



**CBS Corporation**

Environmental Remediation  
PNC Center  
20 Stanwix Street, 10<sup>th</sup> Floor  
Pittsburgh, PA 15222

February 5, 2011

William P. Murray, P.E.  
Environmental Engineer I  
New York State Department of Environmental Conservation  
Division of Hazardous Waste Remediation  
Region 9  
270 Michigan Avenue  
Buffalo, NY 14203-2999

**Re: Monthly Operation and Maintenance Report  
NYSDEC Site 9-15-066, Cheektowaga, New York**

Dear Mr. Murray:

On behalf of the Respondents to the Order on Consent and Settlement Agreement, Index No. B9-0381-91-8 (the "Order"), CBS Corporation (CBS) submits this monthly status report for operation and maintenance (O&M) activities at New York State Department of Environmental Conservation (NYSDEC) Site No. 9-15-066 in Cheektowaga, New York (the "Site"). Under an Agreement among the Respondents, CBS is managing the Remedial Program pursuant to the Order. This report covers activities during January 2011 and transmits the discharge monitoring report for this period.

**1. Site Activities and Status**

- A. On January 9, 2011, CBS submitted to NYSDEC a monthly report on the status of O&M activities at the Site for December 2010. That status report also transmitted the discharge monitoring data for December 2010.
- B. The recovery and treatment system operated throughout January 2011.
- C. Conestoga-Rovers & Associates (CRA) conducted routine and non-routine O&M, and TestAmerica Laboratories, Inc. provided analytical laboratory services, as required.

## **2. Sampling Results and Other Site Data**

- A. In January 2011, the groundwater system recovered and treated an estimated 332,000 gallons.<sup>1</sup> As compared to monthly flows earlier in 201, the increased flow rate observed in December 2010, which primarily resulted from cleaning and repair of Sumps 002 and 003, continued in January 2011.
- B. Attachment A provides the discharge monitoring report for January 2011 based on the effluent sample collected on January 19, 2011. Attachment B provides the analytical laboratory report for this effluent sample.
- C. In reviewing the treatment system effluent monitoring information, please note the following:
- Flow data are provided via periodic on-site readings. The maximum daily flow was calculated from these data.
  - The pH data are provided via periodic on-site readings and laboratory analysis of the monthly effluent sample. Effluent pH data are reported only for measurements taken while the treatment pump is operating and the system is actively discharging.
  - The reported daily maximum values (pounds per day) are calculated using the maximum observed daily flow and the results of the monthly effluent monitoring, irrespective of whether the actual maximum daily flow occurred on the day of sampling.
- D. For the January 2011 reporting period, the effluent complied with all discharge limitations.
- E. Table 1 presents the results of influent sampling and includes the data from the most recent influent sample collected on January 19, 2010. No flow was observed from Sump 001 at the time of sampling. Accordingly, this latest influent sample is a composite of the influent from the 002 and 003 portions of the system only. Attachment B includes the analytical laboratory report for this influent sample.

## **3. Upcoming Activities**

- A. CBS will continue required O&M activities.

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<sup>1</sup> Based on additional information and recalculation, the estimated total discharge for December 2010 has been revised to 399,000 gallons from the 397,000 gallons as indicated in the December 2010 monthly status report.

- B. With NYSDEC approval, CBS will complete the Phase 1 closure of the 002 system by filling and sealing manholes MH-002-09 and MH-002-10.
- C. After closing MH-002-09, and MH-002-10, CRA will conduct additional water level measurements, surface water monitoring, and groundwater monitoring per the *Revised Work Plan* (Rev. 1, January 7, 2008).

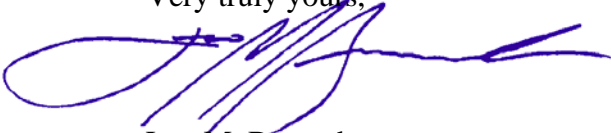
#### 4. Operational Problems

- A. Previously reported operational problems associated with elevated pH, pH control, and hardness continue. These operational problems are expected to be largely resolved with the phased shutdown of the collection system and limitation of inflows to those associated with Sump 003.
- B. The post-closure monitoring data indicate that the Phase 1 closure of the 001 groundwater collection system has addressed the previously observed high water levels at Sump 001, which had led to periodic overtopping of that manhole. The ongoing periodic overtopping at Sump 002 will be addressed through the partial closure of that portion of the groundwater collection system.
- C. The Phase 1 closure of the 002 system is also expected to reduce the conveyance of groundwater containing VOCs via storm sewers installed by the Niagara Frontier Transportation Authority as part of airport development.
- D. Other operational issues are being addressed in the course of O&M activities.

\* \* \* \*

Please contact me if you have questions regarding this status report.

Very truly yours,



Leo M. Brausch  
Consultant/Project Engineer

LMB:  
Attachments

cc: K. P. Lynch, CRA  
K. Minkel, NFTA

## **TABLE**

**Table 1**  
**Summary of Treatment System Influent Monitoring Data**  
**NYSDEC Site No. 9-15-066, Cheektowaga, New York**

Date of Sampling	Outfall	Constituent Concentration (ug/L)						
		cis-1,2-dichloroethylene	Toluene	1,1,1-trichloroethane	Trichloroethylene	Vinyl Chloride	Cadmium	Lead
08/21/00	Composite	200 U	200 U	200 U	<b>3,100</b>	200 U	<b>1.5</b>	NA
08/29/00	Composite	200 U	200 U	200 U	<b>8,500</b>	200 U	<b>0.7</b>	NA
09/06/00	Composite	200 U	200 U	200 U	<b>4,100</b>	200 U	0.7 U	NA
09/13/00	Composite	400 U	400 U	400 U	<b>9,600</b>	400 U	<b>1.6</b>	NA
09/20/00	Composite	<b>54 J</b>	100 U	100 U	<b>2,500</b>	100 U	0.6 U	NA
09/27/00	Composite	100 U	100 U	100 U	<b>2,200</b>	100 U	<b>0.68 B</b>	NA
10/04/00	Composite	<b>60 J</b>	100 U	100 U	<b>2,500</b>	100 U	<b>0.69 B</b>	NA
10/10/00	Composite	<b>23 J</b>	25 U	25 U	<b>430</b>	25 U	0.5 U	NA
03/29/01	Composite	<b>9.1 J</b>	10 U	<b>1.4 J</b>	<b>16</b>	10 U	<b>1.5</b>	2.5 U
06/26/01	001	<b>25</b>	4.5 U	<b>0.9 J</b>	<b>37</b>	4.5 U	<b>448</b>	NA
06/26/01	002	<b>16</b>	4.5 U	<b>2.3 J</b>	<b>280</b>	4.5 U	3.0 U	NA
06/26/01	003	<b>510</b>	4.5 U	<b>4.5 J</b>	<b>1,700</b>	4.5 U	3.0 U	NA
09/29/01	Comp - Perm	<b>18</b>	25 U	<b>4 J</b>	<b>8.3 J</b>	10 U	0.25 U	<b>7.4</b>
09/29/01	Comp - Temp	<b>14 J</b>	25 U	25 U	<b>350</b>	25 U	0.25 U	<b>8.7</b>
12/21/01	Composite	<b>14</b>	10 U	10 U	<b>130</b>	10 U	<b>1.7</b>	4.1 U
03/14/02	Composite	<b>18</b>	10 U	10 U	<b>130</b>	10 U	<b>0.29</b>	<b>4.5</b>
10/15/02	Composite	<b>11.3</b>	<b>530</b>	<b>9.0</b>	<b>990</b>	<b>16</b>	5 U	NA
12/15/02	Composite	<b>7.3</b>	<b>19</b>	<b>0.16</b>	<b>46</b>	<b>1.3</b>	<b>8.4</b>	50 U
03/15/03	Composite	<b>7.8</b>	<b>14</b>	<b>1.0</b>	<b>29</b>	NA	<b>21</b>	3 U
06/11/03	Composite	<b>11.0</b>	<b>130</b>	<b>64</b>	<b>570</b>	25 U	<b>4.2</b>	<b>5.5</b>
09/09/03	Composite	<b>8.6</b>	<b>290</b>	25 U	<b>620</b>	<b>15</b>	<b>3.0</b>	<b>3.5</b>
12/10/03	Composite	<b>8.6</b>	<b>54</b>	25 U	<b>430</b>	25 U	<b>2.5</b>	<b>3.0</b>
03/12/04	Composite	<b>7.7</b>	<b>51</b>	2.0 U	<b>3.9</b>	2.0 U	<b>1.4</b>	<b>1.6</b>
06/09/04	Composite	<b>8.3</b>	<b>54</b>	40 U	<b>650</b>	40 U	<b>1.8</b>	<b>6.8</b>
09/13/04	Composite	<b>10.3</b>	<b>98</b>	10 U	<b>250</b>	10 U	<b>1.8</b>	<b>2.2</b>
12/13/04	Composite	<b>140</b>	<b>4.4 J</b>	20 U	<b>470</b>	20 U	<b>0.81 B</b>	<b>1.6 B</b>

**Table 1**  
**Summary of Treatment System Influent Monitoring Data**  
**NYSDEC Site No. 9-15-066, Cheektowaga, New York**

Date of Sampling	Outfall	Constituent Concentration (ug/L)						
		cis-1,2-dichloroethylene	Toluene	1,1,1-trichloroethane	Trichloroethylene	Vinyl Chloride	Cadmium	Lead
03/23/05	Composite	<b>46</b>	15 U	15 U	<b>250</b>	15 U	<b>2.1 B</b>	1.5 U
06/09/05	Composite	<b>100</b>	15 U	15 U	<b>1,200</b>	<b>5.4 J</b>	<b>1.2 B</b>	3.0 U
10/03/05	Composite	<b>26</b>	1.0 U	<b>2.0</b>	<b>8.6</b>	11	5.0 U	3.0 U
12/16/05	Composite	<b>34</b>	5.0 U	5.0 U	<b>140</b>	<b>3.5 J</b>	<b>0.68 B</b>	3.0 U
03/13/06	Composite	<b>36</b>	10 U	10 U	<b>190</b>	<b>2.6 J</b>	<b>0.95 B</b>	<b>2.0 B</b>
05/09/06	Composite	<b>87</b>	10 U	10 U	<b>710</b>	<b>5.6 J</b>	<b>1.0 B</b>	3.0 U
06/12/06	Composite	<b>72</b>	3.3 U	3.3 U	<b>190</b>	<b>4.0 J</b>	<b>0.72 B</b>	3.0 U
09/11/06	Composite	<b>16</b>	5.0 U	5.0 U	<b>85</b>	5 U	<b>0.47 B</b>	<b>2.0 B</b>
12/11/06	Composite	<b>14</b>	5.0 U	5.0 U	<b>71</b>	<b>1.8 J</b>	5.0 U	3.0 U
03/22/07	Composite	<b>32</b>	5.0 U	<b>2.7 J</b>	<b>130</b>	<b>4.6 J</b>	<b>1.2 B</b>	3.0 U
06/20/07	Composite	<b>31</b>	<b>0.45 J</b>	<b>0.76 J</b>	<b>210</b>	<b>1.7 J</b>	<b>0.44 B</b>	3.0 U
09/17/07	Composite	<b>89</b>	20 U	20 U	<b>730</b>	<b>7.0 J</b>	5.0 U	3.0 U
12/18/07	Composite	<b>18</b>	2.0 U	2.0 U	<b>90</b>	<b>1.5 J</b>	5.0 U	3.0 U
03/19/08	Composite	<b>12</b>	<b>0.38 J</b>	<b>1.0 J</b>	<b>120</b>	<b>1.2 J</b>	5.0 U	3.0 U
06/17/08	Composite	<b>20</b>	4.0 U	4.0 U	<b>190</b>	<b>2.3 J</b>	5.0 U	3.0 U
09/18/08	Composite	<b>20</b>	2.0 U	2.0 U	<b>180</b>	<b>4.4</b>	5.0 U	3.0 U
12/18/08	Composite	<b>19</b>	<b>0.17 J</b>	2.0 U	<b>98</b>	<b>2.8</b>	5.0 U	3.0 U
03/30/09	Composite	<b>5.2</b>	1.0 U	1.0 U	<b>73</b>	<b>1.6</b>	5.0 U	3.0 U
06/12/09	Composite	<b>18</b>	5.0 U	<b>1.1 J</b>	<b>180</b>	<b>2.5 J</b>	5.0 U	3.0 U
09/30/09	Composite (002 & 003)	<b>43</b>	10 U	10 U	<b>310</b>	<b>4.4 J</b>	<b>0.85 B</b>	3.0 U
12/29/09	Composite (002 & 003)	<b>19</b>	2.0 U	<b>0.51 J</b>	<b>120</b>	<b>1.1 J</b>	<b>0.56 B</b>	<b>1.9 B</b>
03/17/10	Composite (002 & 003)	<b>13</b>	<b>0.29 J</b>	<b>0.56 J</b>	<b>93</b>	<b>2.2</b>	5.0 U	<b>1.8 B</b>
06/30/10	Composite (002 & 003)	<b>24</b>	3.3 U	3.3 U	<b>310</b>	<b>1.2 J</b>	5.0 U	5.0 U

**Table 1**  
**Summary of Treatment System Influent Monitoring Data**  
**NYSDEC Site No. 9-15-066, Cheektowaga, New York**

Date of Sampling	Outfall	Constituent Concentration (ug/L)						
		cis-1,2-dichloroethylene	Toluene	1,1,1-trichloroethane	Trichloroethylene	Vinyl Chloride	Cadmium	Lead
09/28/10	Composite (002 & 003)	<b>18</b>	2.0 U	2.0 U	<b>140</b>	<b>0.77 J</b>	5.0 U	5.0 U
01/19/11	Composite (002 & 003)	<b>79</b>	5.0 U	5.0 U	<b>340</b>	<b>6.3</b>	5.0 U	3.0 U

Data Legend:

"NA" - indicates not analyzed

Detections and estimated values are in **bold-face** type.

Organic data qualifiers:

U - not detected at indicated detection limit

J - estimated concentration below reporting limit but above minimum detection limit.

Inorganic data qualifiers:

U - not detected at indicated detection limit

B - detected concentration below contract required detection limit but above instrument detection limit.

**ATTACHMENT A**  
**DISCHARGE MONITORING REPORT**  
**JANUARY 2011**



**Discharge Monitoring Data**  
**Outfall 001 - Treated Groundwater Remediation Discharge**  
**NYSDEC Site No. 9-15-006**  
**Cheektowaga, New York**

Reporting Month & Year **Jan-11**

Parameter		Daily Minimum	Daily Maximum	Units	Daily Maximum (lbs/day)	Measurement Frequency	Sample Type
Flow	Monitoring Result		<b>20,900</b>	<b>gpd</b>		<b>Continuous</b>	<b>Meter</b>
	Discharge Limitation		28,800	gpd		Continuous	Meter
pH	Monitoring Result	<b>7.20</b>	<b>7.64</b>	<b>s.u.</b>		<b>6</b>	<b>Grab</b>
	Discharge Limitation	6.5	8.5	s.u.		Weekly	Grab
Total suspended solids	Monitoring Result		<b>&lt; 4.0</b>	<b>mg/L</b>	<b>&lt; 0.70</b>	<b>1</b>	<b>Grab</b>
	Discharge Limitation		20	mg/L		Monthly	Grab
Toluene	Monitoring Result		<b>&lt; 1.0</b>	<b>ug/L</b>	<b>&lt; 0.00017</b>	<b>1</b>	<b>Grab</b>
	Discharge Limitation		5	ug/L		Monthly	Grab
Methylene chloride	Monitoring Result		<b>&lt; 1.0</b>	<b>ug/L</b>	<b>&lt; 0.00018</b>	<b>1</b>	<b>Grab</b>
	Discharge Limitation		10	ug/L		Monthly	Grab
1,2-dichlorobenzene	Monitoring Result		<b>&lt; 1.0</b>	<b>ug/L</b>	<b>&lt; 0.00018</b>	<b>1</b>	<b>Grab</b>
	Discharge Limitation		5	ug/L		Monthly	Grab
cis-1,2-dichloroethylene	Monitoring Result		<b>&lt; 1.0</b>	<b>ug/L</b>	<b>&lt; 0.00018</b>	<b>1</b>	<b>Grab</b>
	Discharge Limitation		10	ug/L		Monthly	Grab
Trichloroethylene	Monitoring Result		<b>0.23</b>	<b>ug/L</b>	<b>0.000045</b>	<b>1</b>	<b>Grab</b>
	Discharge Limitation		10	ug/L		Monthly	Grab
Tetrachloroethylene	Monitoring Result		<b>&lt; 1.0</b>	<b>ug/L</b>	<b>&lt; 0.00018</b>	<b>1</b>	<b>Grab</b>
	Discharge Limitation		50	ug/L		Monthly	Grab
Cadmium	Monitoring Result		<b>&lt; 0.15</b>	<b>ug/L</b>	<b>&lt; 0.000026</b>	<b>1</b>	<b>Grab</b>
	Discharge Limitation		3	ug/L		Monthly	Grab
Chromium	Monitoring Result		<b>0.54</b>	<b>ug/L</b>	<b>0.000094</b>	<b>1</b>	<b>Grab</b>
	Discharge Limitation		99	ug/L		Monthly	Grab

**ATTACHMENT B**  
**ANALYTICAL LABORATORY REPORT**  
**JANUARY 2011 INFLUENT AND EFFLUENT SAMPLING**

## ANALYTICAL REPORT

PROJECT NO. LEO BRAUSCH BUF

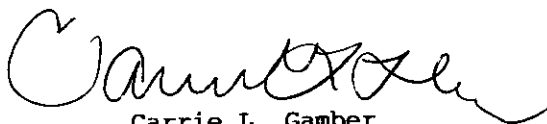
Leo Brausch Buffalo Airport

Lot #: C1A210487

Leo Brausch

Leo Brausch Consulting  
131 Wedgewood Drive  
Gibsonia, PA 15044

TESTAMERICA LABORATORIES, INC.



Carrie L. Gamber  
Project Manager

February 1, 2011



## NELAC REPORTING:

At the time of analysis the laboratory was in compliance with the current NELAC standards and held accreditation for all analyses performed unless noted by a qualifier. The labs accreditation numbers are listed below. The format and contents of the report meets all applicable NELAC standards except as noted in the narrative and shall not be reproduced except in full, without the written approval of the laboratory. The table below presents a summary of the certifications held by TestAmerica Pittsburgh. Our primary accreditation authority for the Non-potable water and Solid & Hazardous waste programs is Pennsylvania DEP. A more detailed parameter list is available upon request. Please ask your project manager for this information when required.

Certifying State/Program	Certificate #	Program Types	TestAmerica
DoD ELAP	ADE-1442	WW	X
US Dept of Agriculture Arkansas	(#P330-10-00139) (#88-0690)	HW	
		Foreign Soil Import Permit	X
California – NELAC	04224CA	WW	X
		HW	X
Connecticut	(#PH-0688)	WW	X
		HW	X
Florida – NELAC	(#E871008)	WW	X
		HW	X
Illinois – NELAC	(#002319)	WW	X
		HW	X
Kansas – NELAC	(#E-10350)	WW	X
		HW	X
Louisiana – NELAC	(#04041)	WW	X
		HW	X
New Hampshire – NELAC	(#203010)	WW	X
		--	--
New Jersey – NELAC	(PA-005)	WW	X
		HW	X
New York – NELAC	(#11182)	WW	X
		HW	X
North Carolina	(#434)	WW	X
		HW	X
Pennsylvania - NELAC	(#02-00416)	WW	X
		HW	X
South Carolina	(#89014002)	WW	X
		HW	X
Utah – NELAC	(STLP)	WW	X
		HW	X
West Virginia	(#142)	WW	X
		HW	X
Wisconsin	998027800	WW	X
		HW	X

The codes utilized for program types are described below:

- HW Hazardous Waste certification
- WW Non-potable Water and/or Wastewater certification
- X Laboratory has some form of certification under the specific program. Many states certify laboratories for specific parameters or tests within a category. The information in the table indicates the lab is certified in a general category of testing. Please contact the laboratory if parameter specific certification information is required.

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## CASE NARRATIVE

### Leo Brausch Consulting

Lot # C1A210487

#### **Sample Receiving:**

TestAmerica's Pittsburgh laboratory received samples on January 20, 2011. The cooler was received within the proper temperature range.

If project specific QC was not required for samples contained in this report, when batch QC was completed on these samples, anomalous results will be discussed below.

#### **GC/MS Volatiles (624):**

TestAmerica's North Canton laboratory performed the 624 analysis.

Sample INF0111 was analyzed at a dilution.

#### **Metals:**

There were no problems associated with the analysis.

#### **General Chemistry:**

The test for pH is a field parameter. The laboratory pH analysis was completed at the request of the client.



# METHODS SUMMARY

C1A210487

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
pH (Electrometric)	SM20 4500-H+B	SM20 4500-H B
Purgeables	CFR136A 624	SW846 5030B
Total Suspended Solids SM 2540 D	SM20 2540D	SM20 2540D
Trace Inductively Coupled Plasma (ICP) Metals	MCAWW 200.7	MCAWW 200.7

## References:

CFR136A "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SM20 "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER", 20TH EDITION."

# SAMPLE SUMMARY

C1A210487

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
MDKKF	001	INF0111	01/19/11	08:30
MDKKN	002	EFF0111	01/19/11	08:40

**NOTE(S) :**

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filler test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.



Leo Brausch Consulting

Client Sample ID: INF0111

GC/MS Volatiles

Lot-Sample #...: C1A210487-001    Work Order #...: MDKKF1AE    Matrix.....: PC  
Date Sampled...: 01/19/11    Date Received...: 01/21/11    MS Run #.....: 1028140  
Prep Date.....: 01/28/11    Analysis Date...: 01/28/11  
Prep Batch #...: 1028298    Analysis Time...: 14:43  
Dilution Factor: 5  
Method.....: CFR136A 624

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
1,2-Dichlorobenzene	ND	5.0	ug/L	0.65
<b>cis-1,2-Dichloroethene</b>	<b>79</b>	<b>5.0</b>	<b>ug/L</b>	<b>0.85</b>
<b>Methylene chloride</b>	<b>3.5 J</b>	<b>5.0</b>	<b>ug/L</b>	<b>1.6</b>
<b>Tetrachloroethene</b>	<b>20</b>	<b>5.0</b>	<b>ug/L</b>	<b>1.4</b>
Toluene	ND	5.0	ug/L	0.65
1,1,1-Trichloroethane	ND	5.0	ug/L	1.1
<b>Trichloroethene</b>	<b>340</b>	<b>5.0</b>	<b>ug/L</b>	<b>0.85</b>
<b>Vinyl chloride</b>	<b>6.3</b>	<b>5.0</b>	<b>ug/L</b>	<b>1.1</b>

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	83	(80 - 125)
Toluene-d8	101	(84 - 110)
Bromofluorobenzene	92	(81 - 112)

**NOTE(S):**

J Estimated result. Result is less than RL.

Leo Brausch Consulting

Client Sample ID: EFF0111

GC/MS Volatiles

Lot-Sample #...: C1A210487-002    Work Order #...: MDKKN1AD    Matrix.....: PC  
Date Sampled...: 01/19/11    Date Received..: 01/21/11    MS Run #.....: 1028140  
Prep Date.....: 01/28/11    Analysis Date..: 01/28/11  
Prep Batch #...: 1028298    Analysis Time..: 00:04  
Dilution Factor: 1  
Method.....: CFR136A 624

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
<b>Trichloroethene</b>	<b>0.23 J</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.17</b>

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
1,2-Dichloroethane-d4	91	(80 - 125)
Toluene-d8	100	(84 - 110)
Bromofluorobenzene	89	(81 - 112)

**NOTE(S):**

J Estimated result. Result is less than RL.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: C1A210487  
MB Lot-Sample #: A1A280000-298  
Analysis Date...: 01/27/11  
Dilution Factor: 1

Work Order #...: MDV1J1AA  
Prep Date.....: 01/27/11  
Prep Batch #...: 1028298

Matrix.....: WATER  
Analysis Time...: 19:19

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
1,2-Dichlorobenzene	ND	1.0	ug/L	CFR136A 624
cis-1,2-Dichloroethene	ND	1.0	ug/L	CFR136A 624
Methylene chloride	ND	1.0	ug/L	CFR136A 624
Tetrachloroethene	ND	1.0	ug/L	CFR136A 624
Toluene	ND	1.0	ug/L	CFR136A 624
1,1,1-Trichloroethane	ND	1.0	ug/L	CFR136A 624
Trichloroethene	ND	1.0	ug/L	CFR136A 624
Vinyl chloride	ND	1.0	ug/L	CFR136A 624

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	88	(80 - 125)
Toluene-d8	102	(84 - 110)
Bromofluorobenzene	91	(81 - 112)

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: C1A210487      Work Order #...: MDV1J1AC      Matrix.....: WATER  
 LCS Lot-Sample#: A1A280000-298  
 Prep Date.....: 01/27/11      Analysis Date...: 01/27/11  
 Prep Batch #...: 1028298      Analysis Time...: 18:32  
 Dilution Factor: 1

<u>PARAMETER</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>	<u>METHOD</u>
Benzene	97	( 37 - 151)	CFR136A 624
Bromodichloromethane	90	( 35 - 155)	CFR136A 624
Bromoform	78	( 45 - 169)	CFR136A 624
Bromomethane	86	( 10 - 242)	CFR136A 624
Carbon tetrachloride	86	( 70 - 140)	CFR136A 624
Chlorobenzene	98	( 37 - 160)	CFR136A 624
Chloroethane	88	( 14 - 230)	CFR136A 624
2-Chloroethyl vinyl ether	88	( 10 - 305)	CFR136A 624
Chloroform	95	( 51 - 138)	CFR136A 624
Chloromethane	84	( 10 - 273)	CFR136A 624
Dibromochloromethane	85	( 53 - 149)	CFR136A 624
1,3-Dichlorobenzene	97	( 59 - 156)	CFR136A 624
1,4-Dichlorobenzene	92	( 18 - 190)	CFR136A 624
1,1-Dichloroethane	100	( 59 - 155)	CFR136A 624
1,2-Dichloroethane	93	( 49 - 155)	CFR136A 624
1,1-Dichloroethene	100	( 10 - 234)	CFR136A 624
trans-1,2-Dichloroethene	105	( 54 - 156)	CFR136A 624
1,2-Dichloropropane	99	( 10 - 210)	CFR136A 624
cis-1,3-Dichloropropene	95	( 10 - 227)	CFR136A 624
trans-1,3-Dichloropropene	104	( 17 - 183)	CFR136A 624
Ethylbenzene	103	( 37 - 162)	CFR136A 624
1,1,2,2-Tetrachloroethane	83	( 46 - 157)	CFR136A 624
1,1,2-Trichloroethane	99	( 52 - 150)	CFR136A 624
Trichlorofluoromethane	99	( 17 - 181)	CFR136A 624
1,2-Dichlorobenzene	93	( 18 - 190)	CFR136A 624
Methylene chloride	95	( 10 - 221)	CFR136A 624
Tetrachloroethene	118	( 64 - 148)	CFR136A 624
Toluene	104	( 47 - 150)	CFR136A 624
1,1,1-Trichloroethane	97	( 52 - 162)	CFR136A 624
Trichloroethene	103	( 71 - 157)	CFR136A 624
Vinyl chloride	94	( 10 - 251)	CFR136A 624

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: C1A210487      Work Order #...: MDV1J1AC      Matrix.....: WATER  
LCS Lot-Sample#: A1A280000-298

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	93	(80 - 125)
Toluene-d8	105	(84 - 110)
Bromofluorobenzene	96	(81 - 112)

**NOTE(S):**

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Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Lot-Sample #...: C1A210487      Work Order #...: MDME61AC      Matrix.....: WATER  
 MS Lot-Sample #: A1A240423-002  
 Date Sampled...: 01/24/11      Date Received...: 01/24/11  
 Prep Date.....: 01/28/11      Analysis Date...: 01/28/11  
 Prep Batch #...: 1028298      MS Run #.....: 1028140  
 Dilution Factor: 1

<u>PARAMETER</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>	<u>METHOD</u>
Benzene	101	(90 - 114)	CFR136A 624
Bromodichloromethane	81	(78 - 123)	CFR136A 624
Bromoform	63	(40 - 141)	CFR136A 624
Bromomethane	88	(42 - 160)	CFR136A 624
Carbon tetrachloride	74	(61 - 129)	CFR136A 624
Chlorobenzene	100	(90 - 113)	CFR136A 624
Chloroethane	90	(56 - 133)	CFR136A 624
2-Chloroethyl vinyl ether	0.0 a	(10 - 185)	CFR136A 624
Chloroform	99	(90 - 118)	CFR136A 624
Chloromethane	85	(37 - 127)	CFR136A 624
Dibromochloromethane	70	(65 - 123)	CFR136A 624
1,3-Dichlorobenzene	96	(90 - 111)	CFR136A 624
1,4-Dichlorobenzene	92	(90 - 112)	CFR136A 624
1,1-Dichloroethane	102	(90 - 114)	CFR136A 624
1,2-Dichloroethane	97	(90 - 123)	CFR136A 624
1,1-Dichloroethene	102	(83 - 129)	CFR136A 624
trans-1,2-Dichloroethene	109	(85 - 116)	CFR136A 624
1,2-Dichloropropane	102	(87 - 119)	CFR136A 624
cis-1,3-Dichloropropene	81	(77 - 115)	CFR136A 624
trans-1,3-Dichloropropene	88	(71 - 114)	CFR136A 624
Ethylbenzene	103	(88 - 111)	CFR136A 624
1,1,2,2-Tetrachloroethane	85	(77 - 133)	CFR136A 624
1,1,2-Trichloroethane	102	(89 - 123)	CFR136A 624
Trichlorofluoromethane	97	(62 - 110)	CFR136A 624
1,2-Dichlorobenzene	94	(90 - 115)	CFR136A 624
Methylene chloride	98	(78 - 131)	CFR136A 624
Tetrachloroethene	122 a	(81 - 112)	CFR136A 624
Toluene	105	(87 - 112)	CFR136A 624
1,1,1-Trichloroethane	89	(82 - 119)	CFR136A 624
Trichloroethene	106	(85 - 114)	CFR136A 624
Vinyl chloride	98	(50 - 119)	CFR136A 624

<u>SURROGATE</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>
1,2-Dichloroethane-d4	93	(80 - 125)
Toluene-d8	103	(84 - 110)
Bromofluorobenzene	96	(81 - 112)

(Continued on next page)

**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**GC/MS Volatiles**

**Lot-Sample #...**: C1A210487

**Work Order #...**: MDME61AC

**Matrix.....**: WATER

**MS Lot-Sample #**: A1A240423-002

**NOTE(S)**:

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Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

Leo Brausch Consulting

Client Sample ID: INF0111

TOTAL Metals

Lot-Sample #...: C1A210487-001

Matrix.....: PC

Date Sampled...: 01/19/11

Date Received...: 01/21/11

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
<b>Prep Batch #...: 1025090</b>						
Cadmium	ND	5.0	ug/L	MCAWW 200.7	01/25/11	MDKKF1AA
		Dilution Factor: 1		Analysis Time..: 20:30	MS Run #.....: 1025056	
		MDL.....: 0.15				
<b>Chromium</b>	<b>5.1</b>	<b>5.0</b>	<b>ug/L</b>	<b>MCAWW 200.7</b>	<b>01/25/11</b>	<b>MDKKF1AD</b>
		Dilution Factor: 1		Analysis Time..: 20:30	MS Run #.....: 1025056	
		MDL.....: 0.51				
Lead	ND	3.0	ug/L	MCAWW 200.7	01/25/11	MDKKF1AC
		Dilution Factor: 1		Analysis Time..: 20:30	MS Run #.....: 1025056	
		MDL.....: 1.2				



Leo Brausch Consulting

Client Sample ID: EFF0111

TOTAL Metals

Lot-Sample #...: C1A210487-002

Matrix.....: PC

Date Sampled...: 01/19/11

Date Received...: 01/21/11

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
<b>Prep Batch #...: 1025090</b>						
Cadmium	ND	5.0	ug/L	MCAWW 200.7	01/25/11	MDKKN1AA
		Dilution Factor: 1		Analysis Time..: 20:52	MS Run #.....: 1025056	
		MDL.....: 0.15				
<b>Chromium</b>	<b>0.54 B</b>	<b>5.0</b>	<b>ug/L</b>	<b>MCAWW 200.7</b>	<b>01/25/11</b>	<b>MDKKN1AC</b>
		Dilution Factor: 1		Analysis Time..: 20:52	MS Run #.....: 1025056	
		MDL.....: 0.51				

**NOTE(S):**

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C1A210487

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
<b>MB Lot-Sample #:</b> C1A250000-090 <b>Prep Batch #...:</b> 1025090						
Cadmium	ND	5.0	ug/L	MCAWW 200.7	01/25/11	MDNFK1AA
		Dilution Factor: 1				
		Analysis Time..: 20:02				
Chromium	ND	5.0	ug/L	MCAWW 200.7	01/25/11	MDNFK1AD
		Dilution Factor: 1				
		Analysis Time..: 20:02				
Lead	ND	3.0	ug/L	MCAWW 200.7	01/25/11	MDNFK1AC
		Dilution Factor: 1				
		Analysis Time..: 20:02				

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**TOTAL Metals**

**Client Lot #...:** C1A210487

**Matrix.....:** WATER

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>LCS Lot-Sample#:</b> C1A250000-090 <b>Prep Batch #...:</b> 1025090					
Cadmium	104	(85 - 115)	MCAWW 200.7	01/25/11	MDNFK1AE
		Dilution Factor: 1		Analysis Time..: 20:08	
Lead	104	(85 - 115)	MCAWW 200.7	01/25/11	MDNFK1AF
		Dilution Factor: 1		Analysis Time..: 20:08	
Chromium	105	(85 - 115)	MCAWW 200.7	01/25/11	MDNFK1AG
		Dilution Factor: 1		Analysis Time..: 20:08	

**NOTE(S):**

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Calculations are performed before rounding to avoid round-off errors in calculated results.

**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**TOTAL Metals**

Client Lot #...: C1A210487

Matrix.....: PC

Date Sampled...: 01/19/11

Date Received...: 01/21/11

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
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**MS Lot-Sample #:** C1A210487-001 **Prep Batch #...**: 1025090

Cadmium	100	(70 - 130)			MCAWW 200.7	01/25/11	MDKKF1AG
	98	(70 - 130)	1.4	(0-20)	MCAWW 200.7	01/25/11	MDKKF1AH

Dilution Factor: 1  
 Analysis Time...: 20:41  
 MS Run #.....: 1025056

Chromium	101	(70 - 130)			MCAWW 200.7	01/25/11	MDKKF1AL
	100	(70 - 130)	0.75	(0-20)	MCAWW 200.7	01/25/11	MDKKF1AM

Dilution Factor: 1  
 Analysis Time...: 20:41  
 MS Run #.....: 1025056

Lead	102	(70 - 130)			MCAWW 200.7	01/25/11	MDKKF1AJ
	102	(70 - 130)	0.79	(0-20)	MCAWW 200.7	01/25/11	MDKKF1AK

Dilution Factor: 1  
 Analysis Time...: 20:41  
 MS Run #.....: 1025056

**NOTE(S):**

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Calculations are performed before rounding to avoid round-off errors in calculated results.

Leo Brausch Consulting

Client Sample ID: INF0111

General Chemistry

Lot-Sample #...: C1A210487-001

Work Order #...: MDKKF

Matrix.....: PC

Date Sampled...: 01/19/11

Date Received..: 01/21/11

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH	10.5	--	--	SM20 4500-H+B	01/22/11	1022039
		Dilution Factor: 1		Analysis Time.: 13:56	MS Run #.....: 1022024	
		MDL.....: 0.0				

Leo Brausch Consulting

Client Sample ID: EFF0111

General Chemistry

Lot-Sample #...: C1A210487-002

Work Order #...: MDKKN

Matrix.....: PC

Date Sampled...: 01/19/11

Date Received..: 01/21/11

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH	7.2	--	--	SM20 4500-H+B	01/22/11	1022039
				Dilution Factor: 1	Analysis Time..: 13:58	MS Run #.....: 1022024
				MDL.....: 0.0		
Total Suspended Solids	ND	4.0	mg/L	SM20 2540D	01/22-01/24/11	1022023
				Dilution Factor: 1	Analysis Time..: 11:34	MS Run #.....: 1022013
				MDL.....: 2.0		

METHOD BLANK REPORT

General Chemistry

Client Lot #...: C1A210487

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Total Suspended Solids	ND	4.0	mg/L	SM20 2540D	01/22-01/24/11	1022023
		Work Order #: MDLJL1AA		MB Lot-Sample #: C1A220000-023		
		Dilution Factor: 1				
		Analysis Time..: 11:34				

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**General Chemistry**

Client Lot #...: C1A210487

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH	100	(99 - 101)	Work Order #: MDLKL1AA SM20 4500-H+B Dilution Factor: 1	LCS Lot-Sample#: C1A220000-039 01/22/11 Analysis Time.: 13:50	1022039
Total Suspended Solids	90	(80 - 120)	Work Order #: MDLJL1AC SM20 2540D Dilution Factor: 1	LCS Lot-Sample#: C1A220000-023 01/22-01/24/11 Analysis Time.: 11:34	1022023

**NOTE(S):**

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Calculations are performed before rounding to avoid round-off errors in calculated results.



SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: C1A210487

Work Order #...: MDLJA-SMP  
MDLJA-DUP

Matrix.....: WATER

Date Sampled...: 01/18/11

Date Received...: 01/21/11

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u> <u>RESULT</u>	<u>UNITS</u>	<u>RPD</u>	<u>RPD</u> <u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Total Suspended Solids	ND	ND	mg/L	0.007	(0-20)	SM20 2540D	01/22-01/24/11	1022023
			Dilution Factor: 1			Analysis Time..: 11:34	MS Run Number..: 1022013	

SD Lot-Sample #: C1A220406-001