10 19:43	CLJ	10J0940	SW 8310
Benzo (g,h,i) perylene	<5.3		ug/kg dry	5.3	1.0	11/02/10 19:43	CLJ	10J0940	SW 8310
Chrysene	<5.3		ug/kg dry	5.3	1.0	11/02/10 19:43	CLJ	10J0940	SW 8310
Dibenzo (a,h) anthracene	<7.9		ug/kg dry	7.9	1.0	11/02/10 19:43	CLJ	10J0940	SW 8310
Fluoranthene	<11		ug/kg dry	11	1.0	11/02/10 19:43	CLJ	10J0940	SW 8310
Fluorene	<11		ug/kg dry	11	1.0	11/02/10 19:43	CLJ	10J0940	SW 8310
Indeno (1,2,3-cd) pyrene	<5.3		ug/kg dry	5.3	1.0	11/02/10 19:43	CLJ	10J0940	SW 8310
1-Methylnaphthalene	<32		ug/kg dry	32	1.0	11/02/10 19:43	CLJ	10J0940	SW 8310
2-Methylnaphthalene	<32		ug/kg dry	32	1.0	11/02/10 19:43	CLJ	10J0940	SW 8310
Naphthalene	<32		ug/kg dry	32	1.0	11/02/10 19:43	CLJ	10J0940	SW 8310
Phenanthrene	<5.3		ug/kg dry	5.3	1.0	11/02/10 19:43	CLJ	10J0940	SW 8310
Pyrene	<5.3		ug/kg dry	5.3	1.0	11/02/10 19:43	CLJ	10J0940	SW 8310
Surr: 2-Fluorobiphenyl (61-128%)	106 %								





Work Order:

WTJ0823

Received: 10/22/10

90 Madison Street

Project: Former Mirro Plant

Reported: 12/03/10 12:49

Worcester, MA 01608 Mr. Michael Bingham

Analyte	Sample Result	Data Qualifiers Units	s MRL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: WTJ0823-05 (MB-S	5B-MW-17@5-7' -	- Soil)			Sampled: 10	/18/10 15:1	5	
VOCs by SW8260B	<u> </u>	,			oumpieur 10	,10,10 1011		
Benzene	<25	ug/kg w	et 25	1	10/25/10 16:38	ABA	10J0706	SW 8260B
Bromobenzene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
Bromochloromethane	<35	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
Bromodichloromethane	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
Bromoform	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
Bromomethane	<100	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
n-Butylbenzene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
sec-Butylbenzene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
tert-Butylbenzene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
Carbon Tetrachloride	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
Chlorobenzene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
Chlorodibromomethane	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
Chloroethane	<50	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
Chloroform	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
Chloromethane	<50	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
2-Chlorotoluene	<50	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
4-Chlorotoluene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
1,2-Dibromo-3-chloropropane	<50	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
1,2-Dibromoethane (EDB)	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
Dibromomethane	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
1,2-Dichlorobenzene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
1,3-Dichlorobenzene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
1,4-Dichlorobenzene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
Dichlorodifluoromethane	<50	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
1,1-Dichloroethane	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
1,2-Dichloroethane	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
1,1-Dichloroethene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
cis-1,2-Dichloroethene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
trans-1,2-Dichloroethene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
1,2-Dichloropropane	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
1,3-Dichloropropane	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
2,2-Dichloropropane	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
1,1-Dichloropropene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
cis-1,3-Dichloropropene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
trans-1,3-Dichloropropene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
2,3-Dichloropropene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
Isopropyl Ether	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
Ethylbenzene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
Hexachlorobutadiene	<35	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
Isopropylbenzene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
p-Isopropyltoluene	<25	ug/kg w ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
Methylene Chloride	<50			1	10/25/10 16:38		10J0706	SW 8260B
		ug/kg w				ABA		
Methyl tert-Butyl Ether	<25 <50	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B SW 8260B
Naphthalene n Propylhonzono	<50 <25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	
n-Propylbenzene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
Styrene	<50 <25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
1,1,1,2-Tetrachloroethane	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
1,1,2,2-Tetrachloroethane	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
Tetrachloroethene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
Toluene	<25	ug/kg w		1	10/25/10 16:38	ABA	10J0706	SW 8260B
1,2,3-Trichlorobenzene	<25	ug/kg w	et 25	1	10/25/10 16:38	ABA	10J0706	SW 8260B





Advanced Environmental Solutions, Inc. Work Order: WTJ0823 Received: 10/22/10

90 Madison Street Project: Former Mirro Plant Reported: 12/03/10 12:49

Worcester, MA 01608 Project Number: 60163491 Plant No. 9 Manitowoc, Mr. Michael Bingham

Analyte	Sample Result	Data Qualifiers	Units	MRL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: WTJ0823-05 (MB-SB-M	MW-17@5-7' -	- Soil) - cont.				Sampled: 10	/18/10 15:1	5	
VOCs by SW8260B - cont.									
1,2,4-Trichlorobenzene	<25		ug/kg wet	25	1	10/25/10 16:38	ABA	10J0706	SW 8260B
1,1,1-Trichloroethane	<25		ug/kg wet	25	1	10/25/10 16:38	ABA	10J0706	SW 8260E
1,1,2-Trichloroethane	<35		ug/kg wet	35	1	10/25/10 16:38	ABA	10J0706	SW 8260E
Trichloroethene	<25		ug/kg wet	25	1	10/25/10 16:38	ABA	10J0706	SW 8260E
Trichlorofluoromethane	<25		ug/kg wet	25	1	10/25/10 16:38	ABA	10J0706	SW 8260E
1,2,3-Trichloropropane	< 50		ug/kg wet	50	1	10/25/10 16:38	ABA	10J0706	SW 8260B
1,2,4-Trimethylbenzene	<25		ug/kg wet	25	1	10/25/10 16:38	ABA	10J0706	SW 8260B
1,3,5-Trimethylbenzene	<25		ug/kg wet	25	1	10/25/10 16:38	ABA	10J0706	SW 8260B
Vinyl chloride	<35		ug/kg wet	35	1	10/25/10 16:38	ABA	10J0706	SW 8260B
Xylenes, total	<85		ug/kg wet	85	1	10/25/10 16:38	ABA	10J0706	SW 8260B
Surr: Dibromofluoromethane (80-120%)	108 %								
Surr: Toluene-d8 (80-120%)	103 %								
Surr: 4-Bromofluorobenzene (80-120%)	99 %								
Sample ID: WTJ0823-07 (MB-SB-M General Chemistry Parameters	/IW-16A@2-4	' DUP - Soil)				Sampled: 10	/19/10 09:1	0	
% Solids	80		%	NA	1	10/27/10 08:19	kjk	10J0808	SM 2540G
PNAs by SW8310									
Acenaphthene	430		ug/kg dry	300	4.8	11/02/10 21:25	CLJ	10J0940	SW 8310
Acenaphthylene	< 500		ug/kg dry	500	4.8	11/02/10 21:25	CLJ	10J0940	SW 8310
Anthracene	550		ug/kg dry	30	4.8	11/02/10 21:25	CLJ	10J0940	SW 8310
Benzo (a) anthracene	1300		ug/kg dry	30	4.8	11/02/10 21:25	CLJ	10J0940	SW 8310
Benzo (b) fluoranthene	1200		ug/kg dry	30	4.8	11/02/10 21:25	CLJ	10J0940	SW 8310
Benzo (k) fluoranthene	380		ug/kg dry	30	4.8	11/02/10 21:25	CLJ	10J0940	SW 8310
Benzo (a) pyrene	1000		ug/kg dry	30	4.8	11/02/10 21:25	CLJ	10J0940	SW 8310
Benzo (g,h,i) perylene	800		ug/kg dry	30	4.8	11/02/10 21:25	CLJ	10J0940	SW 8310
Chrysene	1500		ug/kg dry	30	4.8	11/02/10 21:25	CLJ	10J0940	SW 8310
Dibenzo (a,h) anthracene	570		ug/kg dry	45	4.8	11/02/10 21:25	CLJ	10J0940	SW 8310
Fluoranthene	3200		ug/kg dry	59	4.8	11/02/10 21:25	CLJ	10J0940	SW 8310
Fluorene	280		ug/kg dry	59	4.8	11/02/10 21:25	CLJ	10J0940	SW 8310
Indeno (1,2,3-cd) pyrene	750		ug/kg dry	30	4.8	11/02/10 21:25	CLJ	10J0940	SW 8310
1-Methylnaphthalene	360		ug/kg dry	180	4.8	11/02/10 21:25	CLJ	10J0940	SW 8310
2-Methylnaphthalene	1700		ug/kg dry	180	4.8	11/02/10 21:25	CLJ	10J0940	SW 8310
Naphthalene	830		ug/kg dry	180	4.8	11/02/10 21:25	CLJ	10J0940	SW 8310
Phenanthrene	2200		ug/kg dry	150	23.8	11/02/10 20:44	CLJ	10J0940	SW 8310
Pyrene	3200		ug/kg dry	150	23.8	11/02/10 20:44	CLJ	10J0940	SW 8310
Surr: 2-Fluorobiphenyl (61-128%)	0.00 %	<i>Z3</i>	-						





Work Order: WTJ0823

Former Mirro Plant

10/22/10 Received: Reported: 12/03/10 12:49

90 Madison Street Worcester, MA 01608 Project: Project Number: 60163491 Plant No. 9 Manitowoc,

Mr. Michael Bingham

Analyte	Sample Result	Data Qualifiers Units	MRL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
			WIKE	1 4001	7 mary 20a	7 Kilaiy St	Dutti	Method
Sample ID: WTJ0823-08 (MB-S	SB-MW-16A@6-8	' - Soil)			Sampled: 10	/19/10 09:2	0	
VOCs by SW8260B		_						
Benzene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Bromobenzene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Bromochloromethane	<35	ug/kg wet	35	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Bromodichloromethane	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Bromoform	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Bromomethane	<100	ug/kg wet	100	1	10/27/10 11:45	ABA	10J0804	SW 8260B
n-Butylbenzene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
sec-Butylbenzene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
tert-Butylbenzene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Carbon Tetrachloride	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Chlorobenzene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Chlorodibromomethane	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Chloroethane	< 50	ug/kg wet	50	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Chloroform	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Chloromethane	< 50	ug/kg wet	50	1	10/27/10 11:45	ABA	10J0804	SW 8260B
2-Chlorotoluene	< 50	ug/kg wet	50	1	10/27/10 11:45	ABA	10J0804	SW 8260B
4-Chlorotoluene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
1,2-Dibromo-3-chloropropane	<50	ug/kg wet	50	1	10/27/10 11:45	ABA	10J0804	SW 8260B
1,2-Dibromoethane (EDB)	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Dibromomethane	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
1,2-Dichlorobenzene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
1,3-Dichlorobenzene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
1,4-Dichlorobenzene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Dichlorodifluoromethane	< 50	ug/kg wet	50	1	10/27/10 11:45	ABA	10J0804	SW 8260B
1,1-Dichloroethane	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
1,2-Dichloroethane	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
1,1-Dichloroethene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
cis-1,2-Dichloroethene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
trans-1,2-Dichloroethene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
1,2-Dichloropropane	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
1,3-Dichloropropane	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
2,2-Dichloropropane	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
1,1-Dichloropropene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
cis-1,3-Dichloropropene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
trans-1,3-Dichloropropene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
2,3-Dichloropropene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Isopropyl Ether	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Ethylbenzene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Hexachlorobutadiene	<35	ug/kg wet	35	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Isopropylbenzene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
p-Isopropyltoluene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Methylene Chloride	<50	ug/kg wet	50	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Methyl tert-Butyl Ether	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Naphthalene	<50	ug/kg wet	50	1	10/27/10 11:45	ABA	10J0804	SW 8260B
n-Propylbenzene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Styrene	<50	ug/kg wet	50	1	10/27/10 11:45	ABA	10J0804	SW 8260B
1,1,1,2-Tetrachloroethane	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804 10J0804	SW 8260B
1,1,2,2-Tetrachloroethane	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804 10J0804	SW 8260B
Tetrachloroethene	<25 <25		25	1	10/27/10 11:45		10J0804 10J0804	SW 8260B SW 8260B
Toluene	<25 <25	ug/kg wet	25	1		ABA		SW 8260B SW 8260B
		ug/kg wet			10/27/10 11:45	ABA	10J0804	
1,2,3-Trichlorobenzene	<25	ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B



#### THE LEADER IN ENVIRONMENTAL TESTING

Advanced Environmental Solutions, Inc. Work Order: WTJ0823 10/22/10 Received:

90 Madison Street Project: Former Mirro Plant Reported: 12/03/10 12:49

Worcester, MA 01608 Project Number: 60163491 Plant No. 9 Manitowoc, Mr. Michael Bingham

Analyte	Sample Result	Data Qualifiers	Units	MRL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: WTJ0823-08 (MB-SB-M	MW-16A@6-8	' - Soil) - cont	•			Sampled: 10	/19/10 09:2	0	
VOCs by SW8260B - cont.						•			
1,2,4-Trichlorobenzene	<25		ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
1,1,1-Trichloroethane	<25		ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
1,1,2-Trichloroethane	<35		ug/kg wet	35	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Trichloroethene	<25		ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Trichlorofluoromethane	<25		ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
1,2,3-Trichloropropane	< 50		ug/kg wet	50	1	10/27/10 11:45	ABA	10J0804	SW 8260B
1,2,4-Trimethylbenzene	<25		ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
1,3,5-Trimethylbenzene	<25		ug/kg wet	25	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Vinyl chloride	<35		ug/kg wet	35	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Xylenes, total	<85		ug/kg wet	85	1	10/27/10 11:45	ABA	10J0804	SW 8260B
Surr: Dibromofluoromethane (80-120%)	98 %								
Surr: Toluene-d8 (80-120%)	100 %								
Surr: 4-Bromofluorobenzene (80-120%)	99 %								
Sample ID: WTJ0823-09 (MB-SB-M	MW-16A@29-	30' - Soil)				Sampled: 10	/19/10 09:3	0	
VOCs by SW8260B									
Benzene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Bromobenzene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Bromochloromethane	<35		ug/kg wet	35	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Bromodichloromethane	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Bromoform	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Bromomethane	<100		ug/kg wet	100	1	10/27/10 12:12	ABA	10J0804	SW 8260B
n-Butylbenzene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
sec-Butylbenzene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
tert-Butylbenzene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Carbon Tetrachloride	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Chlorobenzene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Chlorodibromomethane	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Chloroethane	< 50		ug/kg wet	50	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Chloroform	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Chloromethane	< 50		ug/kg wet	50	1	10/27/10 12:12	ABA	10J0804	SW 8260B
2-Chlorotoluene	< 50		ug/kg wet	50	1	10/27/10 12:12	ABA	10J0804	SW 8260B
4-Chlorotoluene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
1,2-Dibromo-3-chloropropane	< 50		ug/kg wet	50	1	10/27/10 12:12	ABA	10J0804	SW 8260B
1,2-Dibromoethane (EDB)	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Dibromomethane	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
1,2-Dichlorobenzene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
1,3-Dichlorobenzene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
1,4-Dichlorobenzene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Dichlorodifluoromethane	< 50		ug/kg wet	50	1	10/27/10 12:12	ABA	10J0804	SW 8260B
1,1-Dichloroethane	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
1,2-Dichloroethane	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
1,1-Dichloroethene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
cis-1,2-Dichloroethene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
trans-1,2-Dichloroethene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
1,2-Dichloropropane	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
1,3-Dichloropropane	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
2,2-Dichloropropane	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
1,1-Dichloropropene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
cis-1,3-Dichloropropene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
trans-1,3-Dichloropropene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B





90 Madison Street

Worcester, MA 01608 Mr. Michael Bingham Work Order: WTJ0823

Received: Reported: 10/22/10 12/03/10 12:49

Project: Former Mirro Plant Project Number:

60163491 Plant No. 9 Manitowoc,

Analyte	Sample Result	Data Qualifiers	Units	MRL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: WTJ0823-09 (MB-SB-M	/IW-16A@29-	30' - Soil) - co	ont.			Sampled: 10	/19/10 09:3	0	
VOCs by SW8260B - cont.	O	ŕ					, _ , , _ , , , , , , , , , , , , , , ,	-	
2,3-Dichloropropene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Isopropyl Ether	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Ethylbenzene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Hexachlorobutadiene	<35		ug/kg wet	35	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Isopropylbenzene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
p-Isopropyltoluene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Methylene Chloride	<50		ug/kg wet	50	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Methyl tert-Butyl Ether	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Naphthalene	< 50		ug/kg wet	50	1	10/27/10 12:12	ABA	10J0804	SW 8260B
n-Propylbenzene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Styrene	< 50		ug/kg wet	50	1	10/27/10 12:12	ABA	10J0804	SW 8260B
1,1,2-Tetrachloroethane	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
1,1,2,2-Tetrachloroethane	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Tetrachloroethene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Toluene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
1,2,3-Trichlorobenzene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
1,2,4-Trichlorobenzene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
1,1,1-Trichloroethane	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
1,1,2-Trichloroethane	<35		ug/kg wet	35	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Trichloroethene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Trichlorofluoromethane	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
1,2,3-Trichloropropane	< 50		ug/kg wet	50	1	10/27/10 12:12	ABA	10J0804	SW 8260B
1,2,4-Trimethylbenzene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
1,3,5-Trimethylbenzene	<25		ug/kg wet	25	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Vinyl chloride	<35		ug/kg wet	35	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Xylenes, total	<85		ug/kg wet	85	1	10/27/10 12:12	ABA	10J0804	SW 8260B
Surr: Dibromofluoromethane (80-120%)	98 %								
Surr: Toluene-d8 (80-120%)	99 %								
Surr: 4-Bromofluorobenzene (80-120%)	98 %								



#### THE LEADER IN ENVIRONMENTAL TESTING

602 Commerce Drive Watertown, WI 53094 \* 800-833-7036 \* Fax 920-261-8120

Advanced Environmental Solutions, Inc. Work Order: WTJ0823 Received: 10/22/10

90 Madison Street Project: Former Mirro Plant Reported: 12/03/10 12:49

Worcester, MA 01608 Project Number: 60163491 Plant No. 9 Manitowoc, Mr. Michael Bingham

#### SAMPLE EXTRACTION DATA

			Wt/Vol				Extraction
Parameter	Batch	Lab Number	Extracted	Extracted Vol	Date	Analyst	Method
BNAs by SW8270C							
n/a		WTJ0823-02					
n/a		WTJ0823-04					
n/a		WTJ0823-06					
n/a		WTJ0823-07					
PNAs by SW8310							
SW 8310	10Ј0940	WTJ0823-02	11	2	10/30/10 10:47	BKM	SW 3546
SW 8310	10Ј0940	WTJ0823-04	10	2	10/30/10 10:47	BKM	SW 3546
SW 8310	10J0940	WTJ0823-07	11	2	10/30/10 10:47	BKM	SW 3546





90 Madison Street P

Worcester, MA 01608

Mr. Michael Bingham

Work Order: WTJ0823

Project: Former Mirro Plant

Received:

10/22/10

Reported:

ed: 12/03/10 12:49

Project Number: 60163491 Plant No. 9 Manitowoc,

## LABORATORY BLANK QC DATA

		LABORAT	ORY B	LANK	QC D	ATA						
Analyte	-	rce Spike ult Level Units	MDL	MRL	Result	Dup Result	% REC	_	% REC Limits	RPD	RPD Limit	Q
VOCs by SW8260B												
Benzene	10J0706	ug/kg wet	N/A	25	<25							
Bromobenzene	10J0706	ug/kg wet	N/A	25	<25							
Bromochloromethane	10J0706	ug/kg wet	N/A	35	<35							
Bromodichloromethane	10J0706	ug/kg wet	N/A	25	<25							
Bromoform	10J0706	ug/kg wet	N/A	25	<25							
Bromomethane	10J0706	ug/kg wet	N/A	100	<100							
n-Butylbenzene	10J0706	ug/kg wet	N/A	25	<25							
sec-Butylbenzene	10J0706	ug/kg wet	N/A	25	<25							
tert-Butylbenzene	10J0706	ug/kg wet	N/A	25	<25							
Carbon Tetrachloride	10J0706	ug/kg wet	N/A	25	<25							
Chlorobenzene	10J0706	ug/kg wet	N/A	25	<25							
Chlorodibromomethane	10J0706	ug/kg wet	N/A	25	<25							
Chloroethane	10J0706	ug/kg wet	N/A	50	< 50							
Chloroform	10J0706	ug/kg wet	N/A	25	<25							
Chloromethane	10J0706	ug/kg wet	N/A	50	<50							
2-Chlorotoluene	10Ј0706	ug/kg wet	N/A	50	<50							
4-Chlorotoluene	10Ј0706	ug/kg wet	N/A	25	<25							
1,2-Dibromo-3-chloropropane	10Ј0706	ug/kg wet	N/A	50	<50							
1,2-Dibromoethane (EDB)	10Ј0706	ug/kg wet	N/A	25	<25							
Dibromomethane	10Ј0706	ug/kg wet	N/A	25	<25							
1,2-Dichlorobenzene	10Ј0706	ug/kg wet	N/A	25	<25							
1,3-Dichlorobenzene	10J0706	ug/kg wet	N/A	25	<25							
1,4-Dichlorobenzene	10J0706	ug/kg wet	N/A	25	<25							
Dichlorodifluoromethane	10J0706	ug/kg wet	N/A	50	<50							
1,1-Dichloroethane	10J0706	ug/kg wet	N/A	25	<25							
1,2-Dichloroethane	10J0706	ug/kg wet	N/A	25	<25							
1,1-Dichloroethene	10J0706	ug/kg wet	N/A	25	<25							
cis-1,2-Dichloroethene	10J0706	ug/kg wet	N/A	25	<25							
trans-1,2-Dichloroethene	10J0706	ug/kg wet	N/A	25	<25							
1,2-Dichloropropane	10J0706	ug/kg wet	N/A	25	<25							
	10J0706		N/A	25	<25							
1,3-Dichloropropane 2,2-Dichloropropane	10J0706	ug/kg wet		25	<25							
		ug/kg wet	N/A									
1,1-Dichloropropene	10J0706	ug/kg wet	N/A	25	<25							
cis-1,3-Dichloropropene	10J0706	ug/kg wet	N/A	25	<25							
trans-1,3-Dichloropropene	10J0706	ug/kg wet	N/A	25	<25							
2,3-Dichloropropene	10J0706	ug/kg wet	N/A	25	<25							
Isopropyl Ether	10J0706	ug/kg wet	N/A	25	<25							
Ethylbenzene	10J0706	ug/kg wet	N/A	25	<25							
Hexachlorobutadiene	10J0706	ug/kg wet	N/A	35	<35							
Isopropylbenzene	10J0706	ug/kg wet	N/A	25	<25							
p-Isopropyltoluene	10J0706	ug/kg wet	N/A	25	<25							
Methylene Chloride	10J0706	ug/kg wet	N/A	50	<50							
Methyl tert-Butyl Ether	10J0706	ug/kg wet	N/A	25	<25							
Naphthalene	10J0706	ug/kg wet	N/A	50	< 50							
n-Propylbenzene	10J0706	ug/kg wet	N/A	25	<25							





Work Order:

WTJ0823

Received: 10/22/10

90 Madison Street Worcester, MA 01608

Mr. Michael Bingham

Project:

Former Mirro Plant

Reported: 12/03/10 12:49

Project Number:

60163491 Plant No. 9 Manitowoc,

			LAB	ORAT	ORY B	LANK	QC D	ATA						
	Seq/	Source	Spike					Dup	%	Dup	% REC		RPD	
Analyte	Batch	Result	Level	Units	MDL	MRL	Result	Result	REC	%REC	Limits	RPD	Limit	Q
VOCs by SW8260B														
Styrene	10J0706			ug/kg wet	N/A	50	< 50							
1,1,1,2-Tetrachloroethane	10J0706			ug/kg wet	N/A	25	<25							
1,1,2,2-Tetrachloroethane	10J0706			ug/kg wet	N/A	25	<25							
Tetrachloroethene	10J0706			ug/kg wet	N/A	25	<25							
Toluene	10J0706			ug/kg wet	N/A	25	<25							
1,2,3-Trichlorobenzene	10J0706			ug/kg wet	N/A	25	<25							
1,2,4-Trichlorobenzene	10J0706			ug/kg wet	N/A	25	<25							
1,1,1-Trichloroethane	10J0706			ug/kg wet	N/A	25	<25							
1,1,2-Trichloroethane	10J0706			ug/kg wet	N/A	35	<35							
Trichloroethene	10J0706			ug/kg wet	N/A	25	<25							
Trichlorofluoromethane	10J0706			ug/kg wet	N/A	25	<25							
1,2,3-Trichloropropane	10J0706			ug/kg wet	N/A	50	< 50							
1,2,4-Trimethylbenzene	10J0706			ug/kg wet	N/A	25	<25							
1,3,5-Trimethylbenzene	10J0706			ug/kg wet	N/A	25	<25							
Vinyl chloride	10J0706			ug/kg wet	N/A	35	<35							
Xylenes, total	10J0706			ug/kg wet	N/A	85	<85							
Surrogate: Dibromofluoromethane	10J0706			ug/kg wet					105		80-120			
Surrogate: Toluene-d8	10J0706			ug/kg wet					105		80-120			
Surrogate: 4-Bromofluorobenzene	10J0706			ug/kg wet					99		80-120			
Pentafluorobenzene	10J0706		50	ug/kg wet	N/A	N/A	50.0		100		50-200			
1,4-Difluorobenzene	10J0706		50	ug/kg wet	N/A	N/A	50.0		100		50-200			
Chlorobenzene-d5	10J0706		50	ug/kg wet	N/A	N/A	50.0		100		50-200			
1,4-Dichlorobenzene-d4	10J0706		50	ug/kg wet	N/A	N/A	50.0		100		50-200			
Benzene	10J0804			ug/kg wet	N/A	25	<25							
Bromobenzene	10Ј0804			ug/kg wet	N/A	25	<25							
Bromochloromethane	10Ј0804			ug/kg wet	N/A	35	<35							
Bromodichloromethane	10J0804			ug/kg wet	N/A	25	<25							
Bromoform	10J0804			ug/kg wet	N/A	25	<25							
Bromomethane	10Ј0804			ug/kg wet	N/A	100	<100							
n-Butylbenzene	10Ј0804			ug/kg wet	N/A	25	<25							
sec-Butylbenzene	10Ј0804			ug/kg wet	N/A	25	<25							
tert-Butylbenzene	10Ј0804			ug/kg wet	N/A	25	<25							
Carbon Tetrachloride	10Ј0804			ug/kg wet	N/A	25	<25							
Chlorobenzene	10Ј0804			ug/kg wet	N/A	25	<25							
Chlorodibromomethane	10Ј0804			ug/kg wet	N/A	25	<25							
Chloroethane	10Ј0804			ug/kg wet	N/A	50	< 50							
Chloroform	10J0804			ug/kg wet	N/A	25	<25							
Chloromethane	10J0804			ug/kg wet	N/A	50	< 50							
2-Chlorotoluene	10J0804			ug/kg wet	N/A	50	< 50							
4-Chlorotoluene	10J0804			ug/kg wet	N/A	25	<25							
1,2-Dibromo-3-chloropropane	10J0804			ug/kg wet	N/A	50	< 50							
1,2-Dibromoethane (EDB)	10J0804			ug/kg wet	N/A	25	<25							
Dibromomethane	10J0804			ug/kg wet	N/A	25	<25							
1,2-Dichlorobenzene	10J0804			ug/kg wet	N/A	25	<25							
Chloroform Chloromethane 2-Chlorotoluene 4-Chlorotoluene 1,2-Dibromo-3-chloropropane 1,2-Dibromoethane (EDB) Dibromomethane	10J0804 10J0804 10J0804 10J0804 10J0804 10J0804			ug/kg wet	N/A N/A N/A N/A N/A N/A	25 50 50 25 50 25 25 25	<25 <50 <50 <25 <50 <25 <50 <25 <50 <25							





Work Order: WTJ0823

Received: 10/22/10

90 Madison Street

Project: Former Mirro Plant

Reported: 12/03/10 12:49

Worcester, MA 01608

Mr. Michael Bingham	
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			LAB	ORATO	ORY B	LANK	QC D	ATA						
	Seq/	Source	Snike					Dup	%	Dup	% REC		RPD	
Analyte	Batch	Result	-	Units	MDL	MRL	Result	Result				RPD	Limit	Q
VOCs by SW8260B	Dutti	1105411		Circs	MDL		resure	1105411	1120	701120	23111110	шь		
1,3-Dichlorobenzene	10J0804			ug/kg wet	N/A	25	<25							
1,4-Dichlorobenzene	10J0804			ug/kg wet	N/A	25	<25							
Dichlorodifluoromethane	10J0804			ug/kg wet	N/A	50	< 50							
1,1-Dichloroethane	10J0804			ug/kg wet	N/A	25	<25							
1,2-Dichloroethane	10J0804			ug/kg wet	N/A	25	<25							
1,1-Dichloroethene	10J0804			ug/kg wet	N/A	25	<25							
cis-1,2-Dichloroethene	10J0804			ug/kg wet	N/A	25	<25							
trans-1,2-Dichloroethene	10J0804			ug/kg wet	N/A	25	<25							
1,2-Dichloropropane	10J0804			ug/kg wet	N/A	25	<25							
1,3-Dichloropropane	10J0804			ug/kg wet	N/A	25	<25							
2,2-Dichloropropane	10J0804			ug/kg wet	N/A	25	<25							
1,1-Dichloropropene	10J0804			ug/kg wet	N/A	25	<25							
cis-1,3-Dichloropropene	10J0804			ug/kg wet	N/A	25	<25							
trans-1,3-Dichloropropene	10J0804			ug/kg wet	N/A	25	<25							
2,3-Dichloropropene	10J0804			ug/kg wet	N/A	25	<25							
Isopropyl Ether	10J0804			ug/kg wet	N/A	25	<25							
Ethylbenzene	10J0804			ug/kg wet	N/A	25	<25							
Hexachlorobutadiene	10J0804			ug/kg wet	N/A	35	<35							
Isopropylbenzene	10J0804			ug/kg wet	N/A	25	<25							
p-Isopropyltoluene	10J0804			ug/kg wet	N/A	25	<25							
Methylene Chloride	10J0804			ug/kg wet	N/A	50	< 50							
Methyl tert-Butyl Ether	10J0804			ug/kg wet	N/A	25	<25							
Naphthalene	10J0804			ug/kg wet	N/A	50	< 50							
n-Propylbenzene	10J0804			ug/kg wet	N/A	25	<25							
Styrene	10J0804			ug/kg wet	N/A	50	< 50							
1,1,1,2-Tetrachloroethane	10J0804			ug/kg wet	N/A	25	<25							
1,1,2,2-Tetrachloroethane	10J0804			ug/kg wet	N/A	25	<25							
Tetrachloroethene	10J0804			ug/kg wet	N/A	25	<25							
Toluene	10J0804			ug/kg wet	N/A	25	<25							
1,2,3-Trichlorobenzene	10J0804			ug/kg wet	N/A	25	<25							
1,2,4-Trichlorobenzene	10J0804			ug/kg wet	N/A	25	<25							
1,1,1-Trichloroethane	10J0804			ug/kg wet	N/A	25	<25							
1,1,2-Trichloroethane	10J0804			ug/kg wet	N/A	35	<35							
Trichloroethene	10J0804			ug/kg wet	N/A	25	<25							
Trichlorofluoromethane	10J0804			ug/kg wet	N/A	25	<25							
1,2,3-Trichloropropane	10J0804			ug/kg wet	N/A	50	< 50							
1,2,4-Trimethylbenzene	10J0804			ug/kg wet	N/A	25	<25							
1,3,5-Trimethylbenzene	10J0804			ug/kg wet	N/A	25	<25							
Vinyl chloride	10J0804			ug/kg wet	N/A	35	<35							
Xylenes, total	10J0804			ug/kg wet	N/A	85	<85							
Surrogate: Dibromofluoromethane	10J0804			ıg/kg wet					101		80-120			
Surrogate: Toluene-d8	10J0804			ıg/kg wet					99		80-120			
Surrogate: 4-Bromofluorobenzene	10J0804			ıg/kg wet					100		80-120			
Pentafluorobenzene	10J0804			ug/kg wet	N/A	N/A	50.0		100		50-200			
1,4-Difluorobenzene	10J0804		50	ug/kg wet	N/A	N/A	50.0		100		50-200			





WTJ0823 Work Order:

Received:

90 Madison Street

Project: Former Mirro Plant

10/22/10 Reported: 12/03/10 12:49

Worcester, MA 01608 Mr. Michael Bingham

LABORATORY BLANK QC DATA														
Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC	RPD	RPD Limit	Q
VOCs by SW8260B														
Chlorobenzene-d5	10J0804		50	ug/kg wet	N/A	N/A	50.0		100		50-200			
1,4-Dichlorobenzene-d4	10J0804		50	ug/kg wet	N/A	N/A	50.0		100		50-200			
PNAs by SW8310														
Acenaphthene	10J0940			ug/kg wet	N/A	50	< 50							
Acenaphthylene	10J0940			ug/kg wet	N/A	85	<85							
Anthracene	10J0940			ug/kg wet	N/A	5.0	< 5.0							
Benzo (a) anthracene	10J0940			ug/kg wet	N/A	5.0	< 5.0							
Benzo (b) fluoranthene	10J0940			ug/kg wet	N/A	5.0	< 5.0							
Benzo (k) fluoranthene	10J0940			ug/kg wet	N/A	5.0	< 5.0							
Benzo (a) pyrene	10J0940			ug/kg wet	N/A	5.0	< 5.0							
Benzo (g,h,i) perylene	10J0940			ug/kg wet	N/A	5.0	< 5.0							
Chrysene	10J0940			ug/kg wet	N/A	5.0	< 5.0							
Dibenzo (a,h) anthracene	10J0940			ug/kg wet	N/A	7.5	<7.5							
Fluoranthene	10J0940			ug/kg wet	N/A	10	<10							
Fluorene	10J0940			ug/kg wet	N/A	10	<10							
Indeno (1,2,3-cd) pyrene	10J0940			ug/kg wet	N/A	5.0	< 5.0							
1-Methylnaphthalene	10J0940			ug/kg wet	N/A	30	<30							
2-Methylnaphthalene	10J0940			ug/kg wet	N/A	30	<30							
Naphthalene	10J0940			ug/kg wet	N/A	30	<30							
Phenanthrene	10J0940			ug/kg wet	N/A	5.0	< 5.0							
Pyrene	10J0940			ug/kg wet	N/A	5.0	< 5.0							
Surrogate: 2-Fluorobiphenyl	10J0940			ug/kg wet					106		61-128			



#### THE LEADER IN ENVIRONMENTAL TESTING

602 Commerce Drive Watertown, WI 53094 \* 800-833-7036 \* Fax 920-261-8120

Advanced Environmental Solutions, Inc. Work Order: WTJ0823 Received: 10/22/10

90 Madison Street Project: Former Mirro Plant Reported: 12/03/10 12:49

Worcester, MA 01608 Project Number: 60163491 Plant No. 9 Manitowoc, Mr. Michael Bingham

	LABORATORY DUPLICATE QC DATA														
Analyte	Seq/ Batch	Source Result		Units	MDL	MRL	Result	% REC		% REC	RPD	RPD Limit	Q		
General Chemistry Parameters QC Source Sample: WTJ0661-11 % Solids	10J0808	91.0		%	N/A	N/A	91.2				0	20			





Work Order: WTJ0823

Received: 10/22/10

90 Madison Street

Project: Former Mirro Plant

Reported: 12/03/10 12:49

Worcester, MA 01608 Mr. Michael Bingham

			LCS	S/LCS I	OUPLI	CATE	QC DA	TA						
	Seq/	Source	Spike					Dup	%	Dup	% REC		RPD	
Analyte	Batch	Result	Level	Units	MDL	MRL	Result	Result	REC	%REC	Limits	RPD	Limit	Q
VOCs by SW8260B														
Benzene	10J0706		2500	ug/kg wet	N/A	N/A	2540		101		80-120		29	
Bromobenzene	10J0706		2500	ug/kg wet	N/A	N/A	2190		88		80-120		20	
Bromochloromethane	10J0706		2500	ug/kg wet	N/A	N/A	2380		95		80-120		20	
Bromodichloromethane	10J0706		2500	ug/kg wet	N/A	N/A	2400		96		80-120		20	
Bromoform	10J0706		2500	ug/kg wet	N/A	N/A	2100		84		80-120		20	
Bromomethane	10J0706		2500	ug/kg wet	N/A	N/A	2600		104		60-140		20	
n-Butylbenzene	10J0706		2500	ug/kg wet	N/A	N/A	2550		102		80-120		20	
sec-Butylbenzene	10J0706		2500	ug/kg wet	N/A	N/A	2480		99		80-120		20	
tert-Butylbenzene	10J0706		2500	ug/kg wet	N/A	N/A	2430		97		80-120		20	
Carbon Tetrachloride	10J0706		2500	ug/kg wet	N/A	N/A	2430		97		60-140		20	
Chlorobenzene	10J0706		2500	ug/kg wet	N/A	N/A	2330		93		80-120		17	
Chlorodibromomethane	10J0706		2500	ug/kg wet	N/A	N/A	2210		88		80-120		20	
Chloroethane	10J0706		2500	ug/kg wet	N/A	N/A	2610		104		60-140		20	
Chloroform	10J0706		2500	ug/kg wet	N/A	N/A	2560		102		80-120		20	
Chloromethane	10J0706		2500	ug/kg wet	N/A	N/A	2530		101		60-140		20	
2-Chlorotoluene	10J0706		2500	ug/kg wet	N/A	N/A	2310		93		80-120		20	
4-Chlorotoluene	10J0706		2500	ug/kg wet	N/A	N/A	2470		99		80-120		20	
1,2-Dibromo-3-chloropropane	10J0706		2500	ug/kg wet	N/A	N/A	2020		81		60-140		20	
1,2-Dibromoethane (EDB)	10J0706		2500	ug/kg wet	N/A	N/A	2290		91		80-120		20	
Dibromomethane	10J0706		2500	ug/kg wet	N/A	N/A	2130		85		80-120		20	
1,2-Dichlorobenzene	10J0706		2500	ug/kg wet	N/A	N/A	2250		90		80-120		20	
1,3-Dichlorobenzene	10J0706		2500	ug/kg wet	N/A	N/A	2330		93		80-120		20	
1,4-Dichlorobenzene	10J0706		2500	ug/kg wet	N/A	N/A	2300		92		80-120		20	
Dichlorodifluoromethane	10J0706		2500	ug/kg wet	N/A	N/A	2560		102		60-140		20	
1,1-Dichloroethane	10J0706		2500	ug/kg wet	N/A	N/A	2650		106		80-120		20	
1,2-Dichloroethane	10J0706			ug/kg wet	N/A	N/A	2560		103		80-120		20	
1,1-Dichloroethene	10J0706			ug/kg wet	N/A	N/A	2650		106		80-120		44	
cis-1,2-Dichloroethene	10J0706			ug/kg wet	N/A	N/A	2450		98		80-120		20	
trans-1,2-Dichloroethene	10J0706			ug/kg wet	N/A	N/A	2500		100		80-120		20	
1,2-Dichloropropane	10J0706			ug/kg wet	N/A	N/A	2530		101		80-120		20	
1,3-Dichloropropane	10J0706			ug/kg wet	N/A	N/A	2350		94		80-120		20	
2,2-Dichloropropane	10J0706			ug/kg wet	N/A	N/A	2550		102		60-140		20	
1,1-Dichloropropene	10J0706			ug/kg wet	N/A	N/A	2520		101		80-120		20	
cis-1,3-Dichloropropene	10J0706			ug/kg wet	N/A	N/A	2370		95		80-120		20	
trans-1,3-Dichloropropene	10J0706			ug/kg wet	N/A	N/A	2320		93		80-120		20	
Ethylbenzene	10J0706			ug/kg wet	N/A	N/A	2340		93		80-120		17	
Hexachlorobutadiene	10J0706			ug/kg wet	N/A	N/A	2150		86		60-140		20	
Isopropylbenzene	10J0706			ug/kg wet	N/A	N/A	2350		94		80-120		20	
p-Isopropyltoluene	10J0706			ug/kg wet	N/A	N/A	2310		92		80-120		20	
Methylene Chloride	10J0706			ug/kg wet	N/A	N/A	2490		100		80-120		20	
Methyl tert-Butyl Ether	10J0706			ug/kg wet	N/A	N/A	2450		98		80-120		36	
Naphthalene	10J0706			ug/kg wet	N/A	N/A	2300		92		60-140		20	
n-Propylbenzene	10J0706			ug/kg wet	N/A	N/A	2320		93		80-120		20	
Styrene	10J0706			ug/kg wet	N/A	N/A	2310		93		80-120		20	
1,1,1,2-Tetrachloroethane	10J0706			ug/kg wet	N/A	N/A	2320		93		80-120		20	
1,1,1,2-1 CHaCHIOTOCHIANC	1030700		2300	ug/ng WCl	11/71	1 N/ PA	2320		93		00-120		20	





Work Order:

WTJ0823

Received:

10/22/10

90 Madison Street

Project: Former Mirro Plant

Reported: 12/03/10 12:49

Worcester, MA 01608

Project Number: 60163491 Plant No. 9 Manitowoc,

Mr. Michael Bingham

			LCS	S/LCS I	OUPLI	CATE	QC DA	TA						
Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC	RPD	RPD Limit	0
VOCs by SW8260B	244411	1105411		Cints	WIDE		resure	1100411	TLEC	,,,,,,,	Ziiiii	шь		<u>_</u>
1,1,2,2-Tetrachloroethane	10J0706		2500	ug/kg wet	N/A	N/A	2250		90		80-120		20	
Tetrachloroethene	10Ј0706			ug/kg wet	N/A	N/A	2240		90		80-120		20	
Toluene	10Ј0706			ug/kg wet	N/A	N/A	2360		94		80-120		18	
1,2,3-Trichlorobenzene	10Ј0706			ug/kg wet	N/A	N/A	2260		90		80-120		20	
1.2.4-Trichlorobenzene	10J0706			ug/kg wet	N/A	N/A	2130		85		80-120		20	
1.1.1-Trichloroethane	10J0706			ug/kg wet	N/A	N/A	2510		100		80-120		20	
1,1,2-Trichloroethane	10J0706			ug/kg wet	N/A	N/A	2280		91		80-120		20	
Trichloroethene	10J0706			ug/kg wet	N/A	N/A	2290		92		80-120		20	
Trichlorofluoromethane	10J0706			ug/kg wet	N/A	N/A	2580		103		80-120		20	
	10J0706				N/A	N/A	2110		84		80-120		20	
1,2,3-Trichloropropane				ug/kg wet									20	
1,2,4-Trimethylbenzene	10J0706			ug/kg wet	N/A	N/A	2310		92		80-120			
1,3,5-Trimethylbenzene	10J0706			ug/kg wet	N/A	N/A	2320		93		80-120		19	
Vinyl chloride	10J0706			ug/kg wet	N/A	N/A	2710		108		80-120		20	
Xylenes, total	10J0706			ug/kg wet	N/A	N/A	7010		94		80-120		17	
Surrogate: Dibromofluoromethane	10J0706			ug/kg wet					105		80-120			
Surrogate: Toluene-d8	10J0706			ug/kg wet					104		80-120			
Surrogate: 4-Bromofluorobenzene	10J0706			ug/kg wet					100		80-120			
Benzene	10J0804		2500	ug/kg wet	N/A	N/A	2510		101		80-120		29	
Bromobenzene	10J0804		2500	ug/kg wet	N/A	N/A	2350		94		80-120		20	
Bromochloromethane	10J0804		2500	ug/kg wet	N/A	N/A	2440		98		80-120		20	
Bromodichloromethane	10J0804		2500	ug/kg wet	N/A	N/A	2380		95		80-120		20	
Bromoform	10J0804		2500	ug/kg wet	N/A	N/A	2200		88		80-120		20	
Bromomethane	10J0804		2500	ug/kg wet	N/A	N/A	2230		89		60-140		20	
n-Butylbenzene	10J0804		2500	ug/kg wet	N/A	N/A	2570		103		80-120		20	
sec-Butylbenzene	10J0804		2500	ug/kg wet	N/A	N/A	2530		101		80-120		20	
tert-Butylbenzene	10J0804		2500	ug/kg wet	N/A	N/A	2470		99		80-120		20	
Carbon Tetrachloride	10J0804		2500	ug/kg wet	N/A	N/A	2560		102		60-140		20	
Chlorobenzene	10J0804		2500	ug/kg wet	N/A	N/A	2470		99		80-120		17	
Chlorodibromomethane	10J0804		2500	ug/kg wet	N/A	N/A	2290		91		80-120		20	
Chloroethane	10J0804		2500	ug/kg wet	N/A	N/A	2420		97		60-140		20	
Chloroform	10J0804			ug/kg wet	N/A	N/A	2540		102		80-120		20	
Chloromethane	10J0804			ug/kg wet	N/A	N/A	2230		89		60-140		20	
2-Chlorotoluene	10J0804			ug/kg wet	N/A	N/A	2450		98		80-120		20	
4-Chlorotoluene	10J0804			ug/kg wet	N/A	N/A	2410		97		80-120		20	
1,2-Dibromo-3-chloropropane	10J0804			ug/kg wet	N/A	N/A	2060		82		60-140		20	
1,2-Dibromoethane (EDB)	10J0804			ug/kg wet	N/A	N/A	2350		94		80-120		20	
Dibromomethane	10J0804 10J0804			ug/kg wet	N/A	N/A	2370		95		80-120		20	
1,2-Dichlorobenzene	10J0804 10J0804			ug/kg wet	N/A	N/A	2350		94		80-120		20	
1,3-Dichlorobenzene	10J0804 10J0804			ug/kg wet	N/A	N/A	2420		94 97		80-120		20	
1,4-Dichlorobenzene	10J0804 10J0804								95		80-120		20	
Dichlorodifluoromethane	10J0804 10J0804			ug/kg wet	N/A	N/A	2380		93 99		60-140			
				ug/kg wet	N/A	N/A	2470						20	
1,1-Dichlare them	10J0804			ug/kg wet	N/A	N/A	2520		101		80-120		20	
1,2-Dichloroethane	10J0804			ug/kg wet	N/A	N/A	2420		97		80-120		20	
1,1-Dichloroethene	10Ј0804		2500	ug/kg wet	N/A	N/A	2490		100		80-120		44	





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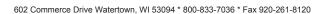
90 Madison Street

Project: Former Mirro Plant

Reported: 12/03/10 12:49

Worcester, MA 01608 Mr. Michael Bingham

			LCS	S/LCS I	OUPLI	CATE	QC DA	TA						
	Seq/	Source	Snike					Dup	%	Dup	% REC		RPD	
Analyte	Batch	Result		Units	MDL	MRL	Result				Limits	RPD	Limit	Q
VOCs by SW8260B													-	
cis-1,2-Dichloroethene	10J0804		2500	ug/kg wet	N/A	N/A	2550		102		80-120		20	
trans-1,2-Dichloroethene	10J0804		2500	ug/kg wet	N/A	N/A	2490		100		80-120		20	
1,2-Dichloropropane	10J0804		2500	ug/kg wet	N/A	N/A	2340		93		80-120		20	
1,3-Dichloropropane	10J0804		2500	ug/kg wet	N/A	N/A	2330		93		80-120		20	
2,2-Dichloropropane	10J0804		2500	ug/kg wet	N/A	N/A	2580		103		60-140		20	
1,1-Dichloropropene	10J0804		2500	ug/kg wet	N/A	N/A	2660		106		80-120		20	
cis-1,3-Dichloropropene	10J0804		2500	ug/kg wet	N/A	N/A	2360		95		80-120		20	
trans-1,3-Dichloropropene	10J0804		2500	ug/kg wet	N/A	N/A	2320		93		80-120		20	
Ethylbenzene	10J0804		2500	ug/kg wet	N/A	N/A	2520		101		80-120		17	
Hexachlorobutadiene	10Ј0804		2500	ug/kg wet	N/A	N/A	2490		99		60-140		20	
Isopropylbenzene	10J0804		2500	ug/kg wet	N/A	N/A	2530		101		80-120		20	
p-Isopropyltoluene	10J0804			ug/kg wet	N/A	N/A	2510		100		80-120		20	
Methylene Chloride	10J0804		2500	ug/kg wet	N/A	N/A	2450		98		80-120		20	
Methyl tert-Butyl Ether	10J0804		2500	ug/kg wet	N/A	N/A	2430		97		80-120		36	
Naphthalene	10J0804			ug/kg wet	N/A	N/A	2110		85		60-140		20	
n-Propylbenzene	10J0804		2500	ug/kg wet	N/A	N/A	2510		100		80-120		20	
Styrene	10J0804			ug/kg wet	N/A	N/A	2420		97		80-120		20	
1,1,1,2-Tetrachloroethane	10J0804			ug/kg wet	N/A	N/A	2350		94		80-120		20	
1,1,2,2-Tetrachloroethane	10J0804			ug/kg wet	N/A	N/A	2300		92		80-120		20	
Tetrachloroethene	10J0804			ug/kg wet	N/A	N/A	2640		106		80-120		20	
Toluene	10J0804			ug/kg wet	N/A	N/A	2490		100		80-120		18	
1,2,3-Trichlorobenzene	10J0804			ug/kg wet	N/A	N/A	2330		93		80-120		20	
1,2,4-Trichlorobenzene	10J0804			ug/kg wet	N/A	N/A	2410		96		80-120		20	
1,1,1-Trichloroethane	10J0804			ug/kg wet	N/A	N/A	2650		106		80-120		20	
1,1,2-Trichloroethane	10J0804			ug/kg wet	N/A	N/A	2380		95		80-120		20	
Trichloroethene	10J0804			ug/kg wet	N/A	N/A	2580		103		80-120		20	
Trichlorofluoromethane	10J0804			ug/kg wet	N/A	N/A	2490		100		80-120		20	
1,2,3-Trichloropropane	10J0804			ug/kg wet	N/A	N/A	2190		88		80-120		20	
1,2,4-Trimethylbenzene	10J0804			ug/kg wet	N/A	N/A	2460		98		80-120		20	
1,3,5-Trimethylbenzene	10J0804			ug/kg wet	N/A	N/A	2490		100		80-120		19	
Vinyl chloride	10J0804			ug/kg wet	N/A	N/A	2530		101		80-120		20	
Xylenes, total	10J0804			ug/kg wet	N/A	N/A	7450		99		80-120		17	
Surrogate: Dibromofluoromethane	10J0804			ug/kg wet					102		80-120			
Surrogate: Toluene-d8	10J0804			ug/kg wet					100		80-120			
Surrogate: 4-Bromofluorobenzene	10J0804			ug/kg wet					98		80-120			
PNAs by SW8310														
Acenaphthene	10J0940		1000	ug/kg wet	N/A	50	961		96		72-114			
Acenaphthylene	10J0940		2000	ug/kg wet	N/A	85	2070		104		74-117			
Anthracene	10J0940		100	ug/kg wet	N/A	5.0	97.4		97		67-124			
Benzo (a) anthracene	10J0940			ug/kg wet	N/A	5.0	101		101		76-119			
Benzo (b) fluoranthene	10J0940			ug/kg wet	N/A	5.0	211		106		87-132			
Benzo (k) fluoranthene	10J0940			ug/kg wet	N/A	5.0	104		104		86-132			
Benzo (a) pyrene	10J0940			ug/kg wet	N/A	5.0	101		101		62-125			
Benzo (g,h,i) perylene	10J0940			ug/kg wet	N/A	5.0	215		107		80-128			





Work Order:

WTJ0823

Received:

10/22/10

90 Madison Street

Project:

Former Mirro Plant

Reported: 12/03/10 12:49

Worcester, MA 01608 Mr. Michael Bingham

			LCS	S/LCS I	OUPLI	CATE	QC DA	TA						
	Seq/	Source	Spike					Dup	%	Dup	% REC		RPD	
Analyte	Batch	Result	Level	Units	MDL	MRL	Result	Result	REC	%REC	Limits	RPD	Limit	Q
PNAs by SW8310														
Chrysene	10J0940		100	ug/kg wet	N/A	5.0	118		118		80-121			
Dibenzo (a,h) anthracene	10J0940		200	ug/kg wet	N/A	7.5	213		107		87-128			
Fluoranthene	10Ј0940		200	ug/kg wet	N/A	10	225		113		78-129			
Fluorene	10J0940		200	ug/kg wet	N/A	10	231		116		64-122			
Indeno (1,2,3-cd) pyrene	10J0940		100	ug/kg wet	N/A	5.0	107		107		80-125			
1-Methylnaphthalene	10J0940		1000	ug/kg wet	N/A	30	1000		100		72-115			
2-Methylnaphthalene	10J0940		1000	ug/kg wet	N/A	30	996		100		59-114			
Naphthalene	10J0940		1000	ug/kg wet	N/A	30	946		95		72-111			
Phenanthrene	10J0940		100	ug/kg wet	N/A	5.0	95.1		95		78-132			
Pyrene	10Ј0940		100	ug/kg wet	N/A	5.0	101		101		75-122			
Surrogate: 2-Fluorobiphenyl	10J0940			ug/kg wet					107		61-128			





Work Order: WTJ0823

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90 Madison Street

Project: Former Mirro Plant

Reported: 12/03/10 12:49

Worcester, MA 01608 Mr. Michael Bingham

	1121	1 1 1 1 1 2 1	S1 11X1		XIA SI	IKE D	UPLIC	AIL	ZC DF	1 A				
	Seq/	Source	Spike					Dup	%	Dup	% REC		RPD	
Analyte	Batch	Result	Level	Units	MDL	MRL	Result	Result	REC	%REC	Limits	RPD	Limit	Q
PNAs by SW8310														
QC Source Sample: WTJ0823-04														
Acenaphthene	10Ј0940	0.00	1100	ug/kg dry	N/A	53	1020	1010	96	98	62-127	1	37	
Acenaphthylene	10J0940	0.00	2100	ug/kg dry	N/A	91	2120	2120	99	103	68-122	0	29	
Anthracene	10J0940	0.00	110	ug/kg dry	N/A	5.3	103	102	97	99	50-138	2	26	
Benzo (a) anthracene	10J0940	0.00	110	ug/kg dry	N/A	5.3	106	109	99	106	45-153	3	40	
Benzo (b) fluoranthene	10J0940	0.00	210	ug/kg dry	N/A	5.3	221	226	103	110	69-149	2	23	
Benzo (k) fluoranthene	10J0940	0.00	110	ug/kg dry	N/A	5.3	107	110	100	107	66-153	3	26	
Benzo (a) pyrene	10J0940	0.00	110	ug/kg dry	N/A	5.3	106	105	99	102	39-147	1	36	
Benzo (g,h,i) perylene	10J0940	0.00	210	ug/kg dry	N/A	5.3	221	221	103	108	63-152	0	27	
Chrysene	10Ј0940	0.00	110	ug/kg dry	N/A	5.3	128	132	120	128	53-149	3	41	
Dibenzo (a,h) anthracene	10Ј0940	0.00	210	ug/kg dry	N/A	8.0	232	231	108	112	81-134	0	20	
Fluoranthene	10Ј0940	0.00	210	ug/kg dry	N/A	11	239	241	112	117	62-143	1	21	
Fluorene	10Ј0940	0.00	210	ug/kg dry	N/A	11	249	244	116	119	51-133	2	38	
Indeno (1,2,3-cd) pyrene	10Ј0940	0.00	110	ug/kg dry	N/A	5.3	111	113	104	109	55-151	2	30	
1-Methylnaphthalene	10Ј0940	0.00	1100	ug/kg dry	N/A	32	1030	1050	97	102	64-126	1	33	
2-Methylnaphthalene	10Ј0940	0.00	1100	ug/kg dry	N/A	32	1030	1030	96	100	44-131	0	42	
Naphthalene	10Ј0940	0.00	1100	ug/kg dry	N/A	32	974	984	91	96	60-125	1	30	
Phenanthrene	10Ј0940	0.00	110	ug/kg dry	N/A	5.3	101	98.0	94	95	57-155	3	28	
Pyrene	10Ј0940	0.00	110	ug/kg dry	N/A	5.3	111	118	103	114	47-147	6	38	
Surrogate: 2-Fluorobiphenyl	10J0940			ug/kg dry					102	108	55-120			



#### THE LEADER IN ENVIRONMENTAL TESTING

602 Commerce Drive Watertown, WI 53094 \* 800-833-7036 \* Fax 920-261-8120

Advanced Environmental Solutions, Inc. WTJ0823 10/22/10 Work Order: Received: 90 Madison Street Project: Former Mirro Plant Reported: 12/03/10 12:49

Worcester, MA 01608 Project Number: 60163491 Plant No. 9 Manitowoc,

Mr. Michael Bingham

#### **CERTIFICATION SUMMARY**

#### TestAmerica Watertown

Method	Matrix	Nelac	Wisconsin	
SM 2540G	Solid/Soil	X	X	
SW 8260B	Solid/Soil	X	X	
SW 8310	Solid/Soil	X	X	



602 Commerce Drive Watertown, WI 53094 \* 800-833-7036 \* Fax 920-261-8120

Advanced Environmental Solutions, Inc.

Work Order: WTJ0823 Received: 10/22/10

90 Madison Street Project: Former Mirro Plant Reported: 12/03/10 12:49

Worcester, MA 01608 Project Number: 60163491 Plant No. 9 Manitowoc,

Mr. Michael Bingham

#### DATA QUALIFIERS AND DEFINITIONS

Z3 The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

#### ADDITIONAL COMMENTS

Results are reported on a wet weight basis unless otherwise noted.

earge) o	E A	•
OC.	tAm	Orica
102	17	erica
- 01_1_0000000	ties a general region of	compatible (Company)

04

Watertown Division 602 Commerce Drive Watertown WI 53094

Phone 920-261-1660 or 800-833-7036 Fax 920-261-8120 To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?

THE LEADER IN ENVIRONMENTAL T	ESTING	Waterto	own,	WI 50	3094												Comp	liance N	10nitorir	ng		•			
Client Name	AEC	Ma							Clie	nt #:															_
Address:	55	58 1	J	Ma	? NÍ	whi	test							1	Project	Name:	Fo	cm.	er 1	Mir	ro Pi	lant	No.9	1	
City/State/Zip Code:	Osl	nkos				***************************************							3.3	<del>-</del> .	Pro	oject#:		00/6							_
Project Manager:		new				0				6				Sit	e/Locat	tion ID:		nito				State:	: \	١١	
Telephone Number:	18	920				٥	Fa	ax:	97	0	2	35	023	.)	Rep	ort To:		dreu				•			
Sampler Name: (Print Name)	Her	thus		***	wela										Invo	ice To:	A	ECC	M				~		<
Sampler Signature:	-	cuk			Du	Č	A							-	Q	uote #:					PO#:			786.6	
E-mail address: heather. cleve	clande	aecon	n,c	100	Matrix	Pres	ervati	on &	# of C	onta	iners		***************************************			Analy	ze For:						1		_
Standard Rush (surcharges may apply)  Date Needed:  Fax Results: Y N  E-mail: Y N  SAMPLE ID  MB-5B-MW-14e6-8  MB-5B-MW-15 Q2.2-4	Date Sampled	Time Sampled	© G = Grab, C = Composite	とと Field Filtered	SL - Sludge DW - Drinking Water SU GW - Groundwater S - Soil/Solid WW - Wastewater Specify Other	3	38.	H SO	Wethanol VA (C.C.)	A Son to	D 0	/2/2 X	X										None	el 2 ch QC) el 3 el 4	
MB-5B-MW-15@5.5-6.5				N	S				2			X													_
MB-SB-MW-17025-9		1505	6	N	S			_		1			X											oneses of the second	
MB-5B- MW-1705-7	1	1515	6	N	5				2	_		X													_
	10/19/10	0910	G	N	5_		_	1.00	-	1			X									Wa	tui	~ ja	=
MB-58-MW-16AC2-4'DUP		0910	_	N	_S_					1			X											<u> </u>	_
MB-56-MW-16AP6-8'	-	0920	G	N	5_			$\perp$	2			X											122		
MB-5B-MW-16A@29-30	V	6930	6	2				+	12	-		X								14		-			_
Special Instructions:					_								<u> </u>					LARC	BATOL	ev con	<b>IMENT</b>	e.			
Relinquished B	ed	10/21 Date:	10	08 Time	15	Rece	eived	By:	M	10 <sub>a</sub>		0		18 to 12	40	Tim/e2	53	l F Custo	nit Lab Rec Lab ody Sea	Temp: Temp	(N)	() ^ ) N	/A		
Relinquished By:		Date:		Time	:	Rece	eived	Ву:	115		2			Date:		Time:		Bottle	s Supp	olled by	/ TestAi	nerica:	(Y). N	1	THE REAL PROPERTY.
Relinquished By:		Date:		Time	:	Rece	eived	Ву:						Date:		Time:		Metho	od of S	hipmen	ıt: (	Jed	X		A PROCESS



## **ATTACHMENT B GP-2**

						CT NO. 20080	)3466								
	Direct Conf	Generic RCLs act Pathway	Groundwater	NR 746 Soil Screening	GP-1 S02	GP-2 S03	GP-3 S03	GP-4 S05	GP-5 S02	GP-6 S03	GP-8 S02	GP-9 S01	GP-10 S01	GP-11 S01	GP-12 S02
Parameters  Matela (mg/l/g)	Non-Industrial	Industrial	Pathway	Levels	2/16/09	2/16/09	2/16/09	2/16/09	2/17/09	2/17/09	2/17/09	2/16/09	2/16/09	2/16/09	2/17/09
Metals (mg/kg) Aluminum					NA	NA	NA	NA	16,000	8,000	NA	NA	NA	NA	NA
Arsenic	0.039 <sup>E</sup>	1.6 <sup>E</sup>	0.58		NA	<0.27	NA	<1.4	0.40 "J"	<1.4	NA	NA	NA	NA	NA
Barium	3,130	2.4 x 10 <sup>5</sup>	3,300		NA	NA	NA	8.1	230	32	NA	NA	NA	NA	NA
Cadmium Chromium	8.0 <sup>E</sup> 16,000 <sup>E</sup>	510 <sup>E</sup> 1.53 x 10 <sup>6</sup>	1.5		NA NA	NA 6.0	NA NA	0.054 "J" 5.6	0.8 6.7	0.096 "J" 14	NA NA	NA NA	NA NA	NA NA	NA NA
Lead	50 <sup>E</sup>	500 <sup>E</sup>			NA NA	3.5	NA NA	2.1	10	4.4	NA NA	NA	NA NA	NA	NA NA
Selenium	78.2	5,110	1.0		NA	NA	NA	<b>1.2</b> °	8.4 <sup>C</sup>	0.76	NA	NA	NA	NA	NA
Silver	78.2	5,110	1.67		NA	NA	NA	<0.16	<0.16	<0.16	NA	NA	NA	NA	NA
Mercury	-		0.42		NA	NA	NA	0.011 "J"	0.015 "J"	0.028	NA	NA	NA	NA	NA
VOCs (μg/kg)	F		F			C								C	
Benzene Bromobenzene	1,100 <sup>E</sup>	52,000	5.5 <sup>E</sup>	8,500	<20 <34	<b>51 "J"</b> <sup>C</sup> <34	<20 <34	<200 <340	<20 <34	<20 <34	NA NA	<20 <34	<20 <34	<b>27.3 "J"</b> <sup>C</sup> <34	<20 <34
Bromochloromethane					NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	1,030	46,200	0.24		<16	<16	<16	<160	<16	<16	NA	<16	<16	<16	<16
Bromoform	8,090	362,000	2.0 4.0		<23	<23	<23	<230	<23	<23 NA	NA NA	<23	<23	<23	<23 NA
Bromomethane sec-Butylbenzene	21,900	1,430,000	4.0		NA <25	NA <25	NA <25	NA 410 "J"	NA <25	NA <25	NA NA	NA <25	NA <25	NA 46 "J"	<25
tert-Butylbenzene					<23	<23	<23	<230	<23	<23	NA	<23	<23	<23	<23
n-Butylbenzene					<35	<35	<35	1,910	<35	<35	NA	<35	86 "J"	264	<35
Carbon tetrachloride Chloroform	491 10,500	22,000 469,000	5.0 2.0		<21 <50	<21 <50	<21 <50	<210 <500	<21 <50	<21 <50	NA NA	<21 <50	<21 <50	<21 <50	<21 <50
Chlorobenzene	313,000	20,400,000	150		<16	<16	<16	<160	<16	<16	NA NA	<16	<16	<16	<16
Chlorodibromomethane	760	34,100	24		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane					<23	<23	<23	<230	<23	<23	NA	<23	<23	<23	<23
Chloromethane 2-Chlorotoluene	4,910 313,000	220,000 20,400,000	1.0	 	<b>43 "J"</b> <31	<43 <31	<43 <31	<b>480 "J"</b> <sup>C</sup> <310	<43 <31	<43 <31	NA NA	<b>57 "J"</b> <sup>C</sup> <31	<b>53 "J"</b> <sup>C</sup> <31	<b>72 "J"</b> <sup>C</sup> <31	<43 <31
4-Chlorotoluene					<24	<24	<24	<240	<24	<24	NA	<24	<24	<24	<24
1,2-Dibromo-3-chloropropane	46	2,040	0.1		<37	<37	<37	<370	<37	<37	NA	<37	<37	<37	<37
1,2-Dibromoethane Dibromomethane	31.9 156,000	1,430 10,200,000	0.033		<21 NA	<21 NA	<21 NA	<210 NA	<21 NA	<21 NA	NA NA	<21 NA	<21 NA	<21 NA	<21 NA
1,3-Dichlorobenzene	156,000	10,200,000			NA <41	NA <41	NA <41	NA <410	NA <41	NA <41	NA NA	NA <41	NA <41	NA <41	NA <41
1,4-Dichlorobenzene	2,660	119,000	110		<42	<42	<42	<420	<42	<42	NA	<42	<42	<42	<42
1,2-Dichloroethane	702 <sup>E</sup>	31,400	4.9 <sup>E</sup>	600	<24	<24	<24	<240	<24	<24	NA	<24	<24	<24	<24
1,2-Dichlorobenzene 1,1-Dichloroethene	1,410,000 782,000	92,000,000 51,100,000	1,800 10		<32 <27	<32 <27	<32 <27	<320 <270	<32 <27	<32 <27	NA NA	<32 <27	<32 <27	<32 <27	<32 <27
cis-1,2-Dichloroethene	156,000	10,200,000	55		<24	<24	<24	<240	<24	<24	NA	<24	<24	<24	<24
Dichlorodifluoromethane	3,130,000	204,000,000	21,918		<33	<33	<33	<330	<33	<33	NA	<33	<33	<33	<33
trans-1,2-Dichloroethene	313,000	20,400,000	98		<29	<29	<29	<290	<29	<29	NA NA	<29	<29	<29	<29
1,2-Dichloropropane 1,1-Dichloroethane	939 3,130,000	42,100 204,000,000	1.9 349		<19 <22	<19 <22	<19 <22	<190 <220	<19 <22	<19 <22	NA NA	<19 <22	<19 <22	<19 <22	<19 <22
1,3-Dichloropropane	313,000	20,400,000			<21	<21	<21	<210	<21	<21	NA	<21	<21	<21	<21
2,2-Dichloropropane					<115	<115	<115	<1,150	<115	<115	NA	<115	<115	<115	<115
1,1-Dichloropropene cis-1,3-Dichloropropene					NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
trans-1,3-Dichloropropene					NA NA	NA	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA	NA	NA NA
Diisopropyl ether	6,260,000	409,000,000			<15	<15	<15	<150	<15	<15	NA	<15	<15	<15	<15
Ethylbenzene	1,560,000	102,000,000	2,900 <sup>E</sup>	4,600	<16	37 "J"	<16	1,050	<16	<16	NA	<16	23.2 "J"	100	<16
Trichlorofluoromethane Hexachlorobutadiene	4,690,000 819	307,000,000 36,700	9,264		NA <50	NA <50	NA <50	NA <500	NA <50	NA <50	NA NA	NA <50	NA <50	NA <50	NA <50
Isopropylbenzene					<30	<30	<30	<300	<30	<30	NA	<30	<30	40 "J"	<30
p-Isopropyltoluene	-				<30	<30	<30	<300	<30	<30	NA	<30	241	41 "J"	<30
Methylene chloride Methyl-tert-butyl-ether	8,520	382,000	1.6		<44 <23	<44 <23	<44 <23	<440 <230	<44 <23	<44 <23	NA NA	<44 <23	<44 <23	<44 <23	<44 <23
Naphthalene	60,000 <sup>E</sup>	4,000,000 <sup>E</sup>	400 <sup>E</sup>	2,700	<117	<117	<117	14,200 D	<117	<117	NA NA	<117	252 "J"	640 °	<117
n-Propylbenzene	-	_			<29	<29	<29	810 "J"	<29	<29	NA	<29	39 "J"	206	<29
Styrene	3,130,000	204,000,000	370		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane 1,1,1,2-Tetrachloroethane	319 2,460	14,300 110,000	0.09 157		<25 <27	<25 <27	<25 <27	<2,500 <2,700	<25 <27	<25 <27	NA NA	<25 <27	<25 <27	<25 <27	<25 <27
Tetrachloroethene	1,230	55,000	4.1		<18	<18	<18	<180	<18	<18	NA NA	<18	27.8 "J" <sup>C</sup>	340 °	<18
Toluene	1,250,000	81,800,000	1,500 <sup>E</sup>	38,000	<23	131	<23	<230	37 "J"	<23	NA	28.8 "J"	290	152	<23
1,2,3-Trichlorobenzene					<87	<87	<87	<870	<87	<87	NA	<87	<87	<87	<87
1,2,4-Trichlorobenzene 1,1,1-Trichloroethane	156,000 3,130,000	10,200,000 204,000,000	540 280		<53 <27	<53 <27	<53 <27	<530 <270	<53 121	<53 <27	NA NA	<53 <27	<53 <27	<53 30.1 "J"	<53 <27
1,1,2-Trichloroethane	1,120	50,200	1.9		<30	<30	<30	<300	<30	<30	NA	<30	<30	<30	<30
1,2,4-Trimethylbenzene <sup>1</sup>	782,000	51,100,000	7573		<53	41 "J"	<20	6,500	22.3 "J"	<20	NA	28.8 "J"	150	740	<53
Trichloroethene 1,2,3-Trichloropropane	160 9.12	7,150 409	3.7 0.0076		<20 NA	<20 NA	<20 NA	<200 NA	<b>5,100</b> A NA	<b>40 "J"</b> C	NA NA	<20 NA	<b>20.4 "J"</b> <sup>C</sup> NA	<b>1,260</b> A NA	<20 NA
1,3,5-Trimethylbenzene <sup>1</sup>	782,000	51,100,000	3520		NA <24	NA <24	NA <24	1,810	26.8 "J"	NA <24	NA NA	NA <24	153	154	NA <24
Vinyl chloride	42.6	1,910	0.13		<17	<17	<17	<170	<17	<17	NA	<17	<17	<17	<17
Xylenes, total PAHs (μg/kg) <sup>F</sup>	3,130,000	204,000,000	4,100 <sup>E</sup>	42,000	<48	153 "J"	<48	3,490	44 "J"	<48	NA	<48	162 "J"	578	<48
Acenaphthene	900,000	60,000,000	38,000		<19	<19	<19	<19	<19	<19	NA	<19	<19	<19	<19
Acenaphthylene	18,000	360,000	700		<11	<11	<11	124	<11	26.6 "J"	NA	<11	<11	67	<11
Anthracene	5,000,000	300,000,000	3,000,000		<19	<19	<19	137	<19	21.3 "J"	NA NA	<19	39 "J"	140	<19
Benzo(a)anthracene Benzo(a)pyrene	88 8.8	3,900 390	17,000 48,000		<16 <25	<16 <25	<16 <25	46 "J" <25	19.9 "J" <25	20 "J" <25	NA NA	<16 <25	230 <sup>A</sup> 390 <sup>B</sup>	312 <sup>A</sup> 315 <sup>A</sup>	<16 <25
Benzo(b)fluoranthene	88	3,900	360,000		<18	<18	<18	95 A	34 "J"	32 "J"	NA NA	<18	650 <sup>A</sup>	320 A	<18
Benzo(ghi)perylene	1,800	39,000	6,800,000		<19	<19	<19	<19	19.6 "J"	42 "J"	NA	<19	201	51 "J"	<19
Benzo(k)fluoranthene	880	39,000	870,000 37,000		<16	<16	<16	<16	<16	<16	NA NA	<16	211	141 730	<16
Chrysene Dibenzo(a,h)anthracene	8,800 8.8	390,000 390	37,000 38,000		<18 <22	<18 <22	<18 <22	530 <22	51 "J" <22	22.4 "J" <22	NA NA	<18 <22	460 <b>68 "J"</b> A	730 77 <sup>A</sup>	<18 <22
Fluroanthene	600,000	40,000,000	500,000		16.9 "J"	16.9 "J"	21.1 "J"	460	40 "J"	45	NA NA	<13	370	297	<13
Fluorene	600,000	40,000,000	100,000		<8.3	<8.3	<8.3	155	<8.3	<8.3	NA	<8.3	14.6 "J"	<8.3	<8.3
Indeno(1,2,3-cd)pyrene 1-Methylnaphthalene	88 1,100,000	3,900 70,000,000	680,000 23,000		<12 <15	<12 <15	<12 <15	<12 121	<12 70	28.9 "J" <15	NA NA	<12 <15	<b>175</b> A 20.8 "J"	61 48 "J"	<12 <15
2-Methylnaphthalene	600,000	40,000,000	20,000		<17	<17	<17	63	70	<17	NA NA	<17	20.6 J 22.2 "J"	46 J 53 "J"	<17
Naphthalene	20,000	110,000	400		<13	<13	<13	21 "J"	54	<13	NA	<13	33 "J"	40 "J"	<13
Phenanthrene Pyrene	18,000 500,000	390,000 30,000,000	1,800 8 700 000		<14 <15	<14 <15	18.4 "J" <15	1620 113	131 38 "J"	41 "J" 38 "J"	NA NA	<14 <15	203 330	284 1,250	<14 <15
Pyrene	000,000	3U,UUU,UUU	8,700,000	<u></u>	<15	<15	<15	113	30 "J"	30 "J"	INA	<15	330	1,∠5U	<15
DCDa (maller)				EPA Regulatory											
PCBs (mg/kg) Aroclor 1016				Limit 50	NA	NA	<0.002	<0.002	NA	<0.002	<2.0	<0.002	NA	NA	NA
Aroclor 1221				50	NA NA	NA	<0.002	<0.002	NA NA	<0.002	<4.9	<0.002	NA NA	NA NA	NA NA
Aroclor 1232	1			50	NA	NA	<0.0072	<0.0072	NA	<0.0072	<7.2	<0.0072	NA	NA	NA
	-														
Aroclor 1242			-	50	NA	NA	<0.0049	<0.0049	NA	<0.0049	<4.9	<0.0049	NA	NA	NA
Aroclor 1242 Aroclor 1248		  	  	50	NA	NA	<0.0027	<0.0027	NA	<0.0027	<2.7	<0.0027	NA	NA	NA
Aroclor 1242		- - -	- - -							I .					

VOCs = Volatile Organic Compounds

- PAHs = Polynuclear Aromatic Hydrocarbons
  PCBs = PolyChlorinated Biphenyls

  Standards are for 1,2,4- and 1,3,5-Trimethylbenzene combined.
- A Parameter exceeds NR 720 Generic RCL for Non-Industrial Direct Contact.
- <sup>B</sup> Parameter exceeds NR 720 Generic RCL for Industrial Direct Contact. <sup>C</sup> Parameter exceeds NR 720 Generic RCL for Groundwater Pathway.

- Parameter exceeds NR 720 Generic RCL for Groundwater Pathway.

  D Parameter exceeds NR 746 Table 1 Soil Screening Levels

  E Generic RCL is established under NR 720 or NR 746

  F Generic RCLs provided in Soil Cleanup Levels for PAHs Interim Guidance, WDNR RR-5 1997
- -- No Generic RCL established.

Generic RCLs not included in Wisconsin Administrative Code or Guidance are calculated from the US EPA Soil Screening Level Web Page and the default values contained in Determining Residual Contaminant Levels using the EPA Soil Screening Level Web Site WDNR PUB-RR-682 on May 12, 2006 NA = Not analyzed

SOURCE: AECOM Phase II Subsurface Assessment May 2009

State of Wisconsin	
Department of Natural Resources	

#### SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

			Ro	oute To:	Watershed/W			Waste Other		ement								
								v							Pag	ze 1	of	1
	ty/Proje			NT 0	•			License/	Permit	/Monito	ring N	imber		Boring	Numb	er		
	mer N				chief (first, last) a	and Firm	·	Date Dri	Iling S	tarted		Da	te Drilli	ng Cor	npleted	GP		ing Method
On	-Site I	nviro	nmen	ital - T	ony -			8000	-						140			
AE	COM	Proje	ct No	. 1308	Well ID No.	Common	Well Name	Final Sta		/2009	ol I	Surfac	e Elevat	2/16/2	2009	IDa	ge	oprobe Diameter
WIO	mque v	CII INO	•	DINK	Well ID No.	The supposition of the suppositi	Well Name	the Landson Danish	Feet 1		<u>-</u> 1	Surrace		t MS	L	В		inches
	Grid O	rigin	(e:	stimated		ing Location	42 12	La		0	i	"	Local C	rid Lo	cation			
State	Plane	of N	TG 1	1/4 of Se	•	E S/ T 19 N	C/N	Lon		0	1	"		Foot	N □ S □		1	☐ E Feet ☐ W
Facili		OI IV	ו ט	174 01 30	County	1 19 1	, K 25 E	County Co		Civil T	own/Ci	ty/ or \	Village	reel	шэ			Teel LJ W
		,			Manitowoc			36		Mani	towoo	;	т	2011				,
Sai	nple													Soil	Prope	erties		
	t. &	nts	Geet			ock Descri							ive					
ype	th At	Ş	l m l	·		ologic Orig h Major Ui			CS	nic nic	Jam ,	ē	oress gth	ture	ъ.	city	_	/ nent
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet						US (	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1	72		E	Concr					Ē	***	3 3	<1	0 02	70				
GP	60		_ 1.5	Fill: 1	Brown fine to med	luim sand w	ith gravel		:									
			- 1.3	Fill: I	Dark brown silty f	ine sand - tr	ace gravel					<l< td=""><td></td><td></td><td></td><td></td><td></td><td></td></l<>						
			-3.0							$\bowtie$		-1			-			
			E	Fill: I	Brown fine sand (	SP) - trace s	ilt									è		
			-4.5						Fill			<1						
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This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Phase II Subsurface Assessment May 2009



## ATTACHMENT C UPDATED SIWP TABLE 1 AND FIGURE 5

### **UPDATED TABLE 1: Sampling and Analysis Plan Summary**

Former Mirro Plant No. 9 Manitowoc, WI

Sample Location	Property	Well Type	Area	Sample Media			Param						aramete		
Sample Location	Location	wen Type	Alea	Sample Media	VOCs	PCBs	PAHs	Metals	PFAS	VOCs	<b>PCBs</b>	PAHs	Metals	PFAS	Rationale/Comment
SB/PZ-200	On site	Piezometer	Southwestern Property Boundary	Soil and Groundwater	х	Х	х	Х		Х	Х	Х	Х	Х	Investigate potential impacts along property boundary in soil and groundwater.
MW-200	On site	Monitoring Well	Southwestern Property Boundary	Groundwater (Soil collected at SB/PZ- 200)						Х	х	Х	Х	х	Investigate potential impacts along property boundary in groundwater.
SB/MW-201	On site	Monitoring Well	Near Former Heat Treat Area and Southeastern Property Boundary	Soil and Groundwater	х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Investigate the Former Heat Treat Area.
SB-202	On site	Soil Boring	Near Former Heat Treat Area	Soil				Х	Х						Investigate metals near Former Heat Treat Area due to prior detections in groundwater at MW-29.
SB-203	On site	Soil Boring	Near Former Heat Treat Area	Soil				Х	Х						Investigate metals near Former Heat Treat Area due to prior detections in groundwater at MW-29.
SB/MW-204	On site	Monitoring Well	Eastern Property Boundary	Soil and Groundwater	Х	Х	Х	Х		Х	Х	Х	Х	Х	Investigate potential impacts along property boundary.
SB/MW-205	On Site	Monitoring Well	Area 8	Soil and Groundwater	Х	Х	Х	Х		Х	х	Х	Х	х	Investigate vertical and horizontal extents of impacts.
SB/PZ-206	On Site	Piezometer	Area 8	Soil and Groundwater	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Nest near existing monitoring well MW-60 to define vertical extent of impacts.
SB-207	On Site	Soil Boring	Area 8	Soil	х	Х	x	Х							Investigate vertical and horizontal extents of impacts.
SB/MW-208	On Site	Monitoring Well	Area 8 and Former Anodizing Room	Soil and Groundwater	Х	Х	х	Х	Х	Х	Х	Х	х	Х	Investigate vertical and horizontal extents of impacts.
SB/MW-209	On Site	Monitoring Well	Eastern Property Boundary	Soil and Groundwater	Х	Х	х	Х		Х	Х	Х	Х	Х	Investigate potential impacts along property boundary.
SB/MW-210	On Site	Monitoring Well	Loading Dock Area and Eastern Property Boundary	Soil and Groundwater	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Investigate extent of impacts outside Loading Dock and verify conditions near the property boundary.
SB-211	On Site	Soil Boring	Loading Dock Area	Soil	х	Х	Х	Х	Х						Investigate extent of impacts outside the Loading Dock Area.
SB-212	On Site	Soil Boring	Loading Dock Area	Soil	Х	Х	Х	Х	Х						Investigate extent of impacts west of the Loading Dock Area.
SB/MW-213	On Site	Monitoring Well	Eastern Property Boundary	Soil and Groundwater	х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Investigate potential impacts along property boundary.

### **UPDATED TABLE 1: Sampling and Analysis Plan Summary**

Former Mirro Plant No. 9 Manitowoc, WI

Sample Location	Property	Well Type	Area	Sample Media	Ĭ	Soil	Param	neters		G	round	vater P	aramete	rs	
Sample Location	Location	weii Type	Area	Sample Media	VOCs	PCBs	PAHs	Metals	PFAS	VOCs	PCBs	PAHs	Metals	PFAS	Rationale/Comment
SB/PZ-214	On Site	Piezometer	Loading Dock Area	Soil and Groundwater	Х	Х	Х	х	Х	Х	Х	Х	х	Х	Investigate vertical extent of impacts.
SB-215	On Site	Soil Boring	Loading Dock Area	Soil		Х		х	Х						Investigate extent of impacts outside Loading Dock area.
SB-216	Off Site	Soil Boring	West of Loading Dock Area/Closed Former LUST	Soil	Х	Х			Х						Investigate extent of impacts off-site/outside Loading Dock.
SB/MW-217	Off Site	Monitoring Well	Off-site/Loading Dock Area	Soil and Groundwater	х	Х				Х	Х	Х	Х	Х	Investigate extent of impacts off-site/outside Loading Dock.
SB/MW-218	Off Site	Monitoring Well	Off-site	Soil and Groundwater	х					Х	Х	Х	Х	Х	Investigate extent of impacts off-site/outside Loading Dock.
SB/MW-219	Off Site	Monitoring Well	Eastern Property Boundary Near Sherman Creek Storm Water Feature	Soil and Groundwater	Х	Х			Х	Х	Х	Х	Х	Х	Investigate extent of impacts along western property boundary.
SB/MW-220	On Site	Monitoring Well	Eastern Property Boundary Near Sherman Creek Storm Water Feature	Soil and Groundwater	х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Investigate extent of impacts along western property boundary.
SB/MW-221	On Site	Monitoring Well	North-central portion of site	Soil and Groundwater	х	Х	Х	Х	Х	Х	х	Х	Х	Х	Investigation extent of impacts downgradient of SB/MW-9.
SB-222	On Site	Soil Boring	Eastern Property Boundary	Soil	Х	Х	Х	Х							Investigate extent of impacts along property boundary.
SB/MW-223	On Site	Monitoring Well	Northern Property Boundary	Soil and Groundwater	х	Х	Х	Х		Х	Х	Х	Х	Х	Investigate extent of impacts along northern property boundary/GP-2 vicinity.
SB/PZ-224	On Site	Piezometer	Northwestern Property Boundary	Soil and Groundwater	Х	Х	Х	х		Х	Х	Х	Х	Х	Investigate extent of impacts along property boundary.
MW-224	On Site	Monitoring Well	Northwestern Property Boundary	Groundwater (Soil collected at SB/PZ- 224)						Х	Х	Х	Х	Х	Investigate extent of impacts along property boundary.
SB/MW-225	Off Site	Monitoring Well	Off-site and Down Gradient	Groundwater						Х				Х	Investigate off-site groundwater conditions.
SB/PZ-226	Off Site	Piezometer	Off-site and Down Gradient	Groundwater						Х				Х	Investigate off-site groundwater conditions.
MW-226	Off Site	Monitoring Well	Off-site and Down Gradient	Groundwater						Х				Х	Investigate off-site groundwater conditions.

### **UPDATED TABLE 1: Sampling and Analysis Plan Summary**

Former Mirro Plant No. 9 Manitowoc, WI

Commission	Property	Well Type	0.000	Carrella Martia		Soil	Param	eters		G	roundv	vater P	aramete	rs	
Sample Location	Location	weii Type	Area	Sample Media	VOCs	PCBs	PAHs	Metals	PFAS	VOCs	PCBs	PAHs	Metals	PFAS	Rationale/Comment
SB/MW-227	Off Site	Monitoring Well	Off site and Upgradient	Groundwater						X				X	Investigate potential upgradient off site impacts in groundwater.
SB/MW-228	Off Site	Monitoring Well	Off site and Upgradient	Groundwater						Х				Х	Investigate potential upgradient off site impacts in groundwater.
SB/TMP-229		Temporary Monitoring Point	Limited MW-9 LNAPL Investigation	Soil	Х			Х	Х						Delineate potential LNAPL encountered in MW-9.
SB/TMP-230	On site	Temporary Monitoring Point	Limited MW-9 LNAPL Investigation	Soil	Х			X	X						Delineate potential LNAPL encountered in MW-9.
SB/TMP-231	On site	Temporary Monitoring Point	Limited MW-9 LNAPL Investigation	Soil	Х			Х	Х						Delineate potential LNAPL encountered in MW-9.
SB/TMP-232	On site	Temporary Monitoring Point	Limited MW-9 LNAPL Investigation	Soil	х			Х	Х						Delineate potential LNAPL encountered in MW-9.

Gray shading indicates modifications to the original Site Investigation Work Plan Table 1 based on WDNR comments and LNAPL encountered at MW-9. Metals include the 8 RCRA Metals, Aluminum, Antimony, Copper, Iron, Manganese, and Thallium PFAS include the Wisconsin 36 analyte list recommended by WDNR

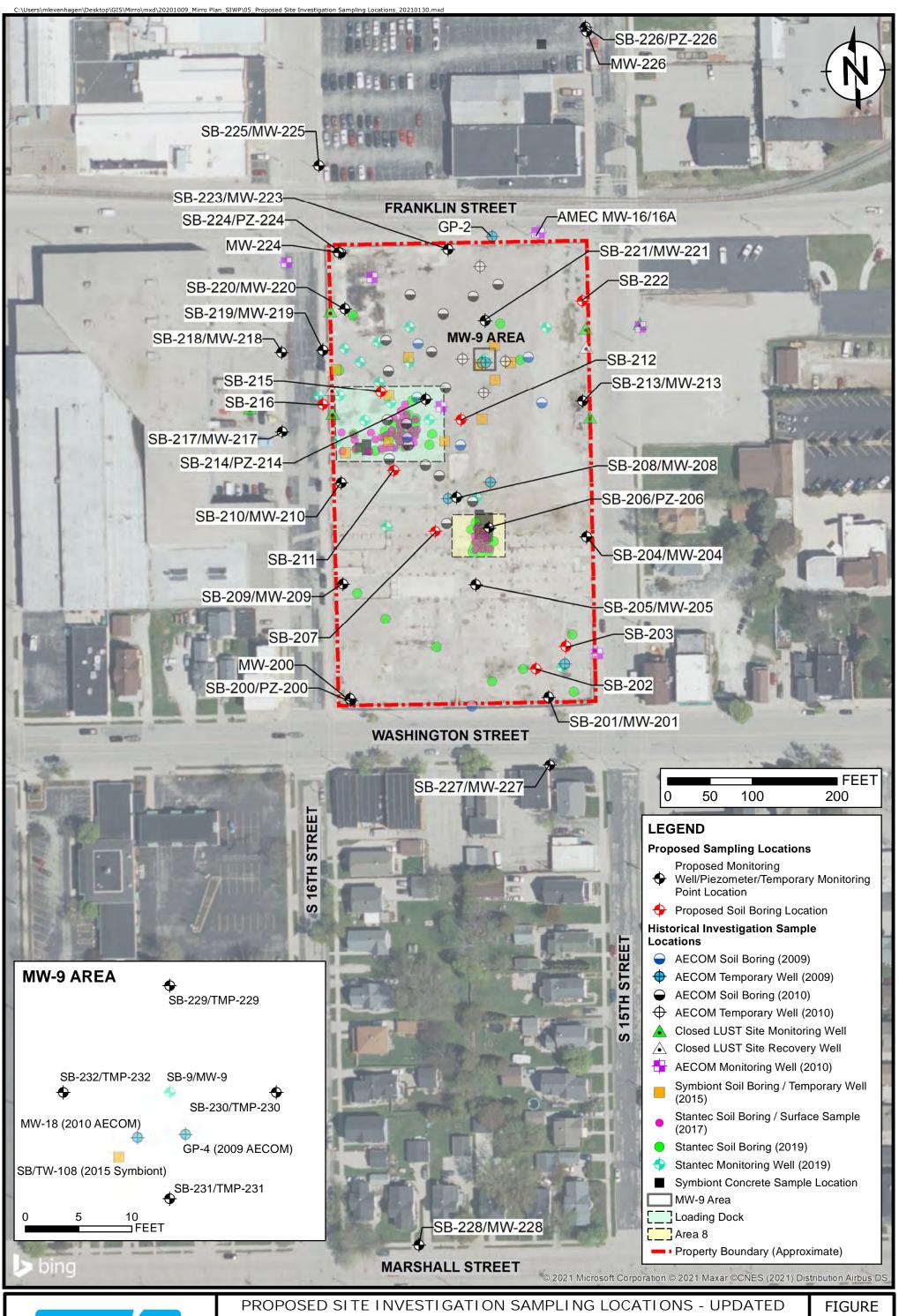
MW - monitoring well.

PZ - piezometer.

SB - soil boring.

TMW - temporary monitoring point.

LNAPL - light non-aqueous phase liquid.





DRAFTED BY: MJL

PROJECT: 1690011063