



October 26, 2011

Mr. Jason Casteel  
City of Saginaw Waste Water Treatment Division  
Environmental Compliance  
2406 Veterans Memorial Parkway  
Saginaw, Michigan  
U.S.A. 48601

Dear Mr. Casteel:

Re: Quarterly and SIU Permit Semi-Annual Monitoring at  
Outfalls CFD-01 and CFD-02 for October 2011  
GMPT Saginaw Malleable Iron (SMI), Saginaw, Michigan

Section VIII of Significant Industrial User (SIU) Discharge Permit #09-517 (Permit) requires RACER to submit quarterly reports containing applicable monitoring data.

This letter presents the quarterly/semi-annual monitoring analytical results for 24-hour time proportional composite samples collected from Outfalls CFD-01 and CFD-02 for the fourth quarter of 2011 and are representative of normal daily discharges. 24-hour time proportional composite samples were collected on the 4<sup>th</sup>, 5<sup>th</sup>, and 6<sup>th</sup> of October, 2011. Samples were analyzed in accordance with the Permit requirements including 40CFR Part 136. Sample results are presented in Attachment A. The laboratory has an active quality control and quality assurance (QC/QA) program in place to ensure reliable and accurate data.

There have been no changes in facility activity, production, or discharge practices. The facility is a closed foundry undergoing demolition. Recently, the sewers at the facility have been abandoned. Beyond that, there have been no changes not previously reported. Materials, if any, which could cause slug loading or detrimental affect on the sewer system are stored in a manner to minimize any possible discharge to the sewer system.

October 25, 2011

- 2 -

The following summarizes the PCB analytical results (analyzed in accordance with EPA Method 608):

<i>Date</i>	<i>Sample Time</i>	<i>CFD-01 (<math>\mu\text{g/L}</math>) (Sample Tag 01)</i>	<i>CFD-02 (<math>\mu\text{g/L}</math>) (Sample Tag 02)</i>	<i>Flow (gpd)</i>
September 14	11:30, 11:00	<0.1	<0.1	***
September 15	11:30, 11:00	<0.1	<0.1	***
September 16	10:30, 10:00	<0.1	<0.1	***

Note:

\*\*\* Flow at CFD-02 was too low to obtain an accurate reading, therefore, average and maximum daily flows are not available, however, the only discharge is incidental groundwater and stormwater infiltration.

All samples at CFD-02 are in compliance or deemed to be in compliance.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possibility of fine and imprisonment for knowing violations.

If you have any questions or require clarification on the above information please feel free to contact me at 313-486-2908.

Yours truly,



Grant Trigger  
RACER Trust

Encl.

cc: Jeanette Best - City of Saginaw  
Kimberly Mason - City of Saginaw  
Dave Favero - RACER  
Michael Tomka - CRA

2930 Ecorse Road • Ypsilanti, Michigan 48198 • 313.486.2908



# Analytical Laboratory Report

Report ID: S50240.01(01)  
Generated on 10/12/2011

Report to

Attention: Steve Hoevemeyer  
MLC SMI  
77 W. Center  
MC: 486-577-008  
Saginaw, Michigan 48605

Phone: 989-757-0920 FAX: 989-757-0707  
Email: shoevemeyer@croworld.com

Report produced by

Merit Laboratories  
2680 East Lansing Drive  
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S50240.01-S50240.02  
Project: 02 & 01 - Qtly & SA - 1 of 3 SSOW# 7878-002  
Collected Date: 10/04/2011  
Submitted Date/Time: 10/04/2011 15:00  
Sampled by: Terry Gooslin  
P.O. #: 4040432

Report Notes

Results relate only to items tested as received by the laboratory.  
Methods may be modified for improved performance.  
Results reported on a dry weight basis where applicable.  
"Not detected" indicates that parameter was not found at a level equal to or greater than the RL.  
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:

Michigan DNRE (#9956), Ohio EPA (#CL0002), NELAC NY (#11814), NELAC FL (#E871045), WBENC (#2005110032)  
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak  
Laboratory Director



# Analytical Laboratory Report

Sample Summary (2 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S50240.01	02	Liquid	10/04/2011 11:00
S50240.02	01	Liquid	10/04/2011 11:30



# Analytical Laboratory Report

Lab Sample ID: S50240.01  
 Sample Tag: 02  
 Collected Date/Time: 10/04/2011 11:00  
 Matrix: Liquid  
 COC Reference: 62320

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	1L Amber	None	Yes	5.1	IR
2	40ml Glass	HCL	Yes	5.1	IR
1	125ml Plastic	HNO3	Yes	5.1	IR
1	125ml Plastic	NaOH	Yes	5.1	IR
1	250ml Plastic	H2SO4	Yes	5.1	IR
1	125ml Amber	H2SO4	Yes	5.1	IR
1	1L Plastic	None	Yes	5.1	IR
1	32oz Glass	HCL	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
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### Extraction / Prep.

BNA Extraction	Completed			3510C	10/06/11 20:42	EMR		
Extraction, PCB	Completed			3510C	10/07/11 16:55	CCM		
Mercury Digestion	Completed			245.1	10/06/11 13:00	JRH		
Metal Digestion	Completed			3015A	10/05/11 01:00	SLR		

### Inorganics

Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	10/07/11 11:46	JDP	57-12-5AM	
Ammonia-N	2.7	mg/L	0.1	4500-NH3 D	10/06/11 21:02	MJC	7664-41-7	
COD	41	mg/L	5	410.4	10/04/11 18:16	MJC		
Field pH	7.57	STD Units	0.01	4500-H+ B	10/04/11 11:00	TG		
Field Temperature	64	oF	1	2550 B	10/04/11 11:00	TG		
Flow, Field	0	gpd			10/04/11 11:00	TG		
Oil & Grease	9	mg/L	1	413.1	10/06/11 15:27	DJS		
Phenols	0.065	mg/L	0.01	420.1	10/10/11 15:08	JKB		
TBOD5 - Set	Completed	mg/L		10360	10/06/11 08:30	DJS		
TBOD5	4	mg/L	1	10360	10/11/11 09:00	DJS		
Total Dissolved Solids	848	mg/L	1	2540C	10/10/11 14:00	DJS		
Total Phosphorus	0.59	mg/L	0.01	4500-PE	10/05/11 15:07	MJC	7723-14-0	
Total Suspended Solids	4	mg/L	1	2540 D	10/10/11 11:45	DJS		

### Metals

Arsenic	0.002	mg/L	0.002	200.8	10/05/11 16:37	SLS	7440-38-2	b
Cadmium	Not detected	mg/L	0.0005	200.8	10/05/11 16:37	SLS	7440-43-9	
Chromium	Not detected	mg/L	0.005	200.8	10/05/11 16:37	SLS	7440-47-3	
Copper	Not detected	mg/L	0.004	200.8	10/05/11 16:37	SLS	7440-50-8	
Lead	0.004	mg/L	0.003	200.8	10/05/11 16:37	SLS	7439-92-1	
Mercury	Not detected	mg/L	0.0002	245.1	10/06/11 15:43	JRT	7439-97-6	
Molybdenum	0.011	mg/L	0.005	200.8	10/05/11 16:37	SLS	7439-98-7	
Nickel	0.003	mg/L	0.005	200.8	10/05/11 16:37	SLS	7440-02-0	b
Selenium	Not detected	mg/L	0.005	200.8	10/05/11 16:37	SLS	7782-49-2	
Silver	Not detected	mg/L	0.0005	200.8	10/05/11 16:37	SLS	7440-22-4	
Zinc	0.013	mg/L	0.005	200.8	10/05/11 16:37	SLS	7440-66-6	

b-Value detected less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S50240.01 (continued)

Sample Tag: 02

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
<b>Organics - PCBs/Pesticides</b>								
<b>PCB</b>								
PCB-1016	Not detected	ug/L	0.1	608	10/10/11 16:43	JANB	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	608	10/10/11 16:43	JANB	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	608	10/10/11 16:43	JANB	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	608	10/10/11 16:43	JANB	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	608	10/10/11 16:43	JANB	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	608	10/10/11 16:43	JANB	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	608	10/10/11 16:43	JANB	11096-82-5	
PCB, Total	Not detected	ug/L	0.1	608	10/10/11 16:43	JANB	1336-36-3	
<b>Organics - Semi-Volatiles</b>								
<b>Semi-Volatile Organics GM-SMI 02 TTO</b>								
Acenaphthene	Not detected	ug/L	10	625	10/07/11 17:53	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	10	625	10/07/11 17:53	PL	208-96-8	
Anthracene	Not detected	ug/L	10	625	10/07/11 17:53	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	10	625	10/07/11 17:53	PL	56-55-3	
bis(2-Ethylhexyl)phthalate	Not detected	ug/L	10	625	10/07/11 17:53	PL	117-81-7	
Butyl benzyl phthalate	Not detected	ug/L	10	625	10/07/11 17:53	PL	85-68-7	
Chrysene	Not detected	ug/L	10	625	10/07/11 17:53	PL	218-01-9	
di-n-Butyl phthalate	Not detected	ug/L	10	625	10/07/11 17:53	PL	84-74-2	
2,4-Dichlorophenol	Not detected	ug/L	10	625	10/07/11 17:53	PL	120-83-2	
Diethyl phthalate	Not detected	ug/L	10	625	10/07/11 17:53	PL	84-66-2	
Dimethyl phthalate	Not detected	ug/L	10	625	10/07/11 17:53	PL	131-11-3	
2,4-Dimethylphenol	Not detected	ug/L	10	625	10/07/11 17:53	PL	105-67-9	
Fluoranthene	Not detected	ug/L	10	625	10/07/11 17:53	PL	206-44-0	
Fluorene	Not detected	ug/L	10	625	10/07/11 17:53	PL	86-73-7	
Naphthalene	Not detected	ug/L	10	625	10/07/11 17:53	PL	91-20-3	
Pentachlorophenol	Not detected	ug/L	10	625	10/07/11 17:53	PL	87-86-5	
Phenol	Not detected	ug/L	10	625	10/07/11 17:53	PL	108-95-2	
Pyrene	Not detected	ug/L	10	625	10/07/11 17:53	PL	129-00-0	
Phenanthrene	Not detected	ug/L	10	625	10/07/11 17:53	PL	85-01-8	
<b>Organics - Volatiles</b>								
Total BTEX	Not detected	ug/L	5	624	10/11/11 15:32	JGH		
<b>Volatile Organics-GM-SMI 02 VOC TTO List</b>								
Methylene chloride	Not detected	ug/L	5	624	10/11/11 15:32	JGH	75-09-2	
Chloroform	Not detected	ug/L	1	624	10/11/11 15:32	JGH	67-66-3	
Benzene	Not detected	ug/L	1	624	10/11/11 15:32	JGH	71-43-2	
Toluene	Not detected	ug/L	1	624	10/11/11 15:32	JGH	108-88-3	
Ethylbenzene	Not detected	ug/L	1	624	10/11/11 15:32	JGH	100-41-4	
o-Xylene	Not detected	ug/L	1	624	10/11/11 15:32	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	624	10/11/11 15:32	JGH		



# Analytical Laboratory Report

Lab Sample ID: S50240.02  
Sample Tag: 01  
Collected Date/Time: 10/04/2011 11:30  
Matrix: Liquid  
COC Reference: 62320

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	1L Amber	None	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
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### **Extraction / Prep.**

Extraction, PCB	Completed			3510C	10/07/11 16:55	CCM		
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### **Organics - PCBs/Pesticides**

#### **PCB**

PCB-1016	Not detected	ug/L	0.1	608	10/07/11 15:23	JANB	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	608	10/07/11 15:23	JANB	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	608	10/07/11 15:23	JANB	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	608	10/07/11 15:23	JANB	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	608	10/07/11 15:23	JANB	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	608	10/07/11 15:23	JANB	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	608	10/07/11 15:23	JANB	11096-82-5	
PCB, Total	Not detected	ug/L	0.1	608	10/07/11 15:23	JANB	1336-36-3	



2680 East Lansing Dr., East Lansing, MI 48823  
 Phone (517) 332-0167 Fax (517) 332-6333  
 www.meritlabs.com

C.O.C. PAGE # \_\_\_\_\_ OF \_\_\_\_\_

62320

**REPORT TO**

**CHAIN OF CUSTODY RECORD**

**INVOICE TO**

CONTACT NAME: Steve Hoevermayer - CRA  
 COMPANY: GM-SMI  
 ADDRESS: 77 W. Center Rd  
 CITY: Saginaw STATE: MI ZIP CODE: \_\_\_\_\_  
 PHONE NO. \_\_\_\_\_ FAX NO. \_\_\_\_\_ P.O. NO. \_\_\_\_\_  
 E-MAIL ADDRESS \_\_\_\_\_ QUOTE NO. \_\_\_\_\_

CONTACT NAME: (NAME)  
 COMPANY: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  
 CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP CODE: \_\_\_\_\_  
 PHONE NO. \_\_\_\_\_ FAX NO. \_\_\_\_\_ P.O. NO. \_\_\_\_\_

**ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)**

PROJECT NO./NAME: 02-01 - Otly + S.A - 1 of 3 CAMPUS(S) - PLEASE PRINT/SIGN NAME: 60051W, [Signature]  
 TURNAROUND TIME REQUIRED  24 HR  48 HR  72 HR  STANDARD  OTHER  
 DELIVERABLES REQUIRED  STANDARD  LEVEL II  LEVEL III  OTHER

SPECIAL INSTRUCTIONS/NOTES	
<p><u>SA 1 of 3</u></p>	

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID  
 SL=SLUDGE O=OIL A=AIR W=WASTE M=MISC

# Containers & Preservatives

MERIT LAB NO.	YEAR		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives												
	DATE	TIME				NONE	HCL	HNO3	H2SO4	NaOH	MeOH	OTHER						
<u>50240.01</u>	<u>10-4-11</u>	<u>11:00</u>	<u>02</u>	<u>L</u>	<u>11</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>.02</u>	<u>"</u>	<u>11:30</u>	<u>01</u>	<u>L</u>	<u>2</u>	<u>X</u>												

02 = Flow =  $\phi$   
PH = 7.57°  
Temp = 64°

RELINQUISHED BY: [Signature] DATE: 10/4/11 TIME: \_\_\_\_\_  
 RECEIVED BY: [Signature] DATE: 10/4/11 TIME: 1300  
 RELINQUISHED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_  
 RECEIVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

RELINQUISHED BY: [Signature] DATE: 10/4/11 TIME: 1500  
 RECEIVED BY: [Signature] DATE: 10-4-11 TIME: 1500  
 SEAL NO. \_\_\_\_\_ SEAL INTACT YES  NO  INITIALS \_\_\_\_\_ NOTES: \_\_\_\_\_ TEMP. ON ARRIVAL: 51  
 SEAL NO. \_\_\_\_\_ SEAL INTACT YES  NO  INITIALS \_\_\_\_\_



# Analytical Laboratory Report

Report ID: S50257.01(01)  
Generated on 10/14/2011

Report to

Attention: Steve Hoevemeyer  
MLC SMI  
77 W. Center  
MC: 486-577-008  
Saginaw, Michigan 48605

Phone: 989-757-0920 FAX: 989-757-0707  
Email: shoevemeyer@croworld.com

Report produced by

Merit Laboratories  
2680 East Lansing Drive  
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S50257.01-S50257.02  
Project: 02 & 01 - Qtly & SA - 2 of 3 SSOW# 7878-002  
Collected Date: 10/05/2011  
Submitted Date/Time: 10/05/2011 14:15  
Sampled by: Terry Gooslin  
P.O. #: 4040432

Report Notes

Results relate only to items tested as received by the laboratory.  
Methods may be modified for improved performance.  
Results reported on a dry weight basis where applicable.  
"Not detected" indicates that parameter was not found at a level equal to or greater than the RL.  
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:

Michigan DNRE (#9956), Ohio EPA (#CL0002), NELAC NY (#11814), NELAC FL (#E871045), WBENC (#2005110032)  
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak  
Laboratory Director



# Analytical Laboratory Report

## Sample Summary (2 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S50257.01	02	Liquid	10/05/2011 11:00
S50257.02	01	Liquid	10/05/2011 11:30



# Analytical Laboratory Report

Lab Sample ID: S50257.01  
 Sample Tag: 02  
 Collected Date/Time: 10/05/2011 11:00  
 Matrix: Liquid  
 COC Reference: 62317

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	1L Amber	None	Yes	5.2	IR
2	40ml Glass	HCL	Yes	5.2	IR
1	125ml Plastic	HNO3	Yes	5.2	IR
1	125ml Plastic	NaOH	Yes	5.2	IR
1	250ml Plastic	H2SO4	Yes	5.2	IR
1	125ml Amber	H2SO4	Yes	5.2	IR
1	1L Plastic	None	Yes	5.2	IR
1	32oz Glass	HCL	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
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### Extraction / Prep.

BNA Extraction	Completed			3510C	10/06/11 20:42	EMR		
Extraction, PCB	Completed			3510C	10/07/11 16:55	CCM		
Mercury Digestion	Completed			245.1	10/06/11 13:00	JRH		
Metal Digestion	Completed			3015A	10/13/11 01:00	SLR		

### Inorganics

Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	10/07/11 11:50	JDP	57-12-5AM	
Ammonia-N	2.9	mg/L	0.1	4500-NH3 D	10/09/11 19:51	MJC	7664-41-7	
COD	44	mg/L	5	410.4	10/12/11 15:30	MJC		
Field pH	7.32	STD Units	0.01	4500-H+ B	10/05/11 11:00	TG		
Field Temperature	65	oF	1	2550 B	10/05/11 11:00	TG		
Flow, Field	0	gpd			10/05/11 11:00	TG		
Oil & Grease	5	mg/L	1	413.1	10/06/11 15:27	DJS		
Phenols	Not detected	mg/L	0.02	420.1	10/10/11 15:14	JKB		
TBOD5 - Set	Completed	mg/L		10360	10/06/11 08:30	DJS		
TBOD5	3	mg/L	1	10360	10/11/11 09:00	DJS		
Total Dissolved Solids	1,216	mg/L	1	2540C	10/10/11 14:00	DJS		
Total Phosphorus	0.58	mg/L	0.01	4500-PE	10/05/11 20:07	MJC	7723-14-0	
Total Suspended Solids	8	mg/L	1	2540 D	10/10/11 11:45	DJS		

### Metals

Arsenic	0.002	mg/L	0.002	200.8	10/13/11 16:58	SLS	7440-38-2	b
Cadmium	Not detected	mg/L	0.0005	200.8	10/13/11 16:58	SLS	7440-43-9	
Chromium	Not detected	mg/L	0.005	200.8	10/13/11 16:58	SLS	7440-47-3	
Copper	0.001	mg/L	0.004	200.8	10/13/11 16:58	SLS	7440-50-8	b
Lead	0.001	mg/L	0.003	200.8	10/13/11 16:58	SLS	7439-92-1	b
Mercury	Not detected	mg/L	0.0002	245.1	10/06/11 15:47	JRT	7439-97-6	
Molybdenum	0.011	mg/L	0.005	200.8	10/13/11 16:58	SLS	7439-98-7	
Nickel	0.004	mg/L	0.005	200.8	10/13/11 16:58	SLS	7440-02-0	b
Selenium	Not detected	mg/L	0.005	200.8	10/13/11 16:58	SLS	7782-49-2	
Silver	Not detected	mg/L	0.0005	200.8	10/13/11 16:58	SLS	7440-22-4	
Zinc	0.020	mg/L	0.005	200.8	10/13/11 16:58	SLS	7440-66-6	

b-Value detected less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S50257.01 (continued)

Sample Tag: 02

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
<b>Organics - PCBs/Pesticides</b>								
<b>PCB</b>								
PCB-1016	Not detected	ug/L	0.1	608	10/10/11 17:04	JANB	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	608	10/10/11 17:04	JANB	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	608	10/10/11 17:04	JANB	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	608	10/10/11 17:04	JANB	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	608	10/10/11 17:04	JANB	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	608	10/10/11 17:04	JANB	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	608	10/10/11 17:04	JANB	11096-82-5	
PCB, Total	Not detected	ug/L	0.1	608	10/10/11 17:04	JANB	1336-36-3	
<b>Organics - Semi-Volatiles</b>								
<b>Semi-Volatile Organics GM-SMI 02 TTO</b>								
Acenaphthene	Not detected	ug/L	10	625	10/07/11 18:26	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	10	625	10/07/11 18:26	PL	208-96-8	
Anthracene	Not detected	ug/L	10	625	10/07/11 18:26	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	10	625	10/07/11 18:26	PL	56-55-3	
bis(2-Ethylhexyl)phthalate	Not detected	ug/L	10	625	10/07/11 18:26	PL	117-81-7	
Butyl benzyl phthalate	Not detected	ug/L	10	625	10/07/11 18:26	PL	85-68-7	
Chrysene	Not detected	ug/L	10	625	10/07/11 18:26	PL	218-01-9	
di-n-Butyl phthalate	Not detected	ug/L	10	625	10/07/11 18:26	PL	84-74-2	
2,4-Dichlorophenol	Not detected	ug/L	10	625	10/07/11 18:26	PL	120-83-2	
Diethyl phthalate	Not detected	ug/L	10	625	10/07/11 18:26	PL	84-66-2	
Dimethyl phthalate	Not detected	ug/L	10	625	10/07/11 18:26	PL	131-11-3	
2,4-Dimethylphenol	Not detected	ug/L	10	625	10/07/11 18:26	PL	105-67-9	
Fluoranthene	Not detected	ug/L	10	625	10/07/11 18:26	PL	206-44-0	
Fluorene	Not detected	ug/L	10	625	10/07/11 18:26	PL	86-73-7	
Naphthalene	Not detected	ug/L	10	625	10/07/11 18:26	PL	91-20-3	
Pentachlorophenol	Not detected	ug/L	10	625	10/07/11 18:26	PL	87-86-5	
Phenol	Not detected	ug/L	10	625	10/07/11 18:26	PL	108-95-2	
Pyrene	Not detected	ug/L	10	625	10/07/11 18:26	PL	129-00-0	
Phenanthrene	Not detected	ug/L	10	625	10/07/11 18:26	PL	85-01-8	
<b>Organics - Volatiles</b>								
Total BTEX	Not detected	ug/L	5	624	10/10/11 18:02	JGH		
<b>Volatile Organics-GM-SMI 02 VOC TTO List</b>								
Methylene chloride	Not detected	ug/L	5	624	10/10/11 18:02	JGH	75-09-2	
Chloroform	Not detected	ug/L	1	624	10/10/11 18:02	JGH	67-66-3	
Benzene	Not detected	ug/L	1	624	10/10/11 18:02	JGH	71-43-2	
Toluene	0.100	ug/L	1	624	10/10/11 18:02	JGH	108-88-3	BJ
Ethylbenzene	Not detected	ug/L	1	624	10/10/11 18:02	JGH	100-41-4	
o-Xylene	Not detected	ug/L	1	624	10/10/11 18:02	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	624	10/10/11 18:02	JGH		

B-Compound also found in associated method blank J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S50257.02  
Sample Tag: 01  
Collected Date/Time: 10/05/2011 11:30  
Matrix: Liquid  
COC Reference: 62317

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	1L Amber	None	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
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### **Extraction / Prep.**

Extraction, PCB	Completed			3510C	10/07/11 16:55	CCM		
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### **Organics - PCBs/Pesticides**

#### **PCB**

PCB-1016	Not detected	ug/L	0.1	608	10/07/11 17:17	JANB	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	608	10/07/11 17:17	JANB	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	608	10/07/11 17:17	JANB	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	608	10/07/11 17:17	JANB	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	608	10/07/11 17:17	JANB	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	608	10/07/11 17:17	JANB	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	608	10/07/11 17:17	JANB	11096-82-5	
PCB, Total	Not detected	ug/L	0.1	608	10/07/11 17:17	JANB	1336-36-3	



2680 East Lansing Dr., East Lansing, MI 48823  
 Phone (517) 332-0167 Fax (517) 332-6333  
 www.meritlabs.com

C.O.C. PAGE # \_\_\_\_\_ OF \_\_\_\_\_

62317

**REPORT TO**

**CHAIN OF CUSTODY RECORD**

**INVOICE TO**

CONTACT NAME: *Steve Hoeverman - CEA*  
 COMPANY: *GM - SMT*  
 ADDRESS: *77 W. Center Rd*  
 CITY: *Saginaw* STATE: *MI* ZIP CODE: \_\_\_\_\_  
 PHONE NO. \_\_\_\_\_ FAX NO. \_\_\_\_\_ P.O. NO. \_\_\_\_\_  
 E-MAIL ADDRESS \_\_\_\_\_ QUOTE NO. \_\_\_\_\_

CONTACT NAME:  SAME  
 COMPANY: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  
 CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP CODE: \_\_\_\_\_  
 PHONE NO. \_\_\_\_\_ FAX NO. \_\_\_\_\_ P.O. NO. \_\_\_\_\_

**ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)**

PROJECT NO./NAME: *02-01 Atty - SA 2013* SAMPLER(S) - PLEASE PRINT/SIGN NAME: *[Signature]*  
 TURNAROUND TIME REQUIRED  24 HR  48 HR  72 HR  STANDARD  OTHER  
 DELIVERABLES REQUIRED  STANDARD  LEVEL II  LEVEL III  OTHER

*SA - 2013* SPECIAL INSTRUCTIONS/NOTES

MATRIX CODE: GW=GROUNDWATER SL=SLUDGE WW=WASTEWATER O=OIL S=SOIL A=AIR L=LIQUID W=WASTE SD=SOLID M=MISC

**# Containers & Preservatives**

MERIT LAB NO.	YEAR		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCL	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	MeOH	OTHER
	DATE	TIME										
<i>50257.01</i>	<i>10-5-11</i>	<i>11:00</i>	<i>02</i>	<i>L</i>	<i>11</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>
<i>.02</i>	<i>"</i>	<i>11:30</i>	<i>01</i>	<i>L</i>	<i>2</i>	<i>X</i>						<i>0</i>

*02 Flow =  $\phi$*   
*pH = 7.32*  
*Temp = 65°*

RELINQUISHED BY: *[Signature]* DATE: *10/5/11* TIME: \_\_\_\_\_  
 RECEIVED BY: *[Signature]* DATE: *10-5-11* TIME: *1350*

RELINQUISHED BY: *[Signature]* DATE: *10/5/11* TIME: *1415*  
 RECEIVED BY: *[Signature]* DATE: *10-5-11* TIME: *1415*  
 SEAL NO. \_\_\_\_\_ SEAL INTACT YES  NO  INITIALS \_\_\_\_\_ NOTES: \_\_\_\_\_ TEMP. ON ARRIVAL: *5.2*



# Analytical Laboratory Report

Report ID: S50277.01(01)  
Generated on 10/14/2011

Report to

Attention: Steve Hoevemeyer  
MLC SMI  
77 W. Center  
MC: 486-577-008  
Saginaw, Michigan 48605

Phone: 989-757-0920 FAX: 989-757-0707  
Email: shoevemeyer@craworld.com

Report produced by

Merit Laboratories  
2680 East Lansing Drive  
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S50277.01-S50277.02  
Project: 02 & 01 - Qtly & SA - 3 of 3 SSOW# 7878-002  
Collected Date: 10/06/2011  
Submitted Date/Time: 10/06/2011 13:45  
Sampled by: Terry Gooslin  
P.O. #: 4040432

Report Notes

Results relate only to items tested as received by the laboratory.  
Methods may be modified for improved performance.  
Results reported on a dry weight basis where applicable.  
"Not detected" indicates that parameter was not found at a level equal to or greater than the RL.  
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:

Michigan DNRE (#9956), Ohio EPA (#CL0002), NELAC NY (#11814), NELAC FL (#E871045), WBENC (#2005110032)  
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak  
Laboratory Director



# Analytical Laboratory Report

## Sample Summary (2 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S50277.01	02	Liquid	10/06/2011 11:00
S50277.02	01	Liquid	10/06/2011 11:30



# Analytical Laboratory Report

Lab Sample ID: S50277.01  
 Sample Tag: 02  
 Collected Date/Time: 10/06/2011 11:00  
 Matrix: Liquid  
 COC Reference: 62313

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	1L Amber	None	Yes	5.0	IR
2	40ml Glass	HCL	Yes	5.0	IR
1	125ml Plastic	HNO3	Yes	5.0	IR
1	125ml Plastic	NaOH	Yes	5.0	IR
1	250ml Plastic	H2SO4	Yes	5.0	IR
1	125ml Amber	H2SO4	Yes	5.0	IR
1	1L Plastic	None	Yes	5.0	IR
1	32oz Glass	HCL	Yes	5.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
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### Extraction / Prep.

BNA Extraction	Completed			3510C	10/06/11 20:42	EMR		
Extraction, PCB	Completed			3510C	10/07/11 16:55	CCM		
Mercury Digestion	Completed			245.1	10/11/11 10:30	JRH		
Metal Digestion	Completed			3015A	10/13/11 01:00	SLR		

### Inorganics

Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-G	10/07/11 11:52	JDP	57-12-5AM	
Ammonia-N	2.99	mg/L	0.04	4500-NH3 D	10/09/11 21:47	MJC	7664-41-7	
COD	43	mg/L	5	410.4	10/12/11 15:32	MJC		
Field pH	7.82	STD Units	0.01	4500-H+ B	10/06/11 11:00	TG		
Field Temperature	66	oF	1	2550 B	10/06/11 11:00	TG		
Flow, Field	0	gpd			10/06/11 11:00	TG		
Oil & Grease	2	mg/L	1	413.1	10/06/11 15:27	DJS		
Phenols	Not detected	mg/L	0.02	420.1	10/10/11 15:22	JKB		
TBOD5 - Set	Completed	mg/L		10360	10/06/11 15:15	DJS		
TBOD5	4	mg/L	1	10360	10/11/11 15:30	DJS		
Total Dissolved Solids	876	mg/L	1	2540C	10/10/11 14:00	DJS		
Total Phosphorus	0.56	mg/L	0.01	4500-PE	10/12/11 16:11	MJC	7723-14-0	
Total Suspended Solids	5	mg/L	1	2540 D	10/10/11 11:45	DJS		

### Metals

Arsenic	0.001	mg/L	0.002	200.8	10/13/11 17:06	SLS	7440-38-2	b
Cadmium	Not detected	mg/L	0.0005	200.8	10/13/11 17:06	SLS	7440-43-9	
Chromium	Not detected	mg/L	0.005	200.8	10/13/11 17:06	SLS	7440-47-3	
Copper	0.001	mg/L	0.004	200.8	10/13/11 17:06	SLS	7440-50-8	b
Lead	Not detected	mg/L	0.003	200.8	10/13/11 17:06	SLS	7439-92-1	
Mercury	Not detected	mg/L	0.0002	245.1	10/11/11 15:11	JRT	7439-97-6	
Molybdenum	0.013	mg/L	0.005	200.8	10/13/11 17:06	SLS	7439-98-7	
Nickel	0.004	mg/L	0.005	200.8	10/13/11 17:06	SLS	7440-02-0	b
Selenium	Not detected	mg/L	0.005	200.8	10/13/11 17:06	SLS	7782-49-2	
Silver	Not detected	mg/L	0.0005	200.8	10/13/11 17:06	SLS	7440-22-4	
Zinc	0.029	mg/L	0.005	200.8	10/13/11 17:06	SLS	7440-66-6	

b-Value detected less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S50277.01 (continued)

Sample Tag: 02

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
<b>Organics - PCBs/Pesticides</b>								
<b>PCB</b>								
PCB-1016	Not detected	ug/L	0.1	608	10/11/11 16:27	JANB	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	608	10/11/11 16:27	JANB	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	608	10/11/11 16:27	JANB	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	608	10/11/11 16:27	JANB	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	608	10/11/11 16:27	JANB	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	608	10/11/11 16:27	JANB	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	608	10/11/11 16:27	JANB	11096-82-5	
PCB, Total	Not detected	ug/L	0.1	608	10/11/11 16:27	JANB	1336-36-3	
<b>Organics - Semi-Volatiles</b>								
<b>Semi-Volatile Organics GM-SMI 02 TTO</b>								
Acenaphthene	Not detected	ug/L	10	625	10/07/11 20:37	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	10	625	10/07/11 20:37	PL	208-96-8	
Anthracene	Not detected	ug/L	10	625	10/07/11 20:37	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	10	625	10/07/11 20:37	PL	56-55-3	
bis(2-Ethylhexyl)phthalate	Not detected	ug/L	10	625	10/07/11 20:37	PL	117-81-7	
Butyl benzyl phthalate	Not detected	ug/L	10	625	10/07/11 20:37	PL	85-68-7	
Chrysene	Not detected	ug/L	10	625	10/07/11 20:37	PL	218-01-9	
di-n-Butyl phthalate	Not detected	ug/L	10	625	10/07/11 20:37	PL	84-74-2	
2,4-Dichlorophenol	Not detected	ug/L	10	625	10/07/11 20:37	PL	120-83-2	
Diethyl phthalate	Not detected	ug/L	10	625	10/07/11 20:37	PL	84-66-2	
Dimethyl phthalate	Not detected	ug/L	10	625	10/07/11 20:37	PL	131-11-3	
2,4-Dimethylphenol	Not detected	ug/L	10	625	10/07/11 20:37	PL	105-67-9	
Fluoranthene	Not detected	ug/L	10	625	10/07/11 20:37	PL	206-44-0	
Fluorene	Not detected	ug/L	10	625	10/07/11 20:37	PL	86-73-7	
Naphthalene	Not detected	ug/L	10	625	10/07/11 20:37	PL	91-20-3	
Pentachlorophenol	Not detected	ug/L	10	625	10/07/11 20:37	PL	87-86-5	
Phenol	Not detected	ug/L	10	625	10/07/11 20:37	PL	108-95-2	
Pyrene	Not detected	ug/L	10	625	10/07/11 20:37	PL	129-00-0	
Phenanthrene	Not detected	ug/L	10	625	10/07/11 20:37	PL	85-01-8	
<b>Organics - Volatiles</b>								
Total BTEX	Not detected	ug/L	5	624	10/11/11 16:09	JGH		
<b>Volatile Organics-GM-SMI 02 VOC TTO List</b>								
Methylene chloride	Not detected	ug/L	5	624	10/11/11 16:09	JGH	75-09-2	
Chloroform	Not detected	ug/L	1	624	10/11/11 16:09	JGH	67-66-3	
Benzene	Not detected	ug/L	1	624	10/11/11 16:09	JGH	71-43-2	
Toluene	Not detected	ug/L	1	624	10/11/11 16:09	JGH	108-88-3	
Ethylbenzene	Not detected	ug/L	1	624	10/11/11 16:09	JGH	100-41-4	
o-Xylene	Not detected	ug/L	1	624	10/11/11 16:09	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	624	10/11/11 16:09	JGH		



# Analytical Laboratory Report

Lab Sample ID: S50277.02  
Sample Tag: 01  
Collected Date/Time: 10/06/2011 11:30  
Matrix: Liquid  
COC Reference: 62313

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	1L Amber	None	Yes	5.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
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### **Extraction / Prep.**

Extraction, PCB	Completed			3510C	10/07/11 16:55	CCM		
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### **Organics - PCBs/Pesticides**

#### **PCB**

PCB-1016	Not detected	ug/L	0.1	608	10/10/11 15:10	JANB	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	608	10/10/11 15:10	JANB	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	608	10/10/11 15:10	JANB	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	608	10/10/11 15:10	JANB	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	608	10/10/11 15:10	JANB	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	608	10/10/11 15:10	JANB	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	608	10/10/11 15:10	JANB	11096-82-5	
PCB, Total	Not detected	ug/L	0.1	608	10/10/11 15:10	JANB	1336-36-3	

