

October 1, 2010

Mr. Douglas MacNeal  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
Bureau of Technical Support, 11<sup>th</sup> Floor  
625 Broadway  
Albany, New York 12233

**RE: Quarterly Groundwater Monitoring Report- Third Quarter 2010  
River Place I & II  
West 42<sup>nd</sup> Street, New York, New York  
BCP Site No. C231024, C231012  
Langan Project No.: 170040901**

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Dear Mr. MacNeal:

Langan Engineering & Environmental Services, PC (Langan) is pleased to present this letter report summarizing groundwater monitoring well sampling activities for River Place I & II located between West 41<sup>st</sup> and West 42<sup>nd</sup> Streets and 11<sup>th</sup> and 12<sup>th</sup> Avenues in New York, New York (the "Site"). A Site Location Map is attached as Figure 1. A Final Engineering Report (FER) for the site was approved by the New York State Department of Environmental Conservation (NYSDEC) and a Certificate of Completion (COC) was issued on June 19, 2007. A Site Management Plan (SMP) dated July 2006 was approved by NYSDEC.

In accordance with the SMP, groundwater monitoring began on March 16, 2009 and was conducted quarterly thereafter on June 17, 2009, September 18, 2009, January 7, 2010, March 1, 2010 and July 14, 2010. This report summarizes the most recent results from sampling conducted on September 8, 2010.

### **Third Quarter 2010 Groundwater Sampling**

On September 8, 2010, Langan sampled wells MW-N2 and MW-S2 to represent the Third Quarter 2010 sampling event. During sampling, Langan visually inspected the monitoring wells for evidence of tampering or damage, and measured the depth to groundwater. Synoptic water level was measured using a Solinst oil/water interface probe. Water level measurements were repeated at least once to verify the accuracy of the initial measurement. All measurements were recorded on Langan field sampling forms. Copies of the completed field forms are included in Attachment A of this report.

Prior to collecting groundwater samples, MW-N2 and MW-S2 were purged using low-flow purge and sample techniques. The wells were purged using clean, dedicated, polyethylene tubing attached to a Waterra positive displacement pump. During purging, groundwater was monitored for dissolved oxygen, pH, temperature, turbidity, and specific conductance. These readings are included on the sampling forms in Attachment A. Prior to sampling, the wells were allowed to recover to approximately 80% or more of the static water level.

MW-N2 and MW-S2 were purged until physical and chemical parameters stabilized. Approximately 5 and 8 gallons were purged from each monitoring well, respectively. After purging, samples MW-N2-8-9-10 and MW-S2-8-9-10 were collected using a Waterra pump and dedicated tubing.

The groundwater samples, MW-N2-8-9-10 and MW-S2-8-9-10 were collected into laboratory-prepared containers, tightly sealed, uniquely labeled, and then stored on ice for transport to Alpha Analytical (Alpha) in Westborough, Massachusetts, under standard chain-of-custody procedures. One trip blank was included for quality assurance/quality control (QA/QC) purposes. The groundwater samples were analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, Target Analyte List (TAL) metals by EPA SW 6000/7000, cyanide (total) by EPA SW 9012, and cyanide (available) by EPA 9014. The trip blank was analyzed for VOCs by EPA Method 8260.

## Findings

### Observations

During this sampling event no free product was observed in MW-N2 and MW-S2. The wells were observed to be in good condition.

### Groundwater Analytical Results

Analytical results for the Third Quarter 2010 monitoring event that exceeded the NYSDEC TOGS 1.1.1 AWQS Class GA Standards are summarized below.

MW-N2		MW-S2	
<b><u>VOCs</u><sup>1</sup></b>		<b><u>VOCs</u><sup>1</sup></b>	
<ul style="list-style-type: none"> <li>• benzene</li> <li>• p/m-xylene</li> <li>• o-xylene</li> </ul>	<ul style="list-style-type: none"> <li>• toluene</li> <li>• naphthalene</li> </ul>	<ul style="list-style-type: none"> <li>• benzene</li> <li>• p/m-xylene</li> <li>• o-xylene</li> <li>• 1,2,4-trimethylbenzene</li> </ul>	<ul style="list-style-type: none"> <li>• ethylbenzene</li> <li>• naphthalene</li> <li>• isopropylbenzene</li> </ul>
<b><u>SVOCs</u><sup>1</sup></b>		<b><u>SVOCs</u><sup>1</sup></b>	
<ul style="list-style-type: none"> <li>• acenaphthene</li> <li>• naphthalene</li> </ul>	<ul style="list-style-type: none"> <li>• 2,4-dimethylphenol</li> <li>• phenol</li> </ul>	<ul style="list-style-type: none"> <li>• acenaphthene</li> <li>• naphthalene</li> </ul>	<ul style="list-style-type: none"> <li>• benzo(b)flouranthene</li> </ul>

<b>Inorganics</b>	<b>Inorganics</b>
<ul style="list-style-type: none"><li>• iron</li><li>• manganese</li><li>• sodium</li></ul>	<ul style="list-style-type: none"><li>• iron</li><li>• manganese</li><li>• sodium</li></ul>
<ul style="list-style-type: none"><li>• magnesium</li><li>• cyanide</li></ul>	<ul style="list-style-type: none"><li>• magnesium</li><li>• cyanide</li><li>• lead</li></ul>

- 1) Due to the level of contamination in the samples, method detection limits were elevated above the TOGS standards for several of the VOCs and SVOCs.

Analytical results for the First Quarter 2009 through Third Quarter 2010 sampling rounds are summarized in Tables 1 through 3 and the laboratory analytical report for Third Quarter 2010 is included as Attachment B.

Please contact us if you have any questions.

Sincerely,  
**Langan Engineering & Environmental Services, P.C.**



Joel B. Landes, P.E.  
Senior Associate

Enclosure(s):

- |              |  |
|--------------|--|
| Figure 1     | Site Location Map  |
| Figure 2     | Well Location Map  |
| Table 1      | VOC Detections in Groundwater Samples                              |
| Table 2      | SVOC Detections in Groundwater Samples                             |
| Table 3      | Total Metals and Cyanide in Groundwater Sample                     |
| Attachment A | Groundwater Sampling Forms   |
| Attachment B | Laboratory Analytical Reports, Chain-of-Custody and Certifications |

cc:

Richard Rienzo- Con Edison  
William R. Dacunto- River Place II LLC  
Jason Hayes – Langan

# TABLES

**Table 1**  
**VOC Exceedances in Groundwater Samples**  
**River Place II**  
**New York, New York**  
**Langan Project No. 170040901**

		Park Area Northern Well													
		1st Quarter 2009		2nd Quarter 2009		3rd Quarter 2009*		4th Quarter 2009**		1st Quarter 2010		2nd Quarter 2010		3rd Quarter 2010	
SAMPLING DATE	NYSDEC TOGS 1.1.1	3/16/2009	6/17/2009	9/18/2009	1/7/2010	3/1/2010	6/10/2010	9/8/2010							
LANGAN SAMPLE ID	AWQS	MW-N-3-16-09	MW-N-6-17-09	MW-N-9-18-09	MW-N2-1-07-10	MW-N2-3-01-10	MW-N2-6-10-10	MW-N2-9-8-10							
LAB SAMPLE ID		L0903143-01	L0908040-01	L0913185-01	L1000282-01	L1003006-01	L1008735-02	L1013903-01							
<b>Volatile Organics by GC/MS (µg/L)</b>															
<b>Westborough Lab</b>															
1,2,4-Trimethylbenzene	5	1200 U, D <sup>500</sup>	1200 U, D <sup>500</sup>	1200 U, D <sup>500</sup>	1200 U	250 U, D <sup>100</sup>	500 U, D <sup>200</sup>	620 U, D <sup>250</sup>							
1,3,5-Trimethylbenzene	5	1200 U, D <sup>500</sup>	1200 U, D <sup>500</sup>	1200 U, D <sup>500</sup>	1200 U	250 U, D <sup>100</sup>	500 U, D <sup>200</sup>	620 U, D <sup>250</sup>							
Benzene	1	<b>19000</b> D <sup>500</sup>	<b>17000</b> D <sup>500</sup>	<b>15000</b> D <sup>500</sup>	<b>2900</b> D <sup>500</sup>	<b>610</b> D <sup>100</sup>	<b>1100</b>	<b>2100</b> D <sup>250</sup>							
Ethylbenzene	5	<b>1900</b> D <sup>500</sup>	<b>1900</b> D <sup>500</sup>	<b>1800</b> D <sup>500</sup>	<b>1400</b> D <sup>500</sup>	<b>170</b> D <sup>100</sup>	<b>410</b>	<b>810</b> D <sup>250</sup>							
Isopropylbenzene	5	250 U, D <sup>500</sup>	250 U, D <sup>500</sup>	250 U, D <sup>500</sup>	250 U	50 U, D <sup>100</sup>	100 U, D <sup>200</sup>	120 U, D <sup>250</sup>							
Methylene chloride	5	2500 U, D <sup>500</sup>	2500 U, D <sup>500</sup>	2500 U	2500 U	500 U, D <sup>100</sup>	1000 U, D <sup>200</sup>	1200 U, D <sup>250</sup>							
Naphthalene	10	<b>15000</b> D <sup>500</sup>	<b>18000</b> D <sup>500</sup>	<b>19000</b> D <sup>500</sup>	<b>22000</b> D <sup>500</sup>	<b>4200</b> D <sup>100</sup>	<b>5400</b>	<b>12000</b> D <sup>250</sup>							
n-Butylbenzene	5	250 U, D <sup>500</sup>	250 U, D <sup>500</sup>	250 U	250 U	50 U, D <sup>100</sup>	100 U, D <sup>200</sup>	120 U, D <sup>250</sup>							
o-Xylene	5	<b>1400</b> D <sup>500</sup>	<b>1400</b> D <sup>500</sup>	<b>1200</b> D <sup>500</sup>	<b>1000</b> D <sup>500</sup>	<b>180</b> D <sup>100</sup>	<b>330</b>	<b>590</b> D <sup>250</sup>							
p/m-Xylene	5	<b>3200</b> D <sup>500</sup>	<b>3100</b> D <sup>500</sup>	<b>2900</b> D <sup>500</sup>	<b>2200</b> D <sup>500</sup>	<b>330</b> D <sup>100</sup>	<b>600</b>	<b>1100</b> D <sup>250</sup>							
p-Isopropyltoluene	5	250 U, D <sup>500</sup>	250 U, D <sup>500</sup>	250 U	250 U	50 U, D <sup>100</sup>	100 U, D <sup>200</sup>	120 U, D <sup>250</sup>							
Styrene	5	500 U, D <sup>500</sup>	500 U, D <sup>500</sup>	500 U	500 U	100 U, D <sup>100</sup>	200 U, D <sup>200</sup>	250 U, D <sup>250</sup>							
Toluene	5	<b>4200</b> D <sup>500</sup>	<b>4400</b> D <sup>500</sup>	<b>4100</b> D <sup>500</sup>	<b>740</b> D <sup>500</sup>	75 U, D <sup>100</sup>	150 U, D <sup>200</sup>	<b>290</b> D <sup>250</sup>							

**Notes:**

- Groundwater samples were compared to New York State Department of Environmental Conservation (NYSDEC) Technical and Operations Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards (AWQS).
- Values exceeding NYSDEC TOGS 1.1.1 AWQS are highlighted and BOLD.
- Method Detection Limits (MDLs) are elevated above TOGS criteria in the
- µg/L: Micrograms per liter
- \* Monitoring well MW-S was destroyed during construction activities. No data is
- \*\* Monitoring wells MW-N and MW-S were destroyed due to construction

**Qualifiers:**

U - Indicates the minimum detection Limit (MDL) is reported. The concentration of the analyte is less than the MDL.

D<sup>x</sup> - Dilution factor of X

**Table 1**  
**VOC Exceedances in Groundwater Samples**  
**River Place II**  
**New York, New York**  
**Langan Project No. 170040901**

		Park Area Southern Well*													
		1st Quarter 2009		1st Quarter 2009		2nd Quarter 2009		4th Quarter 2009**		1st Quarter 2010		2nd Quarter 2010		3rd Quarter 2010	
SAMPLING DATE	NYSDEC TOGS 1.1.1	3/16/2009	3/16/2009	3/16/2009	3/16/2009	6/17/2009	6/17/2009	1/7/2010	1/7/2010	3/1/2010	3/1/2010	6/10/2010	6/10/2010	9/8/2010	9/8/2010
LANGAN SAMPLE ID	AWQS	MW-S-3-16-09	DUP-3-16-09	MW-S-3-16-09	DUP-3-16-09	MW-S-6-17-09	MW-S-6-17-09	MW-S2-1-07-10	MW-S2-1-07-10	MW-S2-3-01-10	MW-S2-3-01-10	MW-S2-6-10-10	MW-S2-6-10-10	MW-S2-9-8-10	MW-S2-9-8-10
LAB SAMPLE ID		L0903143-02	L0903143-03	L0903143-02	L0903143-03	L0908040-02	L0908040-02	L1000282-02	L1000282-02	L1003006-02	L1003006-02	L1008735-01	L1008735-01	L1013903-02	L1013903-02
Volatile Organics by GC/MS (µg/L)		Duplicate of MW-N-3-16-09													
Westborough Lab															
1,2,4-Trimethylbenzene	5	<b>76</b>	D <sup>25</sup>	1200	U, D <sup>500</sup>	25	U, D <sup>10</sup>	<b>280</b>	D <sup>10</sup>	<b>130</b>	D <sup>50</sup>	<b>180</b>	D <sup>50</sup>	<b>150</b>	U, D <sup>50</sup>
1,3,5-Trimethylbenzene	5	62	U, D <sup>25</sup>	1200	U, D <sup>500</sup>	25	U, D <sup>10</sup>	<b>61</b>	D <sup>10</sup>	120	U, D <sup>50</sup>	120	U, D <sup>50</sup>	120	U, D <sup>50</sup>
Benzene	1	<b>140</b>	D <sup>25</sup>	<b>19000</b>	D <sup>500</sup>	<b>170</b>	D <sup>10</sup>	<b>200</b>	D <sup>10</sup>	<b>75</b>	D <sup>50</sup>	<b>120</b>	D <sup>50</sup>	<b>110</b>	D <sup>50</sup>
Ethylbenzene	5	<b>160</b>	D <sup>25</sup>	<b>1900</b>	D <sup>500</sup>	<b>20</b>	D <sup>10</sup>	<b>710</b>	D <sup>10</sup>	<b>330</b>	D <sup>50</sup>	<b>590</b>	D <sup>50</sup>	<b>460</b>	D <sup>50</sup>
Isopropylbenzene	5	<b>35</b>	D <sup>25</sup>	250	U, D <sup>500</sup>	<b>5.4</b>	D <sup>10</sup>	<b>64</b>	D <sup>10</sup>	<b>30</b>	D <sup>50</sup>	<b>61</b>	D <sup>50</sup>	<b>44</b>	D <sup>50</sup>
Methylene chloride	5	120	U, D <sup>25</sup>	2500	U, D <sup>500</sup>	50	U, D <sup>10</sup>	<b>420</b>	D <sup>10</sup>	250	U, D <sup>50</sup>	250	U, D <sup>50</sup>	250	U, D <sup>50</sup>
Naphthalene	10	<b>610</b>	D <sup>25</sup>	<b>15000</b>	D <sup>500</sup>	<b>350</b>	D <sup>10</sup>	<b>4900</b>	D <sup>10</sup>	<b>1800</b>	D <sup>50</sup>	<b>1700</b>	D <sup>50</sup>	<b>1900</b>	D <sup>50</sup>
n-Butylbenzene	5	12	U, D <sup>25</sup>	250	U, D <sup>500</sup>	5	U, D <sup>10</sup>	<b>6.2</b>	D <sup>10</sup>	25	U, D <sup>50</sup>	25	U, D <sup>50</sup>	25	U, D <sup>50</sup>
o-Xylene	5	<b>43</b>	D <sup>25</sup>	<b>1300</b>	D <sup>500</sup>	<b>16</b>	D <sup>10</sup>	<b>320</b>	D <sup>10</sup>	<b>110</b>	D <sup>50</sup>	<b>150</b>	D <sup>50</sup>	<b>70</b>	D <sup>50</sup>
p/m-Xylene	5	<b>50</b>	D <sup>25</sup>	<b>3100</b>	D <sup>500</sup>	<b>21</b>	D <sup>10</sup>	<b>410</b>	D <sup>10</sup>	<b>150</b>	D <sup>50</sup>	<b>150</b>	D <sup>50</sup>	<b>82</b>	D <sup>50</sup>
p-Isopropyltoluene	5	12	U, D <sup>25</sup>	250	U, D <sup>500</sup>	5	U, D <sup>10</sup>	<b>11</b>	D <sup>10</sup>	25	U, D <sup>50</sup>	25	U, D <sup>50</sup>	25	U, D <sup>50</sup>
Styrene	5	25	U, D <sup>25</sup>	500	U, D <sup>500</sup>	10	U, D <sup>10</sup>	<b>40</b>	D <sup>10</sup>	50	U, D <sup>50</sup>	50	U, D <sup>50</sup>	50	U, D <sup>50</sup>
Toluene	5	19	U, D <sup>25</sup>	<b>4000</b>	D <sup>500</sup>	<b>29</b>	D <sup>10</sup>	<b>180</b>	D <sup>10</sup>	<b>46</b>	D <sup>50</sup>	38	U, D <sup>50</sup>	38	U, D <sup>50</sup>

**Notes:**

- Groundwater samples were compared to New York State Department of Environmental Conservation (NYSDEC) Technical and Operations Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards (AWQS).
- Values exceeding NYSDEC TOGS 1.1.1 AWQS are highlighted and BOLD.
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- µg/L: Micrograms per liter
- \* Monitoring well MW-S was destroyed during construction activities. No data is
- \*\* Monitoring wells MW-N and MW-S were destroyed due to construction

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D<sup>x</sup> - Dilution factor of X

**Table 1**  
**VOC Exceedances in Groundwater Samples**  
**River Place II**  
**New York, New York**  
**Langan Project No. 170040901**

		Quality Control								
		1st Quarter 2009	1st Quarter 2009	2nd Quarter 2009	3rd Quarter 2009	4th Quarter 2009	1st Quarter 2010	2nd Quarter 2010	3rd Quarter 2010	
SAMPLING DATE	NYSDEC TOGS 1.1.1 AWQS	3/16/2009 FB-3-16-09 L0903143-04	3/16/2009 TRIP BLANK L0903143-05	6/17/2009 TRIP BLANK L0908040-03	6/17/2009 TRIP BLANK L0913185-02	1/7/2010 TRIP BLANK L1000282-03	3/1/2010 TRIP BLANK L1003006-03	6/10/2010 TRIP BLANK L1008735-03	9/8/2010 TRIP BLANK L1013903-03	
<b>Volatile Organics by GC/MS (µg/L)</b>										
<b>Westborough Lab</b>										
1,2,4-Trimethylbenzene	5	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3,5-Trimethylbenzene	5	2.5 U	2.5 U	2.5 U	0.75 U	2.5 U	2.5 U	2.5 U	2.5 U	
Benzene	1	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Ethylbenzene	5	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Isopropylbenzene	5	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	
Methylene chloride	5	5 U	5 U	5 U	0.5 U	5 U	5 U	5 U	5 U	
Naphthalene	10	2.5 U	2.5 U	2.5 U	1 U	2.5 U	2.5 U	2.5 U	2.5 U	
n-Butylbenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
o-Xylene	5	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	
p/m-Xylene	5	1 U	1 U	1 U	0.5 U	1 U	1 U	1 U	1 U	
p-Isopropyltoluene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	
Toluene	5	0.75 U	0.75 U	0.75 U	2.5 U	0.75 U	0.75 U	0.75 U	0.75 U	

**Notes:**

- Groundwater samples were compared to New York State Department of Environmental Conservation (NYSDEC) Technical and Operations Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards (AWQS).
- Values exceeding NYSDEC TOGS 1.1.1 AWQS are highlighted and BOLD.
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- µg/L: Micrograms per liter
- \* Monitoring well MW-S was destroyed during construction activities. No data is
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D<sup>x</sup> - Dillution factor of X

**Table 2**  
**SVOC Exceedances in Groundwater Samples**  
**River Place II**  
**New York, New York**  
**Langan Project No. 170040901**

		Park Area Northern Well													
		1st Quarter		2nd Quarter		3rd Quarter		4th Quarter**		1st Quarter 2010		2nd Quarter 2010		3rd Quarter 2010	
SAMPLING DATE	NYSDEC TOGS 1.1.1 AWQS	3/16/2009		6/17/2009		9/18/2009		1/7/2010		3/1/2010		6/10/2010		9/8/2010	
LANGAN SAMPLE ID		MW-N-3-16-09		MW-N-6-17-09		MW-N-9-18-09		MW-N2-1-7-10		MW-N2-3-1-10		MW-N2-6-10-10		MW-N2-9-8-10	
LAB SAMPLE ID		L0903143-01		L0908040-01		L0913185-01		L1000282-01		L1003006-01		L1008735-02		L1013903-01	
Semi-Volatile Organics (µg/L)															
Westborough Lab															
2,4-Dimethylphenol	50	<b>1800</b>	D <sup>50</sup>	<b>830</b>	D <sup>5</sup>	<b>1200</b>	D <sup>100</sup>	<b>270</b>	D <sup>5</sup>	500	U, D <sup>50</sup>	29		<b>160</b>	
Acenaphthene	20	<b>120</b>	D <sup>20</sup>	<b>95</b>	D <sup>40</sup>	<b>99</b>	D <sup>50</sup>	<b>61</b>	D <sup>200</sup>	<b>65</b>	D <sup>50</sup>	17		<b>97</b>	
Benzo(a)pyrene	0	<b>7.2</b>	D <sup>20</sup>	8.2	U, D <sup>40</sup>	9.6	U, D <sup>50</sup>	40	U, D <sup>200</sup>	10	U, D <sup>50</sup>	5	U	80	U
Benzo(b)fluoranthene	0.002	<b>8.4</b>	D <sup>20</sup>	8.2	U, D <sup>40</sup>	9.6	U, D <sup>50</sup>	40	U, D <sup>200</sup>	10	U, D <sup>50</sup>	7.2	D <sup>20</sup>	80	U
Bis(2-Ethylhexyl)phthalate	5	24	U, D <sup>5</sup>	26	U, D <sup>5</sup>	<b>46</b>	D <sup>5</sup>	25	U, D <sup>5</sup>	250	U, D <sup>50</sup>	5	U	5	U
Chrysene	0.002	<b>4.1</b>	D <sup>20</sup>	8.2	U, D <sup>40</sup>	9.6	U, D <sup>50</sup>	40	U, D <sup>200</sup>	10	U, D <sup>50</sup>	<b>4200</b>	R1, D <sup>400</sup>	80	U
Fluorene	50	<b>56</b>	D <sup>20</sup>	<b>59</b>	D <sup>40</sup>	47	D <sup>50</sup>	40	U, D <sup>200</sup>	39	D <sup>50</sup>	7.2	D <sup>20</sup>	80	U
Naphthalene	10	<b>12000</b>	D <sup>400</sup>	<b>8900</b>	D <sup>400</sup>	<b>9400</b>	D <sup>1000</sup>	<b>2200</b>	D <sup>200</sup>	<b>2700</b>	D <sup>50</sup>	8.9	D <sup>20</sup>	<b>6900</b>	
Phenanthrene	50	<b>100</b>	D <sup>20</sup>	<b>53</b>	D <sup>40</sup>	<b>62</b>	D <sup>50</sup>	40	D <sup>200</sup>	<b>52</b>	D <sup>50</sup>	<b>84</b>	D <sup>20</sup>	80	U
Phenol	1	<b>120</b>	D <sup>5</sup>	<b>61</b>	D <sup>5</sup>	<b>87</b>	D <sup>5</sup>	35	U, D <sup>5</sup>	350	U, D <sup>50</sup>	<b>17</b>		<b>27</b>	

**Notes:**

- Groundwater samples were compared to New York State Department of Environmental Conservation (NYSDEC) Technical and Operations Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards (AWQS).

- Values exceeding NYSDEC TOGS 1.1.1 AWQS are highlighted and BOLD.

- Method Detection Limits (MDLs) are elevated above TOGS criteria in the majority of the samples due to high levels of contamination.

- µg/L: Micrograms per liter

\* Monitoring well MW-S was destroyed during construction activities. No data is available for the 3rd Quarter 2009.

\*\* Monitoring wells MW-N and MW-S were destroyed due to construction activities. Monitoring wells MW-N2 and MW-S2 were installed in the approximate locations of MW-N and MW-S once construction was complete. New monitoring well locations are shown on Figure 2.

**Qualifiers:**

U - Indicates the minimum detection Limit (MDL) is reported. The concentration of the analyte is less than the MDL.

D<sup>x</sup> - Dilution factor of X

R1 - Analyte Results are from sample re-analysis

**Table 2**  
**SVOC Exceedances in Groundwater Samples**  
**River Place II**  
**New York, New York**  
**Langan Project No. 170040901**

SAMPLING DATE	NYSDEC TOGS 1.1.1 AWQS	Park Area Southern Well*								Quality Control							
		1st Quarter		1st Quarter		2nd Quarter		4th Quarter**		1st Quarter 2010		2nd Quarter 2010		3rd Quarter 2010		1st Quarter	
		3/16/2009		3/16/2009		6/17/2009		1/7/2010		3/1/2010		6/10/2010		9/8/2010		3/16/2009	
LANGAN SAMPLE ID		MW-S-3-16-09		DUP-3-16-09		MW-S-6-17-09		MW-S2-1-7-10		MW-S2-3-1-10		MW-S2-6-10-10		MW-S2-9-8-10		FB-3-16-09	
LAB SAMPLE ID		L0903143-02		L0903143-03		L0908040-02		L0908040-02		L1003006-02		L1008735-01		L1013903-02		L0903143-04	
<b>Semi-Volatile Organics (µg/L)</b>				Duplicate of													
<b>Westborough Lab</b>				MW-N-3-16-09													
2,4-Dimethylphenol	50	10	U	<b>1800</b>	D <sup>25</sup>	10	U	10	U	500	U, D <sup>50</sup>	10	U	10	U	9.6	U
Acenaphthene	20	14		<b>160</b>	D <sup>200</sup>	0.2	U	200	U, D <sup>1000</sup>	<b>63</b>	D <sup>50</sup>	7	U	<b>41</b>		0.19	U
Benzo(a)pyrene	0	0.2	U	39	U, D <sup>5</sup>	0.2	U	200	U, D <sup>1000</sup>	15	D <sup>50</sup>	5	U	10	U	0.19	U
Benzo(b)fluoranthene	0.002	0.2	U	39	U, D <sup>5</sup>	0.2	U	200	U, D <sup>1000</sup>	<b>14</b>	D <sup>50</sup>	<b>4</b>	D <sup>10</sup>	10	U	0.19	U
Bis(2-Ethylhexyl)phthalate	5	5	U	24	U, D <sup>5</sup>	5.1	U	5	U	250	U, D <sup>50</sup>	5	U	5	U	4.8	U
Chrysene	0.002	0.2	U	39	U, D <sup>5</sup>	0.2	U	200	U, D <sup>1000</sup>	10	U, D <sup>50</sup>	<b>1600</b>	D <sup>100</sup>	10	U	0.19	U
Fluorene	50	8.9		<b>80</b>	D <sup>5</sup>	0.2	U	200	U, D <sup>1000</sup>	<b>61</b>	D <sup>50</sup>	4	D <sup>10</sup>	36		0.19	U
Naphthalene	10	<b>300</b>	D <sup>10</sup>	<b>14000</b>	D <sup>400</sup>	0.62		<b>11000</b>	D <sup>1000</sup>	<b>1400</b>	D <sup>100</sup>	4.8	D <sup>10</sup>	<b>990</b>		0.34	
Phenanthrene	50	11		<b>150</b>	D <sup>5</sup>	0.2	U	200	U, D <sup>1000</sup>	<b>120</b>	D <sup>50</sup>	74	D <sup>10</sup>	<b>52</b>		0.19	U
Phenol	1	7	U	<b>110</b>	D <sup>5</sup>	7.2	U	<b>7.7</b>		350	U, D <sup>50</sup>	7	U	7	U	6.7	U

**Notes:**

- Groundwater samples were compared to New York State Department of Environmental Conservation (NYSDEC) Technical and Operations Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards (AWQS).

- Values exceeding NYSDEC TOGS 1.1.1 AWQS are highlighted and BOLD.

- Method Detection Limits (MDLs) are elevated above TOGS criteria in the majority of the samples due to high levels of contamination.

- µg/L: Micrograms per liter

\* Monitoring well MW-S was destroyed during construction activities. No data is available for the 3rd Quarter 2009.

\*\* Monitoring wells MW-N and MW-S were destroyed due to construction activities. Monitoring wells MW-N2 and MW-S2 were installed in the approximate locations of MW-N and MW-S once construction was complete. New monitoring well locations are shown on Figure 2.

**Qualifiers:**

U - Indicates the minimum detection Limit (MDL) is reported. The concentration of the analyte is less than the MDL.

D<sup>x</sup> - Dilution factor of X

R1 - Analyte Results are from sample re-analysis

**Table 3  
Total Metals and Cyanide Exceedances in Groundwater Samples  
River Place II  
New York, New York  
Langan Project No. 170040901**

		Park Area Northern Well								
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter**	1st Quarter 2010	2nd Quarter 2010	3rd Quarter 2010		
LANGAN SAMPLE ID	NYSDEC TOGS 1.1.1 AWQS	MW-N-3-16-09	MW-N-6-17-09	MW-N-9/18/09	MW-N2-1-7-2010	MW-N2-3-1-2010	MW-N2-6-10-10	MW-N2-9-8-10		
SAMPLING DATE		3/16/2009	6/17/2009	9/18/2009	1/7/2010	3/1/2010	6/10/2010	9/8/2010		
LAB SAMPLE ID		L0903143-01	L0908040-01	L0913185-01	L1000282-01	L1000282-01	L1008735-02	L1013903-01		
<b>Total Metals (µg/L)</b>										
<b>Wesborough Lab</b>										
Iron, Total	300	<b>5300</b>	<b>1900</b>	<b>1200</b>	<b>3500</b>	<b>4000</b>	<b>4800</b>	<b>2600</b>		
Lead, Total	25	15	10 U	10 U	10 U	10 U	10 U	10 U		
Magnesium, Total	35000	<b>70000</b>	<b>70000</b>	<b>59000</b>	<b>83000</b>	<b>46000</b>	<b>46000</b>	<b>51000</b>		
Manganese, Total	300	<b>1570</b>	<b>1570</b>	<b>1340</b>	<b>746</b>	<b>603</b>	<b>632</b>	<b>528</b>		
Sodium, Total	20000	<b>300000</b> D <sup>5</sup>	<b>270000</b>	<b>250000</b>	<b>240000</b>	<b>110000</b>	<b>160000</b>	<b>200000</b>		
<b>Cyanide (ug/L) - Wesborough Lab</b>										
Cyanide, Total	200	<b>1100</b> D <sup>10</sup>	<b>789</b> D <sup>9</sup>	<b>799</b> D <sup>2</sup>	<b>890</b> D <sup>10</sup>	<b>1780</b> D <sup>10</sup>	<b>1500</b> D <sup>9</sup>	<b>1060</b> D <sup>10</sup>		

**Notes:**

- Groundwater samples were compared to New York State Department of Environmental Conservation (NYSDEC) Technical and Operations Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards (AWQS).
- Values exceeding NYSDEC TOGS 1.1.1 AWQS are highlighted and BOLD.
- Method Detection Limits (MDLs) are elevated above TOGS criteria in the majority of the samples due to high levels of contamination
- µg/L: Micrograms per liter
- \* Monitoring well MW-S was destroyed during construction activities. No data is available for the 3rd Quarter 2009.
- \*\* Monitoring wells MW-N and MW-S were destroyed due to construction activities. Monitoring wells MW-N2 and MW-S2 were installed in the approximate locations of MW-N and MW-S once construction was complete. New monitoring well locations are shown on Figure 2.

**Qualifiers:**

- U - Indicates the minimum detection Limit (MDL) is reported. The concentration of the analyte is less than the MDL.
- D<sup>x</sup> - Dillution factor of X
- R1 - Analytical Results are from sample re-analysis

**Table 3**  
**Total Metals and Cyanide Exceedances in Groundwater Samples**  
**River Place II**  
**New York, New York**  
**Langan Project No. 170040901**

LANGAN SAMPLE ID	NYSDEC TOGS 1.1.1 AWQS	Park Area Southern Well*									Quality Control
		1st Quarter	1st Quarter	2nd Quarter	4th Quarter**	1st Quarter 2010	2nd Quarter 2010	3rd Quarter 2010	1st Quarter		
SAMPLING DATE		MW-S-3-16-09 3/16/2009	DUP-3-16-09 3/16/2009	MW-S-6-17-09 6/17/2009	MW-S2-1-7-2010 1/7/2010	MW-N2-3-1-2010 3/1/2010	MW-S2-6-10-10 6/10/2010	MW-S2-9-8-10 9/8/2010	FB-3-16-09 3/16/2009		
LAB SAMPLE ID		L0903143-02	L0903143-03	L0908040-02	L1000282-02	L1000282-01	L1008735-01	L1013903-02	L0903143-04		
Total Metals (µg/L)			Duplicate of MW-N-3-16-09								
Wesborough Lab											
Iron, Total	300	<b>21000</b>	<b>2700</b>	<b>9200</b>	<b>3200</b>	<b>11000</b>	<b>5000</b>	<b>9800</b>	50	U	
Lead, Total	25	<b>158</b>	10 U	<b>45</b>	17	<b>117</b>	<b>29</b>	<b>86</b>	10	U	
Magnesium, Total	35000	<b>71000</b>	<b>72000</b>	<b>48000</b>	<b>120000</b>	<b>87000</b>	<b>85000</b>	<b>93000</b>	100	U	
Manganese, Total	300	<b>598</b>	<b>1430</b>	<b>403</b>	<b>327</b>	<b>636</b>	<b>430</b>	<b>492</b>	10	U	
Sodium, Total	20000	<b>96000</b>	<b>320000</b> D <sup>5</sup>	<b>100000</b>	<b>98000</b>	<b>89000</b>	<b>68000</b>	<b>76000</b>	2000	U	
<b>Cyanide (ug/L) - Wesborough Lab</b>											
Cyanide, Total	200	<b>1920</b> D <sup>10</sup>	<b>1090</b> D <sup>10</sup>	<b>1920</b> D <sup>5</sup>	<b>1090</b> D <sup>10</sup>	<b>973</b> D <sup>5</sup>	<b>1110</b> D <sup>5</sup>	<b>1540</b> D <sup>10</sup>	5	U, D <sup>5</sup>	

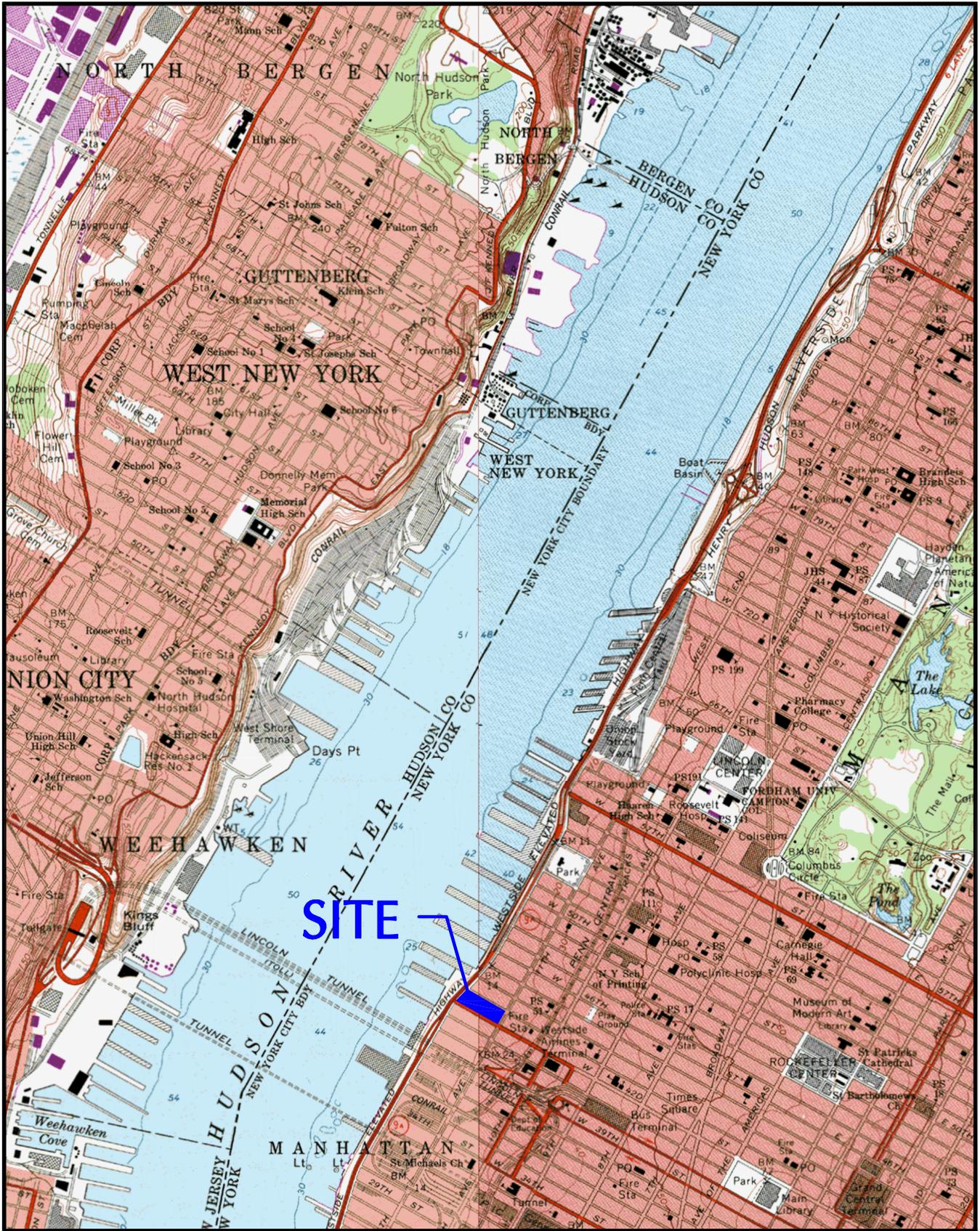
**Notes:**

- Groundwater samples were compared to New York State Department of Environmental Conservation (NYSDEC) Technical and Operations Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards (AWQS).
- Values exceeding NYSDEC TOGS 1.1.1 AWQS are highlighted and BOLD.
- Method Detection Limits (MDLs) are elevated above TOGS criteria in the majority of the samples due to high levels of contamination
- µg/L: Micrograms per liter
- \* Monitoring well MW-S was destroyed during construction activities. No data is available for the 3rd Quarter 2009.
- \*\* Monitoring wells MW-N and MW-S were destroyed due to construction activities. Monitoring wells MW-N2 and MW-S2 were installed in the approximate locations of MW-N and MW-S once construction was complete. New monitoring well locations are shown on Figure 2.

**Qualifiers:**

- U - Indicates the minimum detection Limit (MDL) is reported. The concentration of the analyte is less than the MDL.
- D<sup>x</sup> - Dillution factor of X
- R1 - Analytical Results are from sample re-analysis

# FIGURES



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NEW JERSEY PENNSYLVANIA NEW YORK CONNECTICUT FLORIDA NEVADA

NJ Certificate of Authorization No: 24GA27996400

Project

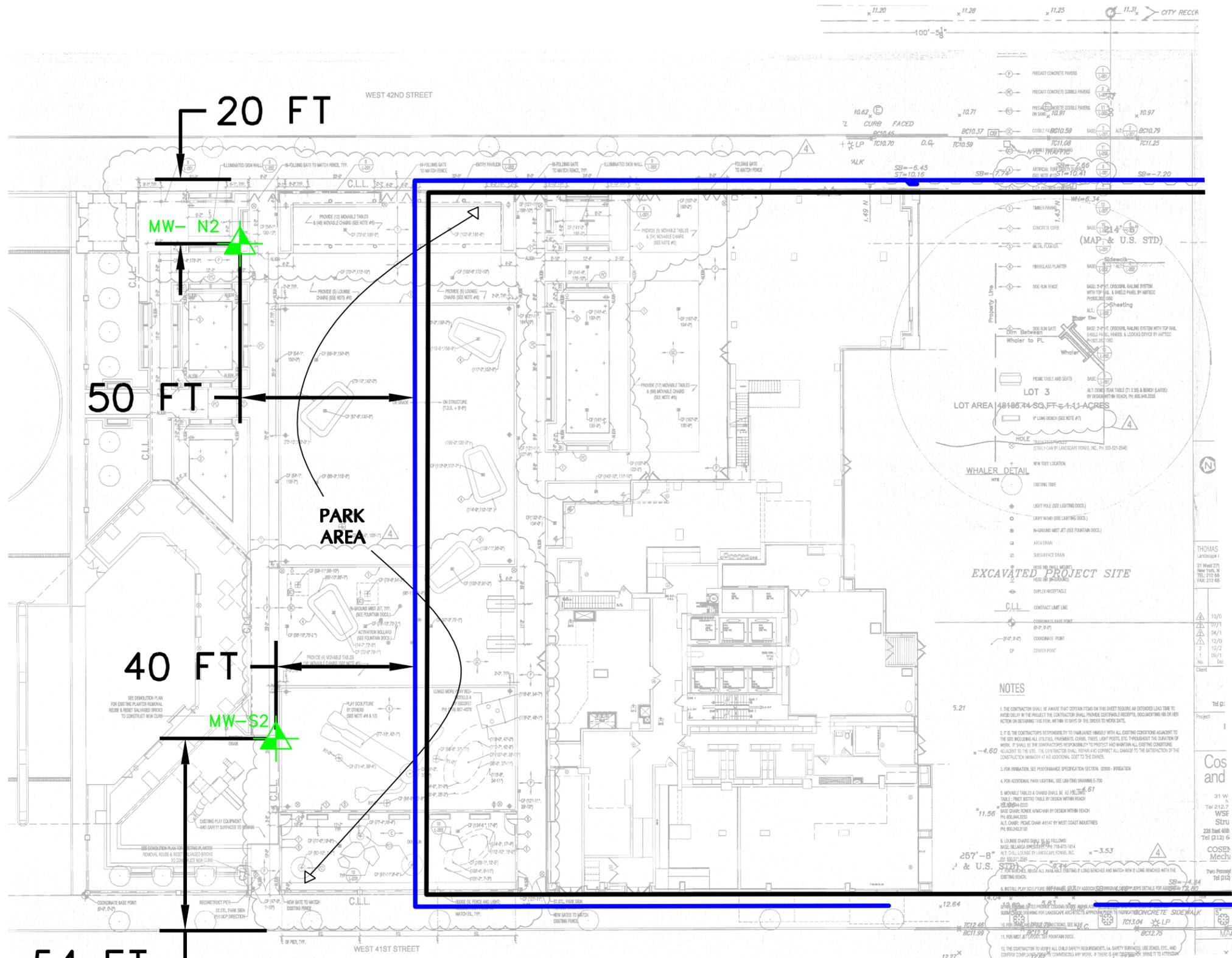
## SITE LOCATION MAP

RIVER PLACE I AND II

NEW YORK

NEW YORK

Project No. 170040901	Date 04/07/09	Scale NTS	Dwg. No. 1
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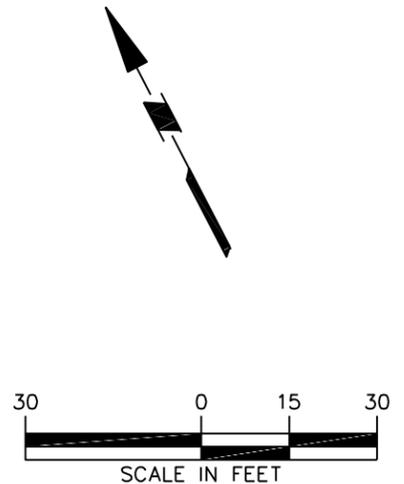


**NOTES:**

1. BASEMAP TAKEN FROM MANHATTAN-SURVEYING ARCHITECTURAL SURVEY DATED JUNE 3, 2006 AND PARK LAYOUT AND MATERIALS PLAN BY COSTAS KONDYLIS AND PARTNERS LLP ARCHITECTS DATED OCTOBER 1, 2008.
2. MONITORING WELLS WERE RE-INSTALLED ON DECEMBER 28, 2009. LOCATIONS ARE APPROXIMATE.

**LEGEND**

-  MW- N2 APPROXIMATE LOCATION OF MONITORING WELLS IN ACCORDANCE WITH SITE MANAGEMENT PLAN
-  SHEET PILE WALL
-  PROPERTY BOUNDARY (RIVER PLACE II)



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NEW JERSEY PENNSYLVANIA NEW YORK CONNECTICUT FLORIDA NEVADA  
NJ Certificate of Authorization No: 24GA27996400

Project			
<b>MONITORING WELL LOCATION MAP</b>			
RIVER PLACE I & II			
NEW YORK		NEW YORK	
Project No.	Date	Scale	Dwg. No.
170040901	01/21/2010	1" = 30'	2

# **Attachment A**

## GROUND WATER SAMPLE FIELD INFORMATION FORM

Site: River Place	Well#/Location: MW-N2	Job No. 170040901
Date: 9/8/10	Weather: 80-deg F, Sunny	Sampling Personnel: S. Flanagan

**Well Information**

Sample ID	MW-N2-9-8-10
Well Depth (ft) <sup>1</sup>	19.55
Screened Interval (ft)	15
Casing Elevation (msl)	-
Casing Diameter (in)	2
Depth to Water (ft) <sup>1</sup>	9.59
Water Elevation (msl)	-
Casing Volume (gal)	1.62
PID/FID Reading (ppm)	-

**Purging Information**

Purging Method	Wattera Pump
Purging Rate (gpm)	0.1
Start Purge Time	9:08 AM
End Purge Time	10:00 AM
Volume Purged (gal)	5

**Sampling Information**

Sampling Method	Wattera Pump
Start Sampling Time	10:02 AM
End Sampling Time	10:15 AM
Depth Before Sampling (ft)	9.80
Number Bottles Collected	7

Sample Time	Parameters							
	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	ORP (mV)	Depth to Water (ft)	Purged Volume (gallons)
9:10	6.89	2.49	90.3	0.61	18.7	-219	9.59	0.25
9:15	6.86	2.36	113.0	0.00	18.8	-254		
9:20	6.75	2.06	84.3	0.00	19.1	-230		1
9:25	6.74	1.99	39.3	0.00	19.7	-245	9.95	
9:30	6.76	2.03	28.5	0.00	20.6	-268		2
9:35	6.81	2.11	22.9	0.00	21.1	-285		
9:40	6.85	2.17	18.0	0.00	21.7	-299	9.82	3
9:45	6.87	2.21	16.8	0.00	20.2	-309		
9:50	6.87	2.21	15.2	0.00	20.3	-311		4
9:55	6.87	2.22	14.1	0.00	20.2	-315	9.88	
10:00	6.87	2.22	14.5	0.00	20.4	-318		5

**Notes/Remarks**

**NOTES:**  
 Monitoring well was purged from 9:08 AM until 10:00 AM. The sample was collected at 10:15 AM.

**QUALIFIERS:**  
 1. Depth to water measured from Top of Well Casing.



## GROUND WATER SAMPLE FIELD INFORMATION FORM

<b>Site:</b> River Place	<b>Well#/Location:</b> MW-S2	<b>Job No.:</b> 170040901
<b>Date:</b> 9/8/10	<b>Weather:</b> 80-deg F, Sunny	<b>Sampling Personnel:</b> S. Flanagan

### Well Information

Sample ID	MW-S2-9-8-10
Well Depth (ft) <sup>1</sup>	19.35
Screened Interval (ft)	15
Casing Elevation (msl)	-
Casing Diameter (in)	2
Depth to Water (ft) <sup>1</sup>	9.06
Water Elevation (msl)	-
Casing Volume (gal)	1.68
PID/FID Reading (ppm)	-

### Purging Information

Purging Method	Wattera Pump
Purging Rate (gpm)	0.1
Start Purge Time	11:37 AM
End Purge Time	1:12 PM
Volume Purged (gal)	8

### Sampling Information

Sampling Method	Wattera Pump
Start Sampling Time	1:15 PM
End Sampling Time	1:40 PM
Depth Before Sampling (ft)	10.41
Number Bottles Collected	7

### Parameters

Sample Time	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	ORP (mV)	Depth to Water (ft)	Purged Volume (gallons)
11:40	7.03	2.10	214.0	0.00	19.5	-185	9.06	0.2
11:45	7.00	2.03	63.6	0.00	19.8	-227		
11:50	6.99	2.05	47.1	0.00	19.6	-246		2
11:55	6.96	2.08	73.4	0.00	20.6	-270	10.03	3
12:00	6.95	2.08	63.9	0.00	20.8	-282		
12:05	6.95	2.08	58.3	0.00	20.7	-285		4
12:10	6.94	2.08	57.2	0.00	21.1	-289	10.02	
12:15	6.96	2.25	74.8	0.00	22.4	-282		4.25
12:20	6.96	2.23	67.3	0.00	22.0	-293		
12:25	6.96	2.22	72.5	0.00	21.7	-297	10.02	4.5
12:30	6.96	2.26	68.2	0.00	21.0	-297		
12:35	6.94	2.21	59.7	0.00	20.4	-296		5
12:40	6.93	2.22	57.4	0.00	20.3	-297	10.2	
12:45	6.92	2.21	52.6	0.00	20.5	-302		
12:50	6.91	2.21	49.4	0.00	20.4	-305		6
12:55	6.91	2.20	55.9	0.00	20.5	-310		
13:00	6.92	2.19	54.3	0.00	20.5	-314	10.4	7
13:05	6.93	2.18	52.1	0.00	20.6	-319		
13:10	6.93	2.18	53.6	0.00	20.7	-220	10.41	8

### Notes/Remarks

**NOTES:**

Monitoring well was purged from 11:37 AM until 1:12 PM. The sample was collected at 1:40 PM.

**QUALIFIERS:**

1. Depth to water measured from Top of Well Casing.



## **Attachment B**



## ANALYTICAL REPORT

Lab Number:	L1013903
Client:	Langan Engineering and Environmental Ser 21 Penn Plaza 360 W. 31st Street 8th Floor New York, NY 10001-2727
ATTN:	Jason Hayes
Phone:	(212) 479-5427
Project Name:	RIVER PLACE I AND II
Project Number:	170040901
Report Date:	09/15/10

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1013903-01	MW-N2-9-8-10	W 42ND ST. NY, NY	09/08/10 10:15
L1013903-02	MW-S2-9-8-10	W 42ND ST. NY, NY	09/08/10 13:40
L1013903-03	TB-9-8-10	W 42ND ST. NY, NY	09/08/10 00:00

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

For additional information, please contact Client Services at 800-624-9220.

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#### Volatile Organics

L1013903-01 and -02 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

#### Semivolatile Organics

The WG431798-3 LCSD recovery, associated with L1013903-01 and -02, was above the acceptance criteria for 2,4-Dinitrotoluene (98%); however, the associated samples were non-detect for this target compound. The results of the original analysis are reported.

#### Semivolatile Organics - SIM

L1013903-01 and -02 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

### Case Narrative (continued)

The surrogate recoveries for L1013903-01 and -02 are below the acceptance criteria for 2-Fluorophenol, Phenol-d6, Nitrobenzene-d5, 2-Fluorobiphenyl, 2,4,6-Tribromophenol, and 4-Terphenyl-d14 (all 0%) due to the dilutions required to quantitate the samples. Re-extraction is not required; therefore, the results of the original analyses are reported.

The surrogate recovery for the WG431800-1 Method Blank, associated with L1013903-01 and -02, is above the acceptance criteria for 2,4,6-Tribromophenol (126%). Since the Method Blank was non-detect for all target analytes, re-analysis is not required.

The WG431800-2/-3 LCS/LCSD recoveries, associated with L1013903-01 and -02, were above the acceptance criteria for 2-Chloronaphthalene (LCS at 184%) and Pentachlorophenol (LCSD at 108%); however, the associated samples were non-detect for these target compounds. The results of the original analysis are reported. In addition, the associated LCS/LCSD RPD is above the acceptance criteria for 2-Chloronaphthalene (52%).

#### Metals

L1013903-01 and -02 have elevated detection limits for Antimony, Beryllium and Thallium due to the dilutions required by the high concentrations of non-target analytes. The requested reporting limit for Thallium was not achieved.

The WG431685-4 MS recovery, performed on L1013903-01, is below the acceptance criteria for Selenium (74%). A post digestion spike was performed with an acceptable recovery of 117%.

The WG431685-4 MS recovery for Sodium (200%), performed on L1013903-01, is invalid because the sample concentration is greater than four times the spike amount added.

#### Cyanide, Total

L1013903-01 and -02 have elevated detection limits due to the dilutions required to quantitate the results within the calibration range.

#### Cyanide, Amenable

L1013903-01 and -02 have elevated detection limits due to the dilutions required to quantitate the results

**Project Name:** RIVER PLACE I AND II  
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**Case Narrative (continued)**

within the calibration range.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Elizabeth Simmons

Title: Technical Director/Representative

Date: 09/15/10

# ORGANICS

# VOLATILES

**Project Name:** RIVER PLACE I AND II**Lab Number:** L1013903**Project Number:** 170040901**Report Date:** 09/15/10**SAMPLE RESULTS**

**Lab ID:** L1013903-01 D  
**Client ID:** MW-N2-9-8-10  
**Sample Location:** W 42ND ST. NY, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260B  
**Analytical Date:** 09/10/10 14:16  
**Analyst:** PD

**Date Collected:** 09/08/10 10:15  
**Date Received:** 09/08/10  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	1200	--	250
1,1-Dichloroethane	ND		ug/l	190	--	250
Chloroform	ND		ug/l	190	--	250
Carbon tetrachloride	ND		ug/l	120	--	250
1,2-Dichloropropane	ND		ug/l	440	--	250
Dibromochloromethane	ND		ug/l	120	--	250
1,1,2-Trichloroethane	ND		ug/l	190	--	250
Tetrachloroethene	ND		ug/l	120	--	250
Chlorobenzene	ND		ug/l	120	--	250
Trichlorofluoromethane	ND		ug/l	620	--	250
1,2-Dichloroethane	ND		ug/l	120	--	250
1,1,1-Trichloroethane	ND		ug/l	120	--	250
Bromodichloromethane	ND		ug/l	120	--	250
trans-1,3-Dichloropropene	ND		ug/l	120	--	250
cis-1,3-Dichloropropene	ND		ug/l	120	--	250
1,1-Dichloropropene	ND		ug/l	620	--	250
Bromoform	ND		ug/l	500	--	250
1,1,2,2-Tetrachloroethane	ND		ug/l	120	--	250
Benzene	2100		ug/l	120	--	250
Toluene	290		ug/l	190	--	250
Ethylbenzene	810		ug/l	120	--	250
Chloromethane	ND		ug/l	620	--	250
Bromomethane	ND		ug/l	250	--	250
Vinyl chloride	ND		ug/l	250	--	250
Chloroethane	ND		ug/l	250	--	250
1,1-Dichloroethene	ND		ug/l	120	--	250
trans-1,2-Dichloroethene	ND		ug/l	190	--	250
Trichloroethene	ND		ug/l	120	--	250
1,2-Dichlorobenzene	ND		ug/l	620	--	250
1,3-Dichlorobenzene	ND		ug/l	620	--	250

**Project Name:** RIVER PLACE I AND II**Lab Number:** L1013903**Project Number:** 170040901**Report Date:** 09/15/10**SAMPLE RESULTS**

Lab ID: L1013903-01 D

Date Collected: 09/08/10 10:15

Client ID: MW-N2-9-8-10

Date Received: 09/08/10

Sample Location: W 42ND ST. NY, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,4-Dichlorobenzene	ND		ug/l	620	--	250
Methyl tert butyl ether	ND		ug/l	250	--	250
p/m-Xylene	1100		ug/l	250	--	250
o-Xylene	590		ug/l	250	--	250
cis-1,2-Dichloroethene	ND		ug/l	120	--	250
Dibromomethane	ND		ug/l	1200	--	250
1,2,3-Trichloropropane	ND		ug/l	1200	--	250
Acrylonitrile	ND		ug/l	1200	--	250
Styrene	ND		ug/l	250	--	250
Dichlorodifluoromethane	ND		ug/l	1200	--	250
Acetone	ND		ug/l	1200	--	250
Carbon disulfide	ND		ug/l	1200	--	250
2-Butanone	ND		ug/l	1200	--	250
Vinyl acetate	ND		ug/l	1200	--	250
4-Methyl-2-pentanone	ND		ug/l	1200	--	250
2-Hexanone	ND		ug/l	1200	--	250
Bromochloromethane	ND		ug/l	620	--	250
2,2-Dichloropropane	ND		ug/l	620	--	250
1,2-Dibromoethane	ND		ug/l	500	--	250
1,3-Dichloropropane	ND		ug/l	620	--	250
1,1,1,2-Tetrachloroethane	ND		ug/l	120	--	250
Bromobenzene	ND		ug/l	620	--	250
n-Butylbenzene	ND		ug/l	120	--	250
sec-Butylbenzene	ND		ug/l	120	--	250
tert-Butylbenzene	ND		ug/l	620	--	250
o-Chlorotoluene	ND		ug/l	620	--	250
p-Chlorotoluene	ND		ug/l	620	--	250
1,2-Dibromo-3-chloropropane	ND		ug/l	620	--	250
Hexachlorobutadiene	ND		ug/l	150	--	250
Isopropylbenzene	ND		ug/l	120	--	250
p-Isopropyltoluene	ND		ug/l	120	--	250
Naphthalene	12000		ug/l	620	--	250
n-Propylbenzene	ND		ug/l	120	--	250
1,2,3-Trichlorobenzene	ND		ug/l	620	--	250
1,2,4-Trichlorobenzene	ND		ug/l	620	--	250
1,3,5-Trimethylbenzene	ND		ug/l	620	--	250
1,2,4-Trimethylbenzene	ND		ug/l	620	--	250

**Project Name:** RIVER PLACE I AND II**Lab Number:** L1013903**Project Number:** 170040901**Report Date:** 09/15/10**SAMPLE RESULTS**

Lab ID: L1013903-01 D

Date Collected: 09/08/10 10:15

Client ID: MW-N2-9-8-10

Date Received: 09/08/10

Sample Location: W 42ND ST. NY, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,4-Diethylbenzene	ND		ug/l	500	--	250
4-Ethyltoluene	ND		ug/l	500	--	250
1,2,4,5-Tetramethylbenzene	ND		ug/l	500	--	250
Ethyl ether	ND		ug/l	620	--	250
trans-1,4-Dichloro-2-butene	ND		ug/l	620	--	250

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	123		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	98		70-130

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

**SAMPLE RESULTS**

**Lab ID:** L1013903-02 D  
**Client ID:** MW-S2-9-8-10  
**Sample Location:** W 42ND ST. NY, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260B  
**Analytical Date:** 09/10/10 14:50  
**Analyst:** PD

**Date Collected:** 09/08/10 13:40  
**Date Received:** 09/08/10  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	250	--	50
1,1-Dichloroethane	ND		ug/l	38	--	50
Chloroform	ND		ug/l	38	--	50
Carbon tetrachloride	ND		ug/l	25	--	50
1,2-Dichloropropane	ND		ug/l	88	--	50
Dibromochloromethane	ND		ug/l	25	--	50
1,1,2-Trichloroethane	ND		ug/l	38	--	50
Tetrachloroethene	ND		ug/l	25	--	50
Chlorobenzene	ND		ug/l	25	--	50
Trichlorofluoromethane	ND		ug/l	120	--	50
1,2-Dichloroethane	ND		ug/l	25	--	50
1,1,1-Trichloroethane	ND		ug/l	25	--	50
Bromodichloromethane	ND		ug/l	25	--	50
trans-1,3-Dichloropropene	ND		ug/l	25	--	50
cis-1,3-Dichloropropene	ND		ug/l	25	--	50
1,1-Dichloropropene	ND		ug/l	120	--	50
Bromoform	ND		ug/l	100	--	50
1,1,2,2-Tetrachloroethane	ND		ug/l	25	--	50
Benzene	110		ug/l	25	--	50
Toluene	ND		ug/l	38	--	50
Ethylbenzene	460		ug/l	25	--	50
Chloromethane	ND		ug/l	120	--	50
Bromomethane	ND		ug/l	50	--	50
Vinyl chloride	ND		ug/l	50	--	50
Chloroethane	ND		ug/l	50	--	50
1,1-Dichloroethene	ND		ug/l	25	--	50
trans-1,2-Dichloroethene	ND		ug/l	38	--	50
Trichloroethene	ND		ug/l	25	--	50
1,2-Dichlorobenzene	ND		ug/l	120	--	50
1,3-Dichlorobenzene	ND		ug/l	120	--	50

Project Name: RIVER PLACE I AND II

Lab Number: L1013903

Project Number: 170040901

Report Date: 09/15/10

## SAMPLE RESULTS

Lab ID: L1013903-02 D  
 Client ID: MW-S2-9-8-10  
 Sample Location: W 42ND ST. NY, NY

Date Collected: 09/08/10 13:40  
 Date Received: 09/08/10  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,4-Dichlorobenzene	ND		ug/l	120	--	50
Methyl tert butyl ether	ND		ug/l	50	--	50
p/m-Xylene	82		ug/l	50	--	50
o-Xylene	70		ug/l	50	--	50
cis-1,2-Dichloroethene	ND		ug/l	25	--	50
Dibromomethane	ND		ug/l	250	--	50
1,2,3-Trichloropropane	ND		ug/l	250	--	50
Acrylonitrile	ND		ug/l	250	--	50
Styrene	ND		ug/l	50	--	50
Dichlorodifluoromethane	ND		ug/l	250	--	50
Acetone	ND		ug/l	250	--	50
Carbon disulfide	ND		ug/l	250	--	50
2-Butanone	ND		ug/l	250	--	50
Vinyl acetate	ND		ug/l	250	--	50
4-Methyl-2-pentanone	ND		ug/l	250	--	50
2-Hexanone	ND		ug/l	250	--	50
Bromochloromethane	ND		ug/l	120	--	50
2,2-Dichloropropane	ND		ug/l	120	--	50
1,2-Dibromoethane	ND		ug/l	100	--	50
1,3-Dichloropropane	ND		ug/l	120	--	50
1,1,1,2-Tetrachloroethane	ND		ug/l	25	--	50
Bromobenzene	ND		ug/l	120	--	50
n-Butylbenzene	ND		ug/l	25	--	50
sec-Butylbenzene	ND		ug/l	25	--	50
tert-Butylbenzene	ND		ug/l	120	--	50
o-Chlorotoluene	ND		ug/l	120	--	50
p-Chlorotoluene	ND		ug/l	120	--	50
1,2-Dibromo-3-chloropropane	ND		ug/l	120	--	50
Hexachlorobutadiene	ND		ug/l	30	--	50
Isopropylbenzene	44		ug/l	25	--	50
p-Isopropyltoluene	ND		ug/l	25	--	50
Naphthalene	1900		ug/l	120	--	50
n-Propylbenzene	30		ug/l	25	--	50
1,2,3-Trichlorobenzene	ND		ug/l	120	--	50
1,2,4-Trichlorobenzene	ND		ug/l	120	--	50
1,3,5-Trimethylbenzene	ND		ug/l	120	--	50
1,2,4-Trimethylbenzene	150		ug/l	120	--	50

**Project Name:** RIVER PLACE I AND II**Lab Number:** L1013903**Project Number:** 170040901**Report Date:** 09/15/10**SAMPLE RESULTS**

Lab ID: L1013903-02 D

Date Collected: 09/08/10 13:40

Client ID: MW-S2-9-8-10

Date Received: 09/08/10

Sample Location: W 42ND ST. NY, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,4-Diethylbenzene	ND		ug/l	100	--	50
4-Ethyltoluene	ND		ug/l	100	--	50
1,2,4,5-Tetramethylbenzene	ND		ug/l	100	--	50
Ethyl ether	ND		ug/l	120	--	50
trans-1,4-Dichloro-2-butene	ND		ug/l	120	--	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	97		70-130

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

**SAMPLE RESULTS**

**Lab ID:** L1013903-03  
**Client ID:** TB-9-8-10  
**Sample Location:** W 42ND ST. NY, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260B  
**Analytical Date:** 09/10/10 13:42  
**Analyst:** PD

**Date Collected:** 09/08/10 00:00  
**Date Received:** 09/08/10  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	5.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1

**Project Name:** RIVER PLACE I AND II**Lab Number:** L1013903**Project Number:** 170040901**Report Date:** 09/15/10**SAMPLE RESULTS**

Lab ID: L1013903-03  
 Client ID: TB-9-8-10  
 Sample Location: W 42ND ST. NY, NY

Date Collected: 09/08/10 00:00  
 Date Received: 09/08/10  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	ND		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1

**Project Name:** RIVER PLACE I AND II**Lab Number:** L1013903**Project Number:** 170040901**Report Date:** 09/15/10**SAMPLE RESULTS**

Lab ID: L1013903-03

Date Collected: 09/08/10 00:00

Client ID: TB-9-8-10

Date Received: 09/08/10

Sample Location: W 42ND ST. NY, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,4-Diethylbenzene	ND		ug/l	2.0	--	1
4-Ethyltoluene	ND		ug/l	2.0	--	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	99		70-130

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260B  
Analytical Date: 09/10/10 09:39  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG431847-3					
Methylene chloride	ND		ug/l	5.0	--
1,1-Dichloroethane	ND		ug/l	0.75	--
Chloroform	ND		ug/l	0.75	--
Carbon tetrachloride	ND		ug/l	0.50	--
1,2-Dichloropropane	ND		ug/l	1.8	--
Dibromochloromethane	ND		ug/l	0.50	--
1,1,2-Trichloroethane	ND		ug/l	0.75	--
Tetrachloroethene	ND		ug/l	0.50	--
Chlorobenzene	ND		ug/l	0.50	--
Trichlorofluoromethane	ND		ug/l	2.5	--
1,2-Dichloroethane	ND		ug/l	0.50	--
1,1,1-Trichloroethane	ND		ug/l	0.50	--
Bromodichloromethane	ND		ug/l	0.50	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.5	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	0.75	--
Ethylbenzene	ND		ug/l	0.50	--
Chloromethane	ND		ug/l	2.5	--
Bromomethane	ND		ug/l	1.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	1.0	--
1,1-Dichloroethene	ND		ug/l	0.50	--
trans-1,2-Dichloroethene	ND		ug/l	0.75	--
Trichloroethene	ND		ug/l	0.50	--
1,2-Dichlorobenzene	ND		ug/l	2.5	--
1,3-Dichlorobenzene	ND		ug/l	2.5	--
1,4-Dichlorobenzene	ND		ug/l	2.5	--

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260B  
Analytical Date: 09/10/10 09:39  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG431847-3					
Methyl tert butyl ether	ND		ug/l	1.0	--
p/m-Xylene	ND		ug/l	1.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	0.50	--
Dibromomethane	ND		ug/l	5.0	--
1,2,3-Trichloropropane	ND		ug/l	5.0	--
Acrylonitrile	ND		ug/l	5.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	5.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	5.0	--
Vinyl acetate	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.5	--
2,2-Dichloropropane	ND		ug/l	2.5	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.5	--
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--
Bromobenzene	ND		ug/l	2.5	--
n-Butylbenzene	ND		ug/l	0.50	--
sec-Butylbenzene	ND		ug/l	0.50	--
tert-Butylbenzene	ND		ug/l	2.5	--
o-Chlorotoluene	ND		ug/l	2.5	--
p-Chlorotoluene	ND		ug/l	2.5	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	0.50	--
p-Isopropyltoluene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	2.5	--

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260B  
Analytical Date: 09/10/10 09:39  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG431847-3					
n-Propylbenzene	ND		ug/l	0.50	--
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--
1,4-Diethylbenzene	ND		ug/l	2.0	--
4-Ethyltoluene	ND		ug/l	2.0	--
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.5	--
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	99		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RIVER PLACE I AND II

Lab Number: L1013903

Project Number: 170040901

Report Date: 09/15/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG431847-1 WG431847-2								
Chlorobenzene	101		102		75-130	1		20
Benzene	102		104		76-127	2		20
Toluene	99		103		76-125	4		20
1,1-Dichloroethene	89		94		61-145	5		20
Trichloroethene	102		104		71-120	2		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	123		121		70-130
Toluene-d8	104		106		70-130
4-Bromofluorobenzene	100		101		70-130
Dibromofluoromethane	105		104		70-130

# SEMIVOLATILES

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

**SAMPLE RESULTS**

**Lab ID:** L1013903-01  
**Client ID:** MW-N2-9-8-10  
**Sample Location:** W 42ND ST. NY, NY  
**Matrix:** Water  
**Analytical Method:** 1,8270C  
**Analytical Date:** 09/15/10 04:10  
**Analyst:** JB

**Date Collected:** 09/08/10 10:15  
**Date Received:** 09/08/10  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/10/10 11:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	5.0	--	1
1,2-Dichlorobenzene	ND		ug/l	5.0	--	1
1,3-Dichlorobenzene	ND		ug/l	5.0	--	1
1,4-Dichlorobenzene	ND		ug/l	5.0	--	1
3,3'-Dichlorobenzidine	ND		ug/l	50	--	1
2,4-Dinitrotoluene	ND		ug/l	6.0	--	1
2,6-Dinitrotoluene	ND		ug/l	5.0	--	1
4-Chlorophenyl phenyl ether	ND		ug/l	5.0	--	1
4-Bromophenyl phenyl ether	ND		ug/l	5.0	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	5.0	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--	1
Hexachlorocyclopentadiene	ND		ug/l	30	--	1
Isophorone	ND		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	5.0	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/l	15	--	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/l	5.0	--	1
Butyl benzyl phthalate	ND		ug/l	5.0	--	1
Di-n-butylphthalate	ND		ug/l	5.0	--	1
Di-n-octylphthalate	ND		ug/l	5.0	--	1
Diethyl phthalate	ND		ug/l	5.0	--	1
Dimethyl phthalate	ND		ug/l	5.0	--	1
Biphenyl	34		ug/l	5.0	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
2-Nitroaniline	ND		ug/l	5.0	--	1
3-Nitroaniline	ND		ug/l	5.0	--	1
4-Nitroaniline	ND		ug/l	7.0	--	1
Dibenzofuran	61		ug/l	5.0	--	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	20	--	1

**Project Name:** RIVER PLACE I AND II**Lab Number:** L1013903**Project Number:** 170040901**Report Date:** 09/15/10**SAMPLE RESULTS**

Lab ID: L1013903-01  
 Client ID: MW-N2-9-8-10  
 Sample Location: W 42ND ST. NY, NY

Date Collected: 09/08/10 10:15  
 Date Received: 09/08/10  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acetophenone	ND		ug/l	20	--	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	--	1
P-Chloro-M-Cresol	ND		ug/l	5.0	--	1
2-Chlorophenol	ND		ug/l	6.0	--	1
2,4-Dichlorophenol	ND		ug/l	10	--	1
2,4-Dimethylphenol	160		ug/l	10	--	1
2-Nitrophenol	ND		ug/l	20	--	1
4-Nitrophenol	ND		ug/l	10	--	1
2,4-Dinitrophenol	ND		ug/l	30	--	1
4,6-Dinitro-o-cresol	ND		ug/l	20	--	1
Phenol	27		ug/l	7.0	--	1
2-Methylphenol	94		ug/l	6.0	--	1
3-Methylphenol/4-Methylphenol	32		ug/l	6.0	--	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	--	1
Benzoic Acid	ND		ug/l	50	--	1
Benzyl Alcohol	ND		ug/l	10	--	1
Carbazole	120		ug/l	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		21-120
Phenol-d6	31		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	111		15-120
2,4,6-Tribromophenol	91		10-120
4-Terphenyl-d14	87		33-120

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

### SAMPLE RESULTS

**Lab ID:** L1013903-01 D  
**Client ID:** MW-N2-9-8-10  
**Sample Location:** W 42ND ST. NY, NY  
**Matrix:** Water  
**Analytical Method:** 1,8270C  
**Analytical Date:** 09/15/10 12:25  
**Analyst:** JC

**Date Collected:** 09/08/10 10:15  
**Date Received:** 09/08/10  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/10/10 11:17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	97		ug/l	80	--	400
2-Chloronaphthalene	ND		ug/l	80	--	400
Fluoranthene	ND		ug/l	80	--	400
Hexachlorobutadiene	ND		ug/l	200	--	400
Naphthalene	6900		ug/l	80	--	400
Benzo(a)anthracene	ND		ug/l	80	--	400
Benzo(a)pyrene	ND		ug/l	80	--	400
Benzo(b)fluoranthene	ND		ug/l	80	--	400
Benzo(k)fluoranthene	ND		ug/l	80	--	400
Chrysene	ND		ug/l	80	--	400
Acenaphthylene	ND		ug/l	80	--	400
Anthracene	ND		ug/l	80	--	400
Benzo(ghi)perylene	ND		ug/l	80	--	400
Fluorene	ND		ug/l	80	--	400
Phenanthrene	ND		ug/l	80	--	400
Dibenzo(a,h)anthracene	ND		ug/l	80	--	400
Indeno(1,2,3-cd)Pyrene	ND		ug/l	80	--	400
Pyrene	ND		ug/l	80	--	400
2-Methylnaphthalene	ND		ug/l	80	--	400
Pentachlorophenol	ND		ug/l	320	--	400
Hexachlorobenzene	ND		ug/l	320	--	400
Hexachloroethane	ND		ug/l	320	--	400

**Project Name:** RIVER PLACE I AND II**Lab Number:** L1013903**Project Number:** 170040901**Report Date:** 09/15/10**SAMPLE RESULTS**

Lab ID: L1013903-01 D

Date Collected: 09/08/10 10:15

Client ID: MW-N2-9-8-10

Date Received: 09/08/10

Sample Location: W 42ND ST. NY, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	0	Q	21-120
Phenol-d6	0	Q	10-120
Nitrobenzene-d5	0	Q	23-120
2-Fluorobiphenyl	0	Q	15-120
2,4,6-Tribromophenol	0	Q	10-120
4-Terphenyl-d14	0	Q	33-120

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

### SAMPLE RESULTS

**Lab ID:** L1013903-02  
**Client ID:** MW-S2-9-8-10  
**Sample Location:** W 42ND ST. NY, NY  
**Matrix:** Water  
**Analytical Method:** 1,8270C  
**Analytical Date:** 09/15/10 04:35  
**Analyst:** JB

**Date Collected:** 09/08/10 13:40  
**Date Received:** 09/08/10  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/10/10 11:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	5.0	--	1
1,2-Dichlorobenzene	ND		ug/l	5.0	--	1
1,3-Dichlorobenzene	ND		ug/l	5.0	--	1
1,4-Dichlorobenzene	ND		ug/l	5.0	--	1
3,3'-Dichlorobenzidine	ND		ug/l	50	--	1
2,4-Dinitrotoluene	ND		ug/l	6.0	--	1
2,6-Dinitrotoluene	ND		ug/l	5.0	--	1
4-Chlorophenyl phenyl ether	ND		ug/l	5.0	--	1
4-Bromophenyl phenyl ether	ND		ug/l	5.0	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	5.0	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--	1
Hexachlorocyclopentadiene	ND		ug/l	30	--	1
Isophorone	ND		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	5.0	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/l	15	--	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/l	5.0	--	1
Butyl benzyl phthalate	ND		ug/l	5.0	--	1
Di-n-butylphthalate	ND		ug/l	5.0	--	1
Di-n-octylphthalate	ND		ug/l	5.0	--	1
Diethyl phthalate	ND		ug/l	5.0	--	1
Dimethyl phthalate	ND		ug/l	5.0	--	1
Biphenyl	27		ug/l	5.0	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
2-Nitroaniline	ND		ug/l	5.0	--	1
3-Nitroaniline	ND		ug/l	5.0	--	1
4-Nitroaniline	ND		ug/l	7.0	--	1
Dibenzofuran	17		ug/l	5.0	--	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	20	--	1

**Project Name:** RIVER PLACE I AND II**Lab Number:** L1013903**Project Number:** 170040901**Report Date:** 09/15/10**SAMPLE RESULTS**

Lab ID: L1013903-02  
 Client ID: MW-S2-9-8-10  
 Sample Location: W 42ND ST. NY, NY

Date Collected: 09/08/10 13:40  
 Date Received: 09/08/10  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acetophenone	ND		ug/l	20	--	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	--	1
P-Chloro-M-Cresol	ND		ug/l	5.0	--	1
2-Chlorophenol	ND		ug/l	6.0	--	1
2,4-Dichlorophenol	ND		ug/l	10	--	1
2,4-Dimethylphenol	ND		ug/l	10	--	1
2-Nitrophenol	ND		ug/l	20	--	1
4-Nitrophenol	ND		ug/l	10	--	1
2,4-Dinitrophenol	ND		ug/l	30	--	1
4,6-Dinitro-o-cresol	ND		ug/l	20	--	1
Phenol	ND		ug/l	7.0	--	1
2-Methylphenol	ND		ug/l	6.0	--	1
3-Methylphenol/4-Methylphenol	ND		ug/l	6.0	--	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	--	1
Benzoic Acid	ND		ug/l	50	--	1
Benzyl Alcohol	ND		ug/l	10	--	1
Carbazole	42		ug/l	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	40		21-120
Phenol-d6	28		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	69		15-120
2,4,6-Tribromophenol	82		10-120
4-Terphenyl-d14	82		33-120

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

### SAMPLE RESULTS

**Lab ID:** L1013903-02 D  
**Client ID:** MW-S2-9-8-10  
**Sample Location:** W 42ND ST. NY, NY  
**Matrix:** Water  
**Analytical Method:** 1,8270C  
**Analytical Date:** 09/15/10 12:55  
**Analyst:** JC

**Date Collected:** 09/08/10 13:40  
**Date Received:** 09/08/10  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/10/10 11:17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	41		ug/l	10	--	50
2-Chloronaphthalene	ND		ug/l	10	--	50
Fluoranthene	12		ug/l	10	--	50
Hexachlorobutadiene	ND		ug/l	25	--	50
Naphthalene	990		ug/l	10	--	50
Benzo(a)anthracene	ND		ug/l	10	--	50
Benzo(a)pyrene	ND		ug/l	10	--	50
Benzo(b)fluoranthene	ND		ug/l	10	--	50
Benzo(k)fluoranthene	ND		ug/l	10	--	50
Chrysene	ND		ug/l	10	--	50
Acenaphthylene	ND		ug/l	10	--	50
Anthracene	13		ug/l	10	--	50
Benzo(ghi)perylene	ND		ug/l	10	--	50
Fluorene	36		ug/l	10	--	50
Phenanthrene	52		ug/l	10	--	50
Dibenzo(a,h)anthracene	ND		ug/l	10	--	50
Indeno(1,2,3-cd)Pyrene	ND		ug/l	10	--	50
Pyrene	15		ug/l	10	--	50
2-Methylnaphthalene	28		ug/l	10	--	50
Pentachlorophenol	ND		ug/l	40	--	50
Hexachlorobenzene	ND		ug/l	40	--	50
Hexachloroethane	ND		ug/l	40	--	50

**Project Name:** RIVER PLACE I AND II**Lab Number:** L1013903**Project Number:** 170040901**Report Date:** 09/15/10**SAMPLE RESULTS**

Lab ID: L1013903-02 D

Date Collected: 09/08/10 13:40

Client ID: MW-S2-9-8-10

Date Received: 09/08/10

Sample Location: W 42ND ST. NY, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	0	Q	21-120
Phenol-d6	0	Q	10-120
Nitrobenzene-d5	0	Q	23-120
2-Fluorobiphenyl	0	Q	15-120
2,4,6-Tribromophenol	0	Q	10-120
4-Terphenyl-d14	0	Q	33-120

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270C  
**Analytical Date:** 09/14/10 22:32  
**Analyst:** JB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/10/10 11:12

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG431798-1					
Acenaphthene	ND		ug/l	5.0	--
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Hexachlorobenzene	ND		ug/l	5.0	--
Bis(2-chloroethyl)ether	ND		ug/l	5.0	--
2-Chloronaphthalene	ND		ug/l	6.0	--
1,2-Dichlorobenzene	ND		ug/l	5.0	--
1,3-Dichlorobenzene	ND		ug/l	5.0	--
1,4-Dichlorobenzene	ND		ug/l	5.0	--
3,3'-Dichlorobenzidine	ND		ug/l	50	--
2,4-Dinitrotoluene	ND		ug/l	6.0	--
2,6-Dinitrotoluene	ND		ug/l	5.0	--
Fluoranthene	ND		ug/l	5.0	--
4-Chlorophenyl phenyl ether	ND		ug/l	5.0	--
4-Bromophenyl phenyl ether	ND		ug/l	5.0	--
Bis(2-chloroisopropyl)ether	ND		ug/l	5.0	--
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--
Hexachlorobutadiene	ND		ug/l	10	--
Hexachlorocyclopentadiene	ND		ug/l	30	--
Hexachloroethane	ND		ug/l	5.0	--
Isophorone	ND		ug/l	5.0	--
Naphthalene	ND		ug/l	5.0	--
Nitrobenzene	ND		ug/l	5.0	--
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/l	15	--
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	--
Bis(2-Ethylhexyl)phthalate	ND		ug/l	5.0	--
Butyl benzyl phthalate	ND		ug/l	5.0	--
Di-n-butylphthalate	ND		ug/l	5.0	--
Di-n-octylphthalate	ND		ug/l	5.0	--
Diethyl phthalate	ND		ug/l	5.0	--
Dimethyl phthalate	ND		ug/l	5.0	--
Benzo(a)anthracene	ND		ug/l	5.0	--

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270C  
**Analytical Date:** 09/14/10 22:32  
**Analyst:** JB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/10/10 11:12

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG431798-1					
Benzo(a)pyrene	ND		ug/l	5.0	--
Benzo(b)fluoranthene	ND		ug/l	5.0	--
Benzo(k)fluoranthene	ND		ug/l	5.0	--
Chrysene	ND		ug/l	5.0	--
Acenaphthylene	ND		ug/l	5.0	--
Anthracene	ND		ug/l	5.0	--
Benzo(ghi)perylene	ND		ug/l	5.0	--
Fluorene	ND		ug/l	5.0	--
Phenanthrene	ND		ug/l	5.0	--
Dibenzo(a,h)anthracene	ND		ug/l	5.0	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	7.0	--
Pyrene	ND		ug/l	5.0	--
Biphenyl	ND		ug/l	5.0	--
4-Chloroaniline	ND		ug/l	5.0	--
2-Nitroaniline	ND		ug/l	5.0	--
3-Nitroaniline	ND		ug/l	5.0	--
4-Nitroaniline	ND		ug/l	7.0	--
Dibenzofuran	ND		ug/l	5.0	--
2-Methylnaphthalene	ND		ug/l	5.0	--
1,2,4,5-Tetrachlorobenzene	ND		ug/l	20	--
Acetophenone	ND		ug/l	20	--
2,4,6-Trichlorophenol	ND		ug/l	5.0	--
P-Chloro-M-Cresol	ND		ug/l	5.0	--
2-Chlorophenol	ND		ug/l	6.0	--
2,4-Dichlorophenol	ND		ug/l	10	--
2,4-Dimethylphenol	ND		ug/l	10	--
2-Nitrophenol	ND		ug/l	20	--
4-Nitrophenol	ND		ug/l	10	--
2,4-Dinitrophenol	ND		ug/l	30	--
4,6-Dinitro-o-cresol	ND		ug/l	20	--
Pentachlorophenol	ND		ug/l	10	--

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270C  
**Analytical Date:** 09/14/10 22:32  
**Analyst:** JB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/10/10 11:12

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG431798-1					
Phenol	ND		ug/l	7.0	--
2-Methylphenol	ND		ug/l	6.0	--
3-Methylphenol/4-Methylphenol	ND		ug/l	6.0	--
2,4,5-Trichlorophenol	ND		ug/l	5.0	--
Benzoic Acid	ND		ug/l	50	--
Benzyl Alcohol	ND		ug/l	10	--
Carbazole	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	46		21-120
Phenol-d6	28		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	73		15-120
2,4,6-Tribromophenol	79		10-120
4-Terphenyl-d14	88		33-120

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270C  
**Analytical Date:** 09/14/10 22:20  
**Analyst:** JC

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/10/10 11:17

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG431800-1					
Acenaphthene	ND		ug/l	0.20	--
2-Chloronaphthalene	ND		ug/l	0.20	--
Fluoranthene	ND		ug/l	0.20	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.20	--
Benzo(a)anthracene	ND		ug/l	0.20	--
Benzo(a)pyrene	ND		ug/l	0.20	--
Benzo(b)fluoranthene	ND		ug/l	0.20	--
Benzo(k)fluoranthene	ND		ug/l	0.20	--
Chrysene	ND		ug/l	0.20	--
Acenaphthylene	ND		ug/l	0.20	--
Anthracene	ND		ug/l	0.20	--
Benzo(ghi)perylene	ND		ug/l	0.20	--
Fluorene	ND		ug/l	0.20	--
Phenanthrene	ND		ug/l	0.20	--
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--
Pyrene	ND		ug/l	0.20	--
2-Methylnaphthalene	ND		ug/l	0.20	--
Pentachlorophenol	ND		ug/l	0.80	--
Hexachlorobenzene	ND		ug/l	0.80	--
Hexachloroethane	ND		ug/l	0.80	--

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270C  
 Analytical Date: 09/14/10 22:20  
 Analyst: JC

Extraction Method: EPA 3510C  
 Extraction Date: 09/10/10 11:17

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG431800-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	73		21-120
Phenol-d6	38		10-120
Nitrobenzene-d5	115		23-120
2-Fluorobiphenyl	96		15-120
2,4,6-Tribromophenol	<b>126</b>	Q	10-120
4-Terphenyl-d14	116		33-120

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RIVER PLACE I AND II

Lab Number: L1013903

Project Number: 170040901

Report Date: 09/15/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG431798-2 WG431798-3								
Acenaphthene	71		83		46-118	16		30
1,2,4-Trichlorobenzene	53		67		39-98	23		30
2-Chloronaphthalene	70		84		40-140	18		30
1,2-Dichlorobenzene	56		67		40-140	18		30
1,4-Dichlorobenzene	54		65		36-97	18		30
2,4-Dinitrotoluene	85		98	Q	24-96	14		30
2,6-Dinitrotoluene	67		81		40-140	19		30
Fluoranthene	84		98		40-140	15		30
4-Chlorophenyl phenyl ether	77		91		40-140	17		30
n-Nitrosodi-n-propylamine	61		74		41-116	19		30
Butyl benzyl phthalate	84		98		40-140	15		30
Anthracene	82		94		40-140	14		30
Pyrene	79		92		26-127	15		30
P-Chloro-M-Cresol	71		84		23-97	17		30
2-Chlorophenol	61		74		27-123	19		30
2-Nitrophenol	63		79		30-130	23		30
4-Nitrophenol	30		33		10-80	10		30
2,4-Dinitrophenol	64		78		20-130	20		30
Pentachlorophenol	82		95		9-103	15		30
Phenol	31		38		12-110	20		30

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG431798-2 WG431798-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	44		47		21-120
Phenol-d6	29		31		10-120
Nitrobenzene-d5	67		70		23-120
2-Fluorobiphenyl	70		74		15-120
2,4,6-Tribromophenol	86		88		10-120
4-Terphenyl-d14	85		85		33-120

Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG431800-2 WG431800-3

Acenaphthene	80		94		37-111	16		40
2-Chloronaphthalene	<b>184</b>	Q	108		40-140	<b>52</b>	Q	40
Fluoranthene	116		122		40-140	5		40
Anthracene	99		110		40-140	11		40
Pyrene	110		114		26-127	4		40
Pentachlorophenol	93		<b>108</b>	Q	9-103	15		40

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RIVER PLACE I AND II

Lab Number: L1013903

Project Number: 170040901

Report Date: 09/15/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG431800-2 WG431800-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	38		54		21-120
Phenol-d6	35		43		10-120
Nitrobenzene-d5	75		96		23-120
2-Fluorobiphenyl	66		79		15-120
2,4,6-Tribromophenol	71		83		10-120
4-Terphenyl-d14	104		110		33-120

## METALS

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

**SAMPLE RESULTS**

Lab ID: L1013903-01  
 Client ID: MW-N2-9-8-10  
 Sample Location: W 42ND ST. NY, NY  
 Matrix: Water

Date Collected: 09/08/10 10:15  
 Date Received: 09/08/10  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Aluminum, Total	0.74		mg/l	0.10	--	1	09/09/10 15:45	09/13/10 10:50	EPA 3005A	1,6010B	AI
Antimony, Total	ND		mg/l	0.0025	--	5	09/09/10 16:45	09/11/10 00:02	EPA 3005A	1,6020	BM
Arsenic, Total	0.011		mg/l	0.005	--	1	09/09/10 15:45	09/13/10 10:50	EPA 3005A	1,6010B	AI
Barium, Total	0.147		mg/l	0.010	--	1	09/09/10 15:45	09/13/10 10:50	EPA 3005A	1,6010B	AI
Beryllium, Total	ND		mg/l	0.0025	--	5	09/09/10 16:45	09/11/10 00:02	EPA 3005A	1,6020	BM
Cadmium, Total	ND		mg/l	0.005	--	1	09/09/10 15:45	09/13/10 10:50	EPA 3005A	1,6010B	AI
Calcium, Total	170		mg/l	0.10	--	1	09/09/10 15:45	09/13/10 10:50	EPA 3005A	1,6010B	AI
Chromium, Total	ND		mg/l	0.01	--	1	09/09/10 15:45	09/13/10 10:50	EPA 3005A	1,6010B	AI
Cobalt, Total	ND		mg/l	0.020	--	1	09/09/10 15:45	09/13/10 10:50	EPA 3005A	1,6010B	AI
Copper, Total	ND		mg/l	0.010	--	1	09/09/10 15:45	09/13/10 10:50	EPA 3005A	1,6010B	AI
Iron, Total	2.6		mg/l	0.05	--	1	09/09/10 15:45	09/13/10 10:50	EPA 3005A	1,6010B	AI
Lead, Total	ND		mg/l	0.010	--	1	09/09/10 15:45	09/13/10 10:50	EPA 3005A	1,6010B	AI
Magnesium, Total	51		mg/l	0.10	--	1	09/09/10 15:45	09/13/10 10:50	EPA 3005A	1,6010B	AI
Manganese, Total	0.528		mg/l	0.010	--	1	09/09/10 15:45	09/13/10 10:50	EPA 3005A	1,6010B	AI
Mercury, Total	ND		mg/l	0.0002	--	1	09/10/10 17:00	09/13/10 12:40	EPA 7470A	1,7470A	EZ
Nickel, Total	ND		mg/l	0.025	--	1	09/09/10 15:45	09/13/10 10:50	EPA 3005A	1,6010B	AI
Potassium, Total	26		mg/l	2.5	--	1	09/09/10 15:45	09/13/10 10:50	EPA 3005A	1,6010B	AI
Selenium, Total	ND		mg/l	0.010	--	1	09/09/10 15:45	09/13/10 10:50	EPA 3005A	1,6010B	AI
Silver, Total	ND		mg/l	0.007	--	1	09/09/10 15:45	09/13/10 10:50	EPA 3005A	1,6010B	AI
Sodium, Total	200		mg/l	2.0	--	1	09/09/10 15:45	09/13/10 10:50	EPA 3005A	1,6010B	AI
Thallium, Total	ND		mg/l	0.0025	--	5	09/09/10 16:45	09/11/10 00:02	EPA 3005A	1,6020	BM
Vanadium, Total	ND		mg/l	0.010	--	1	09/09/10 15:45	09/13/10 10:50	EPA 3005A	1,6010B	AI
Zinc, Total	ND		mg/l	0.050	--	1	09/09/10 15:45	09/13/10 10:50	EPA 3005A	1,6010B	AI



**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

**SAMPLE RESULTS**

Lab ID: L1013903-02  
 Client ID: MW-S2-9-8-10  
 Sample Location: W 42ND ST. NY, NY  
 Matrix: Water

Date Collected: 09/08/10 13:40  
 Date Received: 09/08/10  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Aluminum, Total	4.3		mg/l	0.10	--	1	09/09/10 15:45	09/13/10 11:20	EPA 3005A	1,6010B	AI
Antimony, Total	ND		mg/l	0.0025	--	5	09/09/10 16:45	09/11/10 00:08	EPA 3005A	1,6020	BM
Arsenic, Total	0.018		mg/l	0.005	--	1	09/09/10 15:45	09/13/10 11:20	EPA 3005A	1,6010B	AI
Barium, Total	0.272		mg/l	0.010	--	1	09/09/10 15:45	09/13/10 11:20	EPA 3005A	1,6010B	AI
Beryllium, Total	ND		mg/l	0.0025	--	5	09/09/10 16:45	09/11/10 00:08	EPA 3005A	1,6020	BM
Cadmium, Total	ND		mg/l	0.005	--	1	09/09/10 15:45	09/13/10 11:20	EPA 3005A	1,6010B	AI
Calcium, Total	250		mg/l	0.10	--	1	09/09/10 15:45	09/13/10 11:20	EPA 3005A	1,6010B	AI
Chromium, Total	0.01		mg/l	0.01	--	1	09/09/10 15:45	09/13/10 11:20	EPA 3005A	1,6010B	AI
Cobalt, Total	ND		mg/l	0.020	--	1	09/09/10 15:45	09/13/10 11:20	EPA 3005A	1,6010B	AI
Copper, Total	0.019		mg/l	0.010	--	1	09/09/10 15:45	09/13/10 11:20	EPA 3005A	1,6010B	AI
Iron, Total	9.8		mg/l	0.05	--	1	09/09/10 15:45	09/13/10 11:20	EPA 3005A	1,6010B	AI
Lead, Total	0.086		mg/l	0.010	--	1	09/09/10 15:45	09/13/10 11:20	EPA 3005A	1,6010B	AI
Magnesium, Total	93		mg/l	0.10	--	1	09/09/10 15:45	09/13/10 11:20	EPA 3005A	1,6010B	AI
Manganese, Total	0.492		mg/l	0.010	--	1	09/09/10 15:45	09/13/10 11:20	EPA 3005A	1,6010B	AI
Mercury, Total	0.0005		mg/l	0.0002	--	1	09/10/10 17:00	09/13/10 12:46	EPA 7470A	1,7470A	EZ
Nickel, Total	ND		mg/l	0.025	--	1	09/09/10 15:45	09/13/10 11:20	EPA 3005A	1,6010B	AI
Potassium, Total	27		mg/l	2.5	--	1	09/09/10 15:45	09/13/10 11:20	EPA 3005A	1,6010B	AI
Selenium, Total	ND		mg/l	0.010	--	1	09/09/10 15:45	09/13/10 11:20	EPA 3005A	1,6010B	AI
Silver, Total	ND		mg/l	0.007	--	1	09/09/10 15:45	09/13/10 11:20	EPA 3005A	1,6010B	AI
Sodium, Total	76		mg/l	2.0	--	1	09/09/10 15:45	09/13/10 11:20	EPA 3005A	1,6010B	AI
Thallium, Total	ND		mg/l	0.0025	--	5	09/09/10 16:45	09/11/10 00:08	EPA 3005A	1,6020	BM
Vanadium, Total	0.011		mg/l	0.010	--	1	09/09/10 15:45	09/13/10 11:20	EPA 3005A	1,6010B	AI
Zinc, Total	0.051		mg/l	0.050	--	1	09/09/10 15:45	09/13/10 11:20	EPA 3005A	1,6010B	AI



**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Metals - Westborough Lab for sample(s): 01-02 Batch: WG431685-1</b>									
Aluminum, Total	ND	mg/l	0.10	--	1	09/09/10 15:45	09/13/10 10:44	1,6010B	AI
Arsenic, Total	ND	mg/l	0.005	--	1	09/09/10 15:45	09/13/10 10:44	1,6010B	AI
Barium, Total	ND	mg/l	0.010	--	1	09/09/10 15:45	09/13/10 10:44	1,6010B	AI
Cadmium, Total	ND	mg/l	0.005	--	1	09/09/10 15:45	09/13/10 10:44	1,6010B	AI
Calcium, Total	ND	mg/l	0.10	--	1	09/09/10 15:45	09/13/10 10:44	1,6010B	AI
Chromium, Total	ND	mg/l	0.01	--	1	09/09/10 15:45	09/13/10 10:44	1,6010B	AI
Cobalt, Total	ND	mg/l	0.020	--	1	09/09/10 15:45	09/13/10 10:44	1,6010B	AI
Copper, Total	ND	mg/l	0.010	--	1	09/09/10 15:45	09/13/10 10:44	1,6010B	AI
Iron, Total	ND	mg/l	0.05	--	1	09/09/10 15:45	09/13/10 10:44	1,6010B	AI
Lead, Total	ND	mg/l	0.010	--	1	09/09/10 15:45	09/13/10 10:44	1,6010B	AI
Magnesium, Total	ND	mg/l	0.10	--	1	09/09/10 15:45	09/13/10 10:44	1,6010B	AI
Manganese, Total	ND	mg/l	0.010	--	1	09/09/10 15:45	09/13/10 10:44	1,6010B	AI
Nickel, Total	ND	mg/l	0.025	--	1	09/09/10 15:45	09/13/10 10:44	1,6010B	AI
Potassium, Total	ND	mg/l	2.5	--	1	09/09/10 15:45	09/13/10 10:44	1,6010B	AI
Selenium, Total	ND	mg/l	0.010	--	1	09/09/10 15:45	09/13/10 10:44	1,6010B	AI
Silver, Total	ND	mg/l	0.007	--	1	09/09/10 15:45	09/13/10 10:44	1,6010B	AI
Sodium, Total	ND	mg/l	2.0	--	1	09/09/10 15:45	09/13/10 10:44	1,6010B	AI
Vanadium, Total	ND	mg/l	0.010	--	1	09/09/10 15:45	09/13/10 10:44	1,6010B	AI
Zinc, Total	ND	mg/l	0.050	--	1	09/09/10 15:45	09/13/10 10:44	1,6010B	AI

### Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Metals - Westborough Lab for sample(s): 01-02 Batch: WG431698-1</b>									
Antimony, Total	ND	mg/l	0.0005	--	1	09/09/10 16:45	09/10/10 18:29	1,6020	BM
Beryllium, Total	ND	mg/l	0.0005	--	1	09/09/10 16:45	09/10/10 18:29	1,6020	BM
Thallium, Total	ND	mg/l	0.0005	--	1	09/09/10 16:45	09/10/10 18:29	1,6020	BM



Project Name: RIVER PLACE I AND II

Lab Number: L1013903

Project Number: 170040901

Report Date: 09/15/10

## Method Blank Analysis Batch Quality Control

### Prep Information

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Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-02 Batch: WG431879-1									
Mercury, Total	ND	mg/l	0.0002	--	1	09/10/10 17:00	09/13/10 12:33	1,7470A	EZ

### Prep Information

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Digestion Method: EPA 7470A

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** RIVER PLACE I AND II

**Lab Number:** L1013903

**Project Number:** 170040901

**Report Date:** 09/15/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG431685-2								
Aluminum, Total	100		-		80-120	-		
Arsenic, Total	113		-		80-120	-		
Barium, Total	102		-		80-120	-		
Cadmium, Total	111		-		80-120	-		
Calcium, Total	100		-		80-120	-		
Chromium, Total	100		-		80-120	-		
Cobalt, Total	103		-		80-120	-		
Copper, Total	102		-		80-120	-		
Iron, Total	100		-		80-120	-		
Lead, Total	105		-		80-120	-		
Magnesium, Total	99		-		80-120	-		
Manganese, Total	102		-		80-120	-		
Nickel, Total	100		-		80-120	-		
Potassium, Total	100		-		80-120	-		
Selenium, Total	113		-		80-120	-		
Silver, Total	105		-		80-120	-		
Sodium, Total	100		-		80-120	-		
Vanadium, Total	101		-		80-120	-		
Zinc, Total	103		-		80-120	-		

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RIVER PLACE I AND II

**Project Number:** 170040901

**Lab Number:** L1013903

**Report Date:** 09/15/10

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG431698-2					
Antimony, Total	107	-	80-120	-	
Beryllium, Total	109	-	80-120	-	
Thallium, Total	100	-	80-120	-	
Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG431879-2					
Mercury, Total	105	-	80-120	-	

### Matrix Spike Analysis Batch Quality Control

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG431685-4 QC Sample: L1013903-01 Client ID: MW-N2-9-8-10												
Aluminum, Total	0.74	2	2.7	98		-	-		75-125	-		20
Arsenic, Total	0.011	0.12	0.152	118		-	-		75-125	-		20
Barium, Total	0.147	2	2.16	101		-	-		75-125	-		20
Cadmium, Total	ND	0.051	0.054	106		-	-		75-125	-		20
Calcium, Total	170	10	180	100		-	-		75-125	-		20
Chromium, Total	ND	0.2	0.20	100		-	-		75-125	-		20
Cobalt, Total	ND	0.5	0.498	100		-	-		75-125	-		20
Copper, Total	ND	0.25	0.258	103		-	-		75-125	-		20
Iron, Total	2.6	1	3.5	90		-	-		75-125	-		20
Lead, Total	ND	0.51	0.500	98		-	-		75-125	-		20
Magnesium, Total	51	10	59	80		-	-		75-125	-		20
Manganese, Total	0.528	0.5	1.01	96		-	-		75-125	-		20
Nickel, Total	ND	0.5	0.474	95		-	-		75-125	-		20
Potassium, Total	26	10	37	110		-	-		75-125	-		20
Selenium, Total	ND	0.12	0.089	74	Q	-	-		75-125	-		20
Silver, Total	ND	0.05	0.052	105		-	-		75-125	-		20
Sodium, Total	200	10	220	200		-	-		75-125	-		20
Vanadium, Total	ND	0.5	0.508	102		-	-		75-125	-		20
Zinc, Total	ND	0.5	0.508	102		-	-		75-125	-		20

### Matrix Spike Analysis Batch Quality Control

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02    QC Batch ID: WG431698-4    QC Sample: L1013879-01    Client ID: MS Sample									
Antimony, Total	ND	0.5	0.5168	103	-	-	80-120	-	20
Beryllium, Total	ND	0.05	0.0544	109	-	-	80-120	-	20
Thallium, Total	ND	0.12	0.1160	97	-	-	80-120	-	20
Total Metals - Westborough Lab Associated sample(s): 01-02    QC Batch ID: WG431879-4    QC Sample: L1013903-01    Client ID: MW-N2-9-8-10									
Mercury, Total	ND	0.001	0.0013	130	-	-	70-130	-	20

## Lab Duplicate Analysis

Batch Quality Control

Project Name: RIVER PLACE I AND II

Project Number: 170040901

Lab Number: L1013903

Report Date: 09/15/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG431685-3 QC Sample: L1013903-01 Client ID: MW-N2-9-8-10						
Aluminum, Total	0.74	0.72	mg/l	3		20
Arsenic, Total	0.011	0.010	mg/l	9		20
Barium, Total	0.147	0.144	mg/l	2		20
Cadmium, Total	ND	ND	mg/l	NC		20
Calcium, Total	170	170	mg/l	0		20
Chromium, Total	ND	ND	mg/l	NC		20
Cobalt, Total	ND	ND	mg/l	NC		20
Copper, Total	ND	ND	mg/l	NC		20
Iron, Total	2.6	2.5	mg/l	4		20
Lead, Total	ND	ND	mg/l	NC		20
Magnesium, Total	51	50	mg/l	2		20
Manganese, Total	0.528	0.523	mg/l	1		20
Nickel, Total	ND	ND	mg/l	NC		20
Potassium, Total	26	26	mg/l	0		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Sodium, Total	200	200	mg/l	0		20
Vanadium, Total	ND	ND	mg/l	NC		20
Zinc, Total	ND	ND	mg/l	NC		20

## Lab Duplicate Analysis

Batch Quality Control

Project Name: RIVER PLACE I AND II

Project Number: 170040901

Lab Number: L1013903

Report Date: 09/15/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG431879-3 QC Sample: L1013903-01 Client ID: MW-N2-9-8-10					
Mercury, Total	ND	ND	mg/l	NC	20

# **INORGANICS & MISCELLANEOUS**

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

**SAMPLE RESULTS**

**Lab ID:** L1013903-01  
**Client ID:** MW-N2-9-8-10  
**Sample Location:** W 42ND ST. NY, NY  
**Matrix:** Water

**Date Collected:** 09/08/10 10:15  
**Date Received:** 09/08/10  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Total	1.06		mg/l	0.050	--	10	09/10/10 11:15	09/10/10 16:38	1,9010B/9012A	JO
Cyanide, Amenable	0.156		mg/l	0.050	--	10	09/10/10 11:15	09/10/10 16:00	1,9010B	JO



**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

**SAMPLE RESULTS**

**Lab ID:** L1013903-02  
**Client ID:** MW-S2-9-8-10  
**Sample Location:** W 42ND ST. NY, NY  
**Matrix:** Water

**Date Collected:** 09/08/10 13:40  
**Date Received:** 09/08/10  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Total	1.54		mg/l	0.050	--	10	09/10/10 11:15	09/10/10 16:40	1,9010B/9012A	JO
Cyanide, Amenable	0.196		mg/l	0.050	--	10	09/10/10 11:15	09/10/10 16:00	1,9010B	JO



Project Name: RIVER PLACE I AND II

Lab Number: L1013903

Project Number: 170040901

Report Date: 09/15/10

**Method Blank Analysis**  
**Batch Quality Control**

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG431782-2									
Cyanide, Amenable	ND	mg/l	0.010	--	2	09/10/10 11:15	09/10/10 16:00	1,9010B	JO
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG431785-3									
Cyanide, Total	ND	mg/l	0.005	--	1	09/10/10 11:15	09/10/10 16:02	1,9010B/9012A	JO

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RIVER PLACE I AND II

**Lab Number:** L1013903

**Project Number:** 170040901

**Report Date:** 09/15/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG431782-1								
Cyanide, Amenable	97		-			-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG431785-1 WG431785-2								
Cyanide, Total	110		102		80-120	8		

**Matrix Spike Analysis**  
Batch Quality Control

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

<u>Parameter</u>	<u>Native Sample</u>	<u>MS Added</u>	<u>MS Found</u>	<u>MS %Recovery</u>	<u>MSD Qual</u>	<u>MSD Found</u>	<u>MSD %Recovery</u>	<u>MSD Qual</u>	<u>Recovery Limits</u>	<u>RPD</u>	<u>RPD Qual</u>	<u>RPD Limits</u>
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG431785-4 WG431785-5 QC Sample: L1013903-01 Client ID: MW-N2-9-8-10												
Cyanide, Total	1.06	0.2	1.23	85		1.24	90		80-120	1		30

## Lab Duplicate Analysis

Batch Quality Control

Project Name: RIVER PLACE I AND II

Project Number: 170040901

Lab Number: L1013903

Report Date: 09/15/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG431782-3 QC Sample: L1013903-01 Client ID: MW-N2-9-8-10						
Cyanide, Amenable	0.156	0.197	mg/l	23		

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

### Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

#### Cooler Information Custody Seal

##### Cooler

A Absent

#### Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1013903-01A	Vial HCl preserved	A	N/A	2.4	Y	Absent	NYTCL-8260(14)
L1013903-01B	Vial HCl preserved	A	N/A	2.4	Y	Absent	NYTCL-8260(14)
L1013903-01C	Vial HCl preserved	A	N/A	2.4	Y	Absent	NYTCL-8260(14)
L1013903-01D	Amber 1000ml unpreserved	A	7	2.4	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1013903-01E	Amber 1000ml unpreserved	A	7	2.4	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1013903-01F	Plastic 500ml NaOH preserved	A	>12	2.4	Y	Absent	TCN-9010(14),ACN-9010(14)
L1013903-01G	Plastic 500ml HNO3 preserved	A	<2	2.4	Y	Absent	TL-6020T(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),BE-6020T(180),CU-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),SB-6020T(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1013903-02A	Vial HCl preserved	A	N/A	2.4	Y	Absent	NYTCL-8260(14)
L1013903-02B	Vial HCl preserved	A	N/A	2.4	Y	Absent	NYTCL-8260(14)
L1013903-02C	Vial HCl preserved	A	N/A	2.4	Y	Absent	NYTCL-8260(14)
L1013903-02D	Amber 1000ml unpreserved	A	7	2.4	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1013903-02E	Amber 1000ml unpreserved	A	7	2.4	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1013903-02F	Plastic 500ml NaOH preserved	A	>12	2.4	Y	Absent	TCN-9010(14),ACN-9010(14)
L1013903-02G	Plastic 500ml HNO3 preserved	A	<2	2.4	Y	Absent	TL-6020T(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),BE-6020T(180),CU-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),SB-6020T(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)

\*Values in parentheses indicate holding time in days

**Project Name:** RIVER PLACE I AND II**Project Number:** 170040901**Lab Number:** L1013903**Report Date:** 09/15/10**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Analysis(*)</b>
L1013903-03A	Vial HCl preserved	A	N/A	2.4	Y	Absent	NYTCL-8260(14)
L1013903-03B	Vial HCl preserved	A	N/A	2.4	Y	Absent	NYTCL-8260(14)

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

## GLOSSARY

### Acronyms

- EPA** - Environmental Protection Agency.
- LCS** - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
- LCSD** - Laboratory Control Sample Duplicate: Refer to LCS.
- MDL** - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
- MS** - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
- MSD** - Matrix Spike Sample Duplicate: Refer to MS.
- NA** - Not Applicable.
- NC** - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
- NI** - Not Ignitable.
- RL** - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
- RPD** - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

### Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.

Report Format: Data Usability Report



**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

*Data Qualifiers*

- RE** - Analytical results are from sample re-extraction.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

**Project Name:** RIVER PLACE I AND II  
**Project Number:** 170040901

**Lab Number:** L1013903  
**Report Date:** 09/15/10

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## Certificate/Approval Program Summary

Last revised July 19, 2010 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.  
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

### Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

*Drinking Water* (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

*Wastewater/Non-Potable Water* (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

*Solid Waste/Soil* (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons. )

### Maine Department of Human Services Certificate/Lab ID: 2009024.

*Drinking Water* (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 300.0, 353.2, SM2130B, 2320B, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

*Wastewater/Non-Potable Water* (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, Lachat 10-107-06-1-B, SM2320B, 2340B, 2510B, 2540C, 2540D, 426C, 4500CI-D, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME DRO, ME GRO, MA EPH, MA VPH.)

*Solid Waste/Soil* (Organic Parameters: ME DRO, ME GRO, MA EPH, MA VPH.)

### Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

#### *Drinking Water*

Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl)

(EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate)

353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B.

Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics)

(504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), 314.0, 332.

Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; MF-SM9222D

#### *Non-Potable Water*

Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn)

(EPA 200.7 for: Al,Sb,As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl, V,Zn,Ca,Mg,Na,K)

245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-B,C-Titr, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables, 600/4-81-045-PCB-Oil

**New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.***

*Drinking Water (Inorganic Parameters:* SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 120.1, 300.0, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. *Organic Parameters:* 504.1, 524.2, SM6251B.)

*Non-Potable Water (Inorganic Parameters:* SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. *Organic Parameters:* SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)

*Solid & Chemical Materials (Inorganic Parameters:* SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. *Organic Parameters:* SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

**New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.***

*Drinking Water (Inorganic Parameters:* SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, SM2120B, 2510B, 5310C, SM4500H-B, EPA 200.8, 245.2. *Organic Parameters:* 504.1, SM6251B, 524.2.)

*Non-Potable Water (Inorganic Parameters:* SM5210B, EPA 410.4, SM5220D, 4500CI-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. *Organic Parameters:* SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)

*Solid & Chemical Materials (Inorganic Parameters:* SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. *Organic Parameters:* SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev.7.)

**New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.***

*Drinking Water (Inorganic Parameters:* SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 314.0, 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. *Organic Parameters:* EPA 524.2, 504.1.)

*Non-Potable Water (Inorganic Parameters:* SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, LACHAT 10-117-07-1A or B, SM4500CI-E, 4500F-C, SM15 426C, EPA 350.1, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, SM4500-CN-E LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015. *Organic Parameters:* EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B, 9010B, 9030B.)

*Solid & Hazardous Waste (Inorganic Parameters:* 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. *Organic Parameters:* EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

**North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. *Organic Parameters:* MA-EPH, MA-VPH.**

**Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.***

*Non-Potable Water (Organic Parameters:* EPA 3510C, 5030B, 625, 624. 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

*Solid & Hazardous Waste (Inorganic Parameters:* EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. *Organic Parameters:* 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

**Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NY-DOH.***

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NY-DOH Certificate for Potable and Non-Potable Water.

**Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. NELAP Accredited.**

*Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 S<sup>2-</sup> D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)*

*Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)*

**Department of Defense Certificate/Lab ID: L2217.**

*Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)*

*Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 9251, 9038, 350.1, 353.2, 351.1, 120.1, 9050A, 410.4, 9060, 1664, 420.1, LACHAT 10-107-06-1-B, SM 4500CN-E, 4500H-B, 4500CL-E, 4500F-BC, 4500SO4-E, 426C, 4500NH3-B, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500Norg-C, 4500PE, 2510B, 5540C, 5220D, 5310C, 2540B, 2540C, 2540D, 510C, 4500S2-AD, 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8330, 625, 8082, 8151A, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)*

*Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9040B, 9045C, 9065, 420.1, 9012A, 6860, 1311, 1312, 3050B, 9030B, 3051, 9010B, 3540C, SM 510ABC, 4500CN-CE, 2540G, SW-846 7.3, Organic Parameters: EPA 8260B, 8270C, 8330, 8082, 8081A, 8151A, 3545, 3546, 3580, 5035, MassDEP EPH, MassDEP VPH.)*

**Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.



# NJ CHAIN OF CUSTODY

PAGE 1 OF 1

WESTBORO, MA  
8 Walkup Drive  
TEL: 508-898-9220  
FAX: 508-898-9193

MANSFIELD, MA  
320 Forbes Blvd  
TEL: 508-822-9300  
FAX: 508-822-3288

### Client Information

Client: Langan Engineering  
Address: 360 W 81st St, 8th Floor  
New York, NY 10001  
Project Manager: Jason Hayes  
Project Location: W 42nd St NY, NY  
Project #: 170040901  
Project Quote #: ALPHA  
Phone: 212.4791.5400  
Turn-Around Time  
Fax: -

Email: SFlanagan@Langan.com / JHayes@Langan.com  
 These samples have been previously analyzed by Alpha  
 Standard  RUSH (only confirmed if pre-approved)  
 Date Due: 9/15/10 Time: \_\_\_\_\_

Other Project Specific Requirements/Comments/Detection Limits:

Date Rec'd in Lab: 9/8/10

### Report Type

Data Summary  Full  
 NJ Reduced  Other Email

### Billing Information

ALPHA Job #: 11013903  
 Same as Client info PO #: \_\_\_\_\_

### Regulatory Requirements

SRS-Residential/Non Residential  
 SRS-Impact To Groundwater  
 NJ Ground Water Quality Standards  
 Other \_\_\_\_\_

### Site Information

Is this site impacted by Petroleum?  
 Yes / No (circle one)  
 (Please indicate Petroleum Product - See Table 2-1 on reverse side)  
 Petroleum Product: \_\_\_\_\_  
 Are any samples for waste disposal?  
 Yes (NO) (circle one)  
 (Please indicate when samples below in Sample Specific Comments field)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		

13903.1	MW-N2-9-8-10	9/8/10	1015	MW	SPF
2	MW-S2-9-8-10	9/8/10	1340	MW	SPF
3	TB-9-8-10	9/8/10	-	MW	SPF

**ANALYSIS**  
 VOC (EPA 8260)  
 SVOC (EPA 8260)  
 TAL Metals (EPA 8210)  
 Cyanide Total (EPA 8210)  
 Cyanide Available (EPA 8210)

**SAMPLE HANDLING**  
 Filtration \_\_\_\_\_  
 Done  
 Not needed  
 Lab to do  
 Preservation  
 Lab to do  
 (Please specify below)  
 Sample Specific Comments

### Preservative Code:

- A = None
- B = HCl
- C = HNO3
- D = H2SO4
- E = NaOH
- F = MeOH
- G = NaHSO4
- H = Other

Container Type	Preservative
V	A
A	P
P	P
P	P
B	A
A	C
C	E
E	B

Relinquished By:	Date/Time	Received By:	Date/Time
<u>[Signature]</u>	<u>9/8/10 1410</u>	<u>[Signature]</u>	<u>9/8/10 1410</u>
<u>[Signature]</u>	<u>9/8/10 2325</u>	<u>[Signature]</u>	<u>9/8/10 2325</u>

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

NEW YORK STATE DEPARTMENT OF HEALTH  
WADSWORTH CENTER  
RICHARD F. DAINES, M.D.



Expires 12:01 AM April 01, 2010  
Issued April 01, 2009

**CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE**

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

DR. LEONARD C. PITTS  
ALPHA ANALYTICAL  
320 FORBES BOULEVARD  
MANSFIELD, MA 02048

NY Lab Id No: 11627  
EPA Lab Code: MA00030

is hereby APPROVED as an Environmental Laboratory in conformance with the  
National Environmental Laboratory Accreditation Conference Standards for the category  
**ENVIRONMENTAL ANALYSES NON POTABLE WATER**  
All approved analytes are listed below:

**Acrylates**

Acrolein (Propenal)	EPA 8260B
Acrylonitrile	EPA 8260B
Ethyl methacrylate	EPA 8260B
Methyl methacrylate	EPA 8260B

**Amines**

1,4-Phenylenediamine	EPA 8270C
1-Naphthylamine	EPA 8270C
2-Naphthylamine	EPA 8270C
2-Nitroaniline	EPA 8270C
3-Nitroaniline	EPA 8270C
4-Chloroaniline	EPA 8270C
4-Nitroaniline	EPA 8270C
5-Nitro-o-toluidine	EPA 8270C
Aniline	EPA 8270C
Carbazole	EPA 8270C
Diphenylamine	EPA 8270C
Methapyrilene	EPA 8270C
Pronamide	EPA 8270C
Propionitrile	EPA 8260B
Pyridine	EPA 8260B

**Benzidines**

3,3'-Dichlorobenzidine	EPA 625
	EPA 8270C
3,3'-Dimethylbenzidine	EPA 8270C
Benzidine	EPA 625
	EPA 8270C

**Chlorinated Hydrocarbon Pesticides**

4,4'-DDD	EPA 608
	EPA 8081A
4,4'-DDE	EPA 608
	EPA 8081A
4,4'-DDT	EPA 608
	EPA 8081A
Aldrin	EPA 608
	EPA 8081A
alpha-BHC	EPA 608
	EPA 8081A
alpha-Chlordane	EPA 8081A
beta-BHC	EPA 608
	EPA 8081A
Chlordane Total	EPA 608
	EPA 8081A
delta-BHC	EPA 608
	EPA 8081A
Dieldrin	EPA 608
	EPA 8081A
Endosulfan I	EPA 608
	EPA 8081A
Endosulfan II	EPA 608
	EPA 8081A
Endosulfan sulfate	EPA 608
	EPA 8081A
Endrin	EPA 608
	EPA 8081A
Endrin aldehyde	EPA 608

Serial No.: 39518

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NELAP Recognized

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 MANSFIELD, MA 02048

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 EPA Lab Code: MA00030

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 ENVIRONMENTAL ANALYSES NON POTABLE WATER*

*All approved analytes are listed below:*

**Chlorinated Hydrocarbon Pesticides**

Endrin aldehyde	EPA 8081A
Endrin Ketone	EPA 8081A
gamma-Chlordane	EPA 8081A
Heptachlor	EPA 608
	EPA 8081A
Heptachlor epoxide	EPA 608
	EPA 8081A
Lindane	EPA 608
	EPA 8081A
Methoxychlor	EPA 8081A
Toxaphene	EPA 608
	EPA 8081A

**Chlorinated Hydrocarbons**

1,2,3-Trichlorobenzene	EPA 8260B
1,2,4,5-Tetrachlorobenzene	EPA 8270C
1,2,4-Trichlorobenzene	EPA 625
	EPA 8260B
	EPA 8270C
1-Chloronaphthalene	EPA 8270C
2-Chloronaphthalene	EPA 625
	EPA 8270C
Hexachlorobenzene	EPA 625
	EPA 8270C
Hexachlorobutadiene	EPA 625
	EPA 8270C
Hexachlorocyclopentadiene	EPA 625
	EPA 8270C
Hexachloroethane	EPA 625

**Chlorinated Hydrocarbons**

Hexachloroethane	EPA 8270C
Hexachloropropene	EPA 8270C
Pentachlorobenzene	EPA 8270C

**Fuel Oxygenates**

Ethanol	EPA 8260B
Methyl tert-butyl ether	EPA 8260B
tert-amyl methyl ether	EPA 8260B
tert-Butyl alcohol	EPA 8260B

**Haloethers**

4-Bromophenylphenyl ether	EPA 625
	EPA 8270C
4-Chlorophenylphenyl ether	EPA 625
	EPA 8270C
Bis (2-chloroisopropyl) ether	EPA 625
	EPA 8270C
Bis(2-chloroethoxy)methane	EPA 625
	EPA 8270C
Bis(2-chloroethyl)ether	EPA 625
	EPA 8270C

**Microextractables**

1,2-Dibromo-3-chloropropane	EPA 8260B
	EPA 8270C
1,2-Dibromoethane	EPA 8260B

**Mineral**

Alkalinity	SM 18-21 2320B (97)
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**MANSFIELD, MA 02048**

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**EPA Lab Code: MA00030**

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ENVIRONMENTAL ANALYSES NON POTABLE WATER  
All approved analytes are listed below:*

**Nitroaromatics and Isophorone**

1,3,5-Trinitrobenzene	EPA 8270C
1,3-Dinitrobenzene	EPA 8270C
1,4-Naphthoquinone	EPA 8270C
2,4-Dinitrotoluene	EPA 625
	EPA 8270C
2,6-Dinitrotoluene	EPA 625
	EPA 8270C
Isophorone	EPA 625
	EPA 8270C
Nitrobenzene	EPA 625
	EPA 8270C

**Phthalate Esters**

Benzyl butyl phthalate	EPA 625
	EPA 8270C
Bis(2-ethylhexyl) phthalate	EPA 625
	EPA 8270C
Diethyl phthalate	EPA 625
	EPA 8270C
Dimethyl phthalate	EPA 625
	EPA 8270C
Di-n-butyl phthalate	EPA 625
	EPA 8270C
Di-n-octyl phthalate	EPA 625
	EPA 8270C

**Nitrosoamines**

N-Nitrosodiethylamine	EPA 8270C
N-Nitrosodimethylamine	EPA 625
	EPA 8270C
N-Nitrosodi-n-butylamine	EPA 8260B
	EPA 8270C
N-Nitrosodi-n-propylamine	EPA 625
	EPA 8270C
N-Nitrosodiphenylamine	EPA 625
	EPA 8270C
N-nitrosopiperidine	EPA 8270C
N-Nitrosopyrrolidine	EPA 8270C

**Polychlorinated Biphenyls**

2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	EPA 8082
2,2',3,3',4,4',5-Heptachlorobiphenyl	EPA 8082
2,2',3,3',4,4'-Hexachlorobiphenyl	EPA 8082
2,2',3,4,4',5'-Hexachlorobiphenyl	EPA 8082
2,2',3,5'-Tetrachlorobiphenyl	EPA 8082
2,2',5,5'-Tetrachlorobiphenyl	EPA 8082
2,2',5-Trichlorobiphenyl	EPA 8082
2,3',4,4'-Tetrachlorobiphenyl	EPA 8082
PCB-1016	EPA 608
PCB-1221	EPA 608
PCB-1232	EPA 608
PCB-1242	EPA 608
PCB-1248	EPA 608
PCB-1254	EPA 608
PCB-1260	EPA 608

**Organophosphate Pesticides**

Famphur	EPA 8270C
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 320 FORBES BOULEVARD  
 MANSFIELD, MA 02048

NY Lab Id No: 11627  
 EPA Lab Code: MA00030

*is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards for the category ENVIRONMENTAL ANALYSES NON POTABLE WATER. All approved analytes are listed below:*

**Polynuclear Aromatics**

3-Methylcholanthrene	EPA 8270C
7,12-Dimethylbenzyl (a) anthracene	EPA 8270C
Acenaphthene	EPA 625
	EPA 8270C
Acenaphthylene	EPA 625
	EPA 8270C
Anthracene	EPA 625
	EPA 8270C
Benzo(a)anthracene	EPA 625
	EPA 8270C
Benzo(a)pyrene	EPA 625
	EPA 8270C
Benzo(b)fluoranthene	EPA 625
	EPA 8270C
Benzo(ghi)perylene	EPA 625
	EPA 8270C
Benzo(k)fluoranthene	EPA 625
	EPA 8270C
Chrysene	EPA 625
	EPA 8270C
Dibenzo(a,h)anthracene	EPA 625
	EPA 8270C
Fluoranthene	EPA 625
	EPA 8270C
Fluorene	EPA 625
	EPA 8270C
Indeno(1,2,3-cd)pyrene	EPA 625
	EPA 8270C

**Polynuclear Aromatics**

Naphthalene	EPA 625
	EPA 8260B
	EPA 8270C
Phenanthrene	EPA 625
	EPA 8270C
Pyrene	EPA 625
	EPA 8270C

**Priority Pollutant Phenols**

2,3,4,6 Tetrachlorophenol	EPA 8270C
2,4,5-Trichlorophenol	EPA 8270C
2,4,6-Trichlorophenol	EPA 625
	EPA 8270C
2,4-Dichlorophenol	EPA 625
	EPA 8270C
2,4-Dimethylphenol	EPA 625
	EPA 8270C
2,4-Dinitrophenol	EPA 625
	EPA 8270C
2-Chlorophenol	EPA 625
	EPA 8270C
2-Methyl-4,6-dinitrophenol	EPA 625
	EPA 8270C
2-Methylphenol	EPA 8270C
2-Nitrophenol	EPA 625
	EPA 8270C
3-Methylphenol	EPA 8270C
4-Chloro-3-methylphenol	EPA 625
	EPA 8270C

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NELAP Recognized

NEW YORK STATE DEPARTMENT OF HEALTH  
WADSWORTH CENTER  
RICHARD F. DAINES, M.D.



Expires 12:01 AM April 01, 2010  
Issued April 01, 2009

**CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE**  
*Issued in accordance with and pursuant to section 502 Public Health Law of New York State*

DR. LEONARD C. PITTS  
ALPHA ANALYTICAL  
320 FORBES BOULEVARD  
MANSFIELD, MA 02048

NY Lab Id No: 11627  
EPA Lab Code: MA00030

is hereby APPROVED as an Environmental Laboratory in conformance with the  
National Environmental Laboratory Accreditation Conference Standards for the category  
**ENVIRONMENTAL ANALYSES NON POTABLE WATER**  
All approved analytes are listed below:

**Priority Pollutant Phenols**

4-Methylphenol	EPA 8270C
4-Nitrophenol	EPA 625
	EPA 8270C
Pentachlorophenol	EPA 625
	EPA 8270C
Phenol	EPA 625
	EPA 8270C

**Purgeable Aromatics**

1,2,4-Trimethylbenzene	EPA 8260B
1,2-Dichlorobenzene	EPA 625
	EPA 8260B
	EPA 8270C
1,3,5-Trimethylbenzene	EPA 8260B
1,3-Dichlorobenzene	EPA 625
	EPA 8260B
	EPA 8270C
1,4-Dichlorobenzene	EPA 625
	EPA 8260B
	EPA 8270C
Benzene	EPA 8260B
Chlorobenzene	EPA 8260B
Ethyl benzene	EPA 8260B
Isopropylbenzene	EPA 8260B
n-Butylbenzene	EPA 8260B
n-Propylbenzene	EPA 8260B
p-Isopropyltoluene (P-Cymene)	EPA 8260B
sec-Butylbenzene	EPA 8260B
Toluene	EPA 8260B

**Purgeable Aromatics**

Total Xylenes EPA 8260B

**Purgeable Halocarbons**

1,1,1,2-Tetrachloroethane	EPA 8260B
1,1,1-Trichloroethane	EPA 8260B
1,1,2,2-Tetrachloroethane	EPA 8260B
1,1,2-Trichloroethane	EPA 8260B
1,1-Dichloroethane	EPA 8260B
1,1-Dichloroethene	EPA 8260B
1,1-Dichloropropene	EPA 8260B
1,2,3-Trichloropropane	EPA 8260B
1,2-Dichloroethane	EPA 8260B
1,2-Dichloropropane	EPA 8260B
1,3-Dichloropropane	EPA 8260B
2,2-Dichloropropane	EPA 8260B
2-Chloroethylvinyl ether	EPA 8260B
3-Chloropropene (Allyl chloride)	EPA 8260B
Bromochloromethane	EPA 8260B
Bromodichloromethane	EPA 8260B
Bromoform	EPA 8260B
Bromomethane	EPA 8260B
Carbon tetrachloride	EPA 8260B
Chloroethane	EPA 8260B
Chloroform	EPA 8260B
Chloromethane	EPA 8260B
cis-1,2-Dichloroethene	EPA 8260B
cis-1,3-Dichloropropene	EPA 8260B
Dibromochloromethane	EPA 8260B
Dibromomethane	EPA 8260B

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All approved analytes are listed below:*

**Purgeable Halocarbons**

Dichlorodifluoromethane	EPA 8260B
Methylene chloride	EPA 8260B
Tetrachloroethene	EPA 8260B
trans-1,2-Dichloroethene	EPA 8260B
trans-1,3-Dichloropropene	EPA 8260B
trans-1,4-Dichloro-2-butene	EPA 8260B
Trichloroethene	EPA 8260B
Trichlorofluoromethane	EPA 8260B
Vinyl chloride	EPA 8260B

**Purgeable Organics**

1,4-Dioxane	EPA 8260B
2-Butanone (Methylethyl ketone)	EPA 8260B
2-Hexanone	EPA 8260B
4-Methyl-2-Pentanone	EPA 8260B
Acetone	EPA 8260B
Acetonitrile	EPA 8260B
Carbon Disulfide	EPA 8260B
Ethyl Acetate	EPA 8260B
Isobutyl alcohol	EPA 8260B
o-Toluidine	EPA 8270C
Vinyl acetate	EPA 8260B

**Residue**

Solids, Total Dissolved	SM 18-21 2540C (97)
Solids, Total Suspended	SM 18-20 2540D (97)

**Semi-Volatile Organics**

2-Methylnaphthalene	EPA 8270C
4-Amino biphenyl	EPA 8270C
Acetophenone	EPA 8270C
Benzoic Acid	EPA 8270C
Benzyl alcohol	EPA 8270C
Dibenzofuran	EPA 8270C
Ethyl methanesulfonate	EPA 8270C
Isosafrole	EPA 8270C
Methyl methanesulfonate	EPA 8270C
O,O,O-Triethyl phosphorothioate	EPA 8270C
p-Dimethylaminoazobenzene	EPA 8270C
Phenacetin	EPA 8270C
Safrole	EPA 8270C

**Volatile Chlorinated Organics**

Benzyl chloride	EPA 8260B
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**Wastewater Metals I**

Barium, Total	EPA 200.8 Rev. 5.4 EPA 6020
Cadmium, Total	EPA 200.8 Rev. 5.4 EPA 6020
Chromium, Total	EPA 200.8 Rev. 5.4 EPA 6020
Copper, Total	EPA 200.8 Rev. 5.4 EPA 6020
Lead, Total	EPA 200.8 Rev. 5.4 EPA 6020
Manganese, Total	EPA 200.8 Rev. 5.4

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EPA Lab Code: MA00030**

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ENVIRONMENTAL ANALYSES NON POTABLE WATER  
All approved analytes are listed below:*

**Wastewater Metals I**

Manganese, Total	EPA 6020
Nickel, Total	EPA 200.8 Rev. 5.4 EPA 6020
Silver, Total	EPA 200.8 Rev. 5.4 EPA 6020
Strontium, Total	EPA 200.8 Rev. 5.4 EPA 6020

**Wastewater Metals II**

Aluminum, Total	EPA 200.8 Rev. 5.4 EPA 6020
Antimony, Total	EPA 200.8 Rev. 5.4 EPA 6020
Arsenic, Total	EPA 200.8 Rev. 5.4 EPA 6020
Beryllium, Total	EPA 200.8 Rev. 5.4 EPA 6020
Mercury, Total	EPA 1631E EPA 245.1 Rev. 3.0
Selenium, Total	EPA 200.8 Rev. 5.4 EPA 6020
Vanadium, Total	EPA 200.8 Rev. 5.4 EPA 6020
Zinc, Total	EPA 200.8 Rev. 5.4 EPA 6020

**Wastewater Metals III**

Molybdenum, Total	EPA 200.8 Rev. 5.4 EPA 6020
Thallium, Total	EPA 200.8 Rev. 5.4 EPA 6020

**Wastewater Miscellaneous**

Cyanide, Total	EPA 9014
Hydrogen Ion (pH)	EPA 9040B
Specific Conductance	EPA 120.1 Rev. 1982 SM 18-21 2510B (97)
Sulfide (as S)	EPA 376.2
Turbidity	EPA 180.1 Rev. 2.0

**Sample Preparation Methods**

EPA 3510C  
EPA 3511  
EPA 5030B  
EPA 9010B

**Wastewater Metals III**

Cobalt, Total	EPA 200.8 Rev. 5.4 EPA 6020
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**ENVIRONMENTAL ANALYSES NON POTABLE WATER**  
*All approved subcategories and/or analytes are listed below:*

**Polychlorinated Biphenyls**

2,3',4,4',5-Pentachlorobiphenyl

EPA 8082

**Serial No.: 39519**

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All approved analytes are listed below:*

**Acrylates**

Acrolein (Propenal)	EPA 8260B
Acrylonitrile	EPA 8260B
Ethyl methacrylate	EPA 8260B
Methyl acrylonitrile	EPA 8260B
Methyl methacrylate	EPA 8260B

**Amines**

1,2-Diphenylhydrazine	EPA 8270C
1,4-Phenylenediamine	EPA 8270C
1-Naphthylamine	EPA 8270C
2-Naphthylamine	EPA 8270C
2-Nitroaniline	EPA 8270C
3-Nitroaniline	EPA 8270C
4,4'-Oxydianiline	EPA 8270C
4-Chloro-1,2-phenylenediamine	EPA 8270C
4-Chloro-1,3-phenylenediamine	EPA 8270C
4-Chloroaniline	EPA 8270C
4-Nitroaniline	EPA 8270C
5-Chloro-2-methylaniline	EPA 8270C
5-Nitro-o-toluidine	EPA 8270C
Aniline	EPA 8270C
Carbazole	EPA 8270C
Diphenylamine	EPA 8270C
Methapyriline	EPA 8270C
o-Anisidine	EPA 8270C
Pronamide	EPA 8270C

**Benzidines**

3,3'-Dichlorobenzidine	EPA 8270C
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**Benzidines**

3,3'-Dimethylbenzidine	EPA 8270C
Benzidine	EPA 8270C

**Characteristic Testing**

Corrosivity	EPA 9040B EPA 9045C
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**Chlorinated Hydrocarbon Pesticides**

4,4'-DDD	EPA 8081A
4,4'-DDE	EPA 8081A
4,4'-DDT	EPA 8081A
Aldrin	EPA 8081A
alpha-BHC	EPA 8081A
alpha-Chlordane	EPA 8081A
beta-BHC	EPA 8081A
Chlordane Total	EPA 8081A
Chlorobenzilate	EPA 8081A
delta-BHC	EPA 8081A
Diallate	EPA 8081A
Dieldrin	EPA 8081A
Endosulfan I	EPA 8081A
Endosulfan II	EPA 8081A
Endosulfan sulfate	EPA 8081A
Endrin	EPA 8081A
Endrin aldehyde	EPA 8081A
Endrin Ketone	EPA 8081A
gamma-Chlordane	EPA 8081A
Heptachlor	EPA 8081A
Heptachlor epoxide	EPA 8081A

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 ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE  
 All approved analytes are listed below:*

**Chlorinated Hydrocarbon Pesticides**

Kepone	EPA 8081A
Lindane	EPA 8081A
Methoxychlor	EPA 8081A
Pentachloronitrobenzene	EPA 8081A
	EPA 8270C
Toxaphene	EPA 8081A
Trifluralin	EPA 8081A

**Metals I**

Barium, Total	EPA 6020
Cadmium, Total	EPA 6020
Chromium, Total	EPA 6020
Copper, Total	EPA 6020
Lead, Total	EPA 6020
Manganese, Total	EPA 6020
Nickel, Total	EPA 6020
Silver, Total	EPA 6020

**Chlorinated Hydrocarbons**

1,2,4,5-Tetrachlorobenzene	EPA 8270C
1,2,4-Trichlorobenzene	EPA 8260B
	EPA 8270C
1-Chloronaphthalene	EPA 8270C
2-Chloronaphthalene	EPA 8270C
Hexachlorobenzene	EPA 8270C
Hexachlorobutadiene	EPA 8260B
	EPA 8270C
Hexachlorocyclopentadiene	EPA 8270C
Hexachloroethane	EPA 8270C
Hexachlorophene	EPA 8270C
Hexachloropropene	EPA 8270C
Pentachlorobenzene	EPA 8270C

**Metals II**

Aluminum, Total	EPA 6020
Antimony, Total	EPA 6020
Arsenic, Total	EPA 6020
Beryllium, Total	EPA 6020
Chromium VI	EPA 7196A
Mercury, Total	EPA 7471A
	EPA 7474
Selenium, Total	EPA 6020
Vanadium, Total	EPA 6020
Zinc, Total	EPA 6020

**Haloethers**

4-Bromophenylphenyl ether	EPA 8270C
4-Chlorophenylphenyl ether	EPA 8270C
Bis (2-chloroisopropyl) ether	EPA 8270C
Bis(2-chloroethoxy)methane	EPA 8270C
Bis(2-chloroethyl)ether	EPA 8270C

**Metals III**

Cobalt, Total	EPA 6020
Molybdenum, Total	EPA 6020
Thallium, Total	EPA 6020

**Miscellaneous**

Cyanide, Total	EPA 9014
Hydrogen Ion (pH)	EPA 9040B

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 ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE*

*All approved analytes are listed below:*

**Miscellaneous**

Hydrogen Ion (pH) EPA 9045C

**Nitroaromatics and Isophorone**

1,2-Dinitrobenzene EPA 8270C

1,4-Dinitrobenzene EPA 8270C

1,4-Naphthoquinone EPA 8270C

2,4-Dinitrotoluene EPA 8270C

2,6-Dinitrotoluene EPA 8270C

Hydroquinone EPA 8270C

Isophorone EPA 8270C

Nitrobenzene EPA 8270C

Nitroquinoline-1-oxide EPA 8270C

Pyridine EPA 8260B

EPA 8270C

**Nitrosoamines**

N-Nitrosodimethylamine EPA 8270C

N-Nitrosodi-n-butylamine EPA 8260B

N-Nitrosodi-n-propylamine EPA 8270C

N-Nitrosodiphenylamine EPA 8270C

N-nitrosomethylethylamine EPA 8270C

N-nitrosomorpholine EPA 8270C

N-nitrosopiperidine EPA 8270C

N-Nitrosopyrrolidine EPA 8270C

**Organophosphate Pesticides**

Famphur EPA 8270C

Mevinphos EPA 8270C

TEPP EPA 8270C

**Phthalate Esters**

Benzyl butyl phthalate EPA 8270C

Bis(2-ethylhexyl) phthalate EPA 8270C

Diethyl phthalate EPA 8270C

Dimethyl phthalate EPA 8270C

Di-n-butyl phthalate EPA 8270C

Di-n-octyl phthalate EPA 8270C

**Polychlorinated Biphenyls**

2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl EPA 8082

2,2',3,3',4,4',5-Heptachlorobiphenyl EPA 8082

2,2',3,4,4',5,5'-Heptachlorobiphenyl EPA 8082

2,2',3,4,4',5',6-Heptachlorobiphenyl EPA 8082

2,2',3,4,4',5'-Hexachlorobiphenyl EPA 8082

2,2',3,4',5,5',6-Heptachlorobiphenyl EPA 8082

2,2',3,4,5,5'-Hexachlorobiphenyl EPA 8082

2,2',3,4,5'-Pentachlorobiphenyl EPA 8082

2,2',3,5,5',6-Hexachlorobiphenyl EPA 8082

2,2',3,5'-Tetrachlorobiphenyl EPA 8082

2,2',4,4',5,5'-Hexachlorobiphenyl EPA 8082

2,2',4,5,5'-Pentachlorobiphenyl EPA 8082

2,2',5,5'-Tetrachlorobiphenyl EPA 8082

2,2',5-Trichlorobiphenyl EPA 8082

2,3,3',4,6-Pentachlorobiphenyl EPA 8082

2,3',4,4'-Tetrachlorobiphenyl EPA 8082

2,3-Dichlorobiphenyl EPA 8082

2,4',5-Trichlorobiphenyl EPA 8082

2-Chlorobiphenyl EPA 8082

PCB-1016 EPA 8082

PCB-1221 EPA 8082

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**Polychlorinated Biphenyls**

PCB-1232	EPA 8082
PCB-1242	EPA 8082
PCB-1248	EPA 8082
PCB-1254	EPA 8082
PCB-1260	EPA 8082

**Polynuclear Aromatic Hydrocarbons**

3-Methylcholanthrene	EPA 8270C
7,12-Dimethylbenzyl (a) anthracene	EPA 8270C
Acenaphthene	EPA 8270C
Acenaphthylene	EPA 8270C
Anthracene	EPA 8270C
Benzo(a)anthracene	EPA 8270C
Benzo(a)pyrene	EPA 8270C
Benzo(b)fluoranthene	EPA 8270C
Benzo(ghi)perylene	EPA 8270C
Benzo(k)fluoranthene	EPA 8270C
Chrysene	EPA 8270C
Dibenzo(a,e)pyrene	EPA 8270C
Dibenzo(a,h)anthracene	EPA 8270C
Dibenzo(a,j)acridine	EPA 8270C
Fluoranthene	EPA 8270C
Fluorene	EPA 8270C
Indeno(1,2,3-cd)pyrene	EPA 8270C
Naphthalene	EPA 8260B
	EPA 8270C
Phenanthrene	EPA 8270C
Pyrene	EPA 8270C

**Priority Pollutant Phenols**

2,3,4,6 Tetrachlorophenol	EPA 8270C
2,4,5-Trichlorophenol	EPA 8270C
2,4,6-Trichlorophenol	EPA 8270C
2,4-Dichlorophenol	EPA 8270C
2,4-Dimethylphenol	EPA 8270C
2,4-Dinitrophenol	EPA 8270C
2,6-Dichlorophenol	EPA 8270C
2-Chlorophenol	EPA 8270C
2-Methyl-4,6-dinitrophenol	EPA 8270C
2-Methylphenol	EPA 8270C
2-Nitrophenol	EPA 8270C
3-Methylphenol	EPA 8270C
4-Chloro-3-methylphenol	EPA 8270C
4-Methylphenol	EPA 8270C
4-Nitrophenol	EPA 8270C
Pentachlorophenol	EPA 8270C
Phenol	EPA 8270C
Thiophenol	EPA 8270C

**Purgeable Aromatics**

1,2,4-Trimethylbenzene	EPA 8260B
1,2-Dichlorobenzene	EPA 8260B
	EPA 8270C
1,3,5-Trimethylbenzene	EPA 8260B
1,3-Dichlorobenzene	EPA 8260B
	EPA 8270C
1,4-Dichlorobenzene	EPA 8260B
	EPA 8270C
2-Chlorotoluene	EPA 8260B

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 Issued April 01, 2009

**CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE**

*Issued in accordance with and pursuant to section 502 Public Health Law of New York State*

DR. LEONARD C. PITTS  
 ALPHA ANALYTICAL  
 320 FORBES BOULEVARD  
 MANSFIELD, MA 02048

NY Lab Id No: 11627  
 EPA Lab Code: MA00030

*is hereby APPROVED as an Environmental Laboratory in conformance with the  
 National Environmental Laboratory Accreditation Conference Standards for the category  
 ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE  
 All approved analytes are listed below:*

**Purgeable Aromatics**

4-Chlorotoluene	EPA 8260B
Benzene	EPA 8260B
Bromobenzene	EPA 8260B
Chlorobenzene	EPA 8260B
Ethyl benzene	EPA 8260B
Isopropylbenzene	EPA 8260B
n-Butylbenzene	EPA 8260B
n-Propylbenzene	EPA 8260B
p-Isopropyltoluene (P-Cymene)	EPA 8260B
sec-Butylbenzene	EPA 8260B
Styrene	EPA 8260B
tert-Butylbenzene	EPA 8260B
Toluene	EPA 8260B
Total Xylenes	EPA 8260B

**Purgeable Halocarbons**

1,3-Dichloropropane	EPA 8260B
2,2-Dichloropropane	EPA 8260B
2-Chloroethylvinyl ether	EPA 8260B
3-Chloropropene (Allyl chloride)	EPA 8260B
Bromoacetone	EPA 8260B
Bromochloromethane	EPA 8260B
Bromodichloromethane	EPA 8260B
Bromoform	EPA 8260B
Bromomethane	EPA 8260B
Carbon tetrachloride	EPA 8260B
Chloroethane	EPA 8260B
Chloroform	EPA 8260B
Chloromethane	EPA 8260B
cis-1,2-Dichloroethene	EPA 8260B
cis-1,3-Dichloropropene	EPA 8260B
cis-1,4-Dichloro-2-butene	EPA 8260B
Dibromochloromethane	EPA 8260B
Dibromomethane	EPA 8260B
Dichlorodifluoromethane	EPA 8260B
Methylene chloride	EPA 8260B
Tetrachloroethene	EPA 8260B
trans-1,2-Dichloroethene	EPA 8260B
trans-1,3-Dichloropropene	EPA 8260B
trans-1,4-Dichloro-2-butene	EPA 8260B
Trichloroethene	EPA 8260B
Trichlorofluoromethane	EPA 8260B
Vinyl chloride	EPA 8260B

**Purgeable Halocarbons**

1,1,1,2-Tetrachloroethane	EPA 8260B
1,1,1-Trichloroethane	EPA 8260B
1,1,2,2-Tetrachloroethane	EPA 8260B
1,1,2-Trichloroethane	EPA 8260B
1,1-Dichloroethane	EPA 8260B
1,1-Dichloroethene	EPA 8260B
1,1-Dichloropropene	EPA 8260B
1,2,3-Trichloropropane	EPA 8260B
1,2-Dibromo-3-chloropropane	EPA 8081A
1,2-Dibromoethane	EPA 8260B
1,2-Dichloroethane	EPA 8260B
1,2-Dichloropropane	EPA 8260B
1,3-Dichloro-2-propanol	EPA 8260B

Serial No.: 39520

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NELAP Recognized

NEW YORK STATE DEPARTMENT OF HEALTH  
WADSWORTH CENTER  
RICHARD F. DAINES, M.D.



Expires 12:01 AM April 01, 2010  
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ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE  
All approved analytes are listed below:*

**Purgeable Organics**

1,4-Dioxane	EPA 8260B
2-Butanone (Methylethyl ketone)	EPA 8260B
2-Hexanone	EPA 8260B
4-Methyl-2-Pentanone	EPA 8260B
Acetone	EPA 8260B
Acetonitrile	EPA 8260B
Carbon Disulfide	EPA 8260B
Ethyl Acetate	EPA 8260B
Isobutyl alcohol	EPA 8260B
Methyl tert-butyl ether	EPA 8260B
o-Toluidine	EPA 8260B
	EPA 8270C
Propionitrile	EPA 8260B
tert-Butyl alcohol	EPA 8260B
Vinyl acetate	EPA 8260B

**Semi-Volatile Organics**

Resorcinol	EPA 8270C
Safrole	EPA 8270C
Toluene Diisocyanate	EPA 8270C

**Volatile Chlorinated Organics**

Benzyl chloride	EPA 8260B
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**Sample Preparation Methods**

EPA 1311
EPA 3050B
EPA 3580
EPA 5030B
EPA 5035
EPA 9010B

**Semi-Volatile Organics**

2-Methylnaphthalene	EPA 8270C
4-Amino biphenyl	EPA 8270C
Acetophenone	EPA 8270C
Benzoic Acid	EPA 8270C
Benzyl alcohol	EPA 8270C
Dibenzofuran	EPA 8270C
Diethyl sulfate	EPA 8270C
Dihydrosafrole	EPA 8270C
Ethyl methanesulfonate	EPA 8270C
Isosafrole	EPA 8270C
Methyl methanesulfonate	EPA 8270C
O,O,O-Triethyl phosphorothioate	EPA 8270C

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**ENVIRONMENTAL ANALYSES AIR AND EMISSIONS**  
 All approved analytes are listed below:

**Acrylates**

Acetonitrile EPA TO-15  
 Acrylonitrile EPA TO-15

**Chlorinated Hydrocarbons**

1,2,4-Trichlorobenzene EPA TO-15  
 Hexachlorobutadiene EPA TO-15

**Polynuclear Aromatics**

Naphthalene EPA TO-15

**Purgeable Aromatics**

1,2,4-Trimethylbenzene EPA TO-15  
 1,2-Dichlorobenzene EPA TO-15  
 1,3,5-Trimethylbenzene EPA TO-15  
 1,3-Dichlorobenzene EPA TO-15  
 1,4-Dichlorobenzene EPA TO-15  
 Benzene EPA TO-15  
 Chlorobenzene EPA TO-15  
 Ethyl benzene EPA TO-15  
 Isopropylbenzene EPA TO-15  
 Styrene EPA TO-15  
 Toluene EPA TO-15  
 Total Xylenes EPA TO-15

**Purgeable Halocarbons**

1,1-Dichloroethene EPA TO-15  
 1,2-Dibromo-3-chloropropane EPA TO-15  
 1,2-Dibromoethane EPA TO-15  
 1,2-Dichloro-1,1,2,2-tetrafluoroethane EPA TO-15  
 1,2-Dichloroethane EPA TO-15  
 1,2-Dichloropropane EPA TO-15  
 Bromodichloromethane EPA TO-15  
 Bromoform EPA TO-15  
 Bromomethane EPA TO-15  
 Carbon tetrachloride EPA TO-15  
 Chloroethane EPA TO-15  
 Chloroform EPA TO-15  
 Chloromethane EPA TO-15  
 cis-1,2-Dichloroethene EPA TO-15  
 cis-1,3-Dichloropropene EPA TO-15  
 Dibromochloromethane EPA TO-15  
 Dichlorodifluoromethane EPA TO-15  
 Methylene chloride EPA TO-15  
 Tetrachloroethene EPA TO-15  
 trans-1,2-Dichloroethene EPA TO-15  
 trans-1,3-Dichloropropene EPA TO-15  
 Trichloroethene EPA TO-15  
 Trichlorofluoromethane EPA TO-15  
 Vinyl bromide EPA TO-15  
 Vinyl chloride EPA TO-15

**Volatile Chlorinated Organics**

Benzyl chloride EPA TO-15

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ENVIRONMENTAL ANALYSES AIR AND EMISSIONS  
All approved analytes are listed below:*

**Volatile Organics**

1,3-Butadiene	EPA TO-15
1,4-Dioxane	EPA TO-15
2,2,4-Trimethylpentane	EPA TO-15
2-Butanone (Methylethyl ketone)	EPA TO-15
4-Methyl-2-Pentanone	EPA TO-15
Acetone	EPA TO-15
Carbon Disulfide	EPA TO-15
Hexane	EPA TO-15
Methanol	EPA TO-15
Methyl tert-butyl ether	EPA TO-15
Vinyl acetate	EPA TO-15

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**MR. CHRISTOPHER WAKEFIELD  
ALPHA ANALYTICAL  
8 WALKUP DR  
WESTBOROUGH, MA 01581-1019**

**NY Lab Id No: 11148  
EPA Lab Code: MA00086**

*is hereby APPROVED as an Environmental Laboratory in conformance with the  
National Environmental Laboratory Accreditation Conference Standards for the category  
**ENVIRONMENTAL ANALYSES POTABLE WATER**  
All approved analytes are listed below:*

**Disinfection By-products**

Bromochloroacetic acid	SM 19-21 6251B (94)
Dibromoacetic acid	SM 19-21 6251B (94)
Dichloroacetic acid	SM 19-21 6251B (94)
Monobromoacetic acid	SM 19-21 6251B (94)
Monochloroacetic acid	SM 19-21 6251B (94)
Trichloroacetic acid	SM 19-21 6251B (94)

**Drinking Water Bacteriology**

Coliform, Total / E. coli (Qualitative)	SM 18-21 9223B (97) (Colliert)
	SM18-21 9222B(97)/40CFR141.21 (97) (97)
Standard Plate Count	SM 18-21 9215B

**Drinking Water Metals I**

Arsenic, Total	EPA 200.8 Rev. 5.4
Barium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Cadmium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Chromium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Copper, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Iron, Total	EPA 200.7 Rev. 4.4
Lead, Total	EPA 200.8 Rev. 5.4
Manganese, Total	EPA 200.7 Rev. 4.4
Mercury, Total	EPA 245.2 Rev. 1974
Selenium, Total	EPA 200.8 Rev. 5.4
Silver, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4

**Drinking Water Metals I**

Zinc, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4

**Drinking Water Metals II**

Aluminum, Total	EPA 200.7 Rev. 4.4
Antimony, Total	EPA 200.8 Rev. 5.4
Beryllium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Molybdenum, Total	EPA 200.7 Rev. 4.4
Nickel, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Thallium, Total	EPA 200.8 Rev. 5.4
Vanadium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4

**Drinking Water Metals III**

Calcium, Total	EPA 200.7 Rev. 4.4
Magnesium, Total	EPA 200.7 Rev. 4.4
Potassium, Total	EPA 200.7 Rev. 4.4
Sodium, Total	EPA 200.7 Rev. 4.4

**Drinking Water Miscellaneous**

Organic Carbon, Total	SM 18-21 5310C (00)
Perchlorate	EPA 314.0
	EPA 331.0

**Drinking Water Non-Metals**

Alkalinity	SM 18-21 2320B (97)
Calcium Hardness	EPA 200.7 Rev. 4.4
Chloride	EPA 300.0 Rev. 2.1

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**8 WALKUP DR**  
**WESTBOROUGH, MA 01581-1019**

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**ENVIRONMENTAL ANALYSES POTABLE WATER**  
*All approved analytes are listed below:*

**Drinking Water Non-Metals**

Color	SM 18-21 2120B (01)
Cyanide, Total	SM 18-21 4500-CN E (99)
Fluoride, Total	EPA 300.0 Rev. 2.1
	SM 18-21 4500-F C (97)
Hydrogen Ion (pH)	SM 18-21 4500-H B (00)
Nitrate (as N)	SM 18-21 4500-NO3 F (00)
Nitrite (as N)	SM 18-21 4500-NO3 F (00)
Solids, Total Dissolved	SM 18-21 2540C (97)
Specific Conductance	EPA 120.1 Rev. 1982
	SM 18-21 2510B (97)
Sulfate (as SO4)	EPA 300.0 Rev. 2.1

**Drinking Water Trihalomethanes**

Bromodichloromethane	EPA 524.2
Bromoform	EPA 524.2
Chloroform	EPA 524.2
Dibromochloromethane	EPA 524.2
Total Trihalomethanes	EPA 524.2

**Microextractibles**

1,2-Dibromo-3-chloropropane	EPA 504.1
1,2-Dibromoethane	EPA 504.1

**Volatile Aromatics**

1,2,3-Trichlorobenzene	EPA 524.2
1,2,4-Trichlorobenzene	EPA 524.2
1,2,4-Trimethylbenzene	EPA 524.2
1,2-Dichlorobenzene	EPA 524.2
1,3,5-Trimethylbenzene	EPA 524.2

**Volatile Aromatics**

1,3-Dichlorobenzene	EPA 524.2
1,4-Dichlorobenzene	EPA 524.2
2-Chlorotoluene	EPA 524.2
4-Chlorotoluene	EPA 524.2
Benzene	EPA 524.2
Bromobenzene	EPA 524.2
Chlorobenzene	EPA 524.2
Ethyl benzene	EPA 524.2
Hexachlorobutadiene	EPA 524.2
Isopropylbenzene	EPA 524.2
n-Butylbenzene	EPA 524.2
n-Propylbenzene	EPA 524.2
p-Isopropyltoluene (P-Cymene)	EPA 524.2
sec-Butylbenzene	EPA 524.2
Styrene	EPA 524.2
tert-Butylbenzene	EPA 524.2
Toluene	EPA 524.2
Total Xylenes	EPA 524.2

**Volatile Halocarbons**

1,1,1,2-Tetrachloroethane	EPA 524.2
1,1,1-Trichloroethane	EPA 524.2
1,1,1,2,2-Tetrachloroethane	EPA 524.2
1,1,2-Trichloroethane	EPA 524.2
1,1-Dichloroethane	EPA 524.2
1,1-Dichloroethene	EPA 524.2
1,1-Dichloropropene	EPA 524.2
1,2,3-Trichloropropane	EPA 524.2
1,2-Dichloroethane	EPA 524.2

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WESTBOROUGH, MA 01581-1019

NY Lab Id No: 11148  
EPA Lab Code: MA00086

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ENVIRONMENTAL ANALYSES POTABLE WATER  
All approved analytes are listed below:*

**Volatile Halocarbons**

1,2-Dichloropropane	EPA 524.2
1,3-Dichloropropane	EPA 524.2
2,2-Dichloropropane	EPA 524.2
Bromochloromethane	EPA 524.2
Bromomethane	EPA 524.2
Carbon tetrachloride	EPA 524.2
Chloroethane	EPA 524.2
Chloromethane	EPA 524.2
cis-1,2-Dichloroethene	EPA 524.2
cis-1,3-Dichloropropene	EPA 524.2
Dibromomethane	EPA 524.2
Dichlorodifluoromethane	EPA 524.2
Methylene chloride	EPA 524.2
Tetrachloroethene	EPA 524.2
trans-1,2-Dichloroethene	EPA 524.2
trans-1,3-Dichloropropene	EPA 524.2
Trichloroethene	EPA 524.2
Trichlorofluoromethane	EPA 524.2
Vinyl chloride	EPA 524.2

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ENVIRONMENTAL ANALYSES NON POTABLE WATER  
All approved analytes are listed below:*

**Acrylates**

Acrolein (Propenal)

EPA 624  
EPA 8260B

Acrylonitrile

EPA 624  
EPA 8260B

**Amines**

2-Nitroaniline

EPA 8270C

3-Nitroaniline

EPA 8270C

4-Chloroaniline

EPA 8270C

4-Nitroaniline

EPA 8270C

Carbazole

EPA 8270C

Pyridine

EPA 625  
EPA 8270C

**Chlorinated Hydrocarbon Pesticides**

4,4'-DDE

EPA 608  
EPA 8081A

4,4'-DDT

EPA 608  
EPA 8081A

Aldrin

EPA 608  
EPA 8081A

alpha-BHC

EPA 608  
EPA 8081A

alpha-Chlordane

EPA 8081A

beta-BHC

EPA 608  
EPA 8081A

Chlordane Total

EPA 608  
EPA 8081A

delta-BHC

EPA 608  
EPA 8081A

Dieldrin

EPA 608  
EPA 8081A

Endosulfan I

EPA 608  
EPA 8081A

Endosulfan II

EPA 608  
EPA 8081A

Endosulfan sulfate

EPA 608  
EPA 8081A

Endrin

EPA 608  
EPA 8081A

Endrin aldehyde

EPA 608  
EPA 8081A

Endrin Ketone

EPA 8081A

**Bacteriology**

Coliform, Fecal

SM 18-20 9221E (99)  
SM 18-20 9222D (97)

Coliform, Total

SM 18-20 9221B (99)  
SM 18-20 9222B (97)

Standard Plate Count

SM 18-21 9215B

**Benzidines**

3,3'-Dichlorobenzidine

EPA 625  
EPA 8270C

Benzidine

EPA 625  
EPA 8270C

**Chlorinated Hydrocarbon Pesticides**

4,4'-DDD

EPA 608  
EPA 8081A

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 All approved analytes are listed below:*

**Chlorinated Hydrocarbon Pesticides**

gamma-Chlordane	EPA 8081A
Heptachlor	EPA 608
	EPA 8081A
Heptachlor epoxide	EPA 608
	EPA 8081A
Lindane	EPA 608
	EPA 8081A
Methoxychlor	EPA 608
	EPA 8081A
Toxaphene	EPA 608
	EPA 8081A

**Chlorophenoxy Acid Pesticides**

2,4,5-T	EPA 8151A
2,4,5-TP (Silvex)	EPA 8151A
2,4-D	EPA 8151A

**Demand**

Carbonaceous BOD	SM 18-20 5210B (01)
Chemical Oxygen Demand	EPA 410.4 Rev. 2.0
	SM 18-20 5220D (97)

**Fuel Oxygenates**

Methyl tert-butyl ether	EPA 8260B
tert-Butyl alcohol	EPA 8260B

**Haloethers**

4-Bromophenylphenyl ether	EPA 625
	EPA 8270C
4-Chlorophenylphenyl ether	EPA 625
	EPA 8270C
Bis (2-chloroisopropyl) ether	EPA 625
	EPA 8270C
Bis(2-chloroethoxy)methane	EPA 625
	EPA 8270C
Bis(2-chloroethyl)ether	EPA 625
	EPA 8270C

**Microextractables**

1,2-Dibromo-3-chloropropane	EPA 8260B
1,2-Dibromoethane	EPA 8260B

**Chlorinated Hydrocarbons**

1,2,3-Trichlorobenzene	EPA 8260B
1,2,4,5-Tetrachlorobenzene	EPA 8270C
1,2,4-Trichlorobenzene	EPA 625
	EPA 8260B
	EPA 8270C
2-Chloronaphthalene	EPA 625
	EPA 8270C
Hexachlorobenzene	EPA 625
	EPA 8270C
Hexachlorobutadiene	EPA 625
	EPA 8260B
	EPA 8270C
Hexachlorocyclopentadiene	EPA 625
	EPA 8270C
Hexachloroethane	EPA 625
	EPA 8270C

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 WADSWORTH CENTER  
 RICHARD F. DAINES, M.D.



Expires 12:01 AM April 01, 2010  
 Issued April 01, 2009

**CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE**

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. CHRISTOPHER WAKEFIELD  
 ALPHA ANALYTICAL  
 8 WALKUP DR  
 WESTBOROUGH, MA 01581-1019

NY Lab Id No: 11148  
 EPA Lab Code: MA00086

is hereby APPROVED as an Environmental Laboratory in conformance with the  
 National Environmental Laboratory Accreditation Conference Standards for the category  
**ENVIRONMENTAL ANALYSES NON POTABLE WATER**  
 All approved analytes are listed below:

Mineral		Nitroaromatics and Isophorone	
Acidity	SM 18-20 2310B.4a (97)	Isophorone	EPA 8270C
Alkalinity	SM 18-21 2320B (97)	Methyl-2,4,6-trinitrophenylnitramine	EPA 8330
Calcium Hardness	EPA 200.7 Rev. 4.4	Nitrobenzene	EPA 625
Chloride	EPA 300.0 Rev. 2.1		EPA 8270C
	LACHAT 10-117-07-1 A or B		EPA 8330
	SM 18-20 4500-CI- E (97)	Octahydro-tetranitro-tetrazocine	EPA 8330
Fluoride, Total	EPA 300.0 Rev. 2.1		
	SM 18-21 4500-F C (97)	Nitrosoamines	
Hardness, Total	EPA 200.7 Rev. 4.4	N-Nitrosodimethylamine	EPA 625
Sulfate (as SO4)	EPA 300.0 Rev. 2.1		EPA 8270C
	SM 15 426 C	N-Nitrosodi-n-propylamine	EPA 625
			EPA 8270C
		N-Nitrosodiphenylamine	EPA 625
			EPA 8270C
Nitroaromatics and Isophorone		Nutrient	
1,3,5-Trinitrobenzene	EPA 8330	Ammonia (as N)	EPA 350.1 Rev. 2.0
1,3-Dinitrobenzene	EPA 8330		LACHAT 10-107-06-1-B
2,4,6-Trinitrotoluene	EPA 8330		SM 18 4500-NH3 H
2,4-Dinitrotoluene	EPA 625		EPA 351.1 Rev. 1978
	EPA 8270C	Kjeldahl Nitrogen, Total	LACHAT 10-107-06-2
	EPA 8330		EPA 300.0 Rev. 2.1
2,6-Dinitrotoluene	EPA 625		EPA 353.2 Rev. 2.0
	EPA 8270C	Nitrate (as N)	LACHAT 10-107-04-1-C
	EPA 8330		SM 18-21 4500-NO3 F (00)
2-Amino-4,6-dinitrotoluene	EPA 8330		SM 18-21 4500-NO2 B (00)
2-Nitrotoluene	EPA 8330	Nitrite (as N)	SM 18-21 4500-P E
3-Nitrotoluene	EPA 8330	Orthophosphate (as P)	SM 18-21 4500-P E
4-Amino-2,6-dinitrotoluene	EPA 8330	Phosphorus, Total	SM 18-21 4500-P E
4-Nitrotoluene	EPA 8330		
Hexahydro-1,3,5-trinitro-1,3,5-triazine	EPA 8330		
Isophorone	EPA 625		

Serial No.: 39216

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**Organophosphate Pesticides**

Atrazine EPA 8270C

**Phthalate Esters**

Benzyl butyl phthalate EPA 625  
 EPA 8270C

Bis(2-ethylhexyl) phthalate EPA 625  
 EPA 8270C

Diethyl phthalate EPA 625  
 EPA 8270C

Dimethyl phthalate EPA 625  
 EPA 8270C

Di-n-butyl phthalate EPA 625  
 EPA 8270C

Di-n-octyl phthalate EPA 625  
 EPA 8270C

**Polychlorinated Biphenyls**

PCB-1016 EPA 608  
 EPA 8082

PCB-1221 EPA 608  
 EPA 8082

PCB-1232 EPA 608  
 EPA 8082

PCB-1242 EPA 608  
 EPA 8082

PCB-1248 EPA 608  
 EPA 8082

PCB-1254 EPA 608  
 EPA 8082

**Polychlorinated Biphenyls**

PCB-1260 EPA 608  
 EPA 8082

PCB-1262 EPA 8082  
 PCB-1268 EPA 8082

**Polynuclear Aromatics**

Acenaphthene EPA 625  
 EPA 8270C

Acenaphthylene EPA 625  
 EPA 8270C

Anthracene EPA 625  
 EPA 8270C

Benzo(a)anthracene EPA 625  
 EPA 8270C

Benzo(a)pyrene EPA 625  
 EPA 8270C

Benzo(b)fluoranthene EPA 625  
 EPA 8270C

Benzo(ghi)perylene EPA 625  
 EPA 8270C

Benzo(k)fluoranthene EPA 625  
 EPA 8270C

Chrysene EPA 625  
 EPA 8270C

Dibenzo(a,h)anthracene EPA 625  
 EPA 8270C

Fluoranthene EPA 625  
 EPA 8270C

Fluorene EPA 625

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**Polynuclear Aromatics**

Fluorene	EPA 8270C
Indeno(1,2,3-cd)pyrene	EPA 625
	EPA 8270C
Naphthalene	EPA 625
	EPA 8270C
Phenanthrene	EPA 625
	EPA 8270C
Pyrene	EPA 625
	EPA 8270C

**Priority Pollutant Phenols**

4-Chloro-3-methylphenol	EPA 8270C
4-Methylphenol	EPA 8270C
4-Nitrophenol	EPA 625
	EPA 8270C
Cresols, Total	EPA 8270C
Pentachlorophenol	EPA 625
	EPA 8270C
Phenol	EPA 625
	EPA 8270C

**Priority Pollutant Phenols**

2,4,5-Trichlorophenol	EPA 625
	EPA 8270C
2,4,6-Trichlorophenol	EPA 625
	EPA 8270C
2,4-Dichlorophenol	EPA 625
	EPA 8270C
2,4-Dimethylphenol	EPA 625
	EPA 8270C
2,4-Dinitrophenol	EPA 625
	EPA 8270C
2-Chlorophenol	EPA 625
	EPA 8270C
2-Methyl-4,6-dinitrophenol	EPA 625
	EPA 8270C
2-Methylphenol	EPA 8270C
2-Nitrophenol	EPA 625
	EPA 8270C
4-Chloro-3-methylphenol	EPA 625

**Purgeable Aromatics**

1,2-Dichlorobenzene	EPA 624
	EPA 625
	EPA 8021B
	EPA 8260B
	EPA 8270C
1,3-Dichlorobenzene	EPA 624
	EPA 625
	EPA 8021B
	EPA 8260B
	EPA 8270C
1,4-Dichlorobenzene	EPA 624
	EPA 625
	EPA 8021B
	EPA 8260B
	EPA 8270C
Benzene	EPA 624
	EPA 8021B
	EPA 8260B

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**Purgeable Aromatics**

Chlorobenzene	EPA 624
	EPA 8260B
Ethyl benzene	EPA 624
	EPA 8021B
	EPA 8260B
Isopropylbenzene	EPA 8260B
Styrene	EPA 8260B
Toluene	EPA 624
	EPA 8021B
	EPA 8260B
Total Xylenes	EPA 624
	EPA 8021B
	EPA 8260B

**Purgeable Halocarbons**

1,2-Dichloropropane	EPA 8260B
2-Chloroethylvinyl ether	EPA 624
	EPA 8260B
Bromochloromethane	EPA 8260B
Bromodichloromethane	EPA 624
	EPA 8260B
Bromoform	EPA 624
	EPA 8260B
Bromomethane	EPA 624
	EPA 8260B
Carbon tetrachloride	EPA 624
	EPA 8260B
Chloroethane	EPA 624
	EPA 8260B
Chloroform	EPA 624
	EPA 8260B
Chloromethane	EPA 624
	EPA 8260B
cis-1,2-Dichloroethene	EPA 8260B
cis-1,3-Dichloropropene	EPA 624
	EPA 8260B
Dibromochloromethane	EPA 624
	EPA 8260B
Dichlorodifluoromethane	EPA 624
	EPA 8260B
Methylene chloride	EPA 624
	EPA 8260B
Tetrachloroethene	EPA 624

**Purgeable Halocarbons**

1,1,1-Trichloroethane	EPA 624
	EPA 8260B
1,1,2,2-Tetrachloroethane	EPA 624
	EPA 8260B
1,1,2-Trichloroethane	EPA 624
	EPA 8260B
1,1,2-Trifluoro-1,2,2-Trichloroethane	EPA 8260B
1,1-Dichloroethane	EPA 624
	EPA 8260B
1,1-Dichloroethene	EPA 624
	EPA 8260B
1,2-Dichloroethane	EPA 624
	EPA 8260B
1,2-Dichloropropane	EPA 624

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**Purgeable Halocarbons**

Tetrachloroethene	EPA 8260B
trans-1,2-Dichloroethene	EPA 824
	EPA 8260B
trans-1,3-Dichloropropene	EPA 824
	EPA 8260B
Trichloroethene	EPA 824
	EPA 8260B
Trichlorofluoromethane	EPA 824
	EPA 8260B
Vinyl chloride	EPA 824
	EPA 8260B

**Purgeable Organics**

1,4-Dioxane	EPA 8260B
2-Butanone (Methylethyl ketone)	EPA 8260B
2-Hexanone	EPA 8260B
4-Methyl-2-Pentanone	EPA 8260B
Acetone	EPA 8260B
Carbon Disulfide	EPA 8260B
Cyclohexane	EPA 8260B
Methyl acetate	EPA 8260B
Vinyl acetate	EPA 8260B

**Residue**

Solids, Total Dissolved	SM 18-21 2540C (97)
Solids, Total Suspended	SM 18-20 2540D (97)

**Semi-Volatile Organics**

1,1'-Biphenyl	EPA 8270C
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**Semi-Volatile Organics**

2-Methylnaphthalene	EPA 8270C
Acetophenone	EPA 8270C
Benzaldehyde	EPA 8270C
Benzoic Acid	EPA 8270C
Benzyl alcohol	EPA 8270C
Caprolactam	EPA 8270C
Dibenzofuran	EPA 8270C
Methyl cyclohexane	EPA 8260B

**Wastewater Metals I**

Barium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020
Cadmium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020
Calcium, Total	EPA 200.7 Rev. 4.4
	EPA 6010B
Chromium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020
Copper, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
	EPA 6010B
	EPA 6020
Iron, Total	EPA 200.7 Rev. 4.4

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**Wastewater Metals I**

**Wastewater Metals II**

Iron, Total	EPA 6010B	Antimony, Total	EPA 200.7 Rev. 4.4
Lead, Total	EPA 200.7 Rev. 4.4		EPA 200.8 Rev. 5.4
	EPA 200.8 Rev. 5.4		EPA 6010B
	EPA 6010B		EPA 6020
	EPA 6020	Arsenic, Total	EPA 200.7 Rev. 4.4
Magnesium, Total	EPA 200.7 Rev. 4.4		EPA 200.8 Rev. 5.4
	EPA 6010B		EPA 6010B
Manganese, Total	EPA 200.7 Rev. 4.4		EPA 6020
	EPA 200.8 Rev. 5.4	Beryllium, Total	EPA 200.7 Rev. 4.4
	EPA 6010B		EPA 200.8 Rev. 5.4
	EPA 6020		EPA 6010B
Nickel, Total	EPA 200.7 Rev. 4.4		EPA 6020
	EPA 200.8 Rev. 5.4	Chromium VI	EPA 7196A
	EPA 6010B		SM 18-19 3500-Cr D
	EPA 6020	Mercury, Total	EPA 245.1 Rev. 3.0
Potassium, Total	EPA 200.7 Rev. 4.4		EPA 245.2 Rev. 1974
	EPA 6010B		EPA 7470A
Silver, Total	EPA 200.7 Rev. 4.4	Selenium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4		EPA 200.8 Rev. 5.4
	EPA 6010B		EPA 6010B
	EPA 6020		EPA 6020
Sodium, Total	EPA 200.7 Rev. 4.4	Vanadium, Total	EPA 200.7 Rev. 4.4
	EPA 6010B		EPA 200.8 Rev. 5.4
			EPA 6010B
			EPA 6020
<b>Wastewater Metals II</b>		Zinc, Total	EPA 200.7 Rev. 4.4
Aluminum, Total	EPA 200.7 Rev. 4.4		EPA 200.8 Rev. 5.4
	EPA 200.8 Rev. 5.4		EPA 6010B
	EPA 6010B		
	EPA 6020		

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**Wastewater Metals II**

Zinc, Total EPA 6020

**Wastewater Metals III**

Cobalt, Total EPA 200.7 Rev. 4.4  
 EPA 200.8 Rev. 5.4  
 EPA 6010B  
 EPA 6020

Molybdenum, Total EPA 200.7 Rev. 4.4  
 EPA 200.8 Rev. 5.4  
 EPA 6010B  
 EPA 6020

Thallium, Total EPA 200.7 Rev. 4.4  
 EPA 200.8 Rev. 5.4  
 EPA 6010B  
 EPA 6020

Tin, Total EPA 200.7 Rev. 4.4  
 EPA 6010B

Titanium, Total EPA 200.7 Rev. 4.4

**Wastewater Miscellaneous**

Boron, Total EPA 200.7 Rev. 4.4  
 EPA 6010B

Bromide EPA 300.0 Rev. 2.1

Color SM 18-21 2120B (01)

Cyanide, Total LACHAT 10-204-00-1-A  
 SM 18-21 4500-CN E (99)

Hydrogen Ion (pH) EPA 9040B  
 SM 18-21 4500-H B (00)

Oil & Grease Total Recoverable (HEM) EPA 1664A

**Wastewater Miscellaneous**

Organic Carbon, Total SM 18-21 5310C (00)  
 Phenols EPA 420.1 Rev. 1978  
 SM 14 510C

Silica, Dissolved EPA 200.7 Rev. 4.4  
 EPA 6010B

Specific Conductance EPA 120.1 Rev. 1982  
 SM 18-21 2510B (97)

Sulfide (as S) EPA 376.2  
 SM 18-20 4500-S D (00)

Surfactant (MBAS) SM 18-21 5540C (00)

**Sample Preparation Methods**

EPA 3005A  
 EPA 3015  
 EPA 3510C  
 EPA 5030B  
 EPA 9010B  
 EPA 9030B  
 SM 18-20 4500-NH3 B (97)

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**Nutrient**

Nitrite (as N)

LCHAT 10-107-04-1-C

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**Acrylates**

Acrolein (Propenal) EPA 8260B  
Acrylonitrile EPA 8260B

**Amines**

1,2-Diphenylhydrazine EPA 8270C  
2-Nitroaniline EPA 8270C  
3-Nitroaniline EPA 8270C  
4-Chloroaniline EPA 8270C  
4-Nitroaniline EPA 8270C  
Carbazole EPA 8270C

**Benzidines**

3,3'-Dichlorobenzidine EPA 8270C

**Characteristic Testing**

Corrosivity EPA 9040B  
EPA 9045C  
Ignitability EPA 1010  
EPA 1030  
Reactivity SW-846 Ch7 Sec. 7.3

**Chlorinated Hydrocarbon Pesticides**

4,4'-DDD EPA 8081A  
4,4'-DDE EPA 8081A  
4,4'-DDT EPA 8081A  
Aldrin EPA 8081A  
alpha-BHC EPA 8081A  
alpha-Chlordane EPA 8081A  
Atrazine EPA 8270C  
beta-BHC EPA 8081A

**Chlorinated Hydrocarbon Pesticides**

Chlordane Total EPA 8081A  
delta-BHC EPA 8081A  
Dieldrin EPA 8081A  
Endosulfan I EPA 8081A  
Endosulfan II EPA 8081A  
Endosulfan sulfate EPA 8081A  
Endrin EPA 8081A  
Endrin aldehyde EPA 8081A  
Endrin Ketone EPA 8081A  
gamma-Chlordane EPA 8081A  
Heptachlor EPA 8081A  
Heptachlor epoxide EPA 8081A  
Lindane EPA 8081A  
Methoxychlor EPA 8081A  
Toxaphene EPA 8081A

**Chlorinated Hydrocarbons**

1,2,4,5-Tetrachlorobenzene EPA 8270C  
2-Chloronaphthalene EPA 8270C  
Hexachlorobenzene EPA 8270C  
Hexachlorobutadiene EPA 8270C  
Hexachlorocyclopentadiene EPA 8270C  
Hexachloroethane EPA 8270C

**Chlorophenoxy Acid Pesticides**

2,4,5-T EPA 8151A  
2,4,5-TP (Silvex) EPA 8151A  
2,4-D EPA 8151A  
Dicamba EPA 8151A

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**Haloethers**

4-Bromophenylphenyl ether	EPA 8270C
4-Chlorophenylphenyl ether	EPA 8270C
Bis (2-chloroisopropyl) ether	EPA 8270C
Bis(2-chloroethoxy)methane	EPA 8270C
Bis(2-chloroethyl)ether	EPA 8270C

**Metals I**

Barium, Total	EPA 6010B
Cadmium, Total	EPA 6010B
Calcium, Total	EPA 6010B
Chromium, Total	EPA 6010B
Copper, Total	EPA 6010B
Iron, Total	EPA 6010B
Lead, Total	EPA 6010B
Magnesium, Total	EPA 6010B
Manganese, Total	EPA 6010B
Nickel, Total	EPA 6010B
Potassium, Total	EPA 6010B
Silver, Total	EPA 6010B
Sodium, Total	EPA 6010B

**Metals II**

Aluminum, Total	EPA 6010B
Antimony, Total	EPA 6010B
Arsenic, Total	EPA 6010B
Beryllium, Total	EPA 6010B
Chromium VI	EPA 7196A
Mercury, Total	EPA 7471A
Selenium, Total	EPA 6010B

**Metals II**

Vanadium, Total	EPA 6010B
Zinc, Total	EPA 6010B

**Metals III**

Cobalt, Total	EPA 6010B
Molybdenum, Total	EPA 6010B
Thallium, Total	EPA 6010B
Tin, Total	EPA 6010B

**Miscellaneous**

Boron, Total	EPA 6010B
Cyanide, Total	EPA 9012A EPA 9014
Hydrogen Ion (pH)	EPA 9040B EPA 9045C
Lead in Paint	EPA 6010B
Phenols	EPA 9066
Specific Conductance	EPA 9050

**Nitroaromatics and Isophorone**

1,3,5-Trinitrobenzene	EPA 8330
1,3-Dinitrobenzene	EPA 8330
2,4,6-Trinitrotoluene	EPA 8330
2,4-Dinitrotoluene	EPA 8270C EPA 8330
2,6-Dinitrotoluene	EPA 8270C EPA 8330
2-Amino-4,6-dinitrotoluene	EPA 8330
2-Nitrotoluene	EPA 8330

**Serial No.: 39218**

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**NELAP Recognized**

NEW YORK STATE DEPARTMENT OF HEALTH  
 WADSWORTH CENTER  
 RICHARD F. DAINES, M.D.



Expires 12:01 AM April 01, 2010  
 Issued April 01, 2009

**CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE**

*Issued in accordance with and pursuant to section 502 Public Health Law of New York State*

MR. CHRISTOPHER WAKEFIELD  
 ALPHA ANALYTICAL  
 8 WALKUP DR  
 WESTBOROUGH, MA 01581-1019

NY Lab Id No: 11148  
 EPA Lab Code: MA00086

*is hereby APPROVED as an Environmental Laboratory in conformance with the  
 National Environmental Laboratory Accreditation Conference Standards for the category  
 ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE  
 All approved analytes are listed below:*

**Nitroaromatics and Isophorone**

3-Nitrotoluene	EPA 8330
4-Amino-2,6-dinitrotoluene	EPA 8330
4-Nitrotoluene	EPA 8330
Hexahydro-1,3,5-trinitro-1,3,5-triazine	EPA 8330
Isophorone	EPA 8270C
Methyl-2,4,6-trinitrophenylnitramine	EPA 8330
Nitrobenzene	EPA 8270C
	EPA 8330
Octahydro-tetranitro-tetrazocine	EPA 8330

**Polychlorinated Biphenyls**

PCB-1254	EPA 8082
PCB-1260	EPA 8082
PCB-1262	EPA 8082
PCB-1268	EPA 8082

**Polynuclear Aromatic Hydrocarbons**

Acenaphthene	EPA 8270C
Acenaphthylene	EPA 8270C
Anthracene	EPA 8270C
Benzo(a)anthracene	EPA 8270C
Benzo(a)pyrene	EPA 8270C
Benzo(b)fluoranthene	EPA 8270C
Benzo(ghi)perylene	EPA 8270C
Benzo(k)fluoranthene	EPA 8270C
Chrysene	EPA 8270C
Dibenzo(a,h)anthracene	EPA 8270C
Fluoranthene	EPA 8270C
Fluorene	EPA 8270C
Indeno(1,2,3-cd)pyrene	EPA 8270C
Naphthalene	EPA 8270C
Phenanthrene	EPA 8270C
Pyrene	EPA 8270C

**Nitrosoamines**

N-Nitrosodimethylamine	EPA 8270C
N-Nitrosodi-n-propylamine	EPA 8270C
N-Nitrosodiphenylamine	EPA 8270C

**Phthalate Esters**

Benzyl butyl phthalate	EPA 8270C
Bis(2-ethylhexyl) phthalate	EPA 8270C
Diethyl phthalate	EPA 8270C
Dimethyl phthalate	EPA 8270C
Di-n-butyl phthalate	EPA 8270C
Di-n-octyl phthalate	EPA 8270C

**Polychlorinated Biphenyls**

PCB-1016	EPA 8082
PCB-1221	EPA 8082
PCB-1232	EPA 8082
PCB-1242	EPA 8082
PCB-1248	EPA 8082

**Priority Pollutant Phenols**

2,4,5-Trichlorophenol	EPA 8270C
2,4,6-Trichlorophenol	EPA 8270C
2,4-Dichlorophenol	EPA 8270C
2,4-Dimethylphenol	EPA 8270C
2,4-Dinitrophenol	EPA 8270C

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**Priority Pollutant Phenols**

2-Chlorophenol	EPA 8270C
2-Methyl-4,6-dinitrophenol	EPA 8270C
2-Methylphenol	EPA 8270C
2-Nitrophenol	EPA 8270C
4-Chloro-3-methylphenol	EPA 8270C
4-Methylphenol	EPA 8270C
4-Nitrophenol	EPA 8270C
Pentachlorophenol	EPA 8270C
Phenol	EPA 8270C

**Purgeable Aromatics**

1,2-Dichlorobenzene	EPA 8021B
	EPA 8260B
1,3-Dichlorobenzene	EPA 8021B
	EPA 8260B
1,4-Dichlorobenzene	EPA 8021B
	EPA 8260B
Benzene	EPA 8021B
	EPA 8260B
Chlorobenzene	EPA 8021B
	EPA 8260B
Ethyl benzene	EPA 8021B
	EPA 8260B
Isopropylbenzene	EPA 8260B
Styrene	EPA 8260B
Toluene	EPA 8021B
	EPA 8260B
Total Xylenes	EPA 8021B
	EPA 8260B

**Purgeable Halocarbons**

1,1,1-Trichloroethane	EPA 8260B
1,1,1,2-Tetrachloroethane	EPA 8260B
1,1,2-Trichloroethane	EPA 8260B
1,1,2-Trifluoro-1,2,2-Trichloroethane	EPA 8260B
1,1-Dichloroethane	EPA 8260B
1,1-Dichloroethene	EPA 8260B
1,2-Dibromo-3-chloropropane	EPA 8260B
1,2-Dibromoethane	EPA 8260B
1,2-Dichloroethane	EPA 8260B
1,2-Dichloropropane	EPA 8260B
Bromochloromethane	EPA 8260B
Bromodichloromethane	EPA 8260B
Bromoform	EPA 8260B
Bromomethane	EPA 8260B
Carbon tetrachloride	EPA 8260B
Chloroethane	EPA 8260B
Chloroform	EPA 8260B
Chloromethane	EPA 8260B
cis-1,2-Dichloroethene	EPA 8260B
cis-1,3-Dichloropropene	EPA 8260B
Dibromochloromethane	EPA 8260B
Dichlorodifluoromethane	EPA 8260B
Methylene chloride	EPA 8260B
Tetrachloroethene	EPA 8260B
trans-1,2-Dichloroethene	EPA 8260B
trans-1,3-Dichloropropene	EPA 8260B
Trichloroethene	EPA 8260B
Trichlorofluoromethane	EPA 8260B

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**Purgeable Halocarbons**

Vinyl chloride EPA 8260B

**Purgeable Organics**

1,4-Dioxane EPA 8260B  
2-Butanone (Methylethyl ketone) EPA 8260B  
2-Hexanone EPA 8260B  
4-Methyl-2-Pentanone EPA 8260B  
Acetone EPA 8260B  
Carbon Disulfide EPA 8260B  
Cyclohexane EPA 8260B  
Methyl acetate EPA 8260B  
Methyl tert-butyl ether EPA 8260B  
tert-Butyl alcohol EPA 8260B  
Vinyl acetate EPA 8260B

**Semi-Volatile Organics**

1,1'-Biphenyl EPA 8270C  
2-Methylnaphthalene EPA 8270C  
Acetophenone EPA 8270C  
Benzaldehyde EPA 8270C  
Benzoic Acid EPA 8270C  
Benzyl alcohol EPA 8270C  
Caprolactam EPA 8270C  
Dibenzofuran EPA 8270C  
Methyl cyclohexane EPA 8260B

**Sample Preparation Methods**

EPA 1311  
EPA 3005A

**Sample Preparation Methods**

EPA 3050B  
EPA 3051  
EPA 3540C  
EPA 3545  
EPA 3580  
EPA 5030B  
EPA 5035  
EPA 9010B  
EPA 9030B

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All approved analytes are listed below:*

**Polynuclear Aromatics**

Benzo(a)pyrene  
Naphthalene

EPA TO-13  
EPA TO-13

Serial No.: 39219

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