



**Quarterly Monitoring Report  
Second Quarter 2013**

**New Housing New York Legacy Project (Via Verde)  
700-730 Brook Avenue, Bronx, NY  
BCP Site ID: C203043**

**August 2013**

**Prepared for:**

**NYSDEC, Region 2  
Division of Environmental Remediation  
47-40 21st Street  
Long Island City, NY 1101**

**On Behalf of**

**Via Verde Homes, LLC  
Via Verde Rental Associates, L.P.  
902 Broadway, 13th Floor  
New York, New York 10010**

**Prepared by:**

**CA RICH CONSULTANTS, INC.  
17 Dupont Street  
Plainview, NY 11803-1614**



August 13, 2013

**NYSDEC, Region 2**

Division of Environmental Remediation  
47-40 21st Street  
Long Island City, NY 1101

Attn: Jane O'Connell

Re: **Quarterly Monitoring Report**  
**2nd Quarter 2013 Groundwater Sampling**  
Via Verde  
700-730 Brook Avenue, Bronx, NY  
BCP Site ID: C203043

Dear Ms. O'Connell:

CA RICH Consultants, Inc. is pleased to present the Quarterly Monitoring Report for the Second Quarter 2013 in connection with the above-captioned Site. This Report is being submitted on behalf of Via Verde Homes, LLC and Via Verde Rental Associates, L.P. (the BCP Volunteer) and was prepared in accordance with the NYSDEC-approved Site Management Plan (SMP) dated December, 2011.

If there are any questions regarding this document, please do not hesitate to call our office.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Richard J. Izzo'.

Richard J. Izzo, CPG  
Senior Associate

cc: Chris Doroski, NYSDOH (email only)  
Jennifer Wu (email only)  
Michael Wadman (email only)

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## **1.0 INTRODUCTION**

The following Quarterly Monitoring Report has been prepared by CA RICH Consultants, Inc. (CA RICH) on behalf of Via Verde Homes, LLC and Via Verde Rental Associates, L.P. This document is required as an element of the Site Management Plan (SMP) (Ref. 1) at The New Housing New York Legacy Project (hereinafter referred to as Via Verde or the Site), 700-730 Brook Avenue, Bronx, NY (BCP Site ID: C203043. The Site is being managed under the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP). The Site was remediated in accordance with Brownfield Cleanup Agreement (BCA) Index #W2-1129-08-11, Site #C203043, which was executed on February 23, 2009. The Certificate of Completion was received on December 23, 2011.

## **2.0 SITE DESCRIPTION AND BACKGROUND**

Via Verde Homes, LLC, Via Verde Rental Associates, L.P., and the City of New York Department of Housing Preservation and Development ("HPD") entered into a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) in February 2009 to investigate and remediate a 1.41-acre property located in the Bronx, New York. The property was remediated to restricted residential, use, and will be used for mixed commercial and residential purposes. It is noted that the Deed was transferred on December 30, 2009 and HPD no longer has any ownership interest.

The Site is located in the County of the Bronx, New York and is identified as Section 9, Block 2359; Lot 51, which includes Condominium Lots 1001, 1002, 1003, and 1004, and was formerly part of Lots 1 and 3 on the Bronx County Tax Map. The Site is an approximately 1.41-acre area bounded by East 156th Street to the north, an athletic field to the south, New York City Housing Authority Bronxchester Houses and South Bronx High School to the east, and Brook Avenue to the west (see Figure 1). The boundaries of the Site are more fully described in the metes and bounds Site description that is part of the Environmental Easement. A copy of the Environmental Easement is included in the Final Engineering Report (Ref. 2).

Under the BCP, the Site was remediated to Track 4 Site Specific Soil Action Levels (“SSSALs”) established for the Site as listed in the FER. Low levels of polyaromatic hydrocarbons and metals remain in the soil in limited areas throughout the Site. Based upon the detection and distribution of groundwater contaminants, in-situ chemical oxidation was performed in the area of the former service station (northwest corner of the Site). On April 1st through 9th, 2010 Regenox™ and ORC® Advanced (ISCO treatment) was injected into the shallow groundwater and soil/fill in the smear zone.

The results from post-remedial groundwater monitoring indicate that fuel related volatile organic compounds (VOCs) and some metals remain within the groundwater above NYSDEC Technical and Administrative Guidance (TOGS) standards (Ref. 3).

As remaining contaminated soil and groundwater exist beneath the Site, implementation of Institutional Controls (ICs) and Engineering Controls (ECs) were required at the Site to be managed through implementation of the Site management Plan (SMP). Exposure to soil vapor (potential off-gassing from residual Volatile Organic Compounds (VOCs) in the groundwater) is being prevented by the composite cover system, which is comprised of concrete-covered sidewalks, courtyard areas, foundation walls, concrete building slabs as well as a 2-foot clean fill buffer on all non-capped areas. A vapor barrier and active Sub-Slab Depressurization (SSD) system were installed underneath each of the five building foundations as additional protection.

### **3.0 MEDIA MONITORING PROGRAM**

#### **3.1 Groundwater**

Four post-remedial groundwater monitoring wells designated MW-6, MW-7, MW-8, & MW-9 were installed, developed and surveyed at the Site in July 2011 and will serve as the groundwater monitoring wells for the post-remedial groundwater monitoring. The locations of the four wells and direction of groundwater flow are illustrated on Figure 2.

CA RICH conducted the Second Quarter round of groundwater sampling on June 3<sup>rd</sup> and 4<sup>th</sup> 2013. The four monitoring wells were purged and sampled in accordance with EPA’s Low-Flow (minimal drawdown) Groundwater Sampling Procedures. Copies of the requisite field forms and Chain-of-Custody are attached as Appendix A. Quality Assurance/Quality Control (QA/QC) samples were also collected and analyzed in connection with the testing as set forth in

the SMP and included one trip blank, one field blank per day of field work, one duplicate, one matrix spike, and one matrix spike duplicate. In addition, the data was validated by a qualified third-party and a DUSR was prepared (Appendix B).

Groundwater samples were collected from the wells, submitted to ELAP and CLP-certified Accutest Laboratories in Dayton, NJ and analyzed for Volatile Organic Compounds (VOCs) via EPA Method 8260, Semi-Volatile Organic Compounds (SVOCs) via EPA Method 8270, PCBs and dissolved TAL metals (plus hexavalent chromium) with NYSDEC ASP Category B deliverables. All post-remedial groundwater sampling results have been provided to NYSDEC in the appropriate Electronic Data Deliverable format.

All on-site sampling equipment was decontaminated between each use in the following manner: laboratory grade detergent and fresh water wash using a scrub brush, followed by two fresh water rinses and final air dry. The submersible pump used for groundwater sample collection was decontaminated between sample collection by passing the detergent and water mixture through the pump, followed by two fresh water rinses. Gloves worn for sample handling were discarded between sample collections. Dedicated, new polyethylene tubing was used at each well location for purging and sampling. The 40-mil sample vials were filled completely and checked to ensure that no air bubbles were present.

### **3.1.1 Summary of Results**

The results of the sampling program are presented on Tables 1-4. In addition to the tabular presentation, a graph plotting the concentration of key constituents versus time is included as Figure 3.

As illustrated on Table 1, fuel-related VOCs in excess of NYSDEC TOGS continue to be detected in on-site well MW-8. The most elevated fuel-related compound concentration is 51.8 ug/L of ethylbenzene. Chloroform, was detected in well MW-6 at a concentration in excess of TOGS standards during this most recent sampling event. No VOCs were detected in MW-7 or MW-9 in excess of TOGS Standards.

As shown on Figure 3, comparison of concentrations for naphthalene, n-propylbenzene, 1,2,4-trimethylbenzene, and total xylenes in MW-8 between the 4th quarter 2011 sampling event and

the 2nd quarter 2013 sampling event indicates a continued general reduction in concentration for these selected compounds.

Semi-volatile organic analysis (Table 2) did not detect any targeted compounds at concentrations in excess of TOGS standards.

Analysis for PCBs (Table 3) did not detect any of these compounds in any of the samples. These compounds were also not detected in any of the previous sampling rounds.

Analysis for metals (Table 4) detected magnesium, manganese, selenium and sodium at levels in excess of TOGS Standards.

#### **4.0 CONCLUSIONS AND RECOMMENDATIONS**

Based upon our review of the analytical results from the 2nd quarter 2013 sampling event and comparison of the results to those generated during the previous events, it appears that the detected levels of fuel-related VOCs generally continue to decline below initial concentrations. The levels of targeted metals continue to fluctuate above and below TOGS Standards. PCBs remain undetected in all wells and SVOCs remain below TOGS standards.

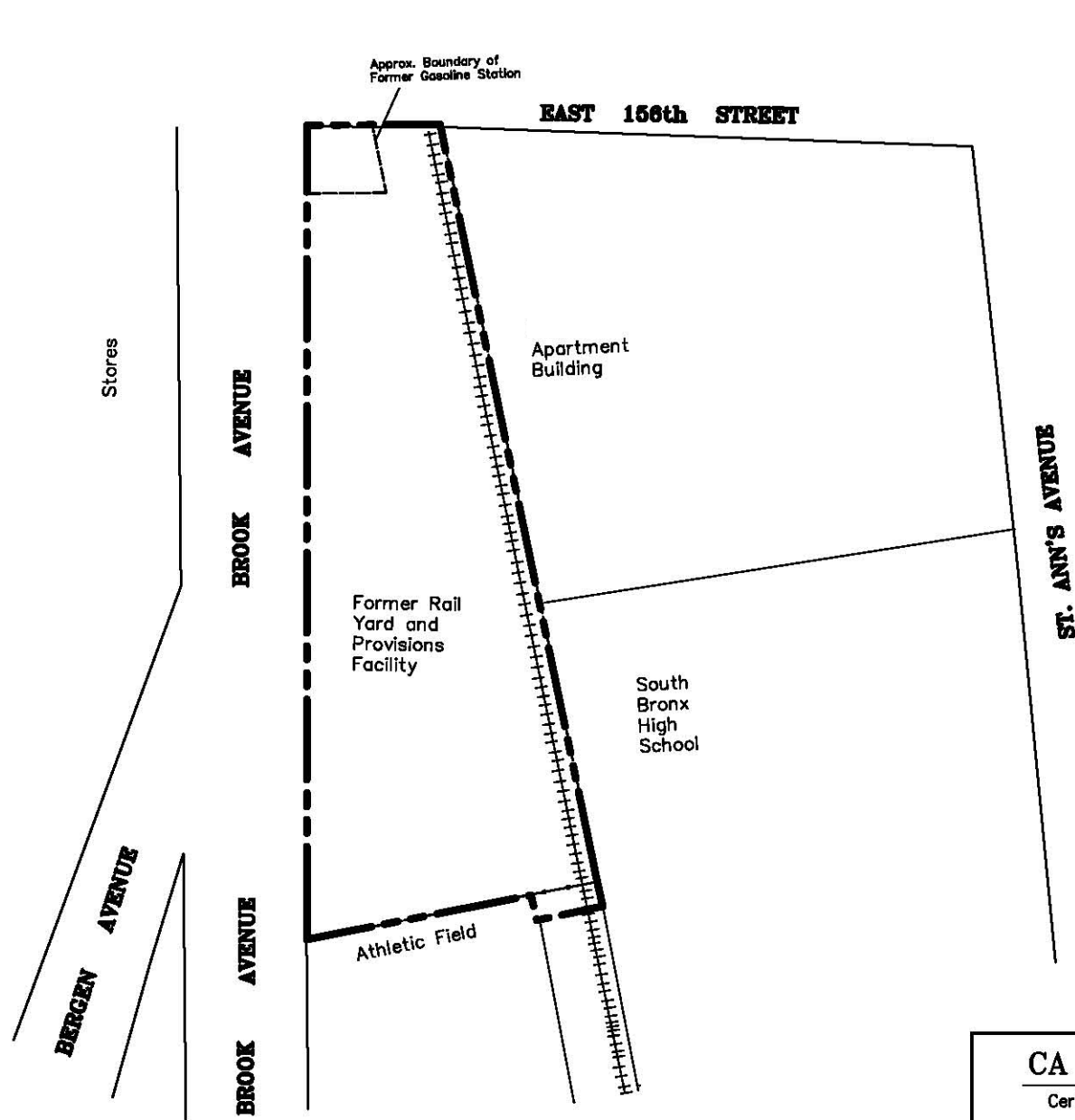
Based upon the results of the first year of post remedial monitoring, CA RICH submitted a formal petition to modify the sampling program on April 2, 2013. The petition was approved by the Department via their letter dated May 9, 2013 and includes reduction of sampling frequency from quarterly to semi-annually and reduction of the parameter list to include only VOCs and dissolved TAL metals. The modifications to the sampling program will be put in place during the next scheduled sampling event in December 2013.

## **REFERENCES**

1. Stephen J. Osmundsen, P.E. Site Management Plan. New York: Author, December 7, 2011.
2. Stephen J. Osmundsen, P.E. Final Engineering Report. New York: Author, December 21, 2011.
3. New York State Department of Environmental Conservation; Division of Water Technical and Operation Guidance Series (1.1.1): Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations; June 1998.

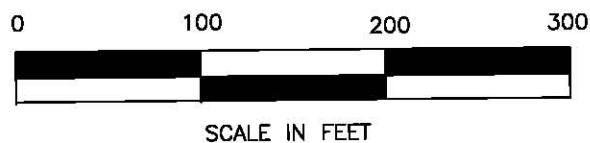


## FIGURES



# **LEGEND**

- CURRENT PROPERTY BOUNDARY
- +++++ ABANDONED RR SPUR
- FENCE



## **NOTES:**

1. MAP ADAPTED FROM DDC TOPOGRAPHICAL AND PROPERTY LINE MAP 8-17-06 AND MONTROSE SURVEY DATED 10-8-07

## **CA RICH CONSULTANTS, INC.**

Certified Ground-Water and Environmental Specialists  
17 Dupont Street, Plainview, New York 11803

## **SITE PLAN**

**DATE:**  
12-24-09

**SCALE:**  
AS SHOWN

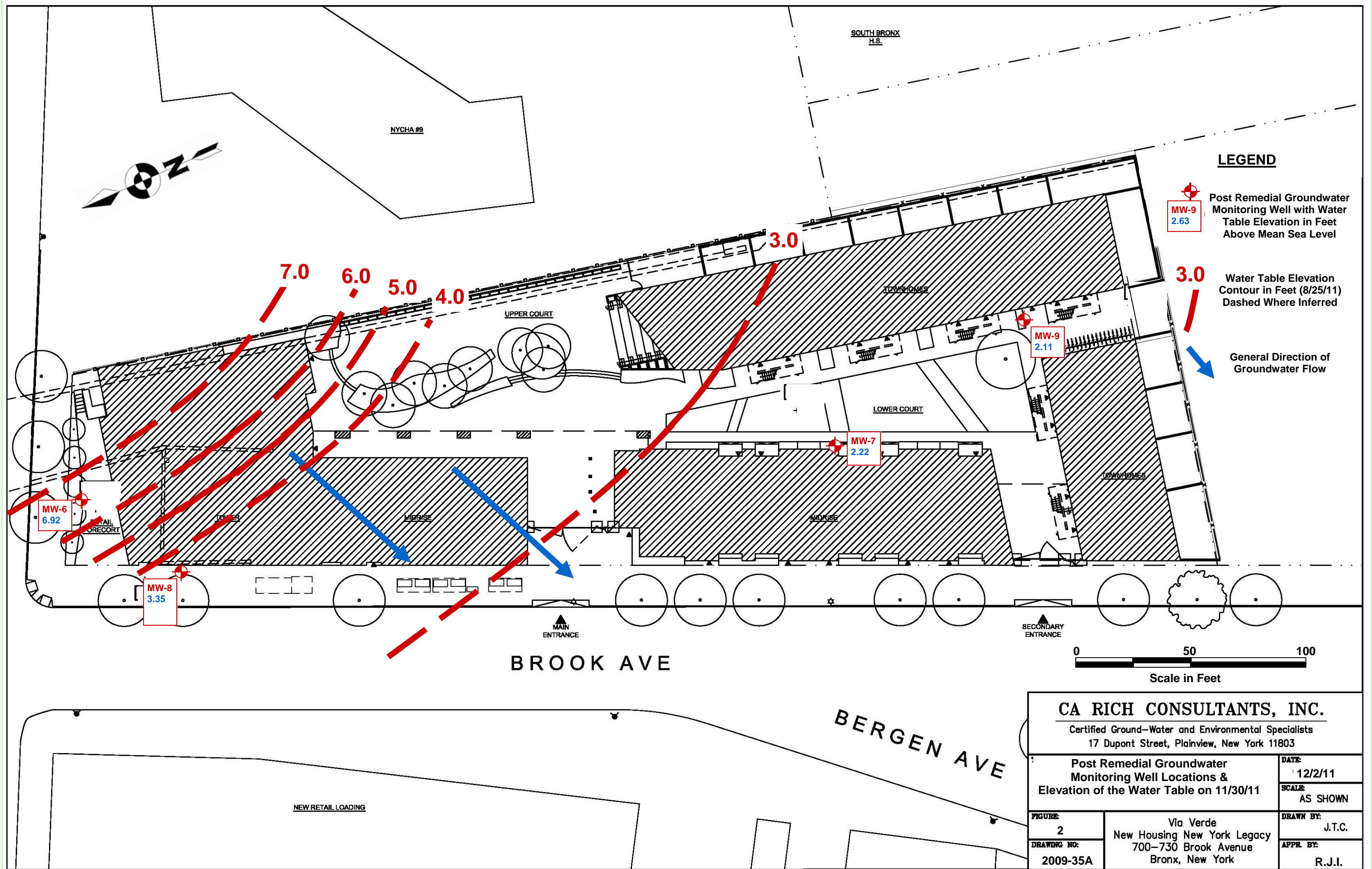
**DRAWN BY:**  
J.T.C.

**APPR. BY:**  
D.S.


**FIGURE:**  
1

**DRAWING NO:**  
2009-8

**TITLE:**  
VIA VERDE  
NEW HOUSING NEW YORK LEGACY  
700-730 BROOK AVENUE  
BRONX, NEW YORK



**LEGEND**

 Post Remedial Groundwater Monitoring Well with Water Table Elevation in Feet Above Mean Sea Level

 Water Table Elevation Contour in Feet (8/25/11) Dashed Where Inferred

 General Direction of Groundwater Flow

**CA RICH CONSULTANTS, INC.**

Certified Ground-Water and Environmental Specialists  
17 Dupont Street, Plainview, New York 11803

Post Remedial Groundwater Monitoring Well Locations & Elevation of the Water Table on 11/30/11

DATE:  
12/2/11

SCALE:  
AS SHOWN

FIGURE:

2

DRAWING NO.:

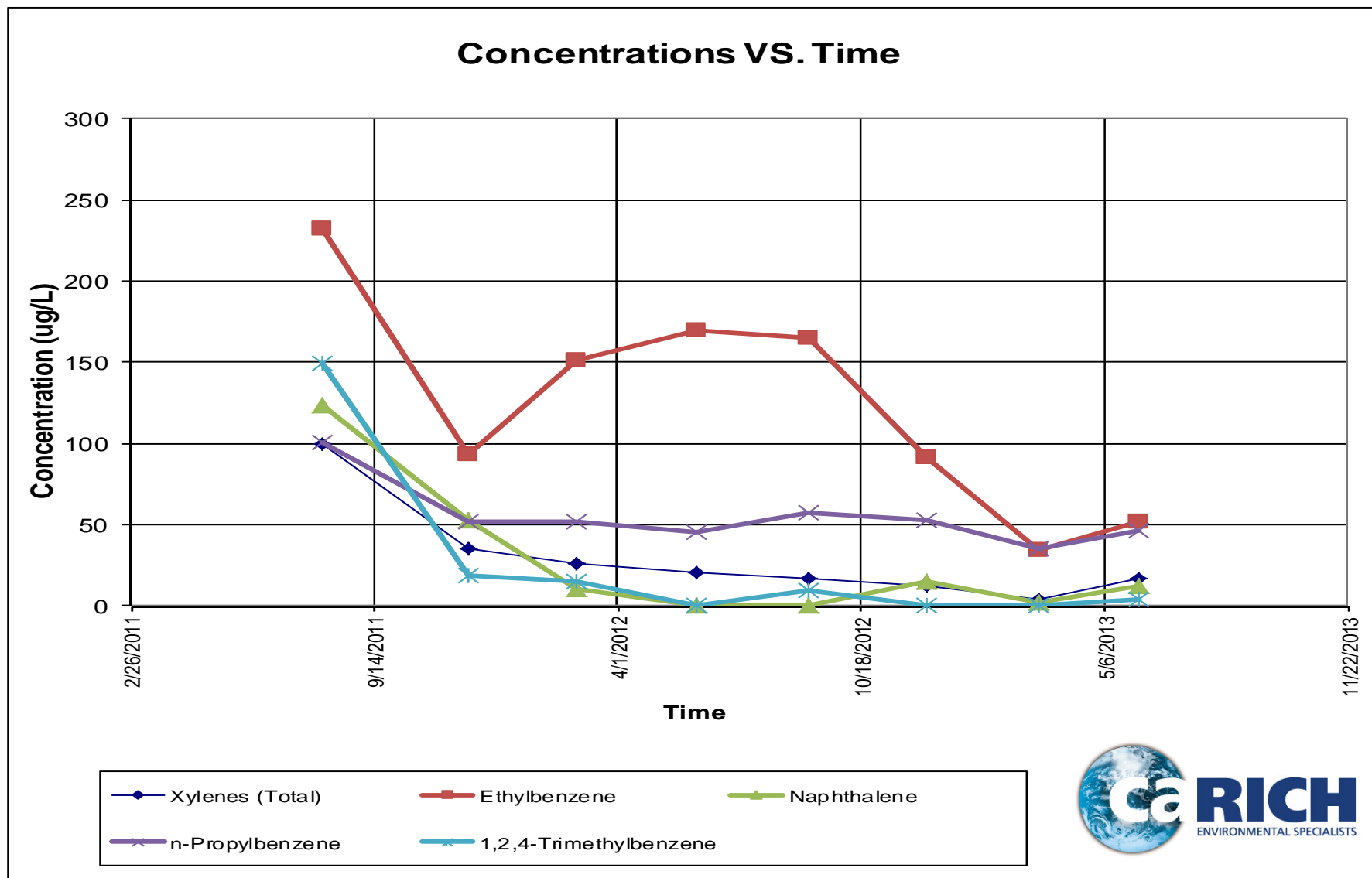
2009-35A

Via Verde  
New Housing New York Legacy  
700-730 Brook Avenue  
Bronx, New York

DRAWN BY:  
J.T.C.

APPR. BY:  
R.J.I.

**FIGURE 3**  
**Concentrations Trends of Selected Compounds in Groundwater Monitoring Well MW-8**  
**Via Verde**  
**700-730 Brook Avenue, Bronx, NY**



## **TABLES**

<p align="center"><b>Table 1</b></p> <p align="center"><b>Validated Analytical Results for Volatile Organic Compounds In Groundwater</b></p> <p align="center">Via Verde aka New Housing New York Legacy Project</p> <p align="center">700-730 Brook Avenue, Bronx, New York</p> <p align="center">BCP # C203043</p>								
Sample ID Matrix Date Sampled	MW-6 groundwater 6/3/2013	MW-7 groundwater 6/4/2013	MW-8 groundwater 6/3/2013	MW-9 groundwater 6/4/2013	MW-XX** groundwater 6/3/2013	Field Blank liquid 6/3/2013	Trip Blank liquid 6/3/2013	NYSDEC TOGs*
<b>Volatile Organic Compounds</b>								
<b>Units</b>	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	ND	ND	ND	4.1 J	ND	ND	ND	50
Benzene	ND	ND	<b>8.5</b>	ND	<b>8.3</b>	ND	ND	1
Bromobenzene	ND	ND	ND	ND	ND	ND	ND	5
Bromochloromethane	ND	ND	ND	ND	ND	ND	ND	5
Bromodichloromethane	1.2	ND	ND	ND	ND	ND	ND	50
Bromoform	ND	ND	ND	ND	ND	ND	ND	50
Bromomethane	ND	ND	ND	ND	ND	ND	ND	5
2-Butanone (MEK)	ND R	ND R	10.8 J	ND R	13.2 J	ND R	ND R	50
n-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	5
sec-Butylbenzene	ND	ND	<b>5.2</b>	ND	<b>5.2</b>	ND	ND	5
tert-Butylbenzene	ND	ND	1.3 J	ND	1.2 J	ND	ND	5
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	5
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	5
Chloroethane	ND	ND	ND	ND	ND	ND	ND	5
Chloroform	<b>18.6</b>	ND	ND	ND	ND	ND	ND	7
Chloromethane	ND	ND	ND	ND	ND	ND	ND	NVG
o-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	5
p-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	5
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	ND	ND	0.04
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	50
1,2-Dibromoethane	ND	ND	ND	ND	ND	ND	ND	NVG
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	5
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	5
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	0.6
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	5
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	5
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	5
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	1
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	5
2,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	5
1,1-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	5
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	0.4
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	0.4
Ethylbenzene	ND	ND	<b>51.8</b>	ND	<b>52.4</b>	ND	ND	5
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	0.5
Isopropylbenzene	ND	ND	<b>28.5</b>	ND	<b>28.3</b>	ND	ND	5
p-Isopropyltoluene	ND	ND	0.63 J	ND	0.62 J	ND	ND	5
Methyl Tert Butyl Ether	ND	ND	ND	ND	ND	ND	ND	10
4-Methyl-2-pentanone(MIBK)	ND	ND	ND	ND	ND	ND	ND	NVG
Methylene bromide	ND	ND	ND	ND	ND	ND	ND	NVG
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	5
Naphthalene	ND	ND	<b>12.0</b>	ND	<b>12.0</b>	ND	ND	10
n-Propylbenzene	ND	ND	<b>46.6</b>	ND	<b>46.3</b>	ND	ND	5
Styrene	ND	ND	ND	ND	ND	ND	ND	5
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	5
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	5
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	5
Toluene	ND	ND	4.9	ND	4.9	ND	ND	5
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	5
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	5
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	5
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	1
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	5
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	5
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	ND	ND	0.04
1,2,4-Trimethylbenzene	ND	ND	4.2	ND	4.3	ND	ND	5
1,3,5-Trimethylbenzene	ND	ND	1.1 J	ND	1.1 J	ND	ND	5
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	2
m,p-Xylene	ND	ND	<b>15.3</b>	ND	<b>15.8</b>	ND	ND	5
o-Xylene	ND	ND	1.4	ND	1.5	ND	ND	5
Xylene (total)	ND	ND	<b>16.8</b>	ND	<b>17.3</b>	ND	ND	5
<p><b>Notes:</b></p> <p>ug/L - micrograms per liter or parts per billion</p> <p>ND - Not detected at or above laboratory detection limits</p> <p>NVG - No Value Given</p> <p>J - Estimated Value</p> <p>*NYSDEC Technical and Operational Guidance Series (1.1.1)</p> <p>Ambient Water Quality Standards and Guidance Values</p> <p>and Groundwater Effluent Limitations; June 1998</p> <p>** MW-XX is a duplicate of MW-8</p>								
<b>Boxed and bold indicates exceedance groundwater standards or guidance values</b>						R-cannot be verified		

**Table 2**  
**Validated Analytical Results for Semi-Volatile Organic Compounds In Groundwater**  
**Via Verde aka New Housing New York Legacy Project**  
**700-730 Brook Avenue, Bronx, New York**  
**BCP # C203043**

Sample ID	MW-6	MW-7	MW-8	MW-9	MW-XX**	Field Blank	NYSDEC
Matrix	groundwater	groundwater	groundwater	groundwater	groundwater	liquid	TOGS
Date Sampled	6/3/2013	6/4/2013	6/3/2013	6/4/2013	6/3/2013	6/3/2013	
Semi-Volatile Organic Compounds							
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
2-Chlorophenol	ND	ND	ND	ND	ND	ND	NVG
4-Chloro-3-methyl phenol	ND	ND	ND	ND	ND	ND	NVG
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	5
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	50
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	10
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	NVG
2-Methylphenol	ND	ND	ND	ND	ND	ND	1
3&4-Methylphenol	ND	ND	ND	ND	ND	ND	1
2-Nitrophenol	ND	ND	ND	ND	ND	ND	NVG
4-Nitrophenol	ND	ND	ND	ND	ND	ND	NVG
Pentachlorophenol	ND	ND	ND	ND	ND	ND	NVG
Phenol	ND	ND	ND	ND	ND	ND	1
2,4,5-Trichlorophenol	ND	ND	ND	ND	ND	ND	NVG
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	NVG
Acenaphthene	ND	ND	0.52 J	ND	UJ	ND	20
Acenaphthylene	ND	ND	ND	ND	ND	ND	NVG
Acetophenone	ND	ND	ND	ND	ND	ND	NVG
Anthracene	ND	ND	ND	ND	ND	ND	50
Atrazine	ND	ND	ND	ND	ND	ND	7.5
Benzaldehyde	ND	ND	ND	ND	ND	ND	0.002
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	6/3/2013	ND	ND	ND	ND	ND	0.002
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND	NVG
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	0.002
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	ND	NVG
4-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	50
Butyl benzyl phthalate	ND	ND	ND	ND	ND	ND	5
1,1'-Biphenyl	ND	ND	ND	ND	ND	ND	NVG
2-Chloronaphthalene	ND	ND	ND	ND	ND	ND	10
4-Chloroaniline	UJ	ND	UJ	ND	UJ	UJ	5
Carbazole	ND	ND	ND	ND	ND	ND	NVG
Caprolactam	ND	ND	ND	ND	ND	ND	NVG
Chrysene	ND	ND	ND	ND	ND	ND	0.002
bis(2-Chloroethoxy)methane	ND	ND	ND	ND	ND	ND	5
bis(2-Chloroethyl)ether	ND	ND	ND	ND	ND	ND	1
bis(2-Chloroisopropyl)ether	ND	ND	ND	ND	ND	ND	NVG
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	NVG
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	5
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	5
3,3'-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	5
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	NVG
Dibenzofuran	ND	ND	ND	ND	ND	ND	NVG
Di-n-butyl phthalate	ND	ND	ND	ND	ND	ND	50
Di-n-octyl phthalate	ND	ND	ND	ND	ND	ND	50
Diethyl phthalate	ND	ND	ND	ND	ND	ND	50
Dimethyl phthalate	ND	ND	ND	ND	ND	ND	50
bis(2-Ethylhexyl)phthalate	ND	ND	ND	0.81 J	ND	ND	5
Fluoranthene	ND	ND	UJ	ND	0.58 J	ND	50
Fluorene	ND	ND	ND	ND	ND	ND	50
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	0.04
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	0.5
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	5
Hexachloroethane	ND	ND	ND	ND	ND	ND	5
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	0.002
Isophorone	ND	ND	ND	ND	ND	ND	50
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	NGV
2-Nitroaniline	ND	ND	ND	ND	ND	ND	5
3-Nitroaniline	ND	ND	ND	ND	ND	ND	5
4-Nitroaniline	ND	ND	ND	ND	ND	ND	5
Naphthalene	ND	1.8	6.4 J	1.4	1.5 J	ND	10
Nitrobenzene	ND	ND	ND	ND	ND	ND	0.4
N-Nitroso-di-n-propylamine	ND	ND	ND	ND	ND	ND	NVG
N-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	50
Phenanthrene	ND	ND	ND	ND	ND	ND	5

**Table 3**

**Validated Analytical Results for PCBs In Groundwater**  
**Via Verde aka New Housing New York Legacy Project**  
**700-730 Brook Avenue, Bronx, New York**  
**BCP # C203043**

<b>Sample ID</b> <b>Matrix</b> <b>Date Sampled</b>	<b>MW-6</b> groundwater 6/3/2013	<b>MW-7</b> groundwater 6/4/2013	<b>MW-8</b> groundwater 6/3/2013	<b>MW-9</b> groundwater 6/4/2013	<b>MW-XX**</b> groundwater 6/3/2013	<b>Field Blank</b> liquid 6/3/2013	<b>NYSDEC</b> <b>TOGS***</b>
<b>PCBs</b>							
<b>Units</b>	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aroclor-1016	ND	ND	ND	ND	ND	ND	0.09 *
Aroclor-1221	ND	ND	ND	ND	ND	ND	0.09 *
Aroclor-1232	ND	ND	ND	ND	ND	ND	0.09 *
Aroclor-1242	ND	ND	ND	ND	ND	ND	0.09 *
Aroclor-1248	ND	ND	ND	ND	ND	ND	0.09 *
Aroclor-1254	ND	ND	ND	ND	ND	ND	0.09 *
Aroclor-1260	ND	ND	ND	ND	ND	ND	0.09 *

**Notes:**

ug/L - micrograms per liter or parts per billion

ND - Not detected at or above laboratory detection limits

\* Applies to the sum of these compounds

\*\* MW-XX is a duplicate of MW-8

\*\*\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
 Ambient Water Quality Standards and Guidance Values  
 and Groundwater Effluent Limitations; June 1998



**Table 4**  
**Validated Analytical Results for Metals In Groundwater**  
**Via Verde aka New Housing New York Legacy Project**  
**700-730 Brook Avenue, Bronx, New York**  
**BCP # C203043**

<b>Sample ID</b>	<b>MW-6</b>	<b>MW-7</b>	<b>MW-8</b>	<b>MW-9</b>	<b>MW-XX**</b>	<b>Field Blank</b>	<b>NYSDEC</b>
<b>Matrix</b>	groundwater	groundwater	groundwater	groundwater	groundwater	liquid	<b>TOGS*</b>
<b>Date Sampled</b>	6/3/2013	6/4/2013	6/3/2013	6/4/2013	6/3/2013	6/3/2013	
<b>Total Metals Filtered</b>							
<b>Units</b>	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	<200	<200	<200	<200	<200	<200	NVG
Antimony	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3
Arsenic	<3.0	<3.0	4.2	<3.0	5.9	<3.0	25
Barium	<200	<200	<200	<200	<200	<200	1,000
Beryllium	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3
Cadmium	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	5
Calcium	25,100	121,000	145,000	119,000	141,000	<5,000	NVG
Chromium	<10	<10	<10	<10	<10	<10	50
Cobalt	<50	<50	<50	<50	<50	<50	NVG
Copper	<10	<10	<10	<10	<10	<10	200
Iron	<100	<100	179 J	<100	209	<100	300
Lead	<3.0	<3.0	3.8 J	<3.0	<3.0 UJ	<3.0	25
Magnesium	<5,000	24,200	<b>36,800</b>	8,920	<b>36,300</b>	<5,000	35,000
Manganese	<15	49.0	<b>3,160</b>	<b>782</b>	<b>3,220</b>	<15	300
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.7
Nickel	<10	<10	16.1	86.4	15.1	<10	100
Potassium	<10,000	<10,000	<10,000	12,700	<10,000	<10,000	NVG
Selenium	<10	<10	<b>28.5 J</b>	<10	<10 UJ	<10	10
Silver	<10	<10	<10	<10	<10	<10	50
Sodium	19,500	<b>66,200</b>	<b>87,700</b>	<b>96,700</b>	<b>95,000</b>	<10,000	20,000
Thallium	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.5
Vanadium	<50	<50	<50	<50	<50	<50	NVG
Zinc	<20	<20	<20	<20	<20	<20	2,000
Chromium, Hexavalent	<0.010	<0.010	<0.010	<0.010	<0.010 R	<0.010 a	50
Chromium, Trivalent	<0.020 c	<0.020 c	<0.020 c	<0.020 c	<0.020 c	<0.020 c	50

**Notes:**

ug/L - micrograms per liter or parts per billion

ND - Not detected at or above laboratory detection limits

NVG - No Value Given

J - Estimated Value UJ- not detected, approx. quantitation limit

a - analyzed from non-filtered sample

R- cannot be verified

*\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
Ambient Water Quality Standards and Guidance Values  
and Groundwater Effluent Limitations; June 1998*

*\*\* MW-XX is a duplicate of MW-8*

*c - Calculated as: (Chromium) - (Chromium, Hexavalent)*

**Boxed and bold indicates exceedance of groundwater standards or guidance values**

## **APPENDICES**

## **Appendix A**

### **Field Forms and Chain of Custody**

## Water Quality Measurement Log

NW-6

[illegible]

1. Pump dial setting (Example: hertz, cycles/minute, etc)
2. uSiemens per cm (same as umhos/cm) at 25°C
3. Oxidation reduction potential (stand in for Eh)

## Water Quality Measurement Log

NW-8

miw-xx

[illegible]

1. Pump dial setting (Example: hertz, cycles/minute, etc)
2. uSiemens per cm (same as umhos/cm) at 25°C
3. Oxidation reduction potential (stand in for Eh)

Begin sampling @ 0850

Static B+W = 22,35

pump on 756  
pump off

Purge rate: 125 ml/min



MW-7



## Water Quality Measurement Log

Location: (Site/Facility Name) Via Verde  
 Date: 6/4/13  
 Sampling Personnel: JK HB  
 Weather: Sunny 70°F  
 Identify Measuring Point (MP): Top of Casing North  
 Well ID: MW-7  
 Static Depth to Water (Prior to installing pump) 21.56  
 Depth to: 31.22 of screen  
 (Below MP) Top Bottom  
 Pump Intake at (ft. below MP) 28  
 Well Diameter: 2"  
 Purging Device: (Pump type) mini-monsoon  
 Purge Start Time: 0755 Purge End Time: 0905  
 Sample Start Time: 0906 Sample End Time: 1045

Clock Time	Water Depth Below MP	Pump Dial <sup>1</sup>	Purge Rate	Cum. Volume Purged	Temp.	Spec. Conduct. <sup>2</sup>	pH	ORP/Eh <sup>3</sup>	DO	Turbidity	Comments
24 HR	FT		ml/min	Liters	°C	uS/cm		mv	mg/L	NTU	
Tolerance	0.33 ft				3%	3%	± 0.1	± 10	± 0.3	10%	
0755	21.56	9.6	300	250							
0830	21.63	9.5	300		18.79	1.01	6.59	113	4.14	173	
0835	21.63	9.5	300		18.60	1.02	6.45	93	3.85	127	
0840	21.63	9.5	300		18.67	1.02	6.38	78	3.70	87.1	
845	21.63	9.5	300		18.66	1.02	6.35	70	3.55	64.6	
850	21.63	9.5	300		18.90	1.02	6.35	63	3.30	53.7	
0855	21.63	9.5	300		19.03	1.03	6.36	62	3.20	48.6	
0900	21.63	9.5	300		19.13	1.03	6.36	62	3.07	38.7	
0905	21.63	9.5	366		19.20	1.03	6.37	62	3.02	33.6	

1. Pump dial setting (Example: hertz, cycles/minute, etc)

2. uSiemens per cm (same as umhos/cm) at 25°C

3. Oxidation reduction potential (stand in for Eh)

MW-6 - 21.83 (P)

MW-7 - 21.56

MW-8 - 22.62

MW-9 - 21.54

Static DTW

6/4/13

MS &amp; MSD

Collected from

MW-7

2235 Route 130, Dayton, NJ 08810  
TEL: 732-329-0200 FAX: 732-329-3499/3480  
www.accutest.com

FED-EX Tracking # **7999-0380-3536**  
Accutest Quote #  
Bottle Order Control #  
Accutest Job # **JB 38641**

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)										Matrix Codes	
Company Name <b>CARICH Consultants, Inc.</b>		Project Name <b>VIA Verde</b>		<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> <b>VOCs 8260</b>  <b>SUOC 8270</b>  <b>TAL metals Filtered</b>  <b>Hex Chrome + Tri Chrome Filtered</b>  <b>PCBS</b> </div> </div>										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Street Address <b>17 Dupont St</b>		Street <b>Brook Ave</b>													
City State Zip <b>Plainville, NY 11803</b>		City State <b>Brook NY</b>													
Project Contact <b>Rich Esso 1220@carichinc.com</b>		Project #													
Phone # <b>516 576 8844 516 576 0093</b>		Client Purchase Order #													
Sampler(s) Name(s) <b>M. Vager + T. Brown</b>		Project Manager		Billing Information (if different from Report to)										LAB USE ONLY	
Field ID / Point of Collection		MEOH/DI Vol #		Collection		Matrix		# of bottles		Number of preserved bottles					
				Date Time		Sampled by									
1F MW-6				6/13/13 1220		my/tb GW		9 3		6		X X X X X		D27	
2F MW-8				6/13/13 1015		my/tb GW		9 3		6		X X X X X		C11	
3F MW-KX				6/13/13		my/tb GW		9 3		6		X X X X X		C45	
4F Field Blank 6/13				6/03/13 1230		my/tb FB		8 2		6		X X X X X		2196	
5F Trip Blank 6/13				6/13/13		TB		1 1				X			
Turnaround Time (Business days)		Approved By (Accutest PM): / Date:		Data Deliverable Information										Comments / Special Instructions	
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <input type="checkbox"/> other _____ Emergency & Rush T/A data available VIA Lablink		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> NJ Reduced <input type="checkbox"/> Commercial "C" Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data		<input type="checkbox"/> NYASP Category A <input checked="" type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____										<b>*24 hr Hex Chrome*</b> <b>NYS TOG's Detection Limits</b> <b>*Hex Chrome + TAL metals dissolved only - Lab Filtered*</b>	
Sample Custody must be documented below each time samples change possession, including courier delivery.															
Relinquished by Sampler		Date Time		Received By		Date Time		Relinquished By		Date Time		Received By			
1		6/13/13 1:30		1		FEDEX		2		6:413		2			
3				3				4				4			
5				5				Custom				4			
								Intact		Preserved where applicable		On Ice		Cooler Temp.	
								Not intact						2.0 3.0	

N6-181248 JB38641: Chain of Custody

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7999 1586 4325

PAGE 1 OF 1

PN  
E

2235 Route 130, Dayton, NJ 08810  
TEL. 732-329-0200 FAX: 732-329-3499/3480  
[www.accutest.com](http://www.accutest.com)

FED-EX Tracking # 7999 1586 4369  
Accufast Quote #

Bottle Order Control #

Accutest Job #	
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JB3876

[illegible]

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## N6-181007 JB38761: Chain of Custody

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## **Appendix B**

### **DUSR**

**DATA USABILITY SUMMARY REPORT – DUSR  
DATA VALIDATION SUMMARY**

**ORGANIC/INORGANIC ANALYSES**

**TARGET COMPOUND LIST (TCL) VOLATILES BY GC/MS  
TARGET COMPOUND LIST (TCL) SEMIVOLATILES BY GC/MS  
PCBs BY GC ECD  
TARGET ANALYTE LIST (TAL) METALS (Dissolved) BY ICP/CV  
And Dissolved HEXAVALENT CHROMIUM  
BY CLASSICAL WET CHEMISTRY TECHNIQUES**

**For Groundwater Samples Collected  
June 03, 2013 and June 04, 2013  
From 700-730 Brook Avenue, Bronx, NY  
Via Verde aka New Housing New York Legacy Project  
Collected by CA Rich Consultants**

**SAMPLE DELIVERY GROUP NUMBERS:  
JB38641 and JB38761  
BY ACCUTEST LABORATORIES (ELAP #10983)**

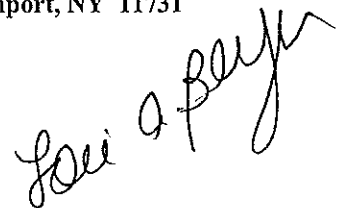
**SUBMITTED TO:**

**Mr. Rich Izzo  
CA Rich Consultants, Inc.  
17 Dupont Street  
Plainview, NY 11803**

**August 09, 2013**

**PREPARED BY:**

**Lori A. Beyer/President  
L.A.B. Validation Corp.  
14 West Point Drive  
East Northport, NY 11731**



700-730 Brook Avenue, Bronx – Via Verde; Groundwater Samples; June 2013 (Q2) Sampling Event  
Data Usability Summary Report (Data Validation): TCL Volatiles, TCL Semivolatiles, PCBs, TAL  
Metals (Dissolved) and Hexavalent Chromium (Dissolved).

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Sample Receipt

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  - 1.3 Matrix Spikes (MS), Matrix Spike Duplicates (MSD)
  - 1.4 Laboratory Control Sample/Blank Spikes
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**APPENDICES:**

- A. Data Summary Tables with Qualifications
- B. Chain of Custody Documents
- C. SDG Narratives

### **Introduction:**

A validation was performed on groundwater samples and the associated quality control samples for organic/inorganic analysis for samples collected under chain of custody documentation by CA Rich Consultants and submitted to Accutest Laboratories for subsequent analysis. This report contains the laboratory and validation results for the field samples itemized below. The groundwater samples were collected on June 03, 2013 and June 04, 2013.

The samples were analyzed by Accutest Laboratories, utilizing SW846 Methods and submitted under NYSDEC ASP Category B equivalent deliverable requirements for the associated analytical methodologies employed. The analytical testing consisted of the Target Compound/Analyte Lists for Volatile Organics, Semivolatile Organics, PCBs, TAL Metals (Dissolved) and Hexavalent Chromium (Dissolved).

The data was evaluated in accordance with EPA Region II National Functional Guidelines for Organic and Inorganic Data Review (October 2006) and EPA Region II SOPs for 8260, 8270, 8082 and Metals (August 2008 with 2009 updates) and also in conjunction with the analytical methodologies for which the samples were analyzed, where applicable and relevant.

The data validation report pertains to the following samples:

<b>Sample Identification</b>	<b>Laboratory Identification</b>	<b>Sample Matrix</b>	<b>Date Collected</b>	<b>Date Received</b>
MW-6	JB38641-1, JB38641-1F	Groundwater	06/03/13	06/04/13
MW-8	JB38641-2, JB38641-2F	Groundwater	06/03/13	06/04/13
MW-XX (Duplicate of MW-8)	JB38641-3, JB38641-3F	Groundwater	06/03/13	06/04/13
Field Blank 6/3	JB38641-4, JB38641-4F	Aqueous	06/03/13	06/04/13
Trip Blank 6/3	JB38641-5	Aqueous	06/03/13	06/04/13
MW-7 (plus MS/MSD)	JB38761-1, JB38761-1D, JB38761-1F, JB38761-1FD, JB38761-1FS, JB38761-1S	Groundwater	06/04/13	06/05/13
MW-9	JB38761-2, JB38761-2F	Groundwater	06/04/13	06/05/13

**Data Qualifier Definitions:**

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

**U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.**

**J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.**

**UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.**

**R - The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.**

**N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."**

**NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate quantity.**

**D - Indicates the analyte concentration is from diluted analysis.**

### **Sample Receipt:**

The Chain of Custody document indicates that the samples were received at Accutest Laboratories via Federal Express on 06/04/13 and 06/05/13 upon completion of the sampling event. Sample login notes were generated. The cooler temperature for all sample receipts were recorded upon receipt at Accutest Laboratories and determined to be acceptable (<6.0 degrees C). The actual temperature is recorded on the chain of custody document in addition to the case narratives provided in Appendix C of this report.

No unresolved problems and/or discrepancies were noted, consequently, the integrity of the samples has been assumed to be good.

The data summary tables included in Appendix A includes all usable (qualified) and unusable (rejected) results for the samples identified above. These tables summarize the detailed narrative section of the report. All data validation qualifications have been reported in the excel spreadsheet.

### **NOTE:**

L.A.B. Validation Corp. believes it is appropriate to note that the data validation criteria utilized for data evaluation is different than the method requirements utilized by the laboratory. Qualified data does not necessarily mean that the laboratory was non-compliant in the analysis that was performed.

## **1.0 Target Analyte List (TCL) Volatile Organics by GC/MS SW846 Method 8260**

The following method criteria were reviewed: holding times, SMCs, MS, MSD, LCS, Laboratory Spiked Blanks, Method Blanks, Tunes, Calibrations, Internal Standards, Target Compound Identification, Quantitation, Reported Quantitation Limits and Overall System Performance. The Volatile results were considered to be valid and useable with the exception of 2-Butanone non-detects in all samples due to low initial/continuing calibration response factors as noted within the following text:

### **1.1 Holding Time**

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.



Samples pertaining to these SDGs were performed within the Method required holding times as well as the technical holding times for data validation of 14 days from collection to analysis. Samples were properly preserved with HCL to pH <2. No data validation qualifiers were required based upon holding time.

#### **1.2 System Monitoring Compound (Surrogate) Recovery**

All samples are spiked with surrogate compounds prior to sample analysis to evaluate overall laboratory performance and efficiency of the analytical technique. If the measure of surrogate concentrations is outside contract specification, qualifications are required to be applied to associated samples and analytes.

Surrogate recoveries (%R) were found to be within acceptable limits for all four (4) surrogate compounds for all analyses pertaining to these SDGs for analysis.

#### **1.3 Matrix Spikes (MS)/ Matrix Spike Duplicates (MSD)**

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis. The MS/MSD may be used in conjunction with other QC criteria for additional qualification of data.

MS/MSD analyses were conducted for each analytical sequence and were spiked with all components as required by the analytical procedure. Site-specific aqueous MS/MSD was performed by the laboratory on sample MW-7. Acceptable spike recoveries and RPD were obtained for site specific MS/MSD analysis.

Several RPD fell slightly outside in house established acceptance limits for batch MS/MSD. Acceptable recovery values were obtained for all spiked analytes. Based on professional judgment, no qualifications to the data were required for non site specific QC.

#### **1.4 Laboratory Control Sample/Blank Spikes**

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

LCS/Blank Spikes were analyzed for each sequence. Recovery values were acceptable with the exception of high 1,1,2,2-Tetrachloroethane applicable to MW-6, Field Blank and Trip Blank. Since this compound was not detected in associated sample analysis, no qualifications were applied.

### **1.5 Blank Contamination**

Quality assurance (QA) blanks; i.e. method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field blanks measure cross-contamination of samples during field operations.

The following table was utilized to qualify target analyte results due to contamination. The largest value from all the associated blanks is required to be utilized:

<b>For:</b>	<b>Flag Sample Result with a "U" when:</b>	<b>Report CRQL &amp; Qualify "U" when:</b>	<b>No Qualification is Needed when:</b>
Methylene Chloride, Acetone, Toluene & 2-Butanone	Sample Conc. Is >CRQL, but $\leq 10 \times$ blank value	Sample Conc. is <CRQL and $\leq 10 \times$ blank value	Sample Conc. is >CRQL and $> 10 \times$ blank value
Other Contaminants	Sample Conc. Is >CRQL, but $\leq 5 \times$ blank value	Sample Conc. Is <CRQL and $\leq 5 \times$ blank value	Sample Conc. is >CRQL and $> 5 \times$ blank value

Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

#### **A) Method Blank Contamination:**

**No target analytes were detected in the method blanks associated with sample analysis.**

#### **B) Field Blank Contamination:**

**No target analytes were detected in the field blank associated with sample analysis.**

**C) Trip Blank Contamination:**

**No target analytes were detected in the trip blanks associated with sample analysis.**

**1.6 GC/MS Instrument Performance Check**

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The Tuning standard for volatile organics is Bromofluorobenzene (BFB).

**Instrument performance was generated within acceptable limits and frequency for Bromofluorobenzene (BFB) for all analyses conducted for these SDGs.**

**1.7 Initial and Continuing Calibrations**

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence.

The continuing calibration checks document that the instrument is giving satisfactory daily performance.

**A) Response Factor GC/MS:**

The response factor measures the instrument's response to specific chemical compounds. The response factor for all compounds must be  $\geq 0.05$  in both initial and continuing calibrations. A value  $< 0.05$  indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound in the corresponding samples will be rejected, "R".

**All the response factors for the target analytes reported were found to be within acceptable limits ( $\geq 0.05$ ), for the initial and continuing calibrations for all reported TCL analytes with the following exceptions:**

**ICAL 05/23/13 GCMS1C – Non-detects for and 2-Butanone (0.049) were rejected, “R” in MW-6, Field Blank and Trip Blank. The laboratory reported concentrations of 2-Butanone in MW-8 and the field duplicate (MW-XX) must be considered estimated, “J.”**

**CCAL 06/08/13 GCMS1C – 2-Butanone (0.043); reported hits in MW-8 and MW-XX are estimated, “J.”**

**ICAL 05/28/13 GCMSY – Non-detects for 2-Butanone (0.042) were rejected, “R” in MW-7 and MW-9.**

**CCAL 06/06/13 GCMS3Y – 2-Butanone (0.043). Non-detects were previously rejected, “R” due to low ICAL response in MW-7.**

**CCAL 06/12/13 GCMS3Y – 2-Butanone (0.038). Non-detects were previously rejected, “R” due to low ICAL response in MW-9.**

**\*2-Butanone is a poor responder as documented by the EPA.**

**B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):**

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentrations. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be <30% and %D must be <25%. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, “J” and non-detects are flagged “UJ”. If %RSD and %D grossly exceed QC criteria, non-detect data may be qualified, “R”, unusable. Additionally, in cases where the %RSD is >30% and eliminating either the high or the low point of the curve does not restore the %RSD to less than or equal to 30% then positive results are qualified, “J”. In cases where removal of either the low or high point restores the linearity, then only low or high level results will be qualified, “J” in the portion of the curve where non linearity exists.

**Initial Calibrations: The initial calibrations provided and the %RSD were within acceptable limits (30%) for all compounds.**

**Continuing Calibrations:** The continuing calibrations provided and the %D was within acceptable limits (25%) for all compounds.

## **1.8 Internal Standards**

Internal Standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-50% to +100%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/- 30 seconds from the associated continuing calibration standard. If the area count is outside the (-50% to +100%) range of the associated standard, all of the positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 30 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

**All samples were spiked with the internal standards Chlorobenzene-d5, Fluorobenzene and 1,4-Dichlorobenzene-d4 prior to sample analysis. The area responses and retention time of each internal standard met QC criteria in all samples associated with these SDGs.**

## **1.9 Field Duplicates**

**Field duplicate samples are collected and analyzed as an indication of overall precision. These results are expected to have more variability than laboratory duplicate samples. Generally an acceptable RPD is 10% for water samples.**

Groundwater sample MW-8 was collected in duplicate, a summary of positive detections in ug/L is summarized below:

	MW-8	MW-XX
Benzene	8.5	8.3
2-Butanone	10.8	13.2
Sec-Butylbenzene	5.2	5.2
Tert-Butylbenzene	1.3	1.2
Ethylbenzene	51.8	52.4
Isopropylbenzene	28.5	28.3
p-Isopropyltoluene	0.63	0.62
Naphthalene	12.0	12.0
n-Propylbenzene	46.6	46.3
Toluene	4.9	4.9
1,2,4-Trimethylbenzene	4.2	4.3
1,3,5-Trimethylbenzene	1.1	1.1
M,p-Xylene	15.3	15.8
o-Xylene	1.4	1.5
Xylene (total)	16.8	17.3

Acceptable precision was observed for all detected analytes.

#### 1.10 Target Compound List Identification

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within  $\pm 0.06$ RRT units of the standard compound and have an ion spectra which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound.

GC/MS spectra met the qualitative criteria for identification. All retention times were within required specifications.

#### 1.10 Compound Quantification and Reported Detection Limits

GC/MS quantitative analysis is considered to be acceptable. Correct internal standards per SW846 and response factors and dilution corrections were used to calculate final concentrations.

As required, the laboratory reported "J" values between the reporting limits (RL) and Method Detection Limits (MDLs). This is consistent with common laboratory practices and a requirement of the National Environmental Laboratory Approval Program (NELAP).

All groundwater samples were analyzed undiluted.

#### **1.11 Overall System Performance**

Good resolution and chromatographic performance were observed.

Acetone was detected in MW-9. This common laboratory contaminant could not be negated in the sample since it was not detected in any of the method, field or trip blanks. The end user should proceed with caution when making decisions based on Acetone detections at levels consistent with laboratory contamination values.

Tentatively Identified Compounds (TICs) were not generated and therefore not evaluated.

#### **2.0 Target Compound List (TCL) Semivolatile Organics by GC/MS SW846 Method 8270**

The following method criteria were reviewed: holding times, Surrogates, MS, MSD, LCS, Blanks, Tunes, Calibrations, Internal Standards, Target Component Identification, Quantitation, Reported Quantitation Limits and overall system performance. The Total Semivolatile results were considered to be valid and usable as noted within the following text:

##### **2.1 Holding Time**

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

**All aqueous samples were extracted and analyzed within the method required holding times and the technical holding times (7 days from collection for water samples) required for data validation.**

## **2.2 Surrogate Recovery**

All samples are spiked with surrogate compounds prior to sample preparation/extraction to evaluate overall laboratory performance and efficiency of the analytical technique. Additionally, the sample itself may produce effects due to such factors as interferences and high concentrations of analytes. Since the effects of the sample matrix are frequently outside the control of the laboratory and may present relatively unique problems, the evaluation of the data is dependent upon reextraction and/or reanalysis to confirm/negate laboratory error or matrix related problems. Discussion of surrogate recoveries that fell outside (above/below) QC guidelines is itemized below:

**All samples were spiked with six (6) surrogate standards at the sample extraction portion of analysis. Acceptable recovery values were obtained for all groundwater analyses.**

## **2.3 Matrix Spikes (MS)/Matrix Spike Duplicates (MSD)**

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices.

**Aqueous MS/MSD analysis was performed on MW-7 and was spiked with all components as required by the analytical procedure. Acceptable recovery values were obtained.**

## **2.4 Laboratory Control Sample**

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

**LCS/Blank Spikes were analyzed for each analytical extraction batch. Recovery values were acceptable with the exception of 4-Chloroaniline which recovered low (41%) in the blank spike applicable to MW-6, MW-8, MW-XX and the Field Blank. Non-detects have been qualification, "UJ." No additional qualifications were applied.**



## 2.5 Method Blanks

Quality assurance (QA) blanks; i.e. method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field blanks measure cross-contamination of samples during field operations.

The following table was utilized to qualify target analyte results due to contamination. The largest value from all the associated blanks is required to be utilized:

For:	Flag Sample Result with a "U" when:	Report CRQL & Qualify "U" when:	No Qualification is Needed when:
Phthalates (common laboratory contaminants)	Sample Conc. is >CRQL, but $\leq 10\times$ blank value	Sample Conc. Is <CRQL and $\leq 10\times$ blank value	Sample Conc. is >CRQL and $> 10\times$ blank value
Other Contaminants	Sample Conc. is >CRQL, but $\leq 5\times$ blank value	Sample Conc. Is <CRQL and $\leq 5\times$ blank value	Sample Conc. is >CRQL and $> 5\times$ blank value

Below is a summary of the compounds in the sample and the associated qualification that have been applied:

### A) Method Blank Contamination:

Target analytes were not detected in any of the method blanks associated with sample analysis.

### B) Field Blank Contamination:

Target analytes were not detected in the field blank associated with sample analysis.

## 2.6 GC/MS Instrument Performance Check

Tuning and performance criteria are established to ensure adequate mass resolution proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances.

The Tuning standard for semivolatile organics is decafluorotriphenylphosphine (DFTPP).

**Instrument performance was generated within acceptable limits and frequency (12 hours) for decafluorotriphenylphosphine (DFTPP) for all analyses.**

## **2.7 Initial and Continuing Calibrations**

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

### **A) Response Factor GC/MS:**

The response factor measures the instrument's response to specific chemical compounds. The response factor for all compounds must be  $\geq 0.05$  in both initial and continuing calibrations. A value  $< 0.05$  indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J." All non-detects for that compound in the corresponding samples will be rejected, "R".

**All the response factors for the target analytes reported were found to be within acceptable limits ( $\geq 0.05$ ), for the initial (average RRF) and continuing calibrations.**

### **B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):**

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentrations. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be  $< 30\%$  and %D must be  $< 25\%$ . A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ". If %RSD and %D grossly exceed QC criteria, non-detect data may be qualified, "R", unusable. Additionally, in cases where the %RSD is  $> 30\%$  and eliminating either the high or the

low point of the curve does not restore the %RSD to less than or equal to 30% then positive results are qualified, "J". In cases where removal of either the low or high point restores the linearity, then only low or high level results will be qualified, "J" in the portion of the curve where non linearity exists.

**Initial Calibrations:** The initial calibrations provided and the %RSD were within acceptable limits (30%) for all compounds.

**Continuing Calibrations:** The continuing calibrations provided and the %D was within acceptable limits (25%) for all compounds.

## **2.8 Internal Standards**

Internal Standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-50% to +100%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/- 30 seconds from the associated continuing calibration standard. If the area count is outside the (-50% to +100%) range of the associated standard, all of the positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 30 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

**All area responses and retention times fell within established QC ranges.**

## **2.9 Field Duplicates**

Field duplicate samples are collected and analyzed as an indication of overall precision. These results are expected to have more variability than laboratory duplicate samples. Generally for water samples an acceptable RPD is 10%.

Groundwater sample MW-8 was collected in duplicate. Low level hits were detected for Acenaphthene in MW-8 but not the duplicate and low levels of Fluoranthene and Pyrene were detected in the duplicate but not in the original sample. The laboratory reported hits and non-detects in MW-8 and MW-XX must be considered estimated, "J/UJ" for these compounds.

Naphthalene was detected in MW-8 at 6.4 ug/L and in the duplicate at a lower concentration of 1.5 ug/L. Again, results must be considered estimated, "J." It is recommended that the higher value be utilized for decision making purposes.

#### **2.10 Target Compound List Identification**

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within  $\pm 0.06$ RRT units of the standard compound and have an ion spectra which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound.

Mass spectra meet criteria for all detected analytes.

All samples were analyzed undiluted.

Tentatively Identified Compounds (TICs) were not provided by the laboratory and therefore not evaluated.

#### **2.11 Compound Quantification and Reported Detection Limits**

GC/MS quantitative analysis is considered to be acceptable. Correct internal standards and response factors were used to calculate final concentrations.

As required, the laboratory reported "J" values between the reporting limits (RL) and Method Detection Limits (MDLs). This is consistent with common laboratory practices and a requirement of the National Environmental Laboratory Approval Program (NELAP).

## **2.12 Overall System Performance**

Acceptable system performance was maintained throughout the analysis.

Low level Bis (2-ethylhexyl) phthalate was detected in MW-9 (0.81 ug/L). This common laboratory contaminant could not be negated in this sample since the compound was not detected in the method or Field Blank.

## **3.0 PCBs by GC SW846 Method 8082**

The following method criteria were reviewed: holding times, Surrogates, MS, MSD, LCS, Blanks, Analytical Sequences, Calibrations, Target Component Identification, Quantitation, Reported Quantitation Limits and overall system performance. The PCB results were considered to be valid and usable as noted within the following text:

### **3.1 Holding Time**

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

**All groundwater samples were extracted and analyzed within the method required holding times and the technical holding times required for data validation (7 days for water).**

### **3.2 Surrogate Recovery**

All samples are spiked with surrogate compounds prior to sample preparation/extraction to evaluate overall laboratory performance and efficiency of the analytical technique. Additionally, the sample itself may produce effects due to such factors as interferences and high concentrations of analytes. Since the effects of the sample matrix are frequently outside the control of the laboratory and may present relatively unique problems, the evaluation of the data is dependent upon reextraction and/or reanalysis to confirm/negate laboratory error or matrix related problems. Discussion of surrogate recoveries that fell outside (above/below) QC guidelines is itemized below:

Acceptable surrogate recovery values were obtained for all aqueous analysis.

### **3.3 Matrix Spikes (MS)/Matrix Spike Duplicates (MSD)**

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices.

The National Functional Guidelines indicate that MS/MSD data alone shall not be utilized to qualify sample data.

Aqueous PCB matrix spike analysis was conducted on MW-7. Acceptable recovery values and RPD were obtained. No qualifications to the data were required.

### **3.4 Laboratory Control Sample**

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

LCS/Blank Spikes were analyzed for each analytical extraction batch for PCBs. Recovery values were acceptable and no qualifications were applied for groundwater analyses.

### **3.5 Blanks**

Quality assurance (QA) blanks; i.e. method, instrument, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Instrument blanks measure carryover for cross contamination. Field blanks measure cross-contamination of samples during field operations.

The following table was utilized to qualify target analyte results due to contamination. The largest value from all the associated blanks is required to be utilized:

<b>For:</b>	<b>Flag Sample Result with a "U" when:</b>	<b>Report CRQL &amp; Qualify "U" when:</b>	<b>No Qualification is Needed when:</b>
Any Contaminant	Sample Conc. is >CRQL, but $\leq 5x$ blank value	Sample Conc. Is <CRQL and $\leq 5x$ blank value	Sample Conc. is >CRQL and $> 5x$ blank value

Extraction and Instrument blanks were performed at the appropriate frequency.

Below is a summary of blank contamination:

- A) **Method Blank Contamination:**  
No target analytes were detected in the associated method blanks.  
No data validation qualifiers were required based upon method blank data.
- B) **Field Blank Contamination:**  
  
Target analytes were not detected in the Field Blank associated with sample analysis.

### **3.6 Calibration Verification**

Initial and continuing calibration sequence was performed as required for multi-component PCB standards. Acceptable retention times were obtained for all analysis and GC resolution is acceptable for both columns.

Linearity criteria for the initial standards have been satisfied for both columns as detailed below:

%RSD  $\leq$  30% for surrogates (TCMX and DCB)  
%RSD  $<$  20% for PCB aroclors.

Continuing calibration verifications:

For PCB analysis acceptable percent difference for any PCB analysis is 15%.

**No qualifications have been applied based on these criteria.**

### **3.7 Field Duplicates**

Field duplicate samples are collected and analyzed as an indication of overall precision. These results are expected to have more variability than laboratory duplicate samples. Generally for water samples an acceptable RPD is 10%.

MW-8 was utilized as the aqueous blind field duplicate (MW-XX). Target analytes were not detected in either analytical run for PCBs.

### **3.8 Target Compound Identification**

Qualitative criteria for compound identification have been established to minimize the number of false positives and false negatives. The retention times of all target analytes have been verified in the samples to that of the analyzed reference standards

**Positive PCB sample results are compared and where %Difference >25% when quantitated on the two columns the qualifications below are applied. Sample chromatograms were reviewed for the presence of interference. The following qualifications were applied where neither column shows interference:**

<u>%Difference</u>	<u>Qualifier</u>
0-25%	None
26-70%	"J"
71-100%	"JN"
101-200% (no interference)	"R"
101-200% (interference detected)*	"JN"
>50% (Pesticide value is <CRQL)**	"U"
>201%	"R"

**\*When the reported %D is 101-200%, but interference is determined on either column, the results shall be qualified, "JN"**

**\*\* When the reported pesticide value is lower than the CRQL, and the %D is >50%, raise the value to the CRQL and qualify "U", undetected.**

**All sample results have been evaluated based on these criteria.**

**Groundwaters:**

**None**

### **3.9 Compound Quantification and Reported Detection Limits**

TCL compounds are identified on the GC by using the analyte's relative retention time (RRT) and by comparison to the primary column and the secondary confirmation column data. The laboratory reported the lower of the concentrations for primary/confirmatory column results as required.

### **3.10 Overall System Performance**

Acceptable system performance was maintained throughout the analysis of all samples. Good resolution and chromatographic performance were observed.



#### **4.0 TAL Metals (Dissolved) by ICP/Cold Vapor SW846 Methods 6010/7471**

The following method criteria were reviewed: holding times, CRDL standards, calibration, blanks, MS, laboratory duplicates, LCS, interference check sample, ICP serial dilutions and sample results verification. The groundwater results were considered to be valid and usable with the appropriate qualifiers as notated in the following text:

##### **4.1 Holding Times**

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

**All samples were filtered upon receipt and analyzed for Dissolved Metals within the method required holding times and the technical holding times for data validation. No qualifications were applied based upon holding time criteria.**

##### **4.2 Calibration (ICV/CCV)**

Satisfactory instrument calibration is established to ensure that the instruments are capable of producing acceptable quantitative data. An initial calibration demonstrates that the instruments are capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instruments are giving satisfactory sequential performance and that the initial calibration is still valid.

**The ICP and Mercury instruments were calibrated utilizing a minimum of a four-point curve in addition to blanks at the beginning of each analytical run. The calibrations had been determined to be acceptable, yielding correlation coefficients of 0.995 or greater.**

For ICP analysis, satisfactory instrument performance near the Contract Required Detection Limit (CRDL) was demonstrated by analyzing a CRDL standard at the beginning and end of the analytical run. The instruments were calibrated properly by analyzing the CRDL solution at the correct levels, and analyzed at the required frequency at the beginning and end of each analytical run.

All recoveries were within acceptable limits of 90-110 % for initial calibration pertaining to field samples.

Continuing calibrations were within acceptable limits of 90-110% recovery of the true values for ICP and Mercury (80-120%) for all field samples.

No qualifications were applied based upon ICV/CCV analysis.

#### **4.3 Blanks**

Quality assurance (QA) blanks, i.e. method, field or preparation blanks are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Preparation blanks measure laboratory contamination. Field blanks measure cross-contamination of samples during field operations.

All digestion/prep/ICB/CCB/Field blanks were generated within acceptable limits yielding final concentrations less than the CRDL.

No qualifications to the data were made based upon blank contamination.

#### **4.4 Spiked Sample Recovery**

The spike data are generated to determine the long terms precision and accuracy of the analytical method in various matrices.

*Aqueous spike recoveries are qualified based on the criteria below:*

<30% - "R" all detects and non-detects

Between 30%-74% - results  $\geq$ MDL "J" and non-detects "UJ"

Between 126-150% - results  $\geq$ MDL "J" and

>150% - results  $\geq$  MDL "R"

**SDG JB38641:**

Aqueous MS/MSD was performed on MW-8 for dissolved metals.

Analysis resulted in acceptable recovery values for all elements.

Acceptable RPD was observed.

***SDG JB38761:***

Aqueous MS/MSD analysis was conducted on MW-6 for dissolved metals. Analysis resulted in acceptable recovery values and RPD for all elements for both total and dissolved analysis.

**4.5 Laboratory/Field Duplicates**

The laboratory uses duplicate sample determinations to demonstrate acceptable method precision at the time of analysis. Duplicate analyses are also performed to generate data in order to determine the long-term precision of the analytical method on various matrices.

**Laboratory Duplicates:**

RPD  $\geq 20\%$  but  $< 100\%$  - J detected concentrations

RPD  $\geq 100\%$  - R all detected and non-detected concentrations

**Field Duplicates:**

RPD  $\geq 35\%$  but  $< 120\%$  - qualify sample and duplicate results  $\geq$  CRQL "J"

RPD  $\geq 120\%$  - rejected sample and duplicate results  $\geq$  CRQL "R"

Aqueous Laboratory Duplicate analysis was conducted on MW-6 and MW-7. Acceptable RPD values were obtained for all elements.

Field Duplicate analysis was conducted on MW-8 (MW-XX).

A summary of detected concentrations in ppb is listed below:

**Dissolved Metals:**

	<u>MW-8</u>	<u>MW-XX (Duplicate)</u>
Arsenic	4.2	5.9
Calcium	145000	141000
Iron	179	209
Lead	3.8	$< 3.0$
Magnesium	36800	36300
Manganese	3160	3220
Nickel	16.1	15.1
Selenium	28.5	$< 10$
Sodium	87700	95000

**Lead and Selenium must be considered estimated "J/UJ" in the analysis of MW-8 and MW-XX. No additional qualifications to the data were required based on field duplicate analysis.**

#### **4.6 Laboratory Control Sample**

The laboratory Control Sample (LCS) serves as a monitor of the overall performance of each step during the analysis, including the sample preparation. Aqueous and solid Laboratory Control samples shall be analyzed for each analyte utilizing the same sample preparation, analytical methods and QA/QC procedures as employed for the samples.

**The LCS was analyzed and reported for all ICP and Mercury analysis. Associated LCS recoveries were within the acceptable limits for TAL Metals analyses (80-120%).**

#### **4.7 Interference Check Sample**

The interference check sample (ICS) verifies the laboratory's interelement and background correction factors. The ICS consists of two solutions A and AB. Solution A consists of interference, and solution AB consists of the analytes mixed with interferents.

**SW846 Method 6010 requires solution A and solution AB to be analyzed separately. The recoveries for the ICP interference check sample were all within the acceptable limits of 80-120%. No data qualifications were made based upon ICS analysis.**

#### **4.8 ICP Serial Dilution**

The serial dilution of samples quantitated by ICP determines whether or not significant physical or chemical interferences exist due to sample matrix. An ICP serial dilution analysis must be performed on a sample for each group of samples with a similar matrix type and concentration, or for each Sample Delivery Group (SDG), whichever is more frequent.

**Acceptable ICP and ICP-MS serial dilution was performed at a 5-fold dilution as required by the method where the initial concentration is equal or greater than 50x IDL. The serial dilution analysis agrees within a 10% difference of the original determination after correction for dilution for all elements where the sample concentration was determined to be <50x the IDL with the exception of Iron in MW-8. Results for this element have been qualified, "J."**

#### **4.9 Sample Results Verification**

Analyte quantitation was generated in accordance with protocols. The raw data was verified and found within the linear range of each instrument used for quantitation. Raw data supplied corresponds with reported values. Verification of the calculations yielded reported results.

Metals analysis resulted in acceptable results.

#### **4.10 Overall Assessment of Data**

The data generated were of acceptable quality.

For the TAL analysis, results are usable at the concentration presented in the validated spreadsheets.

### **5.0 General Chemistry Analysis**

Groundwater samples were analyzed for Hexavalent (SW846 Method 7196) and Trivalent Chromium (determined by calculation) - Dissolved. Samples were filtered upon receipt at the laboratory. The groundwater results were considered to be valid and usable with the exception of non-detects in MW-XX due to holding time exceedence as notated in the following text:

#### **5.1 Holding Times**

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

Samples for Hexavalent Chromium were performed within 24 hours of collection as required by the method with the exception of MW-XX. Non-detects have been rejected, "R."

**\*Note: Dissolved Chromium was not detected in the metals analysis for this sample and therefore if there is no "total" chromium in the dissolved sample at 10 ug/L, then no chromium can be in the hexavalent form. Additionally, MW-8 was analyzed within holding time and no hexavalent chromium was detected.**

## **5.2 Calibration**

**Acceptable ICVs and CCVs were analyzed. No qualifications were applied based upon calibration data.**

## **5.3 Blanks**

Quality assurance (QA) blanks, i.e. method, field or preparation blanks are prepared to identify any contamination, which may have been introduced into the samples during sample preparation or field activity. Preparation blanks measure laboratory contamination. Field blanks measure cross-contamination of samples during field operations.

**Acceptable method blanks were analyzed with these SDGs as dictated by the analytical methods employed.**

**Field Blank analysis was conducted on the unfiltered sample.**

## **5.4 Spiked Sample Recovery**

The spike data are generated to determine the long-term precision and accuracy of the analytical method in various matrices.

**Matrix spike analysis was performed on MW-6 and MW-7. Acceptable spike recoveries were obtained.**

## **5.5 Laboratory/Field Duplicates**

The laboratory uses duplicate sample determinations to demonstrate acceptable method precision at the time of analysis. Duplicate analyses are also performed to generate data in order to determine the long-term precision of the analytical method on various matrices.

**Acceptable laboratory duplicate analysis on MW-6 and MW-7 was conducted as required by the method. Acceptable precision was observed.**

Field duplicate analysis (MW-XX) was collected on MW-8. Precision as defined by Relative Percent Difference (RPD) was found to be within acceptable limits of +/- 20% for Hexavalent Chromium; no detections above the reporting limit.

#### **5.6 Laboratory Control Sample**

The laboratory Control Sample (LCS) serves as a monitor of the overall performance of each step during the analysis, including the sample preparation. Aqueous and solid Laboratory Control samples shall be analyzed for each analyte utilizing the same sample preparation, analytical methods and QA/QC procedures as employed for the samples.

Acceptable LCS was analyzed.

#### **5.7 Sample Results Verification**

Analyte quantitation was generated in accordance with protocols. The instrument logs were verified and found within the linear ranges of each instrument used for quantitation.

#### **5.8 Overall Assessment of Data**

The data was of acceptable quality.

Reviewer's Signature Lou A. Bay Date 08/09/13

**Appendix A  
Data Summary Tables  
With Qualifications**



Table 1								
Validated Analytical Results for Volatile Organic Compounds in Groundwater								
Via Verde aka New Housing New York Legacy Project								
700-730 Brook Avenue, Bronx, New York								
BCP # C203043								
Sample ID Matrix Date Sampled	MW-6 groundwater 6/3/2013	MW-7 groundwater 6/4/2013	MW-8 groundwater 6/3/2013	MW-9 groundwater 6/4/2013	MW-XX** groundwater 6/3/2013	Field Blank liquid 6/3/2013	Trip Blank liquid 6/3/2013	NYSDEC TOGs*
Volatile Organic Compounds								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	ND	ND	ND	4.1 J	ND	ND	ND	50
Benzene	ND	ND	8.5	ND	8.3	ND	ND	1
Bromobenzene	ND	ND	ND	ND	ND	ND	ND	5
Bromochloromethane	ND	ND	ND	ND	ND	ND	ND	5
Bromodichloromethane	1.2	ND	ND	ND	ND	ND	ND	50
Bromoform	ND	ND	ND	ND	ND	ND	ND	50
Bromomethane	ND	ND	ND	ND	ND	ND	ND	5
2-Butanone (MEK)	ND R	ND R	10.8 J	ND R	13.2 J	ND R	ND R	50
n-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	5
sec-Butylbenzene	ND	ND	5.2	ND	5.2	ND	ND	5
tert-Butylbenzene	ND	ND	1.3 J	ND	1.2 J	ND	ND	5
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	5
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	5
Chloroethane	ND	ND	ND	ND	ND	ND	ND	5
Chloroform	18.6	ND	ND	ND	ND	ND	ND	7
Chloromethane	ND	ND	ND	ND	ND	ND	ND	NVG
o-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	5
p-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	5
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	ND	ND	0.04
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	50
1,2-Dibromoethane	ND	ND	ND	ND	ND	ND	ND	NVG
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	5
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	5
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	0.6
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	5
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	5
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	5
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	1
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	5
2,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	5
1,1-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	5
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	0.4
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	0.4
Ethylbenzene	ND	ND	51.3	ND	52.4	ND	ND	5
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	0.5
Isopropylbenzene	ND	ND	28.5	ND	28.3	ND	ND	5
p-Isopropyltoluene	ND	ND	0.63 J	ND	0.62 J	ND	ND	5
Methyl Tert Butyl Ether	ND	ND	ND	ND	ND	ND	ND	10
4-Methyl-2-pentanone(MIBK)	ND	ND	ND	ND	ND	ND	ND	NVG
Methylene bromide	ND	ND	ND	ND	ND	ND	ND	NVG
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	5
Naphthalene	ND	ND	12.0	ND	12.0	ND	ND	10
n-Propylbenzene	ND	ND	46.6	ND	46.3	ND	ND	5
Styrene	ND	ND	ND	ND	ND	ND	ND	5
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	5
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	5
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	5
Toluene	ND	ND	4.9	ND	4.9	ND	ND	5
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	5
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	5
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	5
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	1
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	5
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	5
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	ND	ND	0.04
1,2,4-Trimethylbenzene	ND	ND	4.2	ND	4.3	ND	ND	5
1,3,5-Trimethylbenzene	ND	ND	1.1 J	ND	1.1 J	ND	ND	5
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	2
m,p-Xylene	ND	ND	15.3	ND	15.8	ND	ND	5
o-Xylene	ND	ND	1.4	ND	1.6	ND	ND	5
Xylene (total)	ND	ND	16.8	ND	17.3	ND	ND	5
Notes: ug/L - micrograms per liter or parts per billion ND - Not detected at or above laboratory detection limits NVG - No Value Given J - Estimated Value *NYSDEC Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations; June 1998 ** MW-XX is a duplicate of MW-8 Boxed and bold indicates exceedance groundwater standards or guidance values								

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<p align="center"><b>Table 2</b>  <b>Validated Analytical Results for Semi-Volatile Organic Compounds in Groundwater</b>  Via Verde aka New Housing New York Legacy Project  700-730 Brook Avenue, Bronx, New York  BCP # C203043</p>							
Sample ID Matrix Date Sampled	MW-6 groundwater 6/3/2013	MW-7 groundwater 6/4/2013	MW-8 groundwater 6/3/2013	MW-9 groundwater 6/4/2013	MW-XX** groundwater 6/3/2013	Field Blank liquid 6/3/2013	NYSDEC TOGS
<b>Semi-Volatile Organic Compounds</b>							
<b>Units</b>	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
2-Chlorophenol	ND	ND	ND	ND	ND	ND	NVG
4-Chloro-3-methyl phenol	ND	ND	ND	ND	ND	ND	NVG
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	5
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	50
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	10
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	NVG
2-Methylphenol	ND	ND	ND	ND	ND	ND	1
3&4-Methylphenol	ND	ND	ND	ND	ND	ND	1
2-Nitrophenol	ND	ND	ND	ND	ND	ND	NVG
4-Nitrophenol	ND	ND	ND	ND	ND	ND	NVG
Pentachlorophenol	ND	ND	ND	ND	ND	ND	NVG
Phenol	ND	ND	ND	ND	ND	ND	1
2,4,5-Trichlorophenol	ND	ND	ND	ND	ND	ND	NVG
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	NVG
Acenaphthene	ND	ND	0.52 J	ND	ND UT	ND	20
Acenaphthylene	ND	ND	ND	ND	ND	ND	NVG
Acetophenone	ND	ND	ND	ND	ND	ND	NVG
Anthracene	ND	ND	ND	ND	ND	ND	50
Atrazine	ND	ND	ND	ND	ND	ND	7.5
Benzaldehyde	ND	ND	ND	ND	ND	ND	0.002
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND	0.002
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND	NVG
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	0.002
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	ND	NVG
4-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	50
Butyl benzyl phthalate	ND	ND	ND	ND	ND	ND	5
1,1'-Biphenyl	ND	ND	ND	ND	ND	ND	NVG
2-Chloronaphthalene	ND UT	ND	ND UT	ND	ND UT	ND UT	10
4-Chloroaniline	ND	ND	ND	ND	ND	ND	5
Carbazole	ND	ND	ND	ND	ND	ND	NVG
Caprolactam	ND	ND	ND	ND	ND	ND	NVG
Chrysene	ND	ND	ND	ND	ND	ND	0.002
bis(2-Chloroethoxy)methane	ND	ND	ND	ND	ND	ND	5
bis(2-Chloroethyl)ether	ND	ND	ND	ND	ND	ND	1
bis(2-Chloroisopropyl)ether	ND	ND	ND	ND	ND	ND	NVG
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	NVG
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	5
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	5
3,3'-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	5
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	NVG
Dibenzofuran	ND	ND	ND	ND	ND	ND	NVG
Di-n-butyl phthalate	ND	ND	ND	ND	ND	ND	50
Di-n-octyl phthalate	ND	ND	ND	ND	ND	ND	50
Diethyl phthalate	ND	ND	ND	ND	ND	ND	50
Dimethyl phthalate	ND	ND	ND	ND	ND	ND	50
bis(2-Ethylhexyl)phthalate	ND	ND	ND	0.81 J	ND	ND	5
Fluoranthene	ND	ND	ND UT	ND	0.58 J	ND	50
Fluorene	ND	ND	ND	ND	ND	ND	50
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	0.04
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	0.5
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	5
Hexachloroethane	ND	ND	ND	ND	ND	ND	5
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	0.002
Isophorone	ND	ND	ND	ND	ND	ND	50
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	NGV
2-Nitroaniline	ND	ND	ND	ND	ND	ND	5
3-Nitroaniline	ND	ND	ND	ND	ND	ND	5
4-Nitroaniline	ND	ND	ND	ND	ND	ND	5
Naphthalene	ND	1.8	6.4 J	1.4	1.5 J	ND	10
Nitrobenzene	ND	ND	ND	ND	ND	ND	0.4
N-Nitroso-di-n-propylamine	ND	ND	ND	ND	ND	ND	NVG
N-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	50
Phenanthrene	ND	ND	ND	ND	ND	ND	50
Pyrene	ND	ND	ND UT	ND	0.48 J	ND	50

**Notes:**

ug/L - micrograms per liter or parts per billion  
ND - Not detected at or above laboratory detection limits  
NVG - No Value Given  
J - Estimated Value

\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
Ambient Water Quality Standards and Guidance Values  
and Groundwater Effluent Limitations; June 1998  
\*\* MW-XX is a duplicate of MW-8

Boxed and bold indicates exceedance of groundwater standards or guidance values

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Table 3

**Validated Analytical Results for PCBs In Groundwater**  
**Via Verde aka New Housing New York Legacy Project**  
**700-730 Brook Avenue, Bronx, New York**  
**BCP # C203043**

Sample ID Matrix Date Sampled	MW-6 groundwater 6/3/2013	MW-7 groundwater 6/4/2013	MW-8 groundwater 6/3/2013	MW-9 groundwater 6/4/2013	MW-XX** groundwater 6/3/2013	Field Blank liquid 6/3/2013	NYSDEC TOGS***
<b>PCBs</b>							
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aroclor-1016	ND	ND	ND	ND	ND	ND	0.09 *
Aroclor-1221	ND	ND	ND	ND	ND	ND	0.09 *
Aroclor-1232	ND	ND	ND	ND	ND	ND	0.09 *
Aroclor-1242	ND	ND	ND	ND	ND	ND	0.09 *
Aroclor-1248	ND	ND	ND	ND	ND	ND	0.09 *
Aroclor-1254	ND	ND	ND	ND	ND	ND	0.09 *
Aroclor-1260	ND	ND	ND	ND	ND	ND	0.09 *

**Notes:**

ug/L - micrograms per liter or parts per billion

ND - Not detected at or above laboratory detection limits

\* Applies to the sum of these compounds

\*\* MW-XX is a duplicate of MW-8

\*\*\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
 Ambient Water Quality Standards and Guidance Values  
 and Groundwater Effluent Limitations; June 1998

**Table 4**  
**Validated Analytical Results for Metals In Groundwater**  
**Via Verde aka New Housing New York Legacy Project**  
**700-730 Brook Avenue, Bronx, New York**  
**BCP # C203043**

Sample ID Matrix Date Sampled	MW-6 groundwater 6/3/2013	MW-7 groundwater 6/4/2013	MW-8 groundwater 6/3/2013	MW-9 groundwater 6/4/2013	MW-XX** groundwater 6/3/2013	Field Blank liquid 6/3/2013	NYSDEC TOGS*
<b>Total Metals Filtered</b>							
<b>Units</b>	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	<200	<200	<200	<200	<200	<200	NVG
Antimony	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3
Arsenic	<3.0	<3.0	4.2	<3.0	5.9	<3.0	25
Barium	<200	<200	<200	<200	<200	<200	1,000
Beryllium	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3
Cadmium	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	5
Calcium	25,100	121,000	145,000	119,000	141,000	<5,000	NVG
Chromium	<10	<10	<10	<10	<10	<10	50
Cobalt	<50	<50	<50	<50	<50	<50	NVG
Copper	<10	<10	<10	<10	<10	<10	200
Iron	<100	<100	179 J	<100	209	<100	300
Lead	<3.0	<3.0	3.8 J	<3.0	<3.0 UJ	<3.0	25
Magnesium	<5,000	24,200	36,800	8,920	36,300	<5,000	35,000
Manganese	<15	49.0	3,160	782	3,220	<15	300
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.7
Nickel	<10	<10	16.1	86.4	15.1	<10	100
Potassium	<10,000	<10,000	<10,000	12,700	<10,000	<10,000	NVG
Selenium	<10	<10	28.5 J	<10	<10 UJ	<10	10
Silver	<10	<10	<10	<10	<10	<10	50
Sodium	19,500	66,200	87,700	96,700	95,000	<10,000	20,000
Thallium	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.5
Vanadium	<50	<50	<50	<50	<50	<50	NVG
Zinc	<20	<20	<20	<20	<20	<20	2,000
Chromium, Hexavalent	<0.010	<0.010	<0.010	<0.010 b R	<0.010 d R	<0.010 a	50
Chromium, Trivalent	<0.020 c	<0.020 c	<0.020 c	<0.020 c	<0.020 c	<0.020 c	50

**Notes:**

ug/L - micrograms per liter or parts per billion

ND - Not detected at or above laboratory detection limits

NVG - No Value Given

J - Estimated Value

a - analyzed from non-filtered sample

b - Analysis done out of holding time

\*NYSDEC Technical and Operational Guidance Series (1.1.1)  
 Ambient Water Quality Standards and Guidance Values  
 and Groundwater Effluent Limitations; June 1998

\*\* MW-XX is a duplicate of MW-8

c - Calculated as: (Chromium) - (Chromium, Hexavalent)

d - Analysis done out of holding time as per client request

**Boxed and bold indicates exceedance of groundwater standards or guidance values**

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## Report of Analysis

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Client Sample ID:	MW-6	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-1	Date Received:	06/04/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1C116997.D	1	06/06/13	TYG	n/a	n/a	VIC5184
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.14	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.30	ug/l	
75-27-4	Bromodichloromethane	1.2	1.0	0.21	ug/l	
75-25-2	Bromoform	ND	4.0	0.21	ug/l	
74-83-9	Bromomethane	ND	2.0	0.22	ug/l	
78-93-3	2-Butanone (MEK)	ND R	10	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.17	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.21	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.30	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
75-00-3	Chloroethane	ND	1.0	0.26	ug/l	
67-66-3	Chloroform	18.6	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.21	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.15	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.30	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	0.54	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.14	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.20	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.22	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.30	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.27	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.11	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.19	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.19	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.21	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.48	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.23	ug/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b> MW-6	<b>Date Sampled:</b> 06/03/13
<b>Lab Sample ID:</b> JB38641-1	<b>Date Received:</b> 06/04/13
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> Via Verde, 700-730 Brook Avenue, Bronx, NY	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	5.0	0.15	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.30	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.23	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.24	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.45	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.16	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.83	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.26	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.70	ug/l	
91-20-3	Naphthalene	ND	5.0	1.1	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.24	ug/l	
100-42-5	Styrene	ND	5.0	0.21	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.28	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.28	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.27	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.53	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.19	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.36	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.21	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.24	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		80-119%
17060-07-0	1,2-Dichloroethane-D4	102%		74-122%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	92%		76-116%

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 3

Client Sample ID:	MW-6	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-1	Date Received:	06/04/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F25027.D	1	06/16/13	NAP	06/05/13	OP66558	EF5253
Run #2							

Run #	Initial Volume	Final Volume
Run #1	890 ml	1.0 ml
Run #2		

## ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.6	1.1	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.6	2.0	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.6	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.6	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	19	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	22	1.1	ug/l	
95-48-7	2-Methylphenol	ND	2.2	1.2	ug/l	
	3&4-Methylphenol	ND	2.2	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	5.6	1.7	ug/l	
100-02-7	4-Nitrophenol	ND	11	5.8	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.6	ug/l	
108-95-2	Phenol	ND	2.2	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.6	1.8	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.6	1.4	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.30	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.26	ug/l	
98-86-2	Acetophenone	ND	2.2	0.32	ug/l	
120-12-7	Anthracene	ND	1.1	0.32	ug/l	
1912-24-9	Atrazine	ND	5.6	0.55	ug/l	
100-52-7	Benzaldehyde	ND	5.6	3.7	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.25	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.25	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.51	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.36	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.57	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.2	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.2	0.32	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.34	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.2	0.33	ug/l	
106-47-8	4-Chloroaniline	ND	5.6	0.59	ug/l	
86-74-8	Carbazole	ND	1.1	0.40	ug/l	
105-60-2	Caprolactam	ND	2.2	0.77	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Signature: [Handwritten Signature]  
 Date: 6/17/13

4.1

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## Report of Analysis

Page 2 of 3

Client Sample ID:	MW-6	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-1	Date Received:	06/04/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

## ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	1.1	0.32	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.2	0.34	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.2	0.35	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.2	0.51	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.2	0.35	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	2.2	0.48	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	2.2	0.52	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.6	0.40	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.42	ug/l	
132-64-9	Dibenzofuran	ND	5.6	0.30	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.2	0.62	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.2	0.35	ug/l	
84-66-2	Diethyl phthalate	ND	2.2	0.37	ug/l	
131-11-3	Dimethyl phthalate	ND	2.2	0.32	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.66	ug/l	
206-44-0	Fluoranthene	ND	1.1	0.36	ug/l	
86-73-7	Fluorene	ND	1.1	0.31	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.58	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	8.0	ug/l	
67-72-1	Hexachloroethane	ND	2.2	0.62	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.42	ug/l	
78-59-1	Isophorone	ND	2.2	0.31	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	0.43	ug/l	
88-74-4	2-Nitroaniline	ND	5.6	1.2	ug/l	
99-09-2	3-Nitroaniline	ND	5.6	1.4	ug/l	
100-01-6	4-Nitroaniline	ND	5.6	1.9	ug/l	
91-20-3	Naphthalene	ND	1.1	0.29	ug/l	
98-95-3	Nitrobenzene	ND	2.2	0.47	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.2	0.34	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.6	0.34	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.33	ug/l	
129-00-0	Pyrene	ND	1.1	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	40%		10-110%
4165-62-2	Phenol-d5	27%		10-110%
118-79-6	2,4,6-Tribromophenol	75%		29-143%
4165-60-0	Nitrobenzene-d5	94%		31-130%

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 3 of 3

Client Sample ID:	MW-6	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-1	Date Received:	06/04/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

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## ABN TCL List (CLP4.2 list)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	90%		35-120%
1718-51-0	Terphenyl-d14	86%		14-152%

ND = Not detected MDL - Method Detection Limit  
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J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

Client Sample ID:	MW-6	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-1	Date Received:	06/04/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8082A SW846 3510C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF120966.D	1	06/11/13	JR	06/05/13	OP66554	GEF4776
Run #2							

Run #	Initial Volume	Final Volume
Run #1	900 ml	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.56	0.14	ug/l	
11104-28-2	Aroclor 1221	ND	0.56	0.30	ug/l	
11141-16-5	Aroclor 1232	ND	0.56	0.43	ug/l	
53469-21-9	Aroclor 1242	ND	0.56	0.096	ug/l	
12672-29-6	Aroclor 1248	ND	0.56	0.16	ug/l	
11097-69-1	Aroclor 1254	ND	0.56	0.16	ug/l	
11096-82-5	Aroclor 1260	ND	0.56	0.23	ug/l	
11100-14-4	Aroclor 1268	ND	0.56	0.14	ug/l	
37324-23-5	Aroclor 1262	ND	0.56	0.067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	75%		25-143%
877-09-8	Tetrachloro-m-xylene	85%		25-143%
2051-24-3	Decachlorobiphenyl	69%		10-134%
2051-24-3	Decachlorobiphenyl	64%		10-134%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
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 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

Client Sample ID: MW-6

Lab Sample ID: JB38641-1F

Matrix: AQ - Groundwater Filtered

Date Sampled: 06/03/13

Date Received: 06/04/13

Percent Solids: n/a

Project: Via Verde, 700-730 Brook Avenue, Bronx, NY

## Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	06/07/13	06/11/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Antimony	< 1.0	1.0	ug/l	2	06/07/13	06/12/13 VC	SW846 6020A <sup>2</sup>	SW846 3010A <sup>5</sup>
Arsenic	< 3.0	3.0	ug/l	1	06/07/13	06/11/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	06/07/13	06/11/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Beryllium	< 1.0	1.0	ug/l	1	06/07/13	06/11/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 3.0	3.0	ug/l	1	06/07/13	06/11/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Calcium	25100	5000	ug/l	1	06/07/13	06/11/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/07/13	06/11/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Cobalt	< 50	50	ug/l	1	06/07/13	06/11/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Copper	< 10	10	ug/l	1	06/07/13	06/11/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Iron	< 100	100	ug/l	1	06/07/13	06/11/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Lead	< 3.0	3.0	ug/l	1	06/07/13	06/11/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Magnesium	< 5000	5000	ug/l	1	06/07/13	06/11/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Manganese	< 15	15	ug/l	1	06/07/13	06/11/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/13/13	06/13/13 DP	SW846 7470A <sup>3</sup>	SW846 7470A <sup>6</sup>
Nickel	< 10	10	ug/l	1	06/07/13	06/11/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Potassium	< 10000	10000	ug/l	1	06/07/13	06/11/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/07/13	06/11/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Silver	< 10	10	ug/l	1	06/07/13	06/11/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Sodium	19500	10000	ug/l	1	06/07/13	06/11/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Thallium	< 1.0	1.0	ug/l	2	06/07/13	06/12/13 VC	SW846 6020A <sup>2</sup>	SW846 3010A <sup>5</sup>
Vanadium	< 50	50	ug/l	1	06/07/13	06/11/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/07/13	06/11/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA31416

(2) Instrument QC Batch: MA31431

(3) Instrument QC Batch: MA31440

(4) Prep QC Batch: MP72450

(5) Prep QC Batch: MP72450A

(6) Prep QC Batch: MP72562

RL = Reporting Limit

## Report of Analysis

Page 1 of 1

Client Sample ID:	MW-6	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-1F	Date Received:	06/04/13
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

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## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	< 0.010	0.010	mg/l	1	06/04/13 10:58	MET	SW846 7196A
Chromium, Trivalent <sup>a</sup>	< 0.020	0.020	mg/l	1	06/11/13 17:16	JY	SW846 6010/7196A M

(a) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit

## Report of Analysis

Page 1 of 2

Client Sample ID:	MW-8	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-2	Date Received:	06/04/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1C117113.D	1	06/08/13	MD	n/a	n/a	V1C5189
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	8.5	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.14	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.30	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.21	ug/l	
75-25-2	Bromoform	ND	4.0	0.21	ug/l	
74-83-9	Bromomethane	ND	2.0	0.22	ug/l	
78-93-3	2-Butanone (MEK)	10.8 J	10	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.17	ug/l	
135-98-8	sec-Butylbenzene	5.2	5.0	0.21	ug/l	
98-06-6	tert-Butylbenzene	1.3	5.0	0.30	ug/l	J
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
75-00-3	Chloroethane	ND	1.0	0.26	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.21	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.15	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.30	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	0.54	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.14	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.20	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.22	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.30	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.27	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.11	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.19	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.19	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.21	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.48	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.23	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

8/1/13

## Report of Analysis

Page 2 of 2

Client Sample ID:	MW-8	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-2	Date Received:	06/04/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	5.0	0.15	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.30	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	51.8	1.0	0.23	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.24	ug/l	
98-82-8	Isopropylbenzene	28.5	2.0	0.45	ug/l	
99-87-6	p-Isopropyltoluene	0.63	5.0	0.22	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.16	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.83	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.26	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.70	ug/l	
91-20-3	Naphthalene	12.0	5.0	1.1	ug/l	
103-65-1	n-Propylbenzene	46.6	5.0	0.24	ug/l	
100-42-5	Styrene	ND	5.0	0.21	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.28	ug/l	
108-88-3	Toluene	4.9	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.28	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.27	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.53	ug/l	
95-63-6	1,2,4-Trimethylbenzene	4.2	2.0	0.19	ug/l	
108-67-8	1,3,5-Trimethylbenzene	1.1	2.0	0.36	ug/l	J
75-01-4	Vinyl chloride	ND	1.0	0.21	ug/l	
	m,p-Xylene	15.3	1.0	0.42	ug/l	
95-47-6	o-Xylene	1.4	1.0	0.24	ug/l	
1330-20-7	Xylene (total)	16.8	1.0	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		80-119%
17060-07-0	1,2-Dichloroethane-D4	97%		74-122%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	91%		76-116%

ND = Not detected      MDL - Method Detection Limit  
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 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 3

Client Sample ID:	MW-8	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-2	Date Received:	06/04/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F25000.D	1	06/16/13	KLS	06/05/13	OP66558	EF5252
Run #2							

Run #	Initial Volume	Final Volume
Run #1	880 ml	1.0 ml
Run #2		

## ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.7	1.1	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.7	2.1	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.7	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.7	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	23	19	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	23	1.1	ug/l	
95-48-7	2-Methylphenol	ND	2.3	1.2	ug/l	
	3&4-Methylphenol	ND	2.3	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	5.7	1.7	ug/l	
100-02-7	4-Nitrophenol	ND	11	5.9	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.6	ug/l	
108-95-2	Phenol	ND	2.3	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.7	1.8	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.7	1.5	ug/l	
83-32-9	Acenaphthene	0.52	1.1	0.30	ug/l	J
208-96-8	Acenaphthylene	ND	1.1	0.26	ug/l	
98-86-2	Acetophenone	ND	2.3	0.32	ug/l	
120-12-7	Anthracene	ND	1.1	0.33	ug/l	
1912-24-9	Atrazine	ND	5.7	0.55	ug/l	
100-52-7	Benzaldehyde	ND	5.7	3.7	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.26	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.26	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.52	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.37	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.58	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.3	0.41	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.3	0.33	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.34	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.3	0.34	ug/l	
106-47-8	4-Chloroaniline	ND	5.7	0.60	ug/l	
86-74-8	Carbazole	ND	1.1	0.41	ug/l	
105-60-2	Caprolactam	ND	2.3	0.78	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

8/18/13

## Report of Analysis

Page 2 of 3

Client Sample ID:	MW-8	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-2	Date Received:	06/04/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

## ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	1.1	0.33	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.3	0.35	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.3	0.35	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.3	0.52	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.3	0.35	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	2.3	0.48	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	2.3	0.52	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.7	0.41	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.43	ug/l	
132-64-9	Dibenzofuran	ND	5.7	0.30	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.3	0.63	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.3	0.35	ug/l	
84-66-2	Diethyl phthalate	ND	2.3	0.37	ug/l	
131-11-3	Dimethyl phthalate	ND	2.3	0.32	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.3	0.67	ug/l	
206-44-0	Fluoranthene	ND <i>UJ</i>	1.1	0.36	ug/l	
86-73-7	Fluorene	ND	1.1	0.31	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.58	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	8.1	ug/l	
67-72-1	Hexachloroethane	ND	2.3	0.62	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.42	ug/l	
78-59-1	Isophorone	ND	2.3	0.31	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	0.44	ug/l	
88-74-4	2-Nitroaniline	ND	5.7	1.3	ug/l	
99-09-2	3-Nitroaniline	ND	5.7	1.4	ug/l	
100-01-6	4-Nitroaniline	ND	5.7	1.9	ug/l	
91-20-3	Naphthalene	6.4 <i>J</i>	1.1	0.29	ug/l	
98-95-3	Nitrobenzene	ND	2.3	0.48	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.3	0.34	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.7	0.35	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.33	ug/l	
129-00-0	Pyrene	ND <i>UJ</i>	1.1	0.31	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	29%		10-110%
4165-62-2	Phenol-d5	22%		10-110%
118-79-6	2,4,6-Tribromophenol	60%		29-143%
4165-60-0	Nitrobenzene-d5	86%		31-130%

ND = Not detected MDL - Method Detection Limit  
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 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

*Signature* 7/13



## Report of Analysis

Page 3 of 3

Client Sample ID:	MW-8	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-2	Date Received:	06/04/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

4.3

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## ABN TCL List (CLP4.2 list)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	84%		35-120%
1718-51-0	Terphenyl-d14	72%		14-152%

ND = Not detected MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

Client Sample ID:	MW-8	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-2	Date Received:	06/04/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8082A SW846 3510C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF120967.D	1	06/11/13	JR	06/05/13	OP66554	GEF4776
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.56	0.14	ug/l	
11104-28-2	Aroclor 1221	ND	0.56	0.30	ug/l	
11141-16-5	Aroclor 1232	ND	0.56	0.43	ug/l	
53469-21-9	Aroclor 1242	ND	0.56	0.096	ug/l	
12672-29-6	Aroclor 1248	ND	0.56	0.16	ug/l	
11097-69-1	Aroclor 1254	ND	0.56	0.16	ug/l	
11096-82-5	Aroclor 1260	ND	0.56	0.23	ug/l	
11100-14-4	Aroclor 1268	ND	0.56	0.14	ug/l	
37324-23-5	Aroclor 1262	ND	0.56	0.067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	63%		25-143%
877-09-8	Tetrachloro-m-xylene	61%		25-143%
2051-24-3	Decachlorobiphenyl	50%		10-134%
2051-24-3	Decachlorobiphenyl	48%		10-134%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
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 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

Client Sample ID:	MW-8	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-2F	Date Received:	06/04/13
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

## Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	06/07/13	06/11/13	ND	SW846 6010C <sup>1</sup>
Antimony	< 1.0	1.0	ug/l	2	06/07/13	06/12/13	VC	SW846 6020A <sup>2</sup>
Arsenic	4.2	3.0	ug/l	1	06/07/13	06/11/13	ND	SW846 6010C <sup>1</sup>
Barium	< 200	200	ug/l	1	06/07/13	06/11/13	ND	SW846 6010C <sup>1</sup>
Beryllium	< 1.0	1.0	ug/l	1	06/07/13	06/11/13	ND	SW846 6010C <sup>1</sup>
Cadmium	< 3.0	3.0	ug/l	1	06/07/13	06/11/13	ND	SW846 6010C <sup>1</sup>
Calcium	145000	5000	ug/l	1	06/07/13	06/11/13	ND	SW846 6010C <sup>1</sup>
Chromium	< 10	10	ug/l	1	06/07/13	06/11/13	ND	SW846 6010C <sup>1</sup>
Cobalt	< 50	50	ug/l	1	06/07/13	06/11/13	ND	SW846 6010C <sup>1</sup>
Copper	< 10	10	ug/l	1	06/07/13	06/11/13	ND	SW846 6010C <sup>1</sup>
Iron	179	100	ug/l	1	06/07/13	06/11/13	ND	SW846 6010C <sup>1</sup>
Lead	3.8	3.0	ug/l	1	06/07/13	06/11/13	ND	SW846 6010C <sup>1</sup>
Magnesium	36800	5000	ug/l	1	06/07/13	06/11/13	ND	SW846 6010C <sup>1</sup>
Manganese	3160	15	ug/l	1	06/07/13	06/11/13	ND	SW846 6010C <sup>1</sup>
Mercury	< 0.20	0.20	ug/l	1	06/13/13	06/13/13	DP	SW846 7470A <sup>3</sup>
Nickel	16.1	10	ug/l	1	06/07/13	06/11/13	ND	SW846 6010C <sup>1</sup>
Potassium	< 10000	10000	ug/l	1	06/07/13	06/11/13	ND	SW846 6010C <sup>1</sup>
Selenium	28.5	10	ug/l	1	06/07/13	06/11/13	ND	SW846 6010C <sup>1</sup>
Silver	< 10	10	ug/l	1	06/07/13	06/11/13	ND	SW846 6010C <sup>1</sup>
Sodium	87700	10000	ug/l	1	06/07/13	06/11/13	ND	SW846 6010C <sup>1</sup>
Thallium	< 1.0	1.0	ug/l	2	06/07/13	06/12/13	VC	SW846 6020A <sup>2</sup>
Vanadium	< 50	50	ug/l	1	06/07/13	06/11/13	ND	SW846 6010C <sup>1</sup>
Zinc	< 20	20	ug/l	1	06/07/13	06/11/13	ND	SW846 6010C <sup>1</sup>

- (1) Instrument QC Batch: MA31410  
 (2) Instrument QC Batch: MA31431  
 (3) Instrument QC Batch: MA31440  
 (4) Prep QC Batch: MP72450  
 (5) Prep QC Batch: MP72450A  
 (6) Prep QC Batch: MP72562

*8/19/13*

RL = Reporting Limit

## Report of Analysis

Page 1 of 1

Client Sample ID:	MW-8	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-2F	Date Received:	06/04/13
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	< 0.010	0.010	mg/l	1	06/04/13 10:13	MET	SW846 7196A
Chromium, Trivalent <sup>a</sup>	< 0.020	0.020	mg/l	1	06/11/13 00:09	ND	SW846 6010/7196A M

(a) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit

## Report of Analysis

Page 1 of 2

Client Sample ID:	MW-XX	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-3	Date Received:	06/04/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IC117114.D	1	06/08/13	MD	n/a	n/a	VIC5189
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	8.3	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.14	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.30	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.21	ug/l	
75-25-2	Bromoform	ND	4.0	0.21	ug/l	
74-83-9	Bromomethane	ND	2.0	0.22	ug/l	
78-93-3	2-Butanone (MEK)	13.2 J	10	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.17	ug/l	
135-98-8	sec-Butylbenzene	5.2	5.0	0.21	ug/l	
98-06-6	tert-Butylbenzene	1.2	5.0	0.30	ug/l	J
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
75-00-3	Chloroethane	ND	1.0	0.26	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.21	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.15	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.30	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	0.54	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.14	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.20	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.22	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.30	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.27	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.11	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.19	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.19	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.21	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.48	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.23	ug/l	

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

*John 8/13*

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b> MW-XX	<b>Date Sampled:</b> 06/03/13
<b>Lab Sample ID:</b> JB38641-3	<b>Date Received:</b> 06/04/13
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> Via Verde, 700-730 Brook Avenue, Bronx, NY	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	5.0	0.15	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.30	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	52.4	1.0	0.23	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.24	ug/l	
98-82-8	Isopropylbenzene	28.3	2.0	0.45	ug/l	
99-87-6	p-Isopropyltoluene	0.62	5.0	0.22	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.16	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.83	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.26	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.70	ug/l	
91-20-3	Naphthalene	12.0	5.0	1.1	ug/l	
103-65-1	n-Propylbenzene	46.3	5.0	0.24	ug/l	
100-42-5	Styrene	ND	5.0	0.21	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.28	ug/l	
108-88-3	Toluene	4.9	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.28	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.27	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.53	ug/l	
95-63-6	1,2,4-Trimethylbenzene	4.3	2.0	0.19	ug/l	
108-67-8	1,3,5-Trimethylbenzene	1.1	2.0	0.36	ug/l	J
75-01-4	Vinyl chloride	ND	1.0	0.21	ug/l	
	m,p-Xylene	15.8	1.0	0.42	ug/l	
95-47-6	o-Xylene	1.5	1.0	0.24	ug/l	
1330-20-7	Xylene (total)	17.3	1.0	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-119%
17060-07-0	1,2-Dichloroethane-D4	96%		74-122%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	90%		76-116%

ND = Not detected      MDL - Method Detection Limit  
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J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
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## Report of Analysis

Page 1 of 3

Client Sample ID:	MW-XX	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-3	Date Received:	06/04/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F25028.D	1	06/16/13	NAP	06/05/13	OP66558	EF5253
Run #2							

Run #	Initial Volume	Final Volume
Run #1	870 ml	1.0 ml
Run #2		

## ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.7	1.1	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.7	2.1	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.7	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.7	1.8	ug/l	
51-28-5	2,4-Dinitrophenol	ND	23	19	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	23	1.1	ug/l	
95-48-7	2-Methylphenol	ND	2.3	1.2	ug/l	
	3&4-Methylphenol	ND	2.3	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	5.7	1.7	ug/l	
100-02-7	4-Nitrophenol	ND	11	6.0	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.6	ug/l	
108-95-2	Phenol	ND	2.3	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.7	1.8	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.7	1.5	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.30	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.26	ug/l	
98-86-2	Acetophenone	ND	2.3	0.33	ug/l	
120-12-7	Anthracene	ND	1.1	0.33	ug/l	
1912-24-9	Atrazine	ND	5.7	0.56	ug/l	
100-52-7	Benzaldehyde	ND	5.7	3.7	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.26	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.26	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.52	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.37	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.59	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.3	0.41	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.3	0.33	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.35	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.3	0.34	ug/l	
106-47-8	4-Chloroaniline	ND	5.7	0.61	ug/l	
86-74-8	Carbazole	ND	1.1	0.41	ug/l	
105-60-2	Caprolactam	ND	2.3	0.79	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

2015/7/13

4.5  
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## Report of Analysis

Page 2 of 3

Client Sample ID: MW-XX  
 Lab Sample ID: JB38641-3  
 Matrix: AQ - Ground Water  
 Method: SW846 8270D SW846 3510C  
 Project: Via Verde, 700-730 Brook Avenue, Bronx, NY

Date Sampled: 06/03/13  
 Date Received: 06/04/13  
 Percent Solids: n/a

4.5  
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## ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	1.1	0.33	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.3	0.35	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.3	0.35	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.3	0.52	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.3	0.36	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	2.3	0.49	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	2.3	0.53	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.7	0.41	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.43	ug/l	
132-64-9	Dibenzofuran	ND	5.7	0.30	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.3	0.64	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.3	0.35	ug/l	
84-66-2	Diethyl phthalate	ND	2.3	0.38	ug/l	
131-11-3	Dimethyl phthalate	ND	2.3	0.33	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.3	0.67	ug/l	
206-44-0	Fluoranthene	0.58	1.1	0.37	ug/l	J
86-73-7	Fluorene	ND	1.1	0.32	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.39	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.59	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	8.2	ug/l	
67-72-1	Hexachloroethane	ND	2.3	0.63	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.43	ug/l	
78-59-1	Isophorone	ND	2.3	0.31	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	0.44	ug/l	
88-74-4	2-Nitroaniline	ND	5.7	1.3	ug/l	
99-09-2	3-Nitroaniline	ND	5.7	1.4	ug/l	
100-01-6	4-Nitroaniline	ND	5.7	1.9	ug/l	
91-20-3	Naphthalene	1.5 J	1.1	0.30	ug/l	
98-95-3	Nitrobenzene	ND	2.3	0.48	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.3	0.35	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.7	0.35	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.34	ug/l	
129-00-0	Pyrene	0.48	1.1	0.31	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	32%		10-110%
4165-62-2	Phenol-d5	23%		10-110%
118-79-6	2,4,6-Tribromophenol	71%		29-143%
4165-60-0	Nitrobenzene-d5	90%		31-130%

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

JB  
 6/7/13



## Report of Analysis

Page 3 of 3

Client Sample ID:	MW-XX	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-3	Date Received:	06/04/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

## ABN TCL List (CLP4.2 list)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	84%		35-120%
1718-51-0	Terphenyl-d14	72%		14-152%

ND = Not detected MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

Client Sample ID:	MW-XX	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-3	Date Received:	06/04/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8082A SW846 3510C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF120968.D	1	06/11/13	JR	06/05/13	OP66554	GEF4776
Run #2							

Run #	Initial Volume	Final Volume
Run #1	950 ml	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.53	0.13	ug/l	
11104-28-2	Aroclor 1221	ND	0.53	0.29	ug/l	
11141-16-5	Aroclor 1232	ND	0.53	0.41	ug/l	
53469-21-9	Aroclor 1242	ND	0.53	0.091	ug/l	
12672-29-6	Aroclor 1248	ND	0.53	0.15	ug/l	
11097-69-1	Aroclor 1254	ND	0.53	0.15	ug/l	
11096-82-5	Aroclor 1260	ND	0.53	0.22	ug/l	
11100-14-4	Aroclor 1268	ND	0.53	0.14	ug/l	
37324-23-5	Aroclor 1262	ND	0.53	0.063	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		25-143%
877-09-8	Tetrachloro-m-xylene	85%		25-143%
2051-24-3	Decachlorobiphenyl	55%		10-134%
2051-24-3	Decachlorobiphenyl	53%		10-134%

ND = Not detected MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

Client Sample ID:	MW-XX	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-3F	Date Received:	06/04/13
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

## Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Antimony	< 1.0	1.0	ug/l	2	06/07/13	06/12/13 VC	SW846 6020A <sup>2</sup>	SW846 3010A <sup>5</sup>
Arsenic	5.9	3.0	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Beryllium	< 1.0	1.0	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 3.0	3.0	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Calcium	141000	5000	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Cobalt	< 50	50	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Copper	< 10	10	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Iron	209	100	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Lead	< 3.0 <i>UJ</i>	3.0	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Magnesium	36300	5000	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Manganese	3220	15	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/13/13	06/13/13 DP	SW846 7470A <sup>3</sup>	SW846 7470A <sup>6</sup>
Nickel	15.1	10	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Potassium	< 10000	10000	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10 <i>UJ</i>	10	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Silver	< 10	10	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Sodium	95000	10000	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Thallium	< 1.0	1.0	ug/l	2	06/07/13	06/12/13 VC	SW846 6020A <sup>2</sup>	SW846 3010A <sup>5</sup>
Vanadium	< 50	50	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>

- (1) Instrument QC Batch: MA31416  
 (2) Instrument QC Batch: MA31431  
 (3) Instrument QC Batch: MA31440  
 (4) Prep QC Batch: MP72450  
 (5) Prep QC Batch: MP72450A  
 (6) Prep QC Batch: MP72562

*John 8/19/13*

RL = Reporting Limit

4.6  
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## Report of Analysis

Page 1 of 1

Client Sample ID:	MW-XX	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-3F	Date Received:	06/04/13
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

4.6

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## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent <sup>a</sup>	< 0.010 <i>R</i>	0.010	mg/l	1	06/04/13 10:58	MET	SW846 7196A
Chromium, Trivalent <sup>b</sup>	< 0.020	0.020	mg/l	1	06/12/13 02:34	JY	SW846 6010/7196A M

(a) Analysis done out of holding time as per client request.

(b) Calculated as: (Chromium) - (Chromium, Hexavalent)

*JA 8/9/13*

RL = Reporting Limit

## Report of Analysis

Page 1 of 2

Client Sample ID:	FIELD BLANK 6/3	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-4	Date Received:	06/04/13
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1C117000.D	1	06/06/13	TYG	n/a	n/a	V1C5184
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.14	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.30	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.21	ug/l	
75-25-2	Bromoform	ND	4.0	0.21	ug/l	
74-83-9	Bromomethane	ND	2.0	0.22	ug/l	
78-93-3	2-Butanone (MEK)	ND R	10	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.17	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.21	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.30	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
75-00-3	Chloroethane	ND	1.0	0.26	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.21	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.15	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.30	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	0.54	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.14	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.20	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.22	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.30	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.27	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.11	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.19	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.19	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.21	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.48	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.23	ug/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

8/7/13

4.7  
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## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b>	FIELD BLANK 6/3	<b>Date Sampled:</b>	06/03/13
<b>Lab Sample ID:</b>	JB38641-4	<b>Date Received:</b>	06/04/13
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	Via Verde, 700-730 Brook Avenue, Bronx, NY		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	5.0	0.15	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.30	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.23	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.24	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.45	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.16	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.83	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.26	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.70	ug/l	
91-20-3	Naphthalene	ND	5.0	1.1	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.24	ug/l	
100-42-5	Styrene	ND	5.0	0.21	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.28	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.28	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.27	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.53	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.19	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.36	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.21	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.24	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-119%
17060-07-0	1,2-Dichloroethane-D4	101%		74-122%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	93%		76-116%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 3

Client Sample ID:	FIELD BLANK 6/3	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-4	Date Received:	06/04/13
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F25029.D	1	06/16/13	NAP	06/05/13	OP66558	EF5253
Run #2							

Run #	Initial Volume	Final Volume
Run #1	640 ml	1.0 ml
Run #2		

## ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	7.8	1.5	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	7.8	2.8	ug/l	
120-83-2	2,4-Dichlorophenol	ND	7.8	1.8	ug/l	
105-67-9	2,4-Dimethylphenol	ND	7.8	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	31	26	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	31	1.5	ug/l	
95-48-7	2-Methylphenol	ND	3.1	1.6	ug/l	
	3&4-Methylphenol	ND	3.1	1.4	ug/l	
88-75-5	2-Nitrophenol	ND	7.8	2.3	ug/l	
100-02-7	4-Nitrophenol	ND	16	8.1	ug/l	
87-86-5	Pentachlorophenol	ND	16	2.2	ug/l	
108-95-2	Phenol	ND	3.1	2.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	7.8	2.4	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	7.8	2.0	ug/l	
83-32-9	Acenaphthene	ND	1.6	0.41	ug/l	
208-96-8	Acenaphthylene	ND	1.6	0.36	ug/l	
98-86-2	Acetophenone	ND	3.1	0.45	ug/l	
120-12-7	Anthracene	ND	1.6	0.45	ug/l	
1912-24-9	Atrazine	ND	7.8	0.76	ug/l	
100-52-7	Benzaldehyde	ND	7.8	5.1	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.6	0.35	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.6	0.35	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.6	0.71	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.6	0.50	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.6	0.80	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	3.1	0.56	ug/l	
85-68-7	Butyl benzyl phthalate	ND	3.1	0.45	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.6	0.47	ug/l	
91-58-7	2-Chloronaphthalene	ND	3.1	0.46	ug/l	
106-47-8	4-Chloroaniline	ND	7.8	0.83	ug/l	
86-74-8	Carbazole	ND	1.6	0.56	ug/l	
105-60-2	Caprolactam	ND	3.1	1.1	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	FIELD BLANK 6/3	<b>Date Sampled:</b>	06/03/13
<b>Lab Sample ID:</b>	JB38641-4	<b>Date Received:</b>	06/04/13
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270D SW846 3510C		
<b>Project:</b>	Via Verde, 700-730 Brook Avenue, Bronx, NY		

## ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	1.6	0.45	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	3.1	0.48	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	3.1	0.48	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	3.1	0.71	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	3.1	0.49	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	3.1	0.67	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	3.1	0.72	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	7.8	0.56	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.6	0.59	ug/l	
132-64-9	Dibenzofuran	ND	7.8	0.41	ug/l	
84-74-2	Di-n-butyl phthalate	ND	3.1	0.87	ug/l	
117-84-0	Di-n-octyl phthalate	ND	3.1	0.48	ug/l	
84-66-2	Diethyl phthalate	ND	3.1	0.51	ug/l	
131-11-3	Dimethyl phthalate	ND	3.1	0.44	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	3.1	0.92	ug/l	
206-44-0	Fluoranthene	ND	1.6	0.50	ug/l	
86-73-7	Fluorene	ND	1.6	0.43	ug/l	
118-74-1	Hexachlorobenzene	ND	1.6	0.53	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.6	0.80	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	16	11	ug/l	
67-72-1	Hexachloroethane	ND	3.1	0.86	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.6	0.58	ug/l	
78-59-1	Isophorone	ND	3.1	0.43	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.6	0.60	ug/l	
88-74-4	2-Nitroaniline	ND	7.8	1.7	ug/l	
99-09-2	3-Nitroaniline	ND	7.8	2.0	ug/l	
100-01-6	4-Nitroaniline	ND	7.8	2.6	ug/l	
91-20-3	Naphthalene	ND	1.6	0.40	ug/l	
98-95-3	Nitrobenzene	ND	3.1	0.65	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	3.1	0.47	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	7.8	0.48	ug/l	
85-01-8	Phenanthrene	ND	1.6	0.46	ug/l	
129-00-0	Pyrene	ND	1.6	0.42	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	77%		10-110%
4165-62-2	Phenol-d5	74%		10-110%
118-79-6	2,4,6-Tribromophenol	76%		29-143%
4165-60-0	Nitrobenzene-d5	78%		31-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

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Client Sample ID:	FIELD BLANK 6/3	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-4	Date Received:	06/04/13
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

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## ABN TCL List (CLP4.2 list)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	77%		35-120%
1718-51-0	Terphenyl-d14	79%		14-152%

ND = Not detected MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

Client Sample ID:	FIELD BLANK 6/3	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-4	Date Received:	06/04/13
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Method:	SW846 8082A SW846 3510C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF120969.D	1	06/11/13	JR	06/05/13	OP66554	GEF4776
Run #2							

Run #	Initial Volume	Final Volume
Run #1	890 ml	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.56	0.14	ug/l	
11104-28-2	Aroclor 1221	ND	0.56	0.30	ug/l	
11141-16-5	Aroclor 1232	ND	0.56	0.43	ug/l	
53469-21-9	Aroclor 1242	ND	0.56	0.097	ug/l	
12672-29-6	Aroclor 1248	ND	0.56	0.16	ug/l	
11097-69-1	Aroclor 1254	ND	0.56	0.16	ug/l	
11096-82-5	Aroclor 1260	ND	0.56	0.23	ug/l	
11100-14-4	Aroclor 1268	ND	0.56	0.15	ug/l	
37324-23-5	Aroclor 1262	ND	0.56	0.067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%		25-143%
877-09-8	Tetrachloro-m-xylene	120%		25-143%
2051-24-3	Decachlorobiphenyl	62%		10-134%
2051-24-3	Decachlorobiphenyl	57%		10-134%

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

Client Sample ID: FIELD BLANK 6/3  
 Lab Sample ID: JB38641-4F  
 Matrix: AQ - Field Blank Filtered

Date Sampled: 06/03/13  
 Date Received: 06/04/13  
 Percent Solids: n/a

Project: Via Verde, 700-730 Brook Avenue, Bronx, NY

## Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Antimony	< 1.0	1.0	ug/l	2	06/07/13	06/12/13 VC	SW846 6020A <sup>2</sup>	SW846 3010A <sup>5</sup>
Arsenic	< 3.0	3.0	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Beryllium	< 1.0	1.0	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 3.0	3.0	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Calcium	< 5000	5000	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Cobalt	< 50	50	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Copper	< 10	10	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Iron	< 100	100	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Lead	< 3.0	3.0	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Magnesium	< 5000	5000	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Manganese	< 15	15	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/13/13	06/13/13 DP	SW846 7470A <sup>3</sup>	SW846 7470A <sup>6</sup>
Nickel	< 10	10	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Potassium	< 10000	10000	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Silver	< 10	10	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Sodium	< 10000	10000	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Thallium	< 1.0	1.0	ug/l	2	06/07/13	06/12/13 VC	SW846 6020A <sup>2</sup>	SW846 3010A <sup>5</sup>
Vanadium	< 50	50	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/07/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>

- (1) Instrument QC Batch: MA31416  
 (2) Instrument QC Batch: MA31431  
 (3) Instrument QC Batch: MA31440  
 (4) Prep QC Batch: MP72450  
 (5) Prep QC Batch: MP72450A  
 (6) Prep QC Batch: MP72562

RL = Reporting Limit

## Report of Analysis

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<b>Client Sample ID:</b> FIELD BLANK 6/3	<b>Date Sampled:</b> 06/03/13
<b>Lab Sample ID:</b> JB38641-4F	<b>Date Received:</b> 06/04/13
<b>Matrix:</b> AQ - Field Blank Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> Via Verde, 700-730 Brook Avenue, Bronx, NY	

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## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent <sup>a</sup>	< 0.010	0.010	mg/l	1	06/04/13 10:13	MET	SW846 7196A
Chromium, Trivalent <sup>b</sup>	< 0.020	0.020	mg/l	1	06/12/13 02:40	JY	SW846 6010/7196A M

(a) Analyzed from non-filtered sample.

(b) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit

## Report of Analysis

Page 1 of 2

Client Sample ID:	TRIP BLANK 6/3	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-5	Date Received:	06/04/13
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1C117001.D	1	06/06/13	TYG	n/a	n/a	VIC5184
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.14	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.30	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.21	ug/l	
75-25-2	Bromoform	ND	4.0	0.21	ug/l	
74-83-9	Bromomethane	ND	2.0	0.22	ug/l	
78-93-3	2-Butanone (MEK)	ND R	10	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.17	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.21	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.30	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
75-00-3	Chloroethane	ND	1.0	0.26	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.21	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.15	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.30	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	0.54	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.14	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.20	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.22	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.30	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.27	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.11	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.19	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.19	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.21	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.48	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.23	ug/l	

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

Page 2 of 2

Client Sample ID:	TRIP BLANK 6/3	Date Sampled:	06/03/13
Lab Sample ID:	JB38641-5	Date Received:	06/04/13
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	5.0	0.15	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.30	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.23	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.24	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.45	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.16	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.83	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.26	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.70	ug/l	
91-20-3	Naphthalene	ND	5.0	1.1	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.24	ug/l	
100-42-5	Styrene	ND	5.0	0.21	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.28	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.28	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.27	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.53	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.19	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.36	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.21	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.24	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-119%
17060-07-0	1,2-Dichloroethane-D4	101%		74-122%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	93%		76-116%

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 2

Client Sample ID:	MW-7	Date Sampled:	06/04/13
Lab Sample ID:	JB38761-1	Date Received:	06/05/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y134968.D	1	06/06/13	RS	n/a	n/a	VY5816
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.14	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.30	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.21	ug/l	
75-25-2	Bromoform	ND	4.0	0.21	ug/l	
74-83-9	Bromomethane	ND	2.0	0.22	ug/l	
78-93-3	2-Butanone (MEK)	ND <sup>R</sup>	10	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.17	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.21	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.30	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
75-00-3	Chloroethane	ND	1.0	0.26	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.21	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.15	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.30	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	0.54	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.14	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.20	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.22	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.30	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.27	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.11	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.19	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.19	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.21	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.48	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.23	ug/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

Page 2 of 2

Client Sample ID:	MW-7	Date Sampled:	06/04/13
Lab Sample ID:	JB38761-1	Date Received:	06/05/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	5.0	0.15	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.30	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.23	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.24	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.45	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.16	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.83	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.26	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.70	ug/l	
91-20-3	Naphthalene	ND	5.0	1.1	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.24	ug/l	
100-42-5	Styrene	ND	5.0	0.21	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.28	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.28	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.27	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.53	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.19	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.36	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.21	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.24	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		80-119%
17060-07-0	1,2-Dichloroethane-D4	92%		74-122%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	103%		76-116%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 3

Client Sample ID:	MW-7	Date Sampled:	06/04/13
Lab Sample ID:	JB38761-1	Date Received:	06/05/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P24423.D	1	06/15/13	ALS	06/06/13	OP66578	E2P1064
Run #2							

Run #	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

## ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.3	1.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.3	1.9	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.3	1.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.3	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	17	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	21	1.0	ug/l	
95-48-7	2-Methylphenol	ND	2.1	1.1	ug/l	
	3&4-Methylphenol	ND	2.1	0.97	ug/l	
88-75-5	2-Nitrophenol	ND	5.3	1.6	ug/l	
100-02-7	4-Nitrophenol	ND	11	5.5	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.5	ug/l	
108-95-2	Phenol	ND	2.1	1.3	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.3	1.6	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.3	1.4	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.28	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.24	ug/l	
98-86-2	Acetophenone	ND	2.1	0.30	ug/l	
120-12-7	Anthracene	ND	1.1	0.30	ug/l	
1912-24-9	Atrazine	ND	5.3	0.51	ug/l	
100-52-7	Benzaldehyde	ND	5.3	3.4	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.24	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.24	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.54	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.1	0.38	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.1	0.30	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.1	0.32	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.1	0.31	ug/l	
106-47-8	4-Chloroaniline	ND	5.3	0.56	ug/l	
86-74-8	Carbazole	ND	1.1	0.38	ug/l	
105-60-2	Caprolactam	ND	2.1	0.73	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 3

<b>Client Sample ID:</b> MW-7	<b>Date Sampled:</b> 06/04/13
<b>Lab Sample ID:</b> JB38761-1	<b>Date Received:</b> 06/05/13
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8270D SW846 3510C	
<b>Project:</b> Via Verde, 700-730 Brook Avenue, Bronx, NY	

## ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	1.1	0.30	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.1	0.32	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.1	0.32	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.1	0.48	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.1	0.33	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	2.1	0.45	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	2.1	0.49	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.38	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.40	ug/l	
132-64-9	Dibenzofuran	ND	5.3	0.28	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.1	0.58	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.1	0.32	ug/l	
84-66-2	Diethyl phthalate	ND	2.1	0.34	ug/l	
131-11-3	Dimethyl phthalate	ND	2.1	0.30	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.62	ug/l	
206-44-0	Fluoranthene	ND	1.1	0.33	ug/l	
86-73-7	Fluorene	ND	1.1	0.29	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.36	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.54	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	7.5	ug/l	
67-72-1	Hexachloroethane	ND	2.1	0.58	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.39	ug/l	
78-59-1	Isophorone	ND	2.1	0.29	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	0.40	ug/l	
88-74-4	2-Nitroaniline	ND	5.3	1.2	ug/l	
99-09-2	3-Nitroaniline	ND	5.3	1.3	ug/l	
100-01-6	4-Nitroaniline	ND	5.3	1.7	ug/l	
91-20-3	Naphthalene	1.8	1.1	0.27	ug/l	
98-95-3	Nitrobenzene	ND	2.1	0.44	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.1	0.32	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.32	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.31	ug/l	
129-00-0	Pyrene	ND	1.1	0.28	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	58%		10-110%
4165-62-2	Phenol-d5	40%		10-110%
118-79-6	2,4,6-Tribromophenol	108%		29-143%
4165-60-0	Nitrobenzene-d5	96%		31-130%

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

Page 3 of 3

<b>Client Sample ID:</b> MW-7	<b>Date Sampled:</b> 06/04/13
<b>Lab Sample ID:</b> JB38761-1	<b>Date Received:</b> 06/05/13
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8270D SW846 3510C	
<b>Project:</b> Via Verde, 700-730 Brook Avenue, Bronx, NY	

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## ABN TCL List (CLP4.2 list)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	100%		35-120%
1718-51-0	Terphenyl-d14	102%		14-152%

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

Client Sample ID:	MW-7	Date Sampled:	06/04/13
Lab Sample ID:	JB38761-1	Date Received:	06/05/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8082A SW846 3510C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF121007.D	1	06/11/13	JR	06/06/13	OP66580	GEF4777
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.56	0.14	ug/l	
11104-28-2	Aroclor 1221	ND	0.56	0.30	ug/l	
11141-16-5	Aroclor 1232	ND	0.56	0.43	ug/l	
53469-21-9	Aroclor 1242	ND	0.56	0.096	ug/l	
12672-29-6	Aroclor 1248	ND	0.56	0.16	ug/l	
11097-69-1	Aroclor 1254	ND	0.56	0.16	ug/l	
11096-82-5	Aroclor 1260	ND	0.56	0.23	ug/l	
11100-14-4	Aroclor 1268	ND	0.56	0.14	ug/l	
37324-23-5	Aroclor 1262	ND	0.56	0.067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	75%		25-143%
877-09-8	Tetrachloro-m-xylene	85%		25-143%
2051-24-3	Decachlorobiphenyl	69%		10-134%
2051-24-3	Decachlorobiphenyl	65%		10-134%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
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 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

Client Sample ID: MW-7

Lab Sample ID: JB38761-1F

Matrix: AQ - Groundwater Filtered

Date Sampled: 06/04/13

Date Received: 06/05/13

Percent Solids: n/a

Project: Via Verde, 700-730 Brook Avenue, Bronx, NY

## Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Antimony	< 1.0	1.0	ug/l	2	06/11/13	06/19/13 VC	SW846 6020A <sup>3</sup>	SW846 3010A <sup>5</sup>
Arsenic	< 3.0	3.0	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Beryllium	< 1.0	1.0	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 3.0	3.0	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Calcium	121000	5000	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Cobalt	< 50	50	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Copper	< 10	10	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Iron	< 100	100	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Lead	< 3.0	3.0	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Magnesium	24200	5000	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Manganese	49.0	15	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/14/13	06/14/13 AA	SW846 7470A <sup>2</sup>	SW846 7470A <sup>6</sup>
Nickel	< 10	10	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Potassium	< 10000	10000	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Silver	< 10	10	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Sodium	66200	10000	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Thallium	< 1.0	1.0	ug/l	2	06/11/13	06/19/13 VC	SW846 6020A <sup>3</sup>	SW846 3010A <sup>5</sup>
Vanadium	< 50	50	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA31422

(2) Instrument QC Batch: MA31447

(3) Instrument QC Batch: MA31475

(4) Prep QC Batch: MP72509

(5) Prep QC Batch: MP72509A

(6) Prep QC Batch: MP72593

RL = Reporting Limit

4.2  
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## Report of Analysis

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Client Sample ID:	MW-7	Date Sampled:	06/04/13
Lab Sample ID:	JB38761-1F	Date Received:	06/05/13
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

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## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	< 0.010	0.010	mg/l	1	06/05/13 10:42	RI	SW846 7196A
Chromium, Trivalent <sup>a</sup>	< 0.020	0.020	mg/l	1	06/12/13 18:45	JY	SW846 6010/7196A M

(a) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit

## Report of Analysis

Page 1 of 2

Client Sample ID:	MW-9	Date Sampled:	06/04/13
Lab Sample ID:	JB38761-2	Date Received:	06/05/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y135207.D	1	06/12/13	RS	n/a	n/a	VY5827
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	4.1	10	3.3	ug/l	J
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.14	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.30	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.21	ug/l	
75-25-2	Bromoform	ND	4.0	0.21	ug/l	
74-83-9	Bromomethane	ND	2.0	0.22	ug/l	
78-93-3	2-Butanone (MEK)	ND R	10	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.17	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.21	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.30	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
75-00-3	Chloroethane	ND	1.0	0.26	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.21	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.15	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.30	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	0.54	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.14	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.20	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.22	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.30	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.27	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.11	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.19	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.19	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.21	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.48	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.23	ug/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

Page 2 of 2

Client Sample ID:	MW-9	Date Sampled:	06/04/13
Lab Sample ID:	JB38761-2	Date Received:	06/05/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	5.0	0.15	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.30	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.23	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.24	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.45	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.16	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.83	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.26	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.70	ug/l	
91-20-3	Naphthalene	ND	5.0	1.1	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.24	ug/l	
100-42-5	Styrene	ND	5.0	0.21	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.28	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.28	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.27	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.53	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.19	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.36	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.21	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.24	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-119%
17060-07-0	1,2-Dichloroethane-D4	92%		74-122%
2037-26-5	Toluene-D8	91%		80-120%
460-00-4	4-Bromofluorobenzene	94%		76-116%

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 3

Client Sample ID:	MW-9	Date Sampled:	06/04/13
Lab Sample ID:	JB38761-2	Date Received:	06/05/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P24424.D	1	06/15/13	ALS	06/06/13	OP66578	E2P1064
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

## ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.97	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.8	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	1.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.5	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	17	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	20	0.99	ug/l	
95-48-7	2-Methylphenol	ND	2.0	1.0	ug/l	
	3&4-Methylphenol	ND	2.0	0.93	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	1.5	ug/l	
100-02-7	4-Nitrophenol	ND	10	5.2	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.4	ug/l	
108-95-2	Phenol	ND	2.0	1.3	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.6	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.3	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.26	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.23	ug/l	
98-86-2	Acetophenone	ND	2.0	0.29	ug/l	
120-12-7	Anthracene	ND	1.0	0.29	ug/l	
1912-24-9	Atrazine	ND	5.0	0.49	ug/l	
100-52-7	Benzaldehyde	ND	5.0	3.3	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.23	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.23	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.46	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.32	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.51	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.36	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.29	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.30	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.30	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.53	ug/l	
86-74-8	Carbazole	ND	1.0	0.36	ug/l	
105-60-2	Caprolactam	ND	2.0	0.69	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 3

Client Sample ID:	MW-9	Date Sampled:	06/04/13
Lab Sample ID:	JB38761-2	Date Received:	06/05/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

## ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	1.0	0.29	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.31	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.31	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.45	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.31	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	2.0	0.43	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	2.0	0.46	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.36	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.38	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.27	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.56	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.31	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.33	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.28	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	0.81	2.0	0.59	ug/l	J
206-44-0	Fluoranthene	ND	1.0	0.32	ug/l	
86-73-7	Fluorene	ND	1.0	0.28	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.34	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.51	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	7.1	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.55	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.37	ug/l	
78-59-1	Isophorone	ND	2.0	0.27	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.38	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	1.1	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	1.3	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	1.7	ug/l	
91-20-3	Naphthalene	1.4	1.0	0.26	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.42	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.30	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.31	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.29	ug/l	
129-00-0	Pyrene	ND	1.0	0.27	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	45%		10-110%
4165-62-2	Phenol-d5	32%		10-110%
118-79-6	2,4,6-Tribromophenol	97%		29-143%
4165-60-0	Nitrobenzene-d5	79%		31-130%

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 3 of 3

Client Sample ID: MW-9  
Lab Sample ID: JB38761-2  
Matrix: AQ - Ground Water  
Method: SW846 8270D SW846 3510C  
Project: Via Verde, 700-730 Brook Avenue, Bronx, NY

Date Sampled: 06/04/13  
Date Received: 06/05/13  
Percent Solids: n/a

4.3

4

## ABN TCL List (CLP4.2 list)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	83%		35-120%
1718-51-0	Terphenyl-d14	87%		14-152%

ND = Not detected MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

Client Sample ID:	MW-9	Date Sampled:	06/04/13
Lab Sample ID:	JB38761-2	Date Received:	06/05/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8082A SW846 3510C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF121006.D	1	06/11/13	JR	06/06/13	OP66580	GEF4777
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.56	0.14	ug/l	
11104-28-2	Aroclor 1221	ND	0.56	0.30	ug/l	
11141-16-5	Aroclor 1232	ND	0.56	0.43	ug/l	
53469-21-9	Aroclor 1242	ND	0.56	0.096	ug/l	
12672-29-6	Aroclor 1248	ND	0.56	0.16	ug/l	
11097-69-1	Aroclor 1254	ND	0.56	0.16	ug/l	
11096-82-5	Aroclor 1260	ND	0.56	0.23	ug/l	
11100-14-4	Aroclor 1268	ND	0.56	0.14	ug/l	
37324-23-5	Aroclor 1262	ND	0.56	0.067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	68%		25-143%
877-09-8	Tetrachloro-m-xylene	76%		25-143%
2051-24-3	Decachlorobiphenyl	46%		10-134%
2051-24-3	Decachlorobiphenyl	43%		10-134%

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

Client Sample ID:	MW-9	Date Sampled:	06/04/13
Lab Sample ID:	JB38761-2F	Date Received:	06/05/13
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

## Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Antimony	< 1.0	1.0	ug/l	2	06/11/13	06/19/13 VC	SW846 6020A <sup>3</sup>	SW846 3010A <sup>5</sup>
Arsenic	< 3.0	3.0	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Beryllium	< 1.0	1.0	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 3.0	3.0	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Calcium	119000	5000	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Cobalt	< 50	50	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Copper	< 10	10	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Iron	< 100	100	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Lead	< 3.0	3.0	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Magnesium	8920	5000	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Manganese	782	15	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/14/13	06/14/13 AA	SW846 7470A <sup>2</sup>	SW846 7470A <sup>6</sup>
Nickel	86.4	10	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Potassium	12700	10000	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Silver	< 10	10	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Sodium	96700	10000	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Thallium	< 1.0	1.0	ug/l	2	06/11/13	06/19/13 VC	SW846 6020A <sup>3</sup>	SW846 3010A <sup>5</sup>
Vanadium	< 50	50	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/11/13	06/12/13 JY	SW846 6010C <sup>1</sup>	SW846 3010A <sup>4</sup>

- (1) Instrument QC Batch: MA31422  
 (2) Instrument QC Batch: MA31447  
 (3) Instrument QC Batch: MA31475  
 (4) Prep QC Batch: MP72509  
 (5) Prep QC Batch: MP72509A  
 (6) Prep QC Batch: MP72593

RL = Reporting Limit

## Report of Analysis

Page 1 of 1

Client Sample ID:	MW-9	Date Sampled:	06/04/13
Lab Sample ID:	JB38761-2F	Date Received:	06/05/13
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

4.4  
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## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent <sup>a</sup>	<0.010 <i>R</i>	0.010	mg/l	1	06/05/13 10:42	RI	SW846 7196A
Chromium, Trivalent <sup>b</sup>	<0.020	0.020	mg/l	1	06/12/13 19:56	JY	SW846 6010/7196A M

(a) Analysis done out of holding time. *(B)*

(b) Calculated as: (Chromium) - (Chromium, Hexavalent)

*for 8/9/13*

RL = Reporting Limit

**Appendix B  
Chain of Custody  
Documents**



## CHAIN OF CUSTODY

PAGE 1 OF 1

2235 Route 130, Dayton, NJ 08810  
TEL: 732-319-0200 FAX: 732-319-3499/3480  
www.accutest.comFED. EX. # 7999-0380-3536  
Accutest Order #

Order Code #

JB 38641

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)		Matrix Codes	
Company Name <b>CA Rich Consultants, Inc.</b>	Project Name <b>VIA Verde</b>	Street <b>Brown Ave</b>	Billing Information (if different from Report to) Company Name <b>NY</b>	Requested Analysis (see TEST CODE sheet)		Matrix Codes	
Street Address <b>14 Dupont St</b>	City <b>Plainview, NY 11803</b>	City <b>BRONX</b>	State <b>NY</b>	Requested Analysis (see TEST CODE sheet)		Matrix Codes	
Project Contact <b>Rich Tzoo Rizzo@carichinc.com</b>	Email <b>516576 8844 516576 0093</b>	Project #	Street Address	Requested Analysis (see TEST CODE sheet)		Matrix Codes	
Phone #	Client Purchase Order #	City	State	Requested Analysis (see TEST CODE sheet)		Matrix Codes	
Sample(s) Name(s) <b>Mr. Yager + T. Brown</b>	Project Manager	Address		Requested Analysis (see TEST CODE sheet)		Matrix Codes	
Field ID / Point of Collection	MECH/DELIV #	Date	Time	Sampled by	Matrix	# of bottles	Number of preserved bottles
1 F MW-6		6/13/13	1220	MY/TB	GW	9	3
2 F MW-8		6/13/13	1015	MY/TB	GW	9	3
3 F MW-XX		6/13/13	---	MY/TB	GW	9	3
4 Field Blank 6/13		6/13/13	1230	MY/TB	FB	8	2
5 Trip Blank 6/13		6/13/13	---	TB	TB	1	1
				SW-1	SW-2	SW-3	SW-4
				SW-5	SW-6	SW-7	SW-8
				SW-9	SW-10	SW-11	SW-12
				SW-13	SW-14	SW-15	SW-16
				SW-17	SW-18	SW-19	SW-20
				SW-21	SW-22	SW-23	SW-24
				SW-25	SW-26	SW-27	SW-28
				SW-29	SW-30	SW-31	SW-32
				SW-33	SW-34	SW-35	SW-36
				SW-37	SW-38	SW-39	SW-40
				SW-41	SW-42	SW-43	SW-44
				SW-45	SW-46	SW-47	SW-48
				SW-49	SW-50	SW-51	SW-52
				SW-53	SW-54	SW-55	SW-56
				SW-57	SW-58	SW-59	SW-60
				SW-61	SW-62	SW-63	SW-64
				SW-65	SW-66	SW-67	SW-68
				SW-69	SW-70	SW-71	SW-72
				SW-73	SW-74	SW-75	SW-76
				SW-77	SW-78	SW-79	SW-80
				SW-81	SW-82	SW-83	SW-84
				SW-85	SW-86	SW-87	SW-88
				SW-89	SW-90	SW-91	SW-92
				SW-93	SW-94	SW-95	SW-96
				SW-97	SW-98	SW-99	SW-100
				SW-101	SW-102	SW-103	SW-104
				SW-105	SW-106	SW-107	SW-108
				SW-109	SW-110	SW-111	SW-112
				SW-113	SW-114	SW-115	SW-116
				SW-117	SW-118	SW-119	SW-120
				SW-121	SW-122	SW-123	SW-124
				SW-125	SW-126	SW-127	SW-128
				SW-129	SW-130	SW-131	SW-132
				SW-133	SW-134	SW-135	SW-136
				SW-137	SW-138	SW-139	SW-140
				SW-141	SW-142	SW-143	SW-144
				SW-145	SW-146	SW-147	SW-148
				SW-149	SW-150	SW-151	SW-152
				SW-153	SW-154	SW-155	SW-156
				SW-157	SW-158	SW-159	SW-160
				SW-161	SW-162	SW-163	SW-164
				SW-165	SW-166	SW-167	SW-168
				SW-169	SW-170	SW-171	SW-172
				SW-173	SW-174	SW-175	SW-176
				SW-177	SW-178	SW-179	SW-180
				SW-181	SW-182	SW-183	SW-184
				SW-185	SW-186	SW-187	SW-188
				SW-189	SW-190	SW-191	SW-192
				SW-193	SW-194	SW-195	SW-196
				SW-197	SW-198	SW-199	SW-200
				SW-201	SW-202	SW-203	SW-204
				SW-205	SW-206	SW-207	SW-208
				SW-209	SW-210	SW-211	SW-212
				SW-213	SW-214	SW-215	SW-216
				SW-217	SW-218	SW-219	SW-220
				SW-221	SW-222	SW-223	SW-224
				SW-225	SW-226	SW-227	SW-228
				SW-229	SW-230	SW-231	SW-232
				SW-233	SW-234	SW-235	SW-236
				SW-237	SW-238	SW-239	SW-240
				SW-241	SW-242	SW-243	SW-244
				SW-245	SW-246	SW-247	SW-248
				SW-249	SW-250	SW-251	SW-252
				SW-253	SW-254	SW-255	SW-256
				SW-257	SW-258	SW-259	SW-260
				SW-261	SW-262	SW-263	SW-264
				SW-265	SW-266	SW-267	SW-268
				SW-269	SW-270	SW-271	SW-272
				SW-273	SW-274	SW-275	SW-276
				SW-277	SW-278	SW-279	SW-280
				SW-281	SW-282	SW-283	SW-284
				SW-285	SW-286	SW-287	SW-288
				SW-289	SW-290	SW-291	SW-292
				SW-293	SW-294	SW-295	SW-296
				SW-297	SW-298	SW-299	SW-300
				SW-301	SW-302	SW-303	SW-304
				SW-305	SW-306	SW-307	SW-308
				SW-309	SW-310	SW-311	SW-312
				SW-313	SW-314	SW-315	SW-316
				SW-317	SW-318	SW-319	SW-320
				SW-321	SW-322	SW-323	SW-324
				SW-325	SW-326	SW-327	SW-328
				SW-329	SW-330	SW-331	SW-332
				SW-333	SW-334	SW-335	SW-336
				SW-337	SW-338	SW-339	SW-340
				SW-341	SW-342	SW-343	SW-344
				SW-345	SW-346	SW-347	SW-348
				SW-349	SW-350	SW-351	SW-352
				SW-353	SW-354	SW-355	SW-356
				SW-357	SW-358	SW-359	SW-360
				SW-361	SW-362	SW-363	SW-364
				SW-365	SW-366	SW-367	SW-368
				SW-369	SW-370	SW-371	SW-372
				SW-373	SW-374	SW-375	SW-376
				SW-377	SW-378	SW-379	SW-380
				SW-381	SW-382	SW-383	SW-384
				SW-385	SW-386	SW-387	SW-388
				SW-389	SW-390	SW-391	SW-392
				SW-393	SW-394	SW-395	SW-396
				SW-397	SW-398	SW-399	SW-400
				SW-401	SW-402	SW-403	SW-404
				SW-405	SW-406	SW-407	SW-408
				SW-409	SW-410	SW-411	SW-412
				SW-413	SW-414	SW-415	SW-416
				SW-417	SW-418	SW-419	SW-420
				SW-421	SW-422	SW-423	SW-424
				SW-425	SW-426	SW-427	SW-428
				SW-429	SW-430	SW-431	SW-432
				SW-433	SW-434	SW-435	SW-436
				SW-437	SW-438	SW-439	SW-440
				SW-441	SW-442	SW-443	SW-444
				SW-445	SW-446	SW-447	SW-448
				SW-449	SW-450	SW-451	SW-452
				SW-453	SW-454	SW-455	SW-456
				SW-457	SW-458	SW-459	SW-460
				SW-461	SW-462	SW-463	SW-464
				SW-465	SW-466	SW-467	SW-468
				SW-469	SW-470	SW-471	SW-472
				SW-473	SW-474	SW-475	SW-476
				SW-477	SW-478	SW-479	SW-480
				SW-481	SW-482	SW-483	SW-484
				SW-485	SW-486	SW-487	SW-488
				SW-489	SW-490	SW-491	SW-492
				SW-493	SW-494	SW-495	SW-496
				SW-497	SW-498	SW-499	SW-500
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				SW-521	SW-522	SW-523	SW-524
				SW-525	SW-526	SW-527	SW-528
				SW-529	SW-530	SW-531	SW-532
				SW-533	SW-534	SW-535	SW-536
				SW-537	SW-538	SW-539	SW-540
				SW-541	SW-542	SW-543	SW-544
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				SW-553	SW-554	SW-555	SW-556
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				SW-561	SW-562	SW-563	SW-564
				SW-565	SW-566	SW-567	SW-568
				SW-569	SW-570	SW-571	SW-572
				SW-573	SW-574	SW-575	SW-576
				SW-577	SW-578	SW-579	SW-580
				SW-581	SW-582	SW-583	SW-584
				SW-585	SW-586	SW-587	SW-588
				SW-589	SW-590	SW-591	SW-592
				SW-593	SW-594	SW-595	SW-596
				SW-597	SW-598	SW-599	SW-600
				SW-601	SW-602	SW-603	SW-604
				SW-605	SW-606	SW-607	SW-608
				SW-609	SW-610	SW-611	SW-612
				SW-613	SW-614	SW-615	SW-616
				SW-617	SW-618	SW-619	SW-620
				SW-621	SW-622	SW-623	SW-624
				SW-625	SW-626	SW-627	SW-628
				SW-629	SW-630	SW-631	SW-632
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				SW-665	SW-666	SW-667	SW-668
				SW-669	SW-670	SW-671	SW-672
				SW-673	SW-674	SW-675	SW-676
				SW-677	SW-678	SW-679	SW-680
				SW-681	SW-682	SW-683	SW-684
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				SW-689	SW-690	SW-691	SW-692
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				SW-697	SW-698	SW-699	SW-700
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				SW-705	SW-706	SW-707	SW-708
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				SW-713	SW-714	SW-715	SW-716
				SW-717	SW-718	SW-719	SW-720
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				SW-729	SW-730	SW-731	SW-732
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				SW-753	SW-754	SW-755	SW-756
				SW-757	SW-758	SW-759	SW-760
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				SW-777	SW-778	SW-779	SW-780
				SW-781	SW-782	SW-783	SW-784
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				SW-793	SW-794	SW-795	SW-796
				SW-797	SW-798	SW-799	SW-800
				SW-801	SW-802	SW-803	SW-804
				SW-805	SW-806	SW-807	SW-808
				SW-809	SW-810	SW-811	SW-812
				SW-813	SW-814	SW-815	SW-816
				SW-817	SW-818	SW-819	SW-820
				SW-821	SW-822	SW-823	SW-824
				SW-825	SW-826	SW-827	SW-828
				SW-829	SW-830	SW-831	SW-832
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				SW-837	SW-838	SW-839	SW-840
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				SW-861	SW-862	SW-863	SW-864
				SW-865	SW-866	SW-867	SW-868
				SW-869	SW-870	SW-871	SW-872
				SW-873	SW-874	SW-875	SW-876
				SW-877	SW-878	SW-879	SW-880
				SW-881	SW-882	SW-883	





## Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JB38641

Client: CA RICH

Project: VIA VERDE

Date / Time Received: 6/4/2013 9:45

Delivery Method: FedEx

Airbill #'s: 799903803536

Cooler Temps (Initial/Adjusted): #1: (2/2); #2: (3/3); 0

### Cooler Security

Y or N

1. Custody Seals Present: ☒ ☐  
2. Custody Seals Intact: ☒ ☐

3. COC Present: ☒ ☐  
4. Smpl Dates/Time OK: ☒ ☐

### Cooler Temperature

Y or N

1. Temp criteria achieved: ☒ ☐  
2. Cooler temp verification: Bar Therm  
3. Cooler media: Ice (Bag)  
4. No. Coolers: 2

### Quality Control Preservation

Y N N/A

1. Trip Blank present / cooler: ☒ ☐ ☐  
2. Trip Blank listed on COC: ☒ ☐ ☐  
3. Samples preserved properly: ☒ ☐ ☐  
4. VOCs headspace free: ☒ ☐ ☐

### Sample Integrity - Documentation

Y or N

1. Sample labels present on bottles: ☒ ☐  
2. Container labeling complete: ☒ ☐  
3. Sample container label / COC agree: ☒ ☐

### Sample Integrity - Condition

Y or N

1. Sample recvd within HT: ☒ ☐  
2. All containers accounted for: ☒ ☐  
3. Condition of sample: Intact

### Sample Integrity - Instructions

Y N N/A

1. Analysis requested is clear: ☒ ☐  
2. Bottles received for unspecified tests: ☐ ☒  
3. Sufficient volume recvd for analysis: ☒ ☐  
4. Compositing instructions clear: ☐ ☐ ☒  
5. Filtering instructions clear: ☐ ☐ ☒

Comments -2F XCR SAMPLES TAKEN DIRECTLY TO LAB UPON RECEIPT.

-2F MW-6: TAKEN 6/3/13 AT 10:15, SAMPLE MADE 24 HR HOLD TIME.

-3F MW-XX TAKEN 6/3/13 NO TIME ON SAMPLES OR COC, JUST A HASH MARK.  
VISUALLY -2F AND 3-F APPEAR TO BE THE DUP. IF THIS IS THE CASE THIS SAMPLE DID NOT MAKE 24HR HOLD TIME.

-4 XCR LAB FILTER AND METALS VOLUMES RECEIVED NOT CHECKED OFF ON COC. FILTER REQUEST SENT FOR BOTH.

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Dayton, New Jersey  
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JB38641: Chain of Custody

Page 2 of 3



## Sample Receipt Summary - Problem Resolution

Accutest Job Number: JB38641

CSR: Michelle

Response Date: 6/4/2013

Response: -3F, use time of 1015  
ok to run -2 and -3 out of HT  
-4, please run for dissolved metals, XCR and CR3

Per Jason Cooper

5.1  
61

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JB38641: Chain of Custody  
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CW

## CHAIN OF CUSTODY

2235 Route 130, Dayton, NJ 08810  
TEL: 732-329-0260 FAX: 732-329-3499/3480  
[www.aacutest.com](http://www.aacutest.com)

7999 1586 4325

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FED-EX Tracking #	7999 1586 4369
Accession Order #	

Byte Order Control

Recent Job #

JB3876

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**JB38761: Chain of Custody**

Page 1 of 3



## Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JB38761

Client: CA RICH - NY

Project: VIA VERDE

Date / Time Received: 6/5/2013 9:45

Delivery Method: FedEx

Airbill #s:

Cooler Temps (Initial/Adjusted): #1: (3/3); #2: (2/2); 0

### Cooler Security

Y or N

1. Custody Seals Present: ☒ ☐  
2. Custody Seals Intact: ☒ ☐

3. COC Present: ☒ ☐  
4. Smpl Dates/Time OK: ☒ ☐

### Cooler Temperature

Y or N

1. Temp criteria achieved: ☒ ☐  
2. Cooler temp verification: Bar Therm  
3. Cooler media: Ice (Bag)  
4. No. Coolers: 2

### Quality Control - Preservation

Y

N

N/A

1. Trip Blank present / cooler: ☐ ☒ ☐  
2. Trip Blank listed on COC: ☒ ☐ ☐  
3. Samples preserved properly: ☒ ☐ ☐  
4. VOCs headspace free: ☒ ☐ ☐

### Sample Integrity - Documentation

Y or N

1. Sample labels present on bottles: ☒ ☐  
2. Container labeling complete: ☐ ☒  
3. Sample container label / COC agree: ☒ ☐

### Sample Integrity - Condition

Y or N

1. Sample recvd within HT: ☒ ☐  
2. All containers accounted for: ☒ ☐  
3. Condition of sample: Intact

### Sample Integrity - Instructions

Y

N

N/A

1. Analysis requested is clear: ☒ ☐  
2. Bottles received for unspecified tests: ☐ ☒  
3. Sufficient volume recvd for analysis: ☒ ☐  
4. Compositing instructions clear: ☐ ☐ ☒  
5. Filtering instructions clear: ☐ ☐ ☒

Comments -2 NO COLLECTION TIMES ON COC OR LABEL. PLEASE VERIFY COLLECTION TIME. \

DID NOT REC TRIP BLANK

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JB38761: Chain of Custody

Page 2 of 3



## Sample Receipt Summary - Problem Resolution

Accutest Job Number: JB38761

CSR: Michelle

Response Date: 6/5/2013

Response: -2, please use time of 1245  
Jason Cooper notified of missing TB

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**JB38761: Chain of Custody**  
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**Appendix C  
Case Narratives**



## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** C. A. Rich Consultants

**Job No** JB38641

**Site:** Via Verde, 700-730 Brook Avenue, Bronx, NY

**Report Date** 6/26/2013 6:20:19 PM

On 06/04/2013, 3 Sample(s), 1 Trip Blank(s) and 2 Field Blank(s) were received at Accutest Laboratories at a temperature of 3 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB38641 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

<b>Matrix:</b> AQ	<b>Batch ID:</b> VIC5184
-------------------	--------------------------

- ☐ All samples were analyzed within the recommended method holding time.
- ☐ All method blanks for this batch meet method specific criteria.
- ☐ Sample(s) JB38586-4MS, JB38586-4MSD were used as the QC samples indicated.
- ☐ Blank Spike Recovery(s) for 1,1,2,2-Tetrachloroethane are outside control limits. High percent recoveries and no associated positive found in the QC batch.
- ☐ RPD(s) for MSD for Dichlorodifluoromethane, Trichlorofluoromethane are outside control limits for sample JB38586-4MSD. Outside control limits due to matrix interference.

<b>Matrix:</b> AQ	<b>Batch ID:</b> VIC5189
-------------------	--------------------------

- ☐ All samples were analyzed within the recommended method holding time.
- ☐ Sample(s) JB38737-2MS, JB38737-2MSD were used as the QC samples indicated.
- ☐ All method blanks for this batch meet method specific criteria.

### Extractables by GCMS By Method SW846 8270D

<b>Matrix:</b> AQ	<b>Batch ID:</b> OP66558
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- ☐ All samples were extracted within the recommended method holding time.
- ☐ Sample(s) JB38641-2MS, JB38641-2MSD were used as the QC samples indicated.
- ☐ All method blanks for this batch meet method specific criteria.
- ☐ Blank Spike Recovery(s) for 4-Chloroaniline are outside control limits. Outside of in house control limits.

### Extractables by GC By Method SW846 8082A

<b>Matrix:</b> AQ	<b>Batch ID:</b> OP66554
-------------------	--------------------------

- ☐ All samples were extracted within the recommended method holding time.
- ☐ All method blanks for this batch meet method specific criteria.
- ☐ Sample(s) JB38646-2MS, JB38646-2MSD, OP66554-MSMSD were used as the QC samples indicated.

### Metals By Method SW846 6010C

<b>Matrix:</b> AQ	<b>Batch ID:</b> MP72450
-------------------	--------------------------

- ☐ All samples were digested within the recommended method holding time.
- ☐ All method blanks for this batch meet method specific criteria.
- ☐ Sample(s) JB38641-2FMS, JB38641-2FMDS, JB38641-2FSDL were used as the QC samples for metals.
- ☐ RPD(s) for Serial Dilution for Aluminum, Arsenic, Cadmium, Chromium, Lead, Nickel, Selenium, Zinc are outside control limits for sample MP72450-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- ☐ RPD(s) for Serial Dilution for Iron are outside control limits for sample MP72450-SD1. Serial dilution indicates possible matrix interference.

### Metals By Method SW846 6020A

<b>Matrix:</b> AQ	<b>Batch ID:</b> MP72450A
-------------------	---------------------------

- ☐ All samples were digested within the recommended method holding time.
- ☐ All method blanks for this batch meet method specific criteria.
- ☐ Sample(s) JB38641-2FMS, JB38641-2FMDS, JB38641-2FSDL were used as the QC samples for metals.
- ☐ RPD(s) for Serial Dilution for Antimony, Thallium are outside control limits for sample MP72450A-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

### Metals By Method SW846 7470A

<b>Matrix:</b> AQ	<b>Batch ID:</b> MP72562
-------------------	--------------------------

- ☐ All samples were digested within the recommended method holding time.
- ☐ All method blanks for this batch meet method specific criteria.
- ☐ Sample(s) JB38574-2MS, JB38574-2MSD, JB38574-2DUP were used as the QC samples for metals.
- ☐ RPD(s) for Duplicate for Mercury are outside control limits for sample MP72562-D1. RPD acceptable due to low duplicate and sample concentrations.

### Wet Chemistry By Method SW846 6010/7196A M

<b>Matrix:</b> AQ	<b>Batch ID:</b> R123805
-------------------	--------------------------

- ☐ The data for SW846 6010/7196A M meets quality control requirements.
- ☐ JB38641-2F for Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)

<b>Matrix:</b> AQ	<b>Batch ID:</b> R123854
-------------------	--------------------------

- ☐ The data for SW846 6010/7196A M meets quality control requirements.
- ☐ JB38641-1F for Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)

<b>Matrix:</b> AQ	<b>Batch ID:</b> R123855
-------------------	--------------------------

- ☐ The data for SW846 6010/7196A M meets quality control requirements.
- ☐ JB38641-3F for Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)

<b>Matrix:</b> AQ	<b>Batch ID:</b> R124098
-------------------	--------------------------

- ☐ The data for SW846 6010/7196A M meets quality control requirements.
- ☐ JB38641-4F for Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)



## Wet Chemistry By Method SW846 7196A

Matrix: AQ

Batch ID: GN86138

2

- ☐ All samples were analyzed within the recommended method holding time.
- ☐ All method blanks for this batch meet method specific criteria.
- ☐ Sample(s) JB38641-1FDUP, JB38641-1FMS were used as the QC samples for Chromium, Hexavalent.
- ☐ JB38641-4F for Chromium, Hexavalent: Analyzed from non-filtered sample.
- ☐ JB38641-3F for Chromium, Hexavalent: Analysis done out of holding time as per client request.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** C. A. Rich Consultants

**Job No** JB38761

**Site:** Via Verde, 700-730 Brook Avenue, Bronx, NY

**Report Date** 6/24/2013 5:06:25 PM

On 06/05/2013, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories at a temperature of 3 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB38761 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix:** AQ

**Batch ID:** VY5816

- ☐ All samples were analyzed within the recommended method holding time.
- ☐ Sample(s) JB38761-1MS, JB38761-1MSD were used as the QC samples indicated.
- ☐ All method blanks for this batch meet method specific criteria.

**Matrix:** AQ

**Batch ID:** VY5827

- ☐ All samples were analyzed within the recommended method holding time.
- ☐ All method blanks for this batch meet method specific criteria.
- ☐ Sample(s) JB39170-16MS, JB39170-16MSD were used as the QC samples indicated.

### Extractables by GCMS By Method SW846 8270D

**Matrix:** AQ

**Batch ID:** OP66578

- ☐ All samples were extracted within the recommended method holding time.
- ☐ Sample(s) JB38761-1MS, JB38761-1MSD were used as the QC samples indicated.
- ☐ All method blanks for this batch meet method specific criteria.

### Extractables by GC By Method SW846 8082A

**Matrix:** AQ

**Batch ID:** OP66580

- ☐ All samples were extracted within the recommended method holding time.
- ☐ All method blanks for this batch meet method specific criteria.
- ☐ Sample(s) JB38761-1MS, JB38761-1MSD were used as the QC samples indicated.

### Metals By Method SW846 6010C

**Matrix:** AQ

**Batch ID:** MP72509

- ☐ All samples were digested within the recommended method holding time.
- ☐ All method blanks for this batch meet method specific criteria.
- ☐ Sample(s) JB38761-1FMS, JB38761-1FMSD, JB38761-1FSDL were used as the QC samples for metals.
- ☐ RPD(s) for Serial Dilution for Aluminum, Chromium, Cobalt, Copper, Iron, Nickel, Selenium, Silver, Vanadium, Zinc are outside control limits for sample MP72509-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

**Metals By Method SW846 6020A**

<b>Matrix:</b> AQ	<b>Batch ID:</b> MP72509A
-------------------	---------------------------

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB38761-1FMS, JB38761-1FMSD, JB38761-1FSDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Antimony, Thallium are outside control limits for sample MP72509A-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

**Metals By Method SW846 7470A**

<b>Matrix:</b> AQ	<b>Batch ID:</b> MP72593
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- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB38761-1FMS, JB38761-1FMSD were used as the QC samples for metals.

**Wet Chemistry By Method SW846 6010/7196A M**

<b>Matrix:</b> AQ	<b>Batch ID:</b> R123908
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- The data for SW846 6010/7196A M meets quality control requirements.
- JB38761-1F for Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)

<b>Matrix:</b> AQ	<b>Batch ID:</b> R123909
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- The data for SW846 6010/7196A M meets quality control requirements.
- JB38761-2F for Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)

**Wet Chemistry By Method SW846 7196A**

<b>Matrix:</b> AQ	<b>Batch ID:</b> GN86218
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- All method blanks for this batch meet method specific criteria.
- Sample(s) JB38761-1FDUP, JB38761-1FMS were used as the QC samples for Chromium, Hexavalent.
- JB38761-2F for Chromium, Hexavalent: Analysis done out of holding time.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover