

Prepared for:

**Bulova Corporation**  
**New York, New York**

Prepared By:

**Ramboll Environ US Corporation**  
**Princeton, New Jersey**

Date

**June 2016**

Project Number

**02-1961B**

# **ADDITIONAL SAMPLING RESULTS**

## **101 GREEN ACRES ROAD SITE**

### **VALLEY STREAM, NEW YORK**

#### **NYSDEC SITE NO. 1-30-084**

## CONTENTS

<b>1.</b>	<b>SITE OVERVIEW</b>	<b>1</b>
1.1	Site Description	1
1.1.1	Location and Physical Setting	1
1.1.2	Geology	1
1.1.3	Site History	2
1.2	Prior Investigation/Interim Action Activities	3
<b>2.</b>	<b>ADDITIONAL SAMPLING RESULTS</b>	<b>4</b>
2.1	Overview	4
2.2	Institutional Control and Environmental Covenant	4
2.3	Groundwater Monitoring	4
2.3.1	Water Level Measurements and Sampling Procedures	4
2.3.2	Groundwater Sampling Results	5
2.3.3	Quality Assurance/Quality Control Analytical Results	5
2.4	Vapor Intrusion Evaluation	6
2.4.1	Annual Inspection of Building Conditions	6
2.5	Data Usability	6
<b>3.</b>	<b>CONCLUSIONS</b>	<b>7</b>

## TABLES

Table 1:	Groundwater Elevation Data
Table 2:	Summary of Groundwater Analytical Results - September 2015/March 2016
Table 3:	Summary of Quality Assurance/Quality Control Results

## FIGURES

Figure 1:	Site Location Map
Figure 2:	Site Layout and Sample Location Map
Figure 3:	Groundwater Potentiometric Surface Map – September 2015
Figure 4:	Groundwater Potentiometric Surface Map – March 2016

## APPENDICES

Appendix A:	Institutional and Engineering Controls Certification Approval
Appendix B:	Institutional and Engineering Controls Certification Form
Appendix C:	Groundwater Field Parameters
Appendix D:	MW-HD4 Groundwater Contaminant Concentration Trends
	D1: Ramboll Environ Graphs
	D2: NYSDEC Graphs
Appendix E:	Data Usability Summary Reports

## ATTACHMENTS

Attachment A:	Laboratory Deliverables
---------------	-------------------------

## 1. SITE OVERVIEW

Ramboll Environ US Corporation (Ramboll Environ), on behalf of Bulova Corporation (Bulova), has prepared this report to document the findings of additional sampling activities conducted at the 101 Green Acres Road Site in Valley Stream, New York (the Site). The Site location is depicted on Figure 1. The scope of the sampling activities was based on the New York State Department of Environmental Conservation's (NYSDEC) review of the *Annual Sampling Results* report (Ramboll Environ, June 2014) and detailed in the correspondence from NYSDEC dated June 19, 2014 and August 13, 2014. In the August 2014 correspondence, NYSDEC and the New York State Department of Health (NYSDOH) agreed to allow Bulova to discontinue indoor air sampling at the Site. As such, this report provides results of groundwater monitoring conducted in September 2015 and March 2016.

The following sections provide relevant background information, summarize the additional groundwater sampling completed at the Site, and present conclusions based on the results of the additional sampling activities. Detailed information regarding the Site history and the results of the prior investigation activities were previously provided to NYSDEC in reports prepared by Ramboll Environ and Weston Solutions, Inc. (Weston).

### 1.1 Site Description

#### 1.1.1 Location and Physical Setting

The Site is located in the Town of Hempstead, Nassau County, New York, in a mixed-use urban area with residential, commercial, and light industrial properties. The Site is included in the Lynbrook, New York USGS topographic quadrangle and the Site location is depicted on Figure 1. The Site covers approximately 7.2 acres and is bordered to the northwest and northeast by retail stores and paved parking areas. The Green Acres shopping mall is immediately northeast of the Site. The northern limits of the retail stores and parking areas are bordered by Sunrise Highway and the Far Rockaway branch of the Long Island Rail Road. A residential area is adjacent to the eastern property boundary. Light industrial facilities, including distribution and shipping companies, are located to the south of the Site at the Airport Industrial Office Park (AIOP). John F. Kennedy International Airport is approximately 2 miles southwest of the Site.

Hook Creek, an intermittent stream, is located beyond the western edge of the Site. The creek receives storm water drainage from the Site as well as from upgradient areas including paved parking areas, Sunrise Highway, and the Long Island Rail Road adjacent to Sunrise Highway. Hook Creek flows south, merges with Valley Stream approximately 0.5 miles south of the Site, and then flows to the west, discharging to Jamaica Bay. Clear Stream, located approximately 0.3 miles southeast of the Site, flows to the south and joins Valley Stream approximately 0.2 miles upstream of Hook Creek. In the vicinity of the Site, the Nassau/Queens County line roughly follows Hook Creek.

#### 1.1.2 Geology

The Site is located within Long Island's glacial outwash plain, which extends 10 miles southward from the Ronkonkoma and Harbor Hill terminal moraines to the south shore. Surface topography at the Site is flat, with surface elevations ranging from approximately 8 to 10 feet above mean sea level (amsl). Topography in the vicinity of the Site is also

generally flat and gently slopes toward the south and southeast in the direction of Hook Creek and Valley Stream. The Site is underlain by upper Pleistocene deposits, which form the upper glacial aquifer. The upper Pleistocene deposits consist mainly of stratified beds of fine to coarse sand and of sand and gravel. Thin beds of silt and clay are often interbedded with the coarse-grained material. The upper glacial aquifer is underlain by the “20-foot” clay and the Gardiners Clay. The “20-foot” clay is lithologically similar to the underlying Gardiners Clay and the two units are distinguished primarily by stratigraphic position. In some portions of southern Nassau County, the “20-foot” clay is separated from the Gardiners Clay by a layer of upper Pleistocene deposits. The “20-foot” clay and the Gardiners Clay represent the major confining layers within the upper portion of the groundwater reservoir beneath Nassau County. Additional information related to the regional geology is detailed in the Geologic Review and Well Record Search Results letter report (ENVIRON, April 16, 1998).

Based on observations during the prior site investigations, geologic conditions at and in the vicinity of the Site are consistent with the findings of regional geologic investigations. The Site is underlain by fine to medium sands. Groundwater is located approximately 5 feet below ground surface (bgs). Regional geologic investigation reports indicate that the northern boundary of the “20-foot” clay is present in the vicinity of the Site, and the site investigation results indicate that the “20-foot” clay is discontinuous beneath the Site. Where the “20-foot” clay is present, a thin layer of upper Pleistocene deposits appear to be positioned between the “20-foot” clay and the Gardiners Clay. The top of the “20-foot” clay has been encountered at depths of 38 – 45 feet bgs and the top of the Gardiners Clay has been encountered at depths of 45 – 52 feet bgs.

### 1.1.3 Site History

Industrial operations at the Site are believed to have started in the late 1920s with the construction of the Curtiss-Wright Airport in 1929.<sup>1</sup> Airport related structures at the Site included airplane hangars and a portion of the runway. Although Curtiss Flying Service abandoned the airfield in approximately 1938, several other air service companies continued to operate the airfield. Occupants included the Columbia Aircraft Corporation, which built airplanes for military and private concerns between 1940 and 1948. The Bulova Watch Company leased the property from 1948 until 1960, when Bulova took title of the property.

When Bulova took occupancy of the Site in 1948, two airplane hangars existed on the eastern portion of the Site. Based on discussions with Bulova personnel, it is believed that Bulova connected the airplane hangars in 1952, creating Building No. 1. Building No. 2 was erected west of Building No. 1 in 1967. During Bulova’s occupancy, the eastern and northern portions of the Site were paved; a portion of the paved area incorporated the original concrete airfield runway, which traversed the eastern portion of the property from north to south. Bulova ceased operations at the Site during 1990 and title of the property was transferred to Home Depot in April 1993.

The Site was redeveloped during 1993. Redevelopment included demolition of all existing Site structures and construction of a Home Depot retail store. The entire Site is currently covered by the Home Depot building and the associated paved parking areas. Potable water

---

<sup>1</sup> Information related to prior site operations was obtained from a Phase I environmental assessment performed by Certified Engineering and Testing Company during 1990.

and sanitary service at the Site are provided by the local municipal authority. Storm water drainage from the building roof and paved parking areas is collected in a series of catch basins and directed via reinforced concrete piping beyond the eastern property boundary.

## **1.2 Prior Investigation/Interim Action Activities**

Numerous phases of investigation and remediation have been completed at the Site, under the oversight of the NYSDEC. Based on the results of prior investigations and remedial actions at the Site, the NYSDEC determined that no further remedial actions are warranted at the Site. As detailed in the Record of Decision (NYSDEC; March 2000), NYSDEC determined that actual or threatened releases of hazardous waste constituents at the Site had been addressed through the implementation of interim response actions and that the response actions had significantly reduced the threat to public health and the environment. Based on the results of the investigations and response actions at the Site, NYSDEC determined in the Record of Decision that no further remedial action was required and that natural attenuation represented an appropriate alternative to address impacted groundwater at the Site. Details of investigation and interim action results completed at the Site have been provided to NYSDEC in prior report submittals.

## 2. ADDITIONAL SAMPLING RESULTS

### 2.1 Overview

Pursuant to NYSDEC's June 19, 2014 and August 13, 2014 correspondence, the additional monitoring for the Site consisted of groundwater sampling in September 2014, March 2015, September 2015, and March 2016. Results of September 2014 and March 2015 sampling activities were provided to NYSDEC in an annual monitoring report dated May 2014 and this report presents the results of the sampling activities completed in September 2015 and March 2016.

The primary objective of the monitoring program is to evaluate potential changes of conditions in groundwater on-site. The groundwater sampling activities in September 2015 and March 2016 were completed in accordance with the revised *Operations and Maintenance Plan* (O&M Plan) which was provided to NYSDEC on April 19, 2012. Results of the additional monitoring activities are summarized below.

### 2.2 Institutional Control and Environmental Covenant

Pursuant to the Record of Decision (March 2000), a Declaration of Covenants and Restrictions was placed on the property prohibiting the installation of potable water wells on-site and providing that non-potable wells may be installed only with approval of the Nassau County Department of Health and the NYSDEC. As described in prior reports, water is provided to the Site by the municipal water supply and therefore groundwater is not used at the Site. Other than monitoring wells, no other non-potable or potable groundwater use wells have been installed at the property.

The Site Declaration of Covenants and Restrictions was amended to include reference to the revised OM&M Plan. It was recorded on April 24, 2013, and was provided to NYSDEC on April 29, 2013. Pursuant to the Declaration of Covenants and Restrictions, an Institutional and Engineering Controls (IC/EC) Certification Form was provided to NYSDEC as part of the Periodic Review Report (PRR) and was included in the 2013 Annual Sampling Results Report. NYSDEC approved the PRR and the IC/EC Certification Form in correspondence dated August 29, 2013. A copy of the August 29, 2013 approval letter is provided as Appendix A. The next PRR and IC/EC Certification submittal is due to NYSDEC by June 6, 2016. A copy of the IC/EC Certification Form is provided as Appendix B.

### 2.3 Groundwater Monitoring

#### 2.3.1 Water Level Measurements and Sampling Procedures

Synoptic groundwater level measurements were collected in conjunction with the groundwater sampling events completed in September 2015 and March 2016. Monitoring well locations are depicted on Figure 2. The depth-to-water measurements were collected at each monitoring well using an electronic interface probe. The depth-to-water measurements and corresponding groundwater elevation data derived from the measurements are presented in Table 1. Potentiometric surface maps associated with the September 2015 and March 2016 gauging/monitoring events are provided as Figures 3 and 4, respectively. Consistent with the results of prior groundwater monitoring events at the Site, water level data collected during the gauging/monitoring events indicate that groundwater flow is directed toward the southeast and generally coincides with local topography.

Groundwater samples were collected from monitoring wells MW-HD4, MW-HD6, and MW-HD7 during the September 2015 and March 2016 sampling events. In addition, one duplicate groundwater sample was also collected from monitoring well MW-HD6 during each sampling event. The groundwater sampling activities were conducted using a stainless steel submersible pump equipped with dedicated discharge tubing. Initial water quality indicator measurements were collected prior to purging each well. The indicator parameters include pH, water temperature, specific conductance, dissolved oxygen, turbidity and oxidation/reduction potential. Water quality indicators were measured during purging and purging continued until indicator values had stabilized or until three well volumes had been purged from the well. Groundwater field parameters are provided in Appendix C.

Each groundwater sample was analyzed for the six primary constituents of concern identified in NYSDEC's March 2000 Record of Decision associated with the Site (i.e., tetrachloroethene [PCE]; trichloroethene [TCE]; 1,1,1-trichloroethane [TCA]; 1,1-Dichloroethane [1,1-DCA]; 1,1,-Dichloroethene [1,1-DCE]; and Freon 113). Laboratory services were provided by SGS Accutest Laboratories of Dayton, New Jersey, an Environmental Laboratory Approval Program (ELAP)-certified laboratory. Laboratory deliverables are provided in Attachment A.

### **2.3.2 Groundwater Sampling Results**

Analytical results from the September 2015 and March 2016 groundwater sampling events are summarized in Table 2. Consistent with prior sampling events at the Site, elevated VOC concentrations were detected in the groundwater sample collected from the monitoring well at the southeast portion of the Site (i.e., MW-HD4) during September 2015, and lower VOC concentrations were encountered in the sample collected from MW-HD4 during March 2016. Reported VOC concentrations at monitoring well MW-HD6, which is at the Site boundary, and off-site monitoring well MW-HD7 were below the laboratory method detection limits and/or the corresponding Ambient Water Quality Standard during both sampling events.

While the reported concentrations of certain VOCs in groundwater samples collected from MW-HD4 are above the NYSDEC Ambient Water Quality criteria, concentrations show an overall decrease since the interim response actions were completed at the Site. In addition, the reported VOC concentrations at MW-HD4 during the recent monitoring events were significantly lower than peak concentrations encountered during 2012/2013. Graphs depicting constituent concentrations in groundwater at the southeast portion of the Site (i.e., MW-HD4) are provided in Appendix D.<sup>2</sup>

### **2.3.3 Quality Assurance/Quality Control Analytical Results**

During the groundwater sampling activities, field and trip blanks were collected to evaluate equipment decontamination procedures and potential cross contamination during sample container storage and shipment. QA/QC samples were analyzed for the same constituents as described above and are reported in Table 3. VOCs were not detected above laboratory method detection limits in field or trip blank samples from the September 2015 and March 2016 groundwater sampling events.

---

<sup>2</sup> The graphs provided in Appendix D also include updated versions of trend graphs provided by NYSDEC during a July 28, 2014 meeting.



## **2.4 Vapor Intrusion Evaluation**

In a letter dated August 13, 2014, the NYSDEC allowed Bulova to discontinue indoor air sampling at the Site. As such, Ramboll Environ did not collect indoor air samples during the March 2016 sampling event.

### **2.4.1 Annual Inspection of Building Conditions**

The current Site owner maintains the building condition and performs periodic maintenance of the building HVAC system. It is Ramboll Environ's understanding that no maintenance was required for the building slab (i.e., no cracks requiring sealing were present). Ramboll Environ completed visual inspections of the building's floor during the September 2015 and March 2016 sampling events. The inspections did not identify any alterations to the floor or any cracks that required sealing.

## **2.5 Data Usability**

In accordance with Section 2.1 and Appendix 2B of the *Technical Guidance for Site Investigation and Remediation* (DER-10; NYSDEC, May 2010), Ramboll Environ has included a Data Usability Summary Report associated with each sampling event described above. The Data Usability Summary Reports are included as Appendix E. As presented in Appendix E, the data usability review determined that the data deliverables associated with each sampling event were complete and that the data quality was acceptable.

### 3. CONCLUSIONS

As detailed above, Ramboll Environ completed additional sampling activities at the 101 Green Acres Road Site in Valley Stream, New York during 2015/2016. The sampling activities included the collection and analysis of groundwater samples from two on-site monitoring wells and one off-site monitoring well.

Consistent with the results of prior groundwater sampling events at the Site, analysis of groundwater samples collected from the monitoring well located at the southeast portion of the Site (i.e., MW-HD4) identified certain VOCs at concentrations above the corresponding Ambient Water Quality Standards. However, reported VOC concentrations in groundwater at the southeastern portion of the Site have decreased since 1995, which is after the interim response actions were completed at the Site. Reported VOC concentrations in groundwater samples collected from MW-HD6 (at the Site boundary) and from the off-site monitoring well were below the laboratory method detection limits and/or the corresponding Ambient Water Quality Standard.

In the Record of Decision associated with the Site (NYSDEC; March 2000), NYSDEC determined that natural attenuation represented an appropriate alternative to address impacted ground water at the Site. Similar to prior sampling results, the recent groundwater monitoring activities have confirmed that VOC concentrations in groundwater are significantly lower than pre-response action concentrations and that off-site groundwater has not been impacted. In addition, the reported VOC concentrations at the southeast portion of the Site during the recent additional monitoring events were significantly lower than peak concentrations encountered during 2012/2013.

Bulova submits that the sustained low VOC concentrations since the 2012/2013 peak concentrations, and the absence of impacts both at the Site boundary and off-site, support a determination that the monitoring program should be terminated. However, in order to provide NYSDEC with additional confidence that VOC concentrations at MW-HD4 are continuing their downward trend, Bulova will defer its formal request to terminate the monitoring program until it has completed another round of semi-annual sampling in September 2016 and March 2017.

02-1961B\PRIN\_WP\41019.docx\v5

## ADDITIONAL SAMPLING RESULTS

## TABLES

**TABLE 1**  
**Groundwater Elevation Data**  
**101 Green Acres Road Site**  
**Valley Stream, New York**

Monitoring Well	Top of Casing Elevation (Feet AMSL)	September 23, 2015		March 10, 2016	
		Depth-to-Water (Feet)	Groundwater Elevation (Feet AMSL)	Depth-to-Water (Feet)	Groundwater Elevation (Feet AMSL)
MW-HD1	9.93	5.79	4.14	5.21	4.72
MW-HD2	9.45	N/A	--	N/A	--
MW-HD3	9.93	N/A	--	N/A	--
MW-HD4	10.09	6.23	3.86	5.67	4.42
MW-HD5	9.45	5.49	3.96	4.97	4.48
MW-HD6	9.97	6.17	3.80	5.61	4.36
MW-HD7	9.33	5.32	4.01	4.83	4.50
<b>Abbreviation:</b> AMSL: Above mean sea level N/A: Not Accessible <b>Notes:</b> MW-HD2 and MW-HD3 were destroyed during resurfacing of the parking lot in 2012.					

**TABLE 2**  
**Summary of Groundwater Analytical Results**  
**101 Green Acres Site**  
**Valley Stream, New York**

Location		HD04	HD04	HD06	HD06
Ramboll Environ Sample ID	Ambient Water	MWHD4-150923	MWHD4-160310	MWHD6-150923	MWHD6-150923D
Sample Method	Quality Criteria	Submersible Pump	Submersible Pump	Submersible Pump	Submersible Pump
Sample Date		9/23/2015	3/10/2016	9/23/2015	9/23/2015
Comments					Field Duplicate
<b>Volatile Organic Compounds</b>					
1,1-Dichloroethane	5	24.6 (1)	10.2 (1)	ND (1)	ND (1)
1,1-Dichloroethene	5	160 (1)	23.6 (1)	ND (1)	ND (1)
Tetrachloroethene	5	1.2 (1)	1.1 (1)	ND (1)	ND (1)
1,1,1-Trichloroethane	5	95.3 (1)	13.1 (1)	ND (1)	ND (1)
Trichloroethene	5	44.8 (1)	10.4 (1)	1.1 (1)	1.2 (1)
Freon 113	5	15.1 (5)	6.6 (5)	ND (5)	ND (5)

**Notes:**

- 1 All concentrations are presented in ug/L (ppb). Detection limits are in parentheses.
- 2 Only compounds with at least one detection are shown.
- 3 Bold concentrations exceed the Ambient Water Quality Criteria.

**Abbreviations:**

ND -- Not Detected.

**TABLE 2**  
**Summary of Groundwater Analytical Results**  
**101 Green Acres Site**  
**Valley Stream, New York**

Location		HD06	HD06	HD07	HD07
Ramboll Environ Sample ID	Ambient Water	MWHD6-160310	MWHD6-160310D	MWHD7-150923	MWHD7-160310
Sample Method	Quality Criteria	Submersible Pump	Submersible Pump	Submersible Pump	Submersible Pump
Sample Date		3/10/2016	3/10/2016	9/23/2015	3/10/2016
Comments		Field Duplicate			
Volatile Organic Compounds					
1,1-Dichloroethane	5	ND (1)	ND (1)	ND (1)	ND (1)
1,1-Dichloroethene	5	ND (1)	ND (1)	ND (1)	ND (1)
Tetrachloroethene	5	ND (1)	ND (1)	ND (1)	ND (1)
1,1,1-Trichloroethane	5	ND (1)	ND (1)	ND (1)	ND (1)
Trichloroethene	5	1.6 (1)	1.6 (1)	0.33 (1)	0.39 J (1)
Freon 113	5	ND (5)	ND (5)	ND (5)	ND (5)

**Notes:**

- 1 All concentrations are presented in ug/L (ppb). Detection limits are in parentheses.
- 2 Only compounds with at least one detection are shown.
- 3 Bold concentrations exceed the Ambient Water Quality Criteria.

**Abbreviations:**

ND -- Not Detected.

**TABLE 3**  
**Summary of QAQC Sampling Results**  
**101 Green Acres Site**  
**Valley Stream, New York**

Location	QAQC	QAQC	QAQC	QAQC
Ramboll Environ Sample ID	FB-150923	TB-150923	FB-160310	TB-160310
Sample Method	Submersible Pump	Submersible Pump	Submersible Pump	Submersible Pump
Sample Date	9/23/2015	9/23/2015	3/10/2016	3/10/2016
Comments	Field Blank	Trip Blank	Field Blank	Trip Blank
<b>Volatile Organic Compounds</b>	ND	ND	ND	ND

**Notes:**

1 None of the analyzed compounds were detected.

**Abbreviations:**

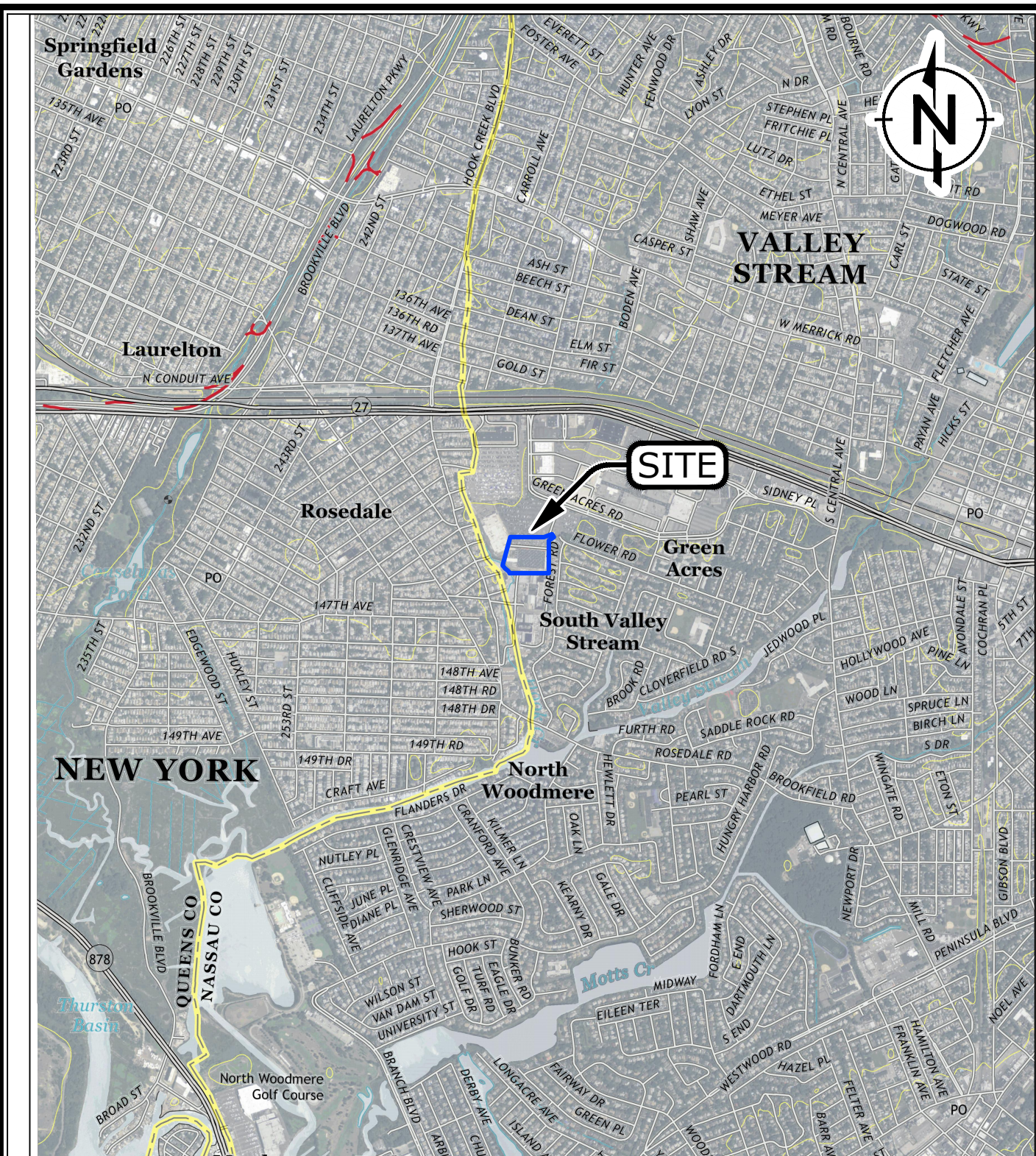
ND -- Not Detected.

## ADDITIONAL SAMPLING RESULTS

## FIGURES

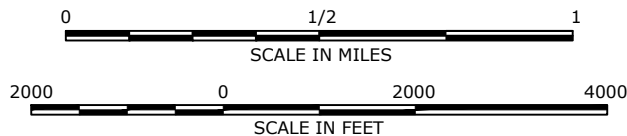


DBLANCHARD 3/31/16 F: 021961\_BULOVA\ANNUAL REPORT < SITE LOC. 021961 >



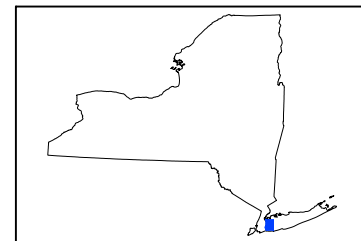
**LEGEND:**

 PROPERTY BOUNDARY (APPROXIMATE)



**NOTES:**  
CONTOUR INTERVAL 10 FEET

**SOURCE:**  
USGS 7.5 MINUTE SERIES TOPOGRAPHIC QUADRANGLE, LYNBROOK, NY-MARCH 22, 2013.  
MAP SCALE; 1:24,000. SITE LOCATION; N: 40.65972° W: 73.72444° WGS84



QUADRANGLE KEY MAP

**RAMBOLL ENVIRON**

**SITE LOCATION MAP**

101 GREEN ACRES ROAD SITE  
VALLEY STREAM, NEW YORK

**FIGURE  
1**

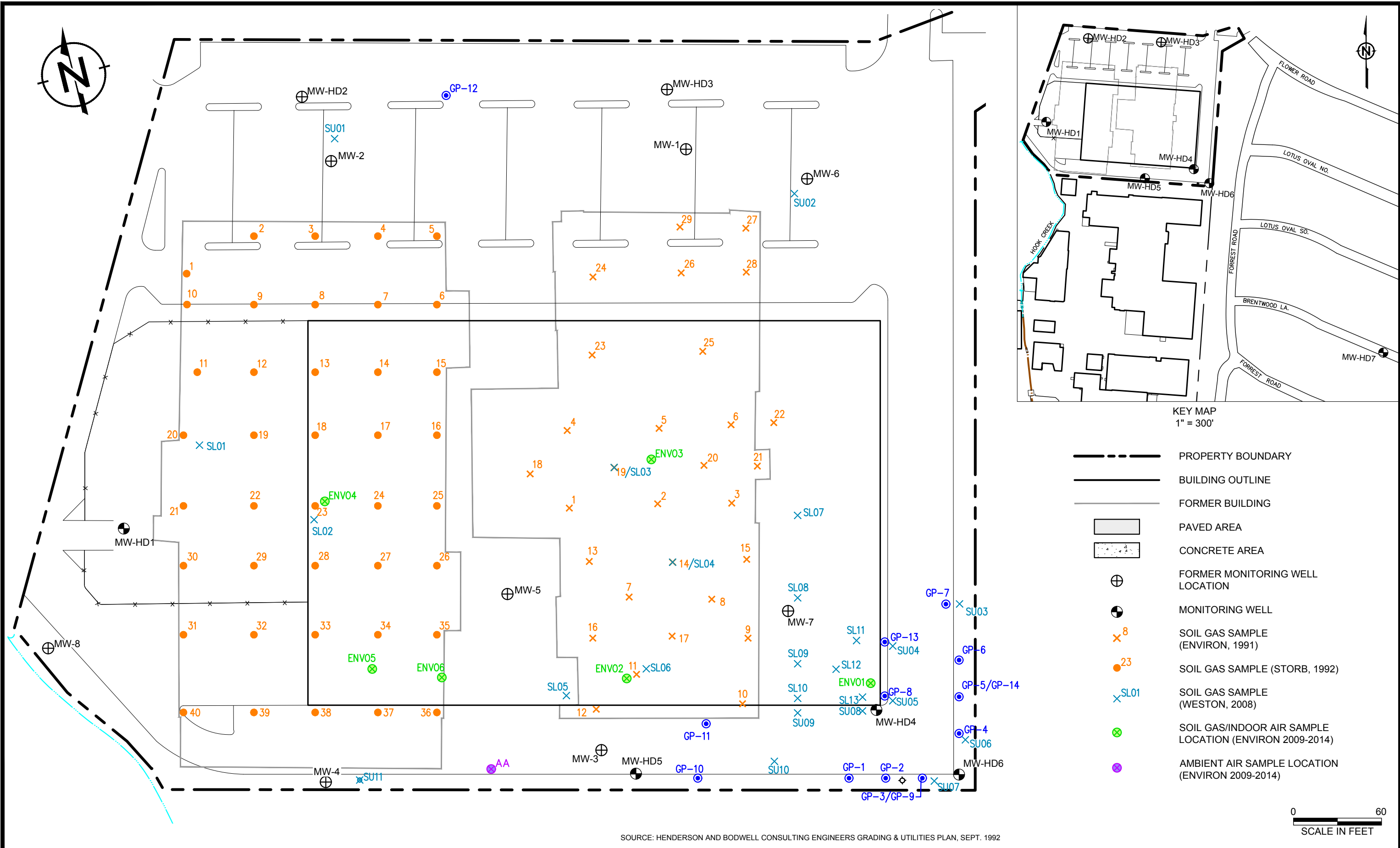
DRAFTED BY: DLB

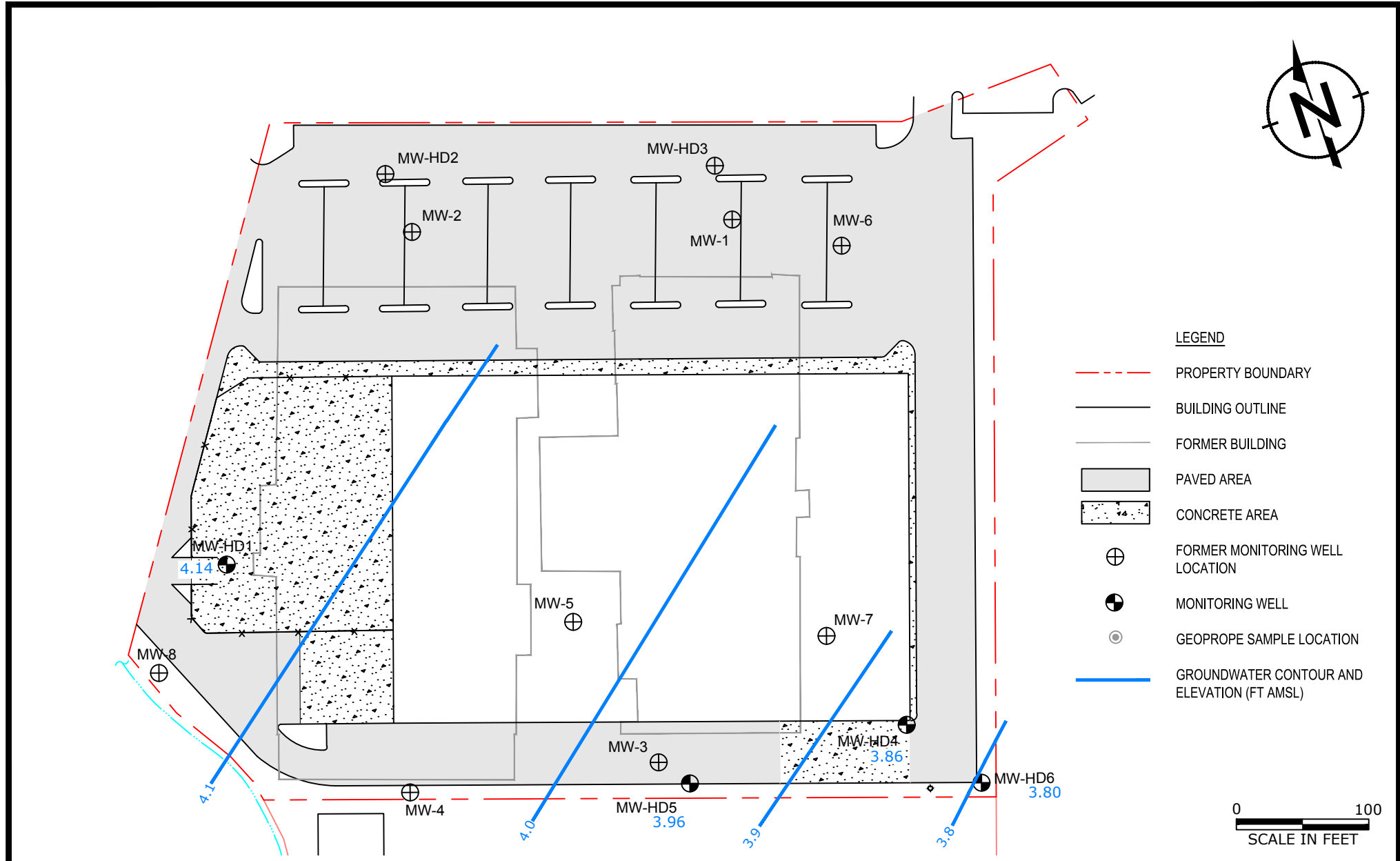
DATE: 03/31/2016

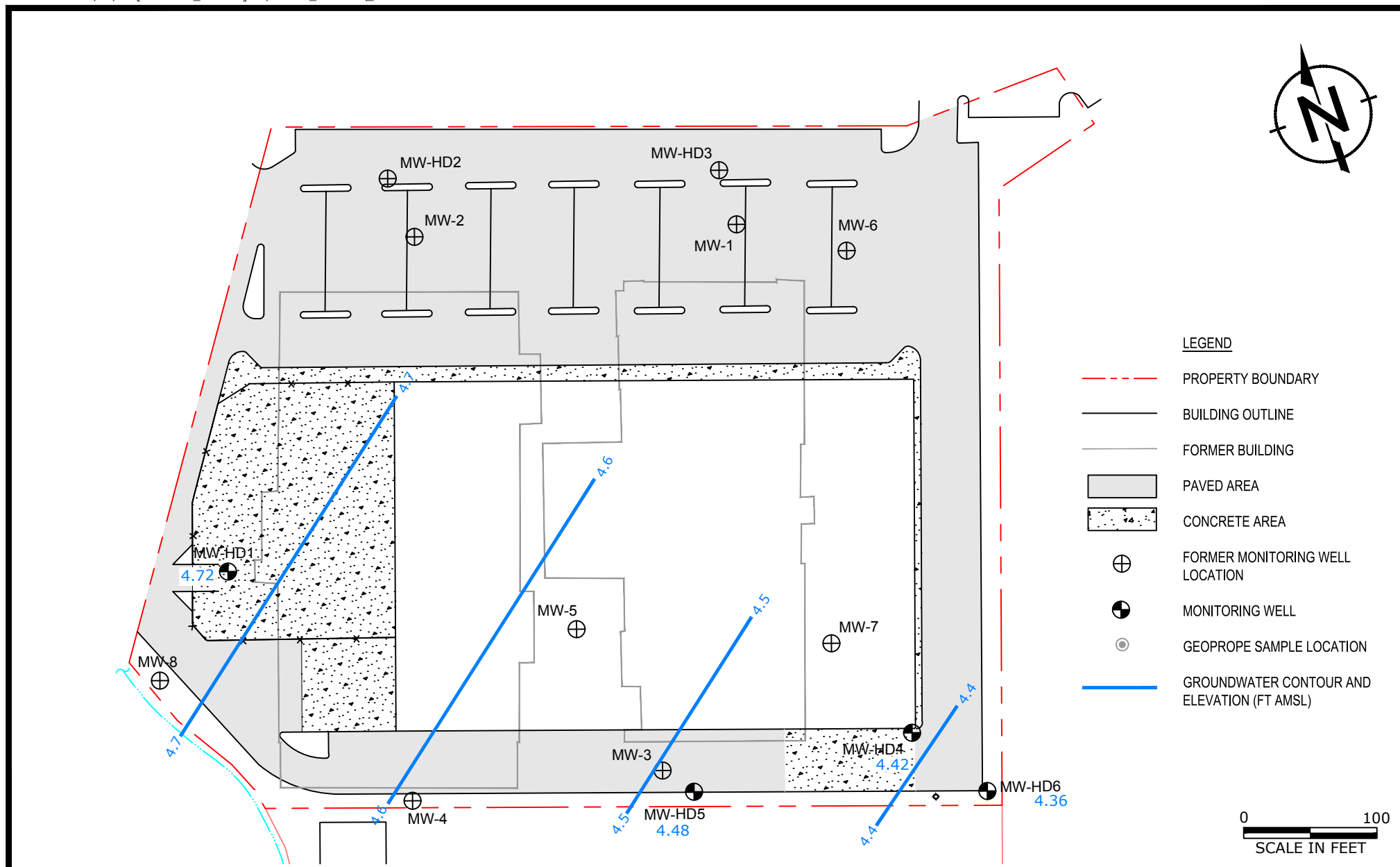
PROJECT: 021961B



DBLANCHARD 3/31/16 [SL AND SMP\_L\_021961] F:\021961\_BULOVA\ANNUAL REPORT







**RAMBOLL ENVIRON**

## GROUNDWATER POTENTIOMETRIC SURFACE - MARCH 10, 2016

101 GREEN ACRES ROAD SITE  
VALLEY STREAM, NEW YORK

FIGURE

**4**

DRAFTED BY: TSP/DLB

DATE: 03/24/2016

021961B

ADDITIONAL SAMPLING RESULTS

**APPENDIX A  
INSTITUTIONAL AND ENGINEERING CONTROLS  
CERTIFICATION APPROVAL**

**New York State Department of Environmental Conservation**

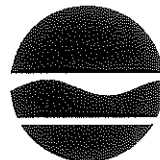
**Division of Environmental Remediation, 12<sup>th</sup> Floor**

625 Broadway, Albany, New York 12233

Phone: (518) 402-9625

Fax: 518-402-9627

Website: [www.dec.ny.gov](http://www.dec.ny.gov)



Joe Martens  
Commissioner

AUG 29 2013

Bulova Technologies, Inc.

Bob Weber

1 Bulova Way

Woodside, NY 11377

Re: Site Management (SM) Periodic Review Report (PRR) Response Letter

101 Green Acres Road Site, Valley Stream

Nassau County, Site No.: 130084

Dear Bob Weber:

The Department has reviewed your Periodic Review Report (PRR) and IC/EC Certification for following period: May 30, 2012 to May 31, 2013.

The Department hereby accepts the PRR and associated Certification. The frequency of Periodic Reviews for this site is 3 year(s), your next PRR is due on May 30, 2016. You will receive a reminder letter and updated certification form 75-days prior to the due date.

If you have any questions, or need additional forms, please contact me at 518-402-9626 or e-mail: [bfjankau@gw.dec.state.ny.us](mailto:bfjankau@gw.dec.state.ny.us)

Sincerely,

Brian Jankauskas  
Project Manager

ec:

Brian Jankauskas, Project Manager

Steve Karpinski, DOH Project Manager

Walter Parish, RHWRE

cc:

Thomas Fusillo, Environ, 214 Carnegie Center, Princeton, NJ 08540-6284

Michael Potts, Environ, 214 Carnegie Center, Princeton, NJ 08540-6284

Mitchell Bernstein, Van Ness Feldman, P.C.

Mike Maddocks, 2455 Paces Ferry Road, Atlanta, GA 30339

Brett Soloway, 2455 Paces Ferry Road, Atlanta, GA 30339

Christine Leas; Sive, Paget & Riesel, P.C.

ADDITIONAL SAMPLING RESULTS

**APPENDIX B**  
**INSTITUTIONAL AND ENGINEERING CONTROLS**  
**CERTIFICATION FORM**



Enclosure 2  
**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**  
**Site Management Periodic Review Report Notice**  
**Institutional and Engineering Controls Certification Form**



Site Details		Box 1	
Site No.	130084		
Site Name	101 Green Acres Road Site		
Site Address:	101 Green Acres Road	Zip Code:	11581
City/Town:	Valley Stream		
County:	Nassau		
Site Acreage:	7.2		
Reporting Period: <del>April 29, 2013</del> to April 29, 2016 June 1, 2013			
		YES	NO
1.	Is the information above correct?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If NO, include handwritten above or on a separate sheet.			
2.	Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.	Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.	Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.			
5.	Is the site currently undergoing development?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

		Box 2	
		YES	NO
6.	Is the current site use consistent with the use(s) listed below? Unrestricted, Residential, Restricted-Residential, Commercial, and Industrial	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.	Are all ICs/ECs in place and functioning as designed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.</b>			
A Corrective Measures Work Plan must be submitted along with this form to address these issues.			
N/A			
Signature of Owner, Remedial Party or Designated Representative		Date	



**SITE NO. 130084**

**Box 3**

**Description of Institutional Controls**

Parcel

**39-553-001**

Owner

The Home Depot

Institutional Control

Monitoring Plan

O&M Plan

Ground Water Use Restriction

Deed Restriction - groundwater use restriction and reference to Operation and Maintenance Plan.

Groundwater monitoring onsite and offsite. ~~Indoor air monitoring onsite.~~

**Box 4**

**Description of Engineering Controls**

Parcel

**39-553-001**

Engineering Control

Cover System

The concrete floor of the onsite building and the heating and cooling system are mitigating vapors detected beneath the building.

### Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

Annual Sampling Results

a) the ~~Periodic Review report~~ and all attachments were prepared under the direction of, and reviewed by, the ~~party making the certification~~;

Remedial Party, Bulova

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

☒ ☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the ~~Site-Management Plan for this Control~~; and

Operations and Maintenance Plan

N/A

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

☒ ☐

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

**A Corrective Measures Work Plan must be submitted along with this form to address these issues.**

N/A

\_\_\_\_\_  
Signature of Owner, Remedial Party or Designated Representative

\_\_\_\_\_  
Date

IC CERTIFICATIONS  
SITE NO. 130084

Box 6

**SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE**

I certify that all information and statements in Boxes 1, 2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Jessica Borgert at 2455 PACES FERRY RD, NW, ATLANTA,  
print name print business address

am certifying as owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Jessica Borgert  
Signature of Owner, Remedial Party, or Designated Representative  
Rendering Certification  
Senior Corporate Counsel

6-9-16  
Date

IC/EC CERTIFICATIONS

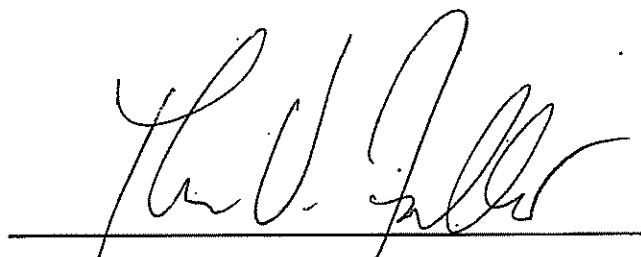
Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Thomas V. Fusillo at 101 Carnegie Center, Suite 200, Princeton NJ 08540  
print name print business address

am certifying as a Qualified Environmental Professional for the Bulova Corporation  
(Owner or Remedial Party)



Signature of Qualified Environmental Professional, for  
the Owner or Remedial Party, Rendering Certification

Stamp  
(Required for PE)

6-17-16

Date

ADDITIONAL SAMPLING RESULTS

## **APPENDIX C**

### **GROUNDWATER FIELD PARAMETERS**

**Appendix C**  
**Groundwater Field Parameters**  
**September 2015**  
**101 Green Acres Road Site**  
**Valley Stream, New York**

Sample Point ID	MWHD4	MWHD6	MWHD7
Date	9/23/2015	9/23/2015	9/23/2015
Weather Conditions	75°F, Partly Sunny	75°F, Partly Sunny	75°F, Partly Sunny
PID Reading (ppm)	3.8	15	1.7
Free Product Thickness	ND	ND	ND
Total Depth (ft)	14.60	14.15	40.00
Depth to Water (ft)	6.23	6.17	5.32
Height Water Column (ft)	8.37	7.98	34.68
One Casing Volume (gal.)	5.47	1.30	5.65
Three Volumes (gal.)	16.6	3.9	16.9
Actual Purge Volume (gal.)	16	4	17
Purge Start Time	11:03	10:45	9:05
Purge End Time	11:24	10:55	9:28
Flow Rate (gpm)	0.76	0.40	0.74
Date Sampled	9/23/2015	9/23/2015	9/23/2015
Time Sampled	11:24	10:55	9:28
Purge Method	SP	SP	SP
Sampling Method	SP	SP	SP
Depth to Water After Purge (ft)	6.40	6.25	5.37
Depth to Water Before Sampling (ft)	6.40	6.25	5.37
<b>SAMPLING/PURGE METHOD</b>			
ND = not detected			
SP = submersible pump			
FIELD PARAMETERS	MWHD4	MWHD6	MWHD7
<b>Initial</b>			
pH	6.27	6.05	4.66
Specific Conductivity (µs/cm)	0.397	0.403	0.389
Turbidity (NTU)	7.5	300	0
Dissolved Oxygen (ppm)	0.09	1.21	21.7
Temperature (°C)	22.07	20.97	17.19
Oxygen Reduction Potential (mV)	100	86	134
<b>During Purging</b>			
pH	6.24	6.09	6.11
Specific Conductivity (µs/cm)	0.358	0.403	0.221
Turbidity (NTU)	14.8	0	0
Dissolved Oxygen (ppm)	0	0	0
Temperature (°C)	22.62	20.23	15.08
Oxygen Reduction Potential (mV)	110	103	43
<b>After Purging / At Sampling</b>			
pH	6.24	6.10	6.11
Specific Conductivity (µs/cm)	0.356	0.402	0.22
Turbidity (NTU)	14.7	0	0
Dissolved Oxygen (ppm)	0	0	0
Temperature (°C)	22.66	20.20	15.83
Oxygen Reduction Potential (mV)	107	103	41
<b>SAMPLING/PURGE METHOD</b>			
ND = not detected			
SP = submersible pump			

**Appendix C**  
**Groundwater Field Parameters**  
**March 2016**  
**101 Green Acres Road Site**  
**Valley Stream, New York**

<b>Sample Point ID</b>	<b>MWHD4</b>	<b>MWHD6</b>	<b>MWHD7</b>
Date	3/10/2016	3/10/2016	3/10/2016
Weather Conditions	70°F, Sunny	70°F, Sunny	70°F, Sunny
PID Reading (ppm)	ND	ND	ND
Free Product Thickness	ND	ND	ND
Total Depth (ft)	14.60	14.15	40.00
Depth to Water (ft)	5.67	5.61	4.83
Height Water Column (ft)	8.93	8.54	35.17
One Casing Volume (gal.)	5.84	1.40	5.70
Three Volumes (gal.)	17.52	4.2	17.2
Actual Purge Volume (gal.)	18	4.2	17.2
Purge Start Time	11:12	10:44	9:14
Purge End Time	11:43	10:58	9:54
Flow Rate (gpm)	0.58	0.30	0.43
Date Sampled	3/10/2016	3/10/2016	3/10/2016
Time Sampled	11:44	10:57	9:54
Purge Method	SP	SP	SP
Sampling Method	SP	SP	SP
Depth to Water After Purge (ft)	5.79	5.62	4.91
Depth to Water Before Sampling (ft)	5.67	5.61	4.83
<b>SAMPLING/PURGE METHOD</b>			
ND = not detected			
SP = submersible pump			
<b>FIELD PARAMETERS</b>			
<b>Initial</b>			
pH	5.97	5.6	4.22
Specific Conductivity (µs/cm)	0.755	3.6	0.24
Turbidity (NTU)	54	972	14.8
Dissolved Oxygen (ppm)	7.58	3.51	6.19
Temperature (°C)	16.24	13.15	16.07
Oxygen Reduction Potential (mV)	128	108	311
<b>During Purging</b>			
pH	5.69	5.8	5.55
Specific Conductivity (µs/cm)	0.751	3.78	0.335
Turbidity (NTU)	2	32.7	215
Dissolved Oxygen (ppm)	0.8	1.41	0.67
Temperature (°C)	16.39	12.4	15.62
Oxygen Reduction Potential (mV)	113	121	39
<b>After Purging / At Sampling</b>			
pH	5.67	5.79	5.55
Specific Conductivity (µs/cm)	0.753	3.75	0.336
Turbidity (NTU)	0.2	14.5	143
Dissolved Oxygen (ppm)	0.64	1.25	0.62
Temperature (°C)	16.44	12.42	15.63
Oxygen Reduction Potential (mV)	105	122	56
<b>SAMPLING/PURGE METHOD</b>			
ND = not detected			
SP = submersible pump			

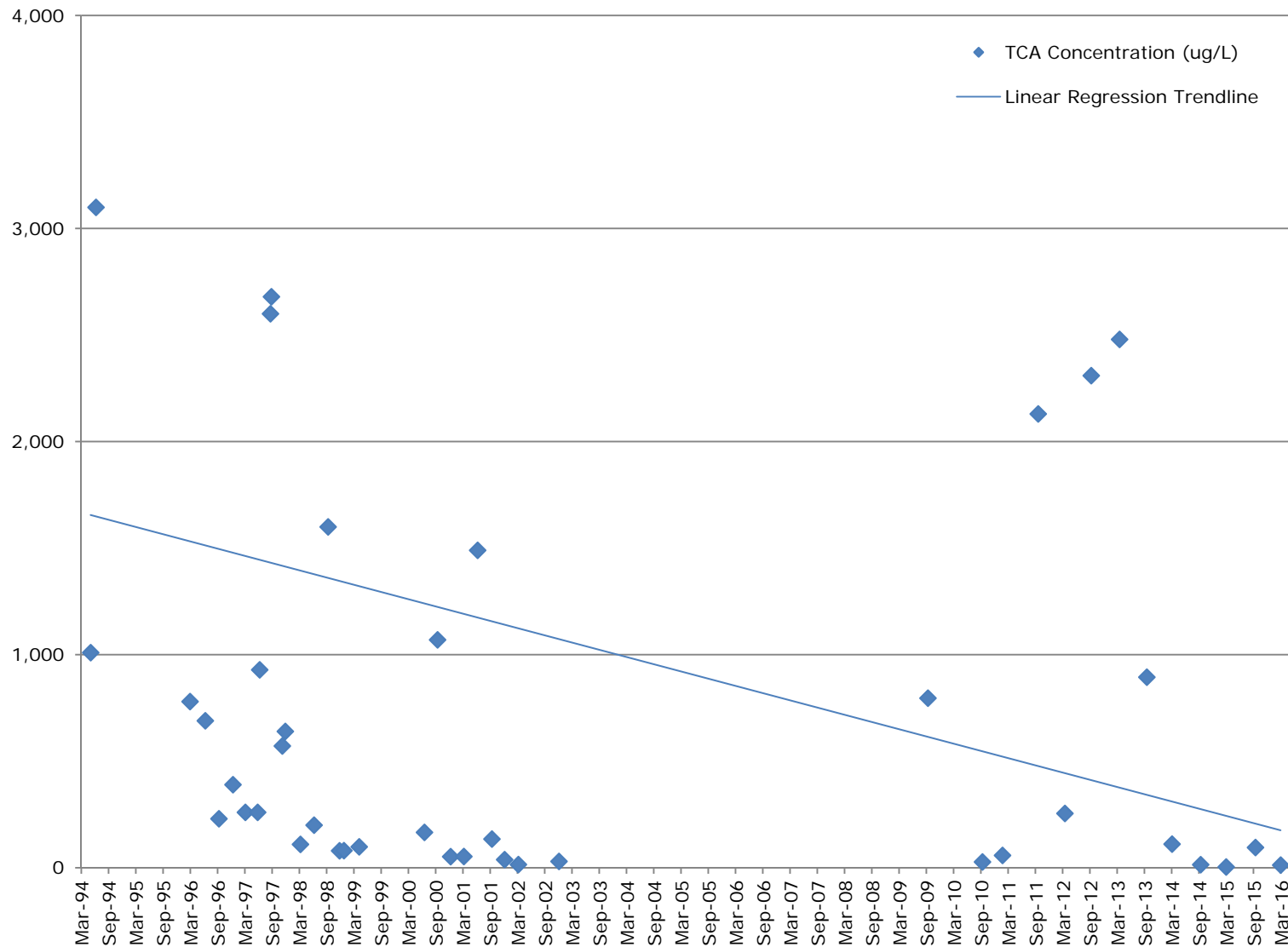
ADDITIONAL SAMPLING RESULTS

**APPENDIX D**  
**MW-HD4 GROUNDWATER CONTAMINANT**  
**CONCENTRATION TRENDS**



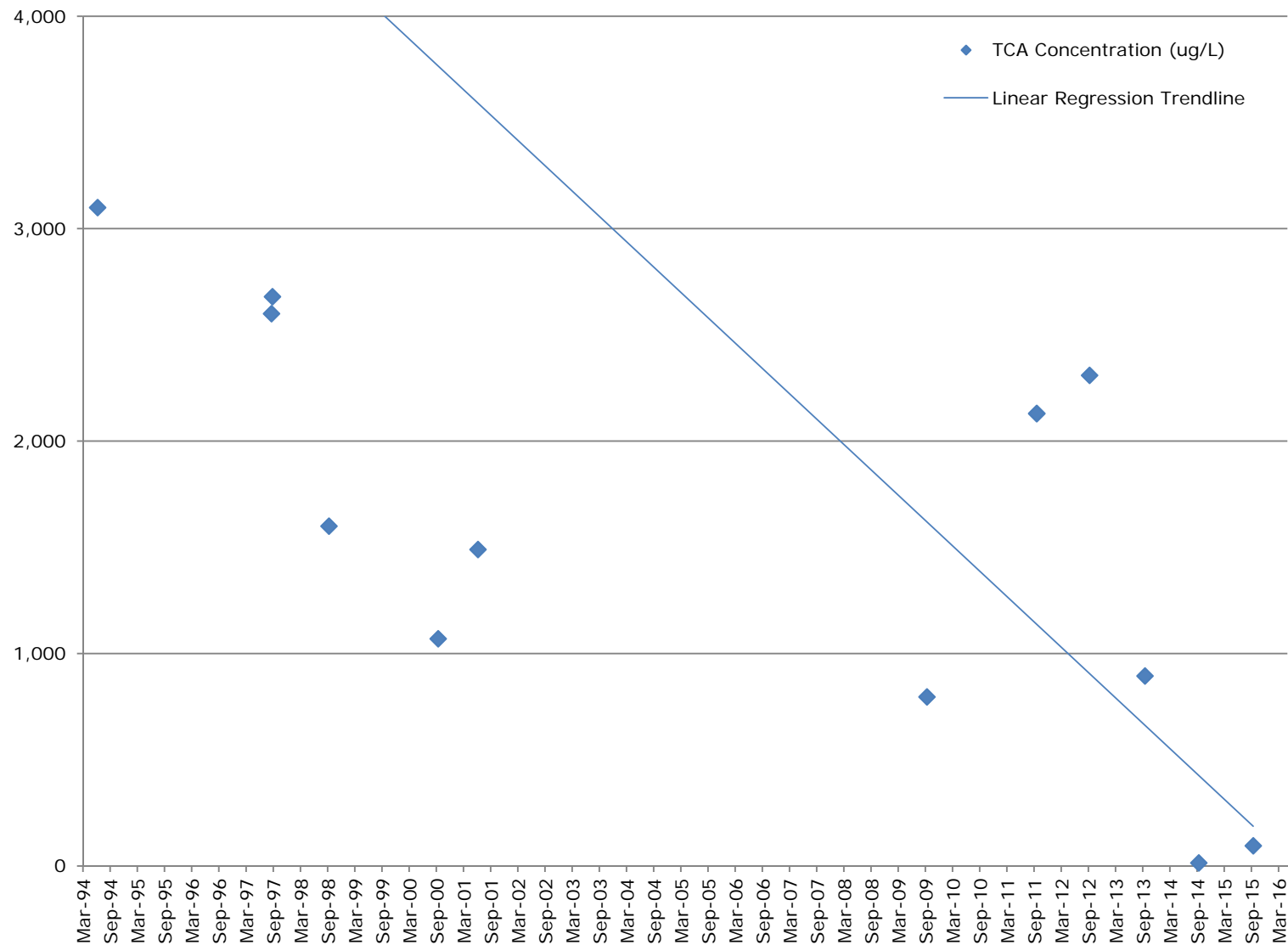
ADDITIONAL SAMPLING RESULTS

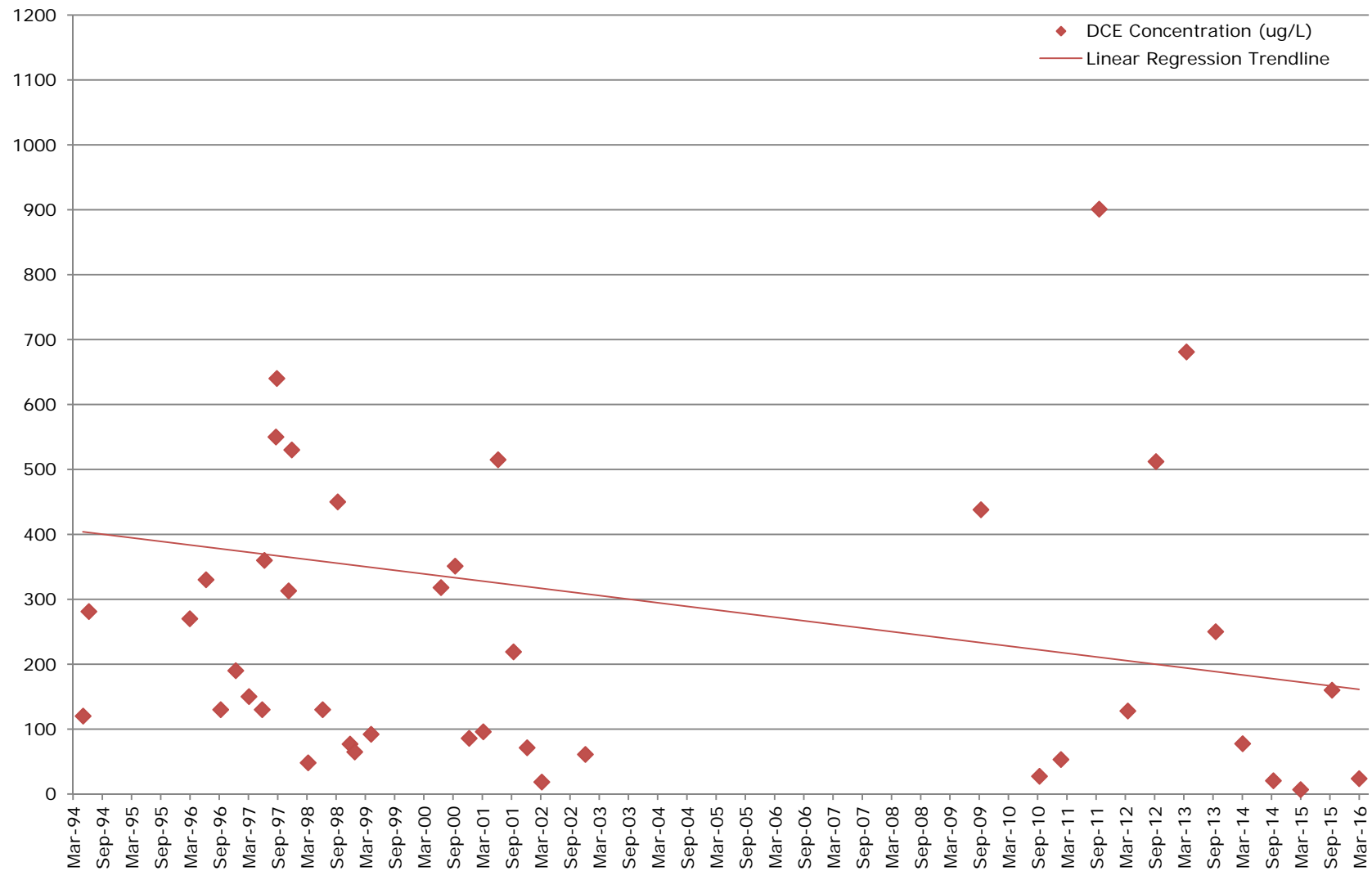
**APPENDIX D1**  
**RAMBOLL ENVIRON GRAPHS**



## Historical 1,1,1-TCA Concentrations – MW-HD4

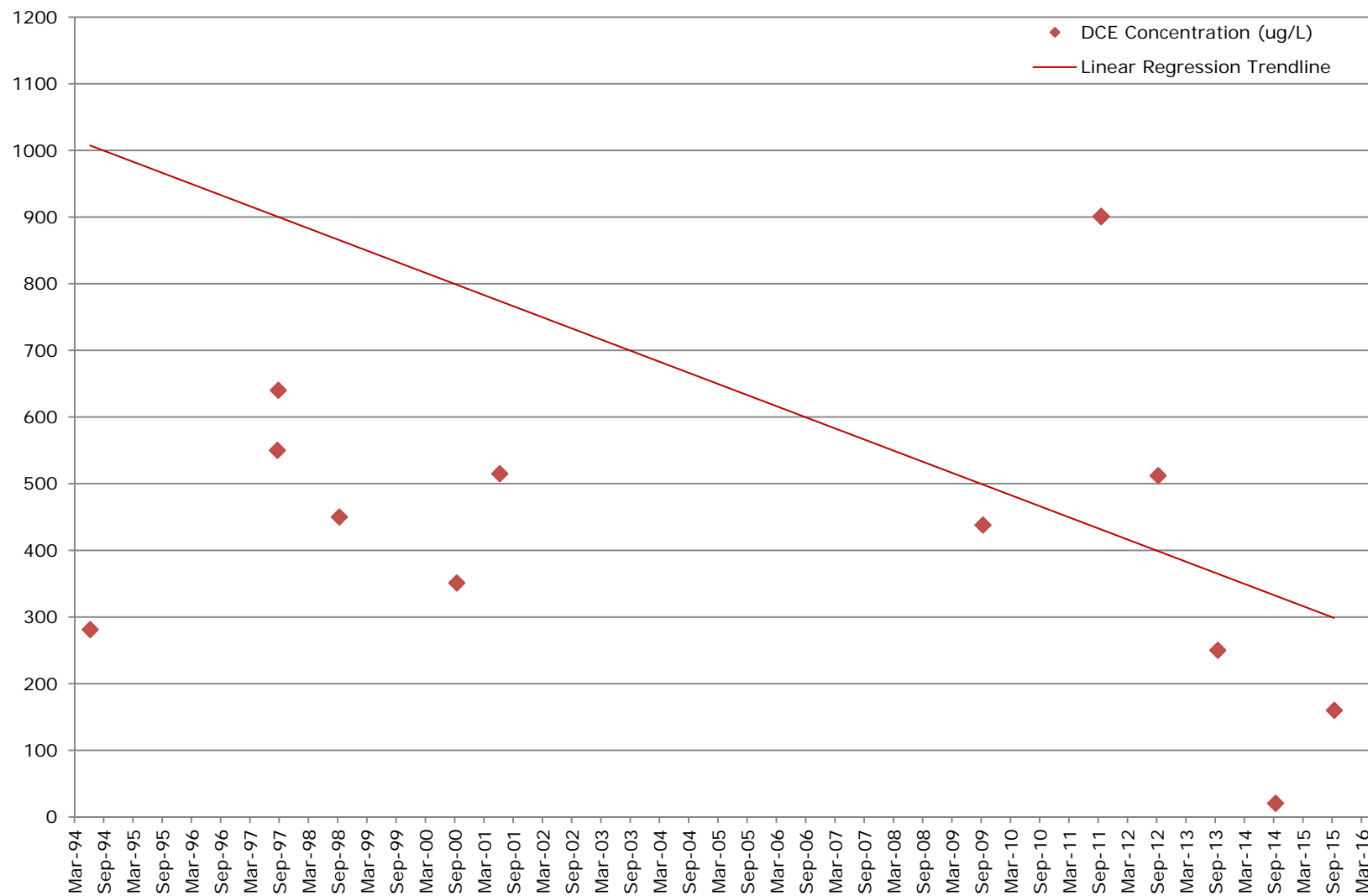
101 Green Acres Road Site – Valley Stream, NY

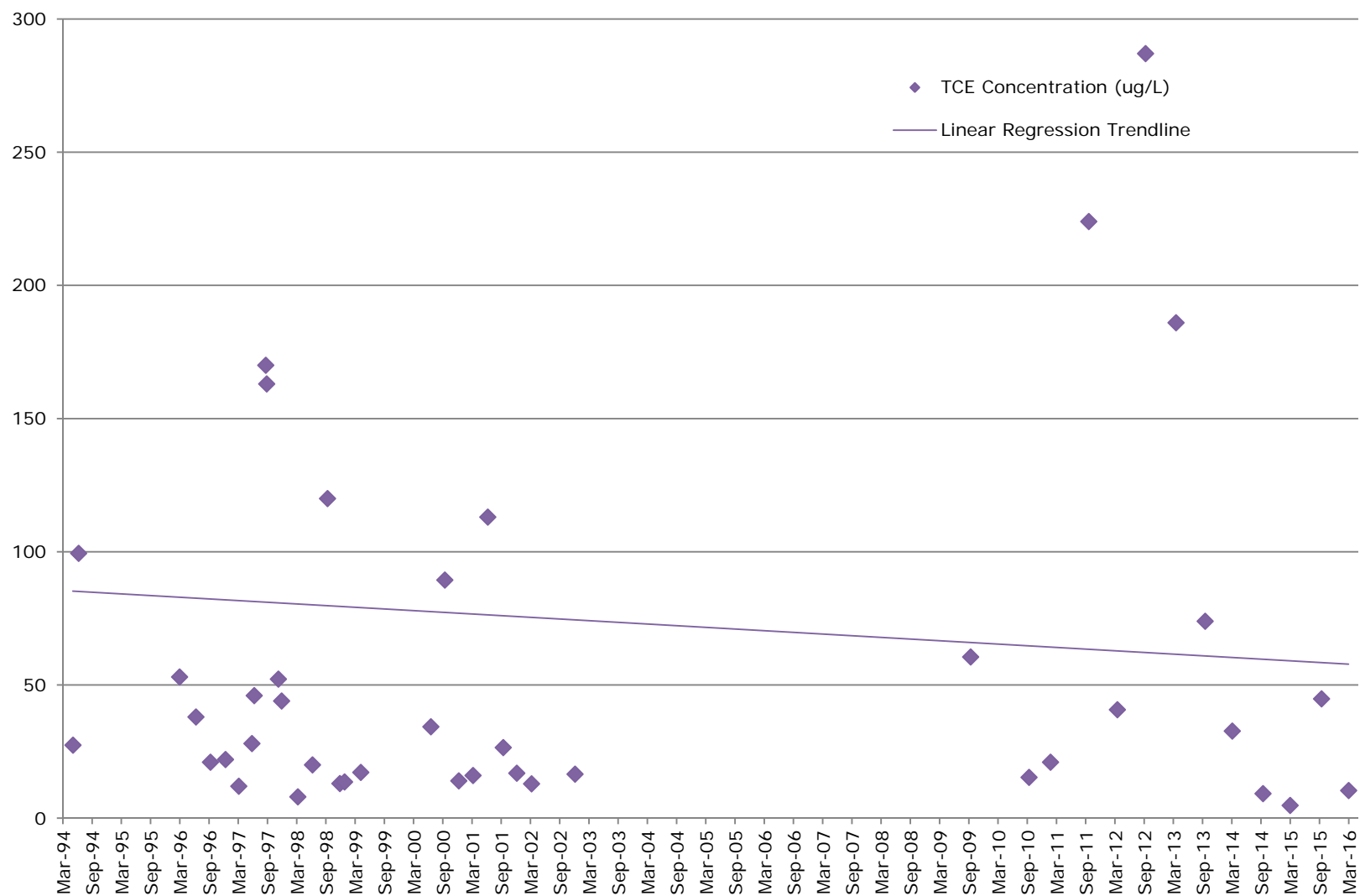




## Historical 1,1-DCE Concentrations – MW-HD4

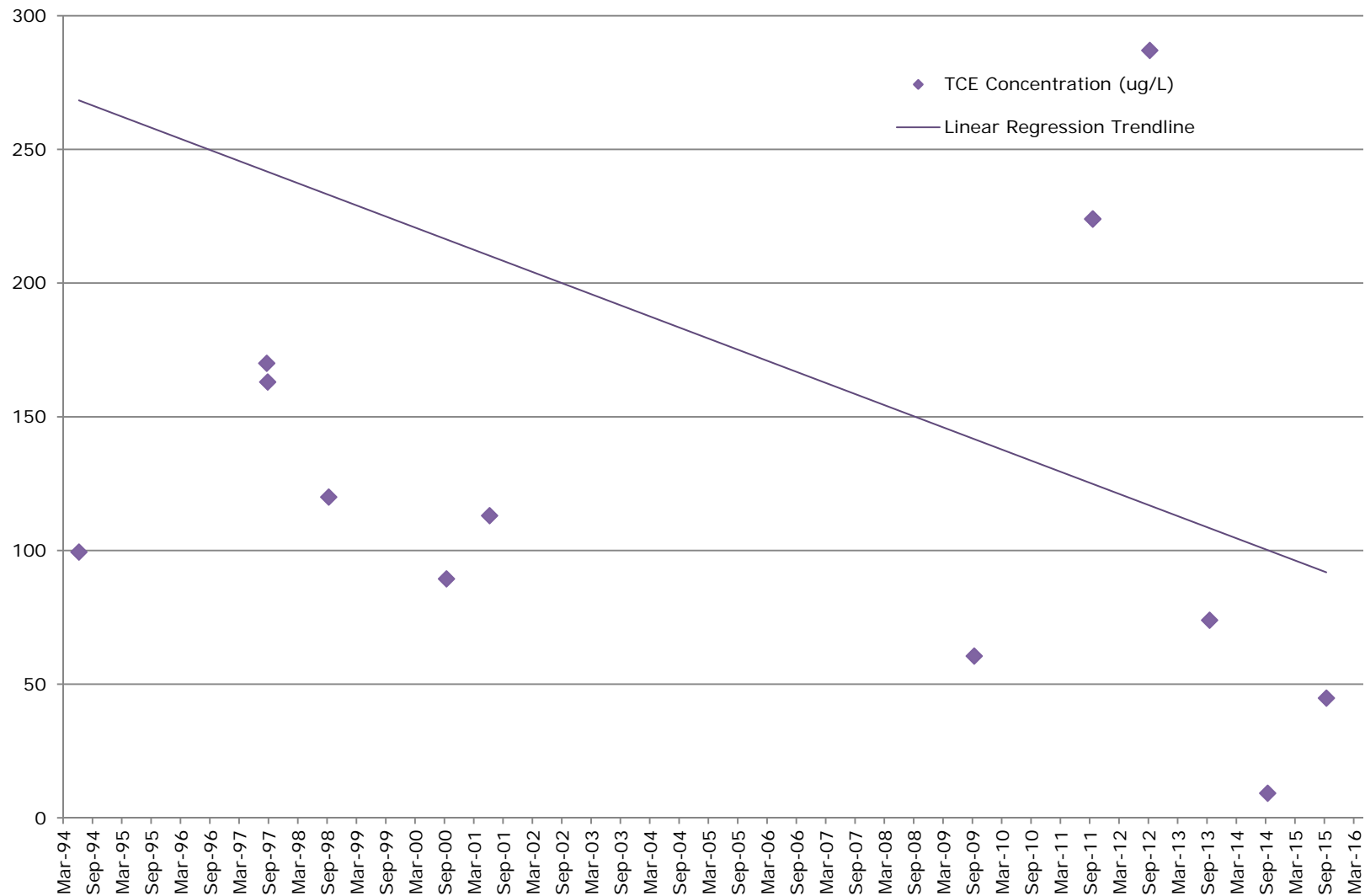
101 Green Acres Road – Valley Stream, NY





### Historical TCE Concentrations – MW-HD4

101 Green Acres Road – Valley Stream, NY

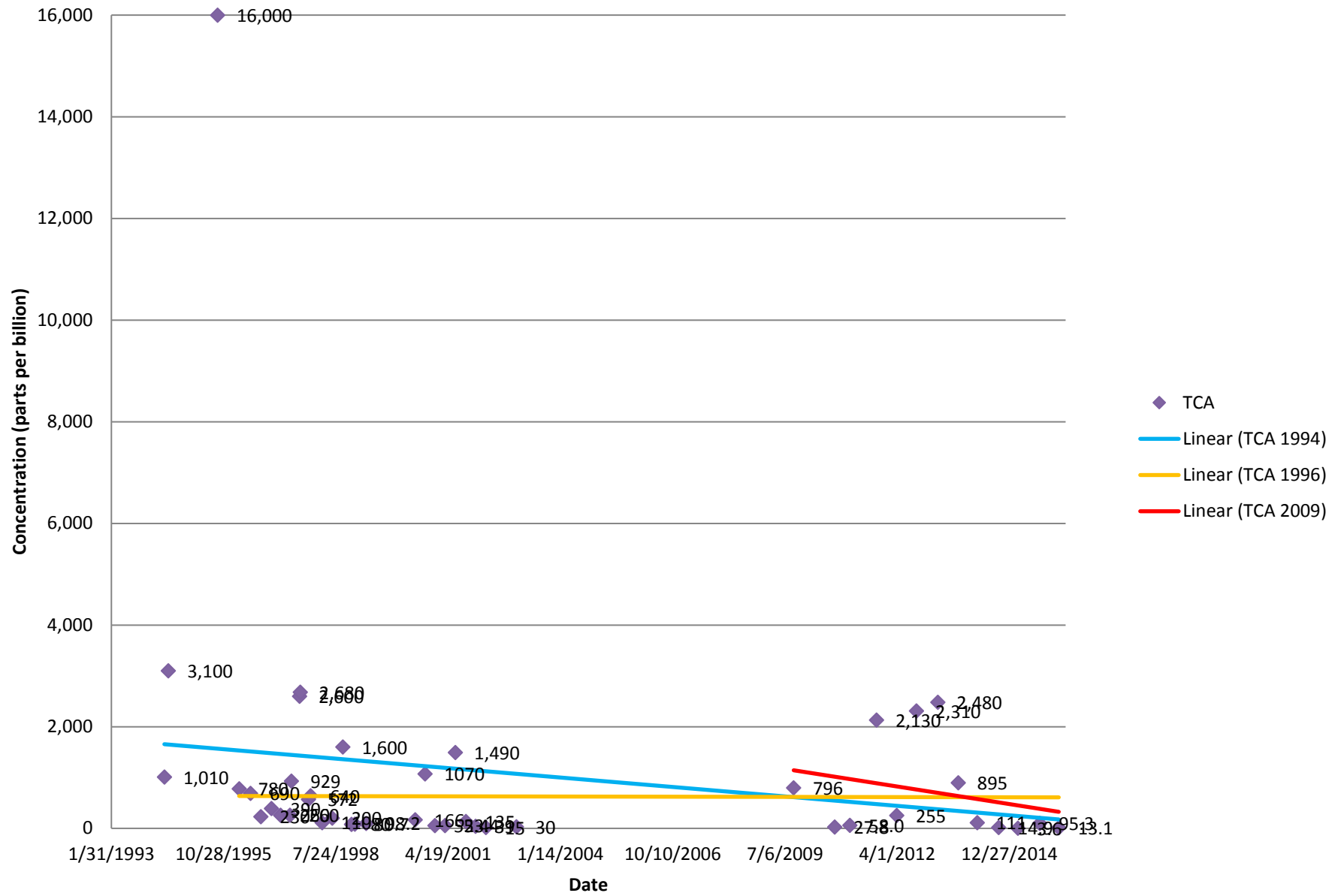


ADDITIONAL SAMPLING RESULTS

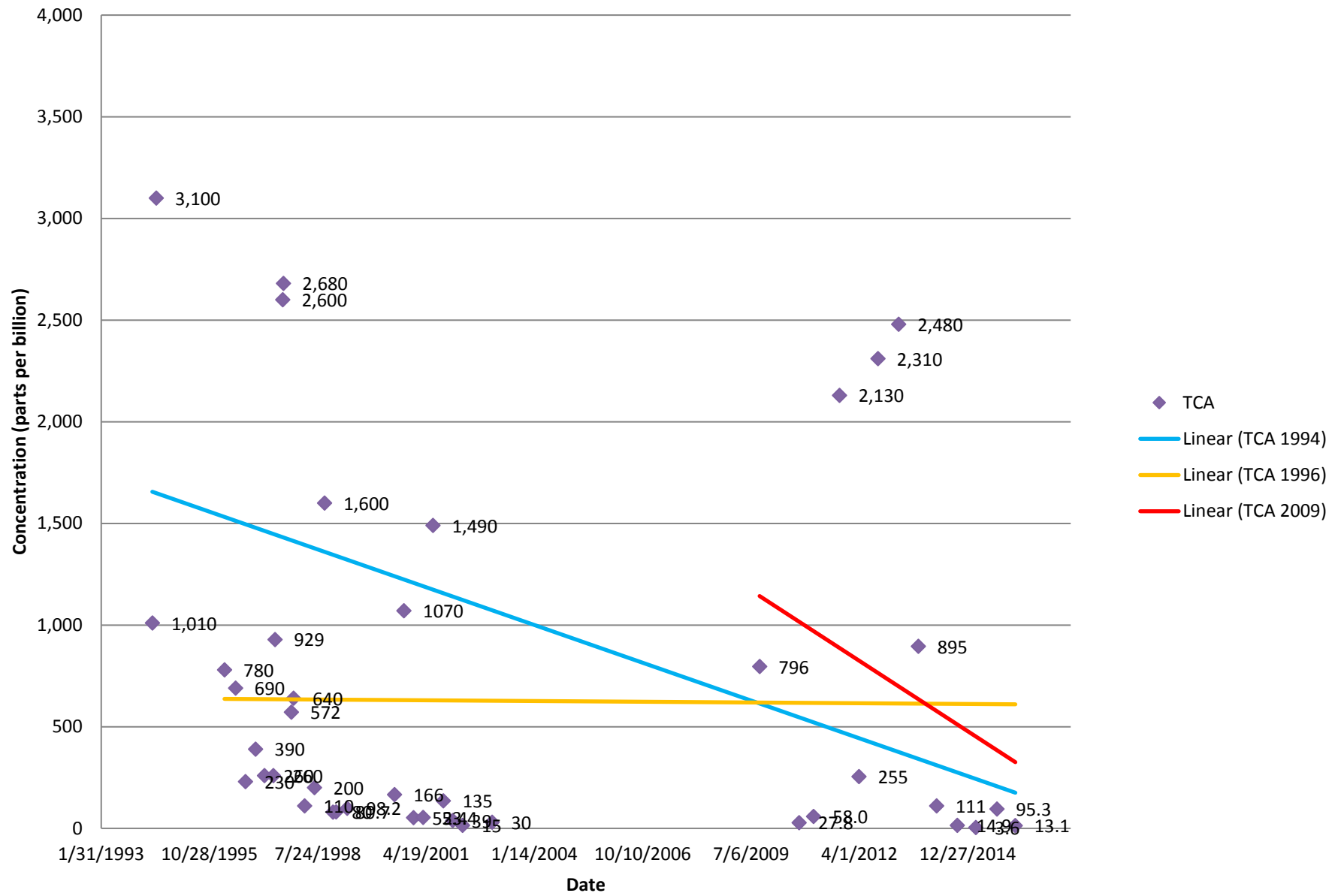
## APPENDIX D2 NYSDEC GRAPHS



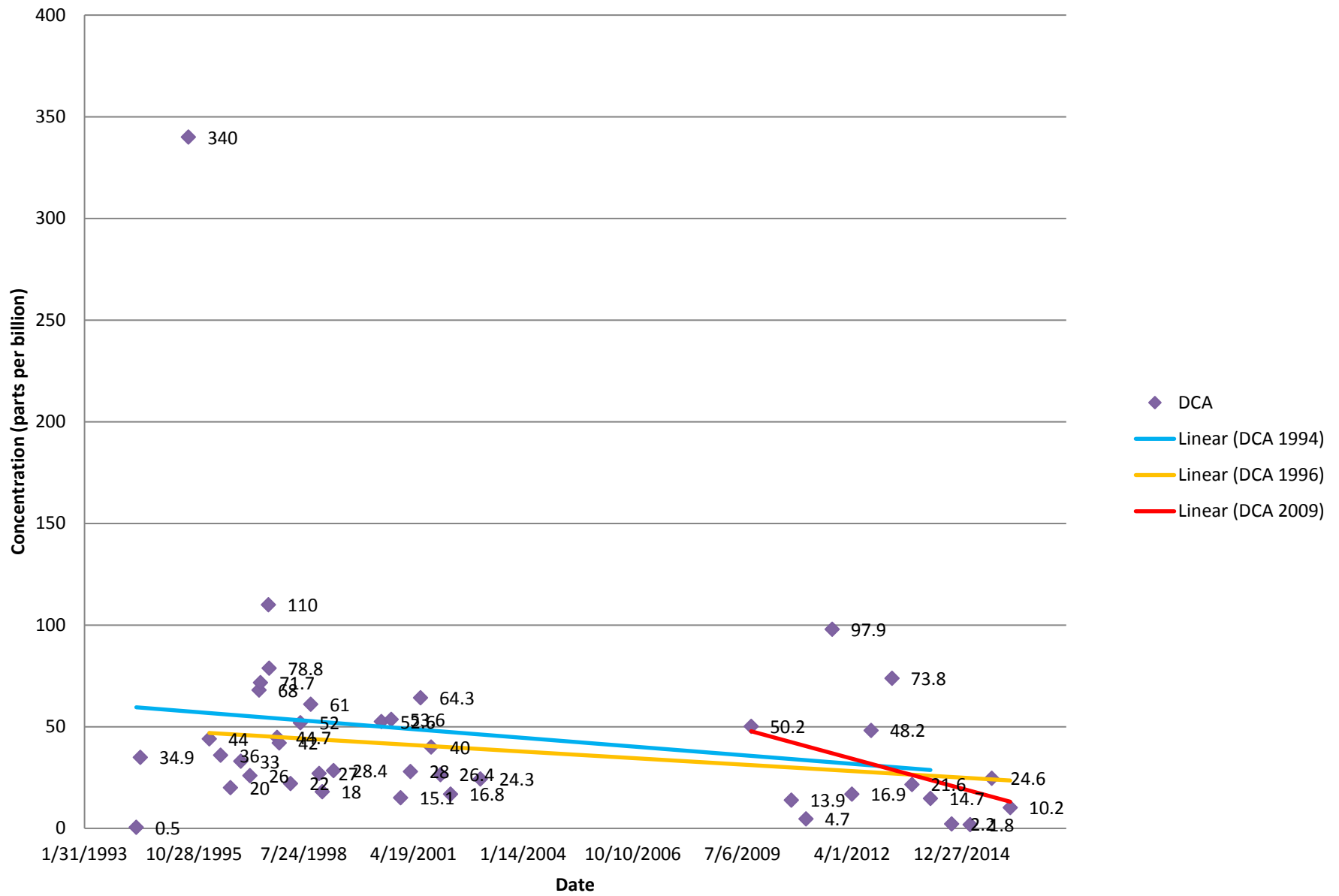
# 1,1,1-Trichloroethane



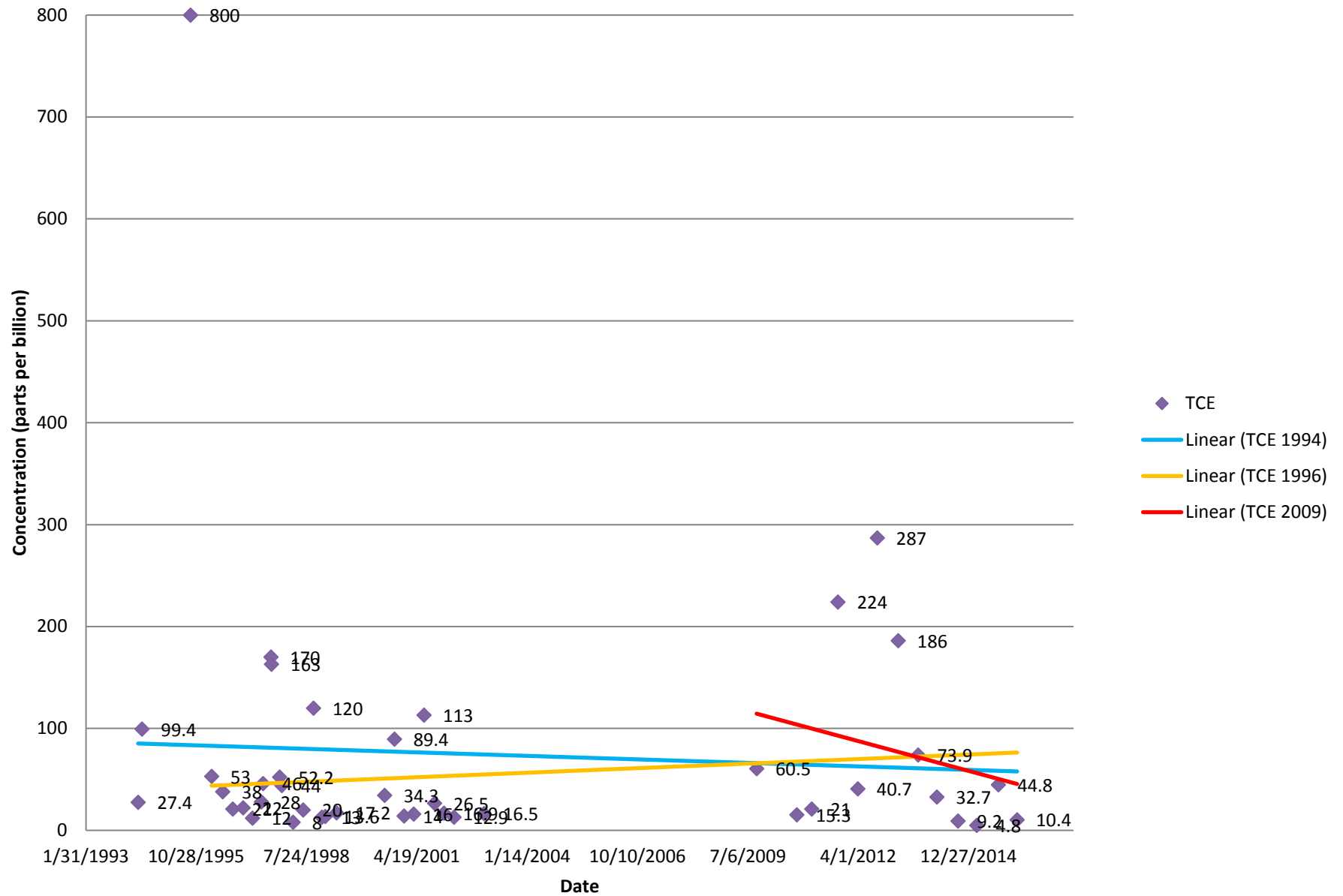
# 1,1,1-Trichloroethane



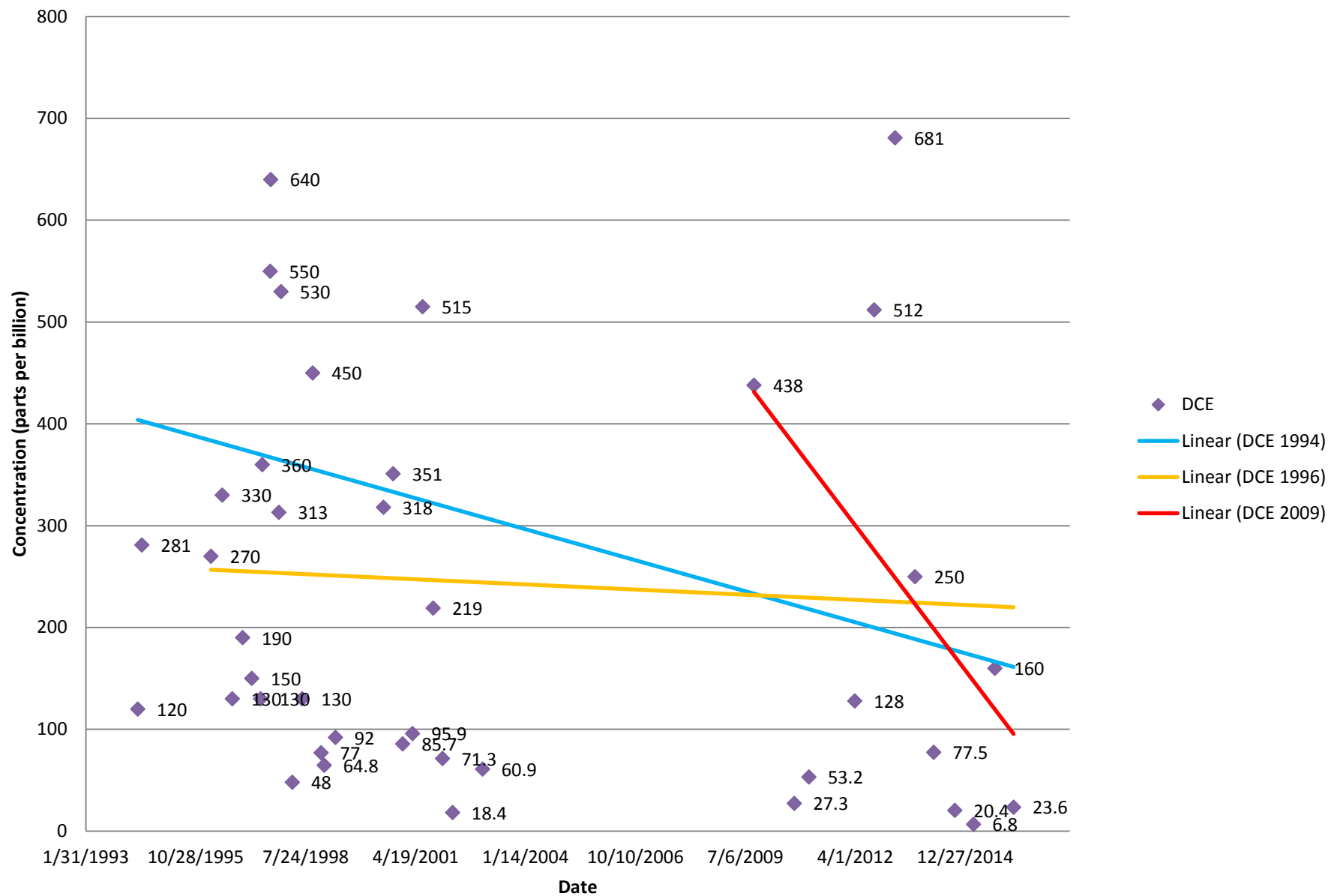
# 1,1-Dichloroethane



# Trichloroethene



# 1,1-Dichloroethene



ADDITIONAL SAMPLING RESULTS

## **APPENDIX E**

### **DATA USABILITY SUMMARY REPORTS**

November 11, 2015

Ramboll Environ US Corporation  
Att: Ms. Lily Diehl, Associate  
101 Carnegie Center, Suite 200  
Princeton, New Jersey 08540

Re: Bulova Corporation /Valley Stream, NY Site Data Deliverables; Laboratory Job No. JC4520  
ENVIRON Project No. : 02-1961A

Dear Ms. Diehl,

Enclosed with this cover letter are the results of our data review of the laboratory deliverables pertaining to the referenced site. The review was conducted according to the guidelines established by NYSDEC's Data Usability Summary Review <sup>1</sup> ('DUSR') process; data flags (qualifiers) were assigned to samples based on guidance contained in EPA Region II's data validation guidelines <sup>2</sup>.

Site Name: Bulova Corporation, Valley Stream, NY

Fractions  
Volatile Organics

Laboratory: Accutest Laboratories  
Matrix: Aqueous

Reviewer: Chris Taylor  
Prepared By: Environmental Quality Associates, Inc.

#### SECTION A Sample Information

The above-referenced analytical job number / samples were analyzed by Accutest Laboratories, Dayton, NJ ('Accutest'). Samples were analyzed for volatile organics by EPA SW-846, Method 8260B. Six aqueous samples, including one trip blank (TB) and one field blank (FB), plus matrix QC samples (MS/MSD), were collected on 09/23/2015, and received at the laboratory under intact custody seal on 09/23/2015 at a recorded temperature of 1.3 degrees C, on ice, in good condition. The chain-of-custody indicated that all samples were (pH) unpreserved.

#### SECTION B General Comments

Summary of data completeness and overall quality of data deliverables package  
Data deliverables were complete as received.

#### Overall data quality

Data quality was acceptable, incorporating any applied data qualifiers as detailed in the accompanying QC and calibration summary forms, and discussed in the applicable narrative sections below.

Six target compounds were specified for analysis for these samples, as follow: 1,1-dichloroethane (1,1-dca); 1,1-dichloroethene (1,1-dce); Freon-113; tetrachloroethene (pce); 1,1,1-trichloroethane (1,1,1-tca); trichloroethene (tce).

SECTION C  
Volatile Organic Fraction

NYSDEC-ASP holding times from lab receipt to analysis were met in all samples; as were EPA technical holding times from sample collection to analysis. As noted above, all samples were pH unpreserved; all samples were analyzed within seven days of collection, which negates the need for acid preservation.

Surrogate recoveries, blank spike recoveries, matrix spike (MS) and matrix spike duplicate (MSD) recoveries, instrument tune parameters and internal standard recoveries and retention times were within acceptable limits.

The batch method blank and the trip and field blanks were reported free of contamination.

Initial calibration (ICAL) %RSD values and relative response factors for target compounds and method CCC and SPCC compounds were within acceptable limits, with the following exception: the %RSD for target compound trichloroethene (TCE) exceeded the limit of 15%, at 17.5%. Positive tce results in associated samples JC4520-(1,2,3 and 4) are qualified as quantitatively estimated (J), with indeterminate bias direction.

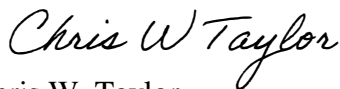
For the continuing calibrations (CCAL), performance criteria for target compounds were within limits.

Target compounds which were reported as positives were qualitatively verified from chromatograms and associated mass spectra against standard materials. A reported positive value was verified from the raw data and is shown in the QC/Cal summary attached.

SECTION D  
Overall Recommendations

The results of the review and qualification process for the above analytical fractions and associated samples are summarized on the attached QC and Calibration summary tables, in order to facilitate the end-user's' review of these data. Any required data qualifiers have been applied directly to the laboratory Form 1s associated with affected samples.

Very truly yours,  
Environmental Quality Associates, Inc.



Chris W. Taylor  
Vice President

/cwt  
Attachments

<sup>1</sup> NYSDEC Final DER-10, Technical Guidance for Site Investigation and Remediation, Appendix 2B, "Guidance for the Development of Data Usability Summary Reports", May, 2010

<sup>2</sup> EPA Region II, SOP HW-24, Rev. #2, "Validating Organic Compounds by SW-846 Method 8260B", October, 2006



SUMMARY OF CALIBRATION AND QC PROCEDURES  
 EPA SW-846 METHOD 8260B, GC-MS VOLATILES

Calibration or QC Check	Minimum Frequency	Acceptance Criteria	QC Non-Compliance Description	Data Qualification Action <sup>1</sup>
<u>Sample Preservation</u>	All samples	Water: 4°C, Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , HCl to pH<2 Soil & Other: 4°C	None found <i>Note: all samples were noted as pH unpreserved</i>	n/a all samples analyzed w/in 7 days of collection
<u>Holding Times</u>	All samples	Water: 14 days (7 days max. if not pH preserved) Soil: 14 days (if samples maintained at 4°)	None found	
<u>MS Tuning</u>	Every 12 hours, prior to calibrations	Method 8260B, Table 4 criteria	None found	
<u>Initial Calibration</u>	Prior to sample analysis, and whenever continuing calibrations fail to meet acceptance criteria (minimum 5 levels)	SPCC average RRF >0.300 (chlorobenzene & 1122-tca) & >0.100 for other 3 SPCC CCC RRF %RSD<30, and (a) linear : mean RSD all analytes ≤15% w/ no single analyte >30%, or (b) regression : r ≥ 0.99 for each affected analyte	Refer to Cal Summary on Sheet 3 for details <i>Note: samples were analyzed only for project-specific COPCs : 1,1-diClethane, 1,1-diClethane, Freon113, tetraClethane, 1,1,1-triClethane and triClethane</i>	Refer to Cal Summary on Sheet 3 for details
<u>Retention Time Windows</u>	Each sample analyzed	Relative retention time (RRT) of each positive analyte within ± 0.06 of associated IS RRT	None found	
<u>Method Blank / Trip Blank</u>	After ICV or CCV, before sample analysis, minimum one per analytical batch/ Trip Blank per cooler	No analytes detected ≥ PQL for method blank.	VL7564-MB none found  Trip & Field Blanks none found	
<u>Continuing Calibration Verification</u> (CCV)	Daily, before sample analysis, and after each successive 12 hours of sample analysis	SPCC average RRF >0.300 (chlorobenzene & 1122-tca) & >0.100 for other 3 SPCC CCC RRF %D<20, and all analytes within ± 20% of expected value	Refer to Cal Summary on Sheet 3 for details	Refer to Cal Summary on Sheet 3 for details

Notes:

<sup>1</sup> See DV report for details.

SUMMARY OF CALIBRATION AND QC PROCEDURES  
 EPA SW-846 METHOD 8260B, GC-MS VOLATILES

Calibration or QC Check	Minimum Frequency	Acceptance Criteria	QC Non-Compliance Description	Data Qualification Action <sup>1</sup>
<u>Surrogate Compound Spike</u>	Every sample, spiked sample, blank and standard	All analytes recovered within lab-established recovery ranges (see SW-846, Method 8000B, Sect. 8.7)	None found	
<u>Internal Standards (IS)</u>	Every sample, spiked sample, blank and standard	Retention time (RT): $\pm$ 30 seconds from RT of IS in ICAL midpoint standard	None found	
		IS area: between -50% and +100% of IS area in ICAL midpoint standard	None found	
<u>Laboratory Control Sample (LCS)</u>	Once per each analytical batch (should include all reported analytes), <u>and</u> should be prepared independently from calibration standards	All analytes recovered within 70 - 130% of expected (true) value, <u>or</u> recovery within laboratory-derived statistical limits	VL7564-BS none found	
<u>Matrix Spike / Matrix Spike Duplicate (MS/MSD)</u>	Once per each 20 samples (should include all reported analytes), <u>and</u> should be prepared independently from calibration standards	All analytes recovered within laboratory-derived statistical limits for each matrix type, <u>and</u>	JC4520-2 none found	
		%RPD between MS/MSD below laboratory-derived statistical limits	JC4520-2 none found	

Notes:

<sup>1</sup> See DV report for details.

Initial Calibration

Calibration Date:	09/23/15
Lab File IDs :	L276440-449.D
CCC RSDs $\leq$ 30%?	yes
SPCC RRFs > specd. values ?	yes
All Target Mean RSD <15%?	no tce (17.5%)
If No, was regression used ?	no
If regression used, $r \geq 0.99$ ?	n/a
Qualification Action:	Flag positive tce values in all samples estimated (J) w/ indeterminate bias direction.
Affected Samples:	All SDG samples

Continuing Calibrations

Calibration Date:	09/25/15		
Lab File ID :	L276531.D		
CCC %Ds $\leq$ 20%?	yes		
SPCC RRFs > specd. values ?	yes		
All Target %D <20%?	yes		
If No, list target analytes >20%:			
Analytical Bias:	n/a		
Qualification Action:	n/a		
Affected Samples:	All SDG samples		

Sample Result Confirmation

Sample ID: JC4520-4 ( MWHD4-150923 )  
Compound: trichloroethene IS: 1,4-difluorobenzene  
Reported concentration: **44.8** µg/L File ID: L276544.D

	Ax	IS	Df
Concentration, µg/L =	142371	50	1
	424529	0.374	
	Ais	RRF	

Concentration, µg/L = **44.83**

Result Confirmed? **Yes**

Reviewer comments : calcs are based on 5.0 mL initial sample purge volume

where:

Ax = area response of target quant ion  
IS = mass of internal standard injected, ng  
Df = dilution factor

Ais = area response of internal standard quant ion  
RRF = ICAL average relative response factor

April 15, 2016

Ramboll Environ US Corporation

Att: Ms. Lily Diehl, Sr. Associate  
101 Carnegie Center, Suite 200  
Princeton, New Jersey 08540

Re: Bulova Corporation / Valley Stream, NY Site Data Deliverables; Laboratory Job No. JC16014

Dear Ms. Diehl,

Enclosed with this cover letter are the results of our data review of the laboratory deliverables pertaining to the referenced site. The review was conducted according to the guidelines established by NYSDEC's Data Usability Summary Review<sup>1</sup> (DUSR) process; any data flags (qualifiers) were assigned to samples based on guidance contained in EPA Region II's data validation guidelines<sup>2</sup>.

Site Name: Bulova Corporation, Valley Stream, NY

Fractions  
Volatile Organics

Laboratory: SGS Accutest Laboratories  
Matrix: Aqueous

Reviewer: Chris Taylor

Prepared By: Environmental Quality Associates, Inc.

#### SECTION A Sample Information

The above-referenced analytical job number / samples were analyzed by SGS Accutest Laboratories, Dayton, NJ ('Accutest'). Samples were analyzed for volatile organics by USEPA SW-846 Method 8260C. Six aqueous samples, including one trip blank (TB) and one field blank (FB), plus matrix QC samples (MS/MSD), were collected on 03/10/2016 and received at the laboratory under intact custody seal on 03/10/2016 at a recorded temperature of 3.6°C (4.0°C corrected), on ice, in good condition. The chain-of-custody indicated that all samples were (pH) unpreserved.

#### SECTION B General Comments

##### Summary of data completeness and overall quality of data deliverables package

Data deliverables were complete, as received.

##### Overall data quality

Data quality was acceptable, incorporating any applied data qualifiers as detailed in the accompanying QC and calibration summary forms and as discussed in the applicable narrative sections below.

Six target compounds were specified for analysis for these samples, as follow: 1,1-dichloroethane (1,1-dca); 1,1-dichloroethene (1,1-dce); Freon-113; tetrachloroethene (pce); 1,1,1-trichloroethane (1,1,1-tca); trichloroethene (tce).

SECTION C  
Volatile Organic Fraction

NYSDEC-ASP holding times from lab receipt to analysis were met for all samples, as were EPA method technical holding times from sample collection to analysis. As noted above, all samples were pH unpreserved; all samples were analyzed within seven days of collection, which obviates the need for acid preservation.

Surrogate recoveries, blank spike recoveries, matrix spike (MS) and matrix spike duplicate (MSD) recoveries, instrument tune parameters and internal standard recoveries and retention times were all within acceptable limits.

The batch method blank and the trip and field blanks were all reported free of contamination.

Initial calibration (ICAL) %RSD values and relative response factors (RRF) for all target compounds were within method limits, as were ICV recoveries. Continuing calibration verification (CCV) performance metrics for target compounds were within method limits.

Target compounds reported as positive hits were qualitatively verified from chromatograms and associated mass spectra against standard materials. A reported positive value for 1,1-dichloroethene was recalculated and verified from the raw data and is shown in the QC/Cal summary attached.

SECTION D  
Overall Recommendations

The results of the review process for the above analytical fraction(s) and associated samples are summarized on the attached QC and Calibration summary tables, in order to facilitate the end-user's review of these data. No data qualifiers were necessary as a result of the data review performed.

Very truly yours,  
Environmental Quality Associates, Inc.

*Chris W. Taylor*

Chris W. Taylor  
Vice President

/cwt  
Attachments

- <sup>1</sup> NYSDEC Final DER-10, Technical Guidance for Site Investigations and Remediation, Appendix 2B, "Guidance for the Development of Data Usability Summary Reports", May 2010
- <sup>2</sup> EPA Region II, SOP HW-24, Rev. #2, "Validating Organic Compounds by SW-846 Method 8260B", October, 2006 (*Note: with updates for Method 8260C modifications*)

Calibration or QC Check	Minimum Frequency	Acceptance Criteria	QC Non-Compliance Description	Data Qualification Action
<u>Sample Preservation</u>	All samples	Water: 4°C, Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , HCl to pH<2 Soil & Other: 4°C	None found ( <i>Note: all samples were pH unpreserved</i> )	n/a; all samples analyzed <7 days from collection
<u>Holding Times</u>	All samples	Water: 14 days (7 days max. if not pH preserved) Soil & Other: 14 days (if samples kept at 4°C)	None found	
<u>MS Tuning</u>	Every 12 hours, prior to calibration	Method 8260C Table 3 criteria	None found	
<u>Initial Calibration (ICAL)</u>	Prior to sample analysis and whenever CCV fail to meet acceptance criteria Minimum 5 levels, one of which should be at RL	RSD <20%, or calibrate w/ regression curve; r>0.99; RRF values must meet Method Table 4 minimum values	None found  <i>Note: samples were analyzed only for project-specific COPCs: 1,1-diCl-ethane; 1,1-diClethene; Freon113; tetraClethene; 1,1,1-triClethane and trichloroethene.</i>	
<u>Initial Calibration Verification (ICV)</u>	Immediately following ICAL (use 2 <sup>nd</sup> -source standard)	Recovery of target compounds 70-130%	None found	
<u>Continuing Calibration Verification (CCV)</u>	Daily, prior to sample analysis and every 12 hours	%Dev for average RRF or %Diff for regression curve True Values must be ≤±20%; RRF values must meet Method Table 4 minimum values	None found	

Calibration or QC Check	Minimum Frequency	Acceptance Criteria	QC Non-Compliance Description	Data Qualification Action
<u>Method Blank (MB) / Trip Blank (TB)</u>	After ICV and CCV, before sample analysis Min. 1 MB per batch; min. 1 TB per cooler	No analytes detected >RL for MB Document positive analytes in both MB and TB in narrative	None found	
<u>Surrogate Compound Spike</u>	Every sample, spiked sample, blank and standard	All surrogate compounds recovered within lab-derived recovery ranges (see SW846 Method 8000B, Sect. 8.7)	None found	
<u>Internal Standards (IS)</u>	Every sample, spiked sample, blank and standard	IS area: -50% to +100% of respective area in ICAL mid-point standard	None found	
		Ret.Time (RT): max. $\pm 30$ sec. from resp. ICAL midpt. RT	None found	
<u>Laboratory Control Sample (LCS)</u>	Once per each analytical batch (should include all reported analytes) and should be prepared from the same source as the ICAL standards	All analytes recovered within 70 - 130% of True Value (TV) or recoveries within laboratory derived limits (whichever is more stringent)	None found	
<u>Matrix Spike / Matrix Spike Duplicate (MS/MSD)</u>	Once per each analytical batch (should include all reported analytes) and should be prepared from the same source as the ICAL standards	All analytes recovered within laboratory-derived limits for each matrix type, <u>and</u> %RPD between MS/MSD below lab-derived maximum	None found	
<u>Compound Identification</u>	Each sample analyzed	a) spectral match with standard spectrum from ICAL b) Relative retention time (RRT) within $\pm 0.06$ RRT units of standard compound c) ion ratios of target compound are within $\pm 30\%$ of relative m/z in reference (standard) spectrum	None found	



Lab ID: SGS Accutest\_Dayton, NJ  
 Lab Job No.: JC16014  
 Site ID: Bulova, Valley Stream, NY

SUMMARY of CALIBRATION and QC PROCEDURES  
 EPA SW-846 METHOD 8260C, GC-MS VOLATILES

3 of 4

**Initial Calibration**

Calibration Date:	3/3/2016	
Lab File IDs:	2D153389-397.D	
RRFs $\geq$ Table 4 values ?	yes	
Target RSDs $\leq$ 20% ?	yes	
ICV recoveries 70 - 130% ?	yes	
If No, regression used ?	n/a	
If regression used, $r > 0.99$ ?	n/a	
Qualification action:	n/a	
Affected samples:	all SDG samples	

**Continuing Calibrations**

Calibration Date:	3/15/2016	
Lab File ID:	2D153718.D	
RRFs $\geq$ Table 4 values ?	yes	
Target %Ds $\leq$ 20% ?	yes	
If No, list targets $>20\% D$ :	n/a	
Analytical Bias ?	n/a	
Qualification action:	n/a	
Affected samples:	all SDG samples	

**Sample Result Verification**

Sample ID: JC16014-4 (MWHD4-160310)  
 Compound: 1,1-dichloroethene IS: pentafluorobenzene  
 Reported Concentration: 23.6 ug/L  
 File ID: 2D153730.D

	Ax	IS	Df
Concentration, ug/L=	63847	50	1.0
	452877	0.299	
	Ais	RRF	

Concentration, ug/L= 23.58

Result verified ? yes

Reviewer comments: calcs are based on 5.0 mL initial sample purge volume

where:

Ax = area response of target quant ion  
 IS = mass of internal standard injected, ng  
 DF = dilution factor

Ais = area response of internal standard quant ion  
 RRF = ICAL average relative response factor

ADDITIONAL SAMPLING RESULTS

**ATTACHMENT A**  
**LABORATORY DELIVERABLES**



10/06/15

## Technical Report for

**Ramboll Environ US Corporation**

**Bulova, Valley Stream, NY**

**02-1961A**

**Accutest Job Number: JC4520**

**Sampling Date: 09/23/15**

### Report to:

**Ramboll Environ US Corporation**

**EDDPrinceton@environcorp.com**

**ATTN: Mary Cottingham**

**Total number of pages in report: 15**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink that reads 'Nancy F. Cole'.

**Nancy Cole**  
**Laboratory Director**

**Client Service contact: Marty Vitanza 732-329-0200**

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TN, TX, VA, WV, DoD ELAP (L-A-B L2248)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

# Table of Contents

-1-

**Section 1: Sample Summary ..... 3**

**Section 2: Case Narrative/Conformance Summary ..... 4**

**Section 3: Summary of Hits ..... 5**

**Section 4: Sample Results ..... 6**

**4.1:** JC4520-1: MWHD7-150923 ..... 7

**4.2:** JC4520-2: MWHD6-150923 ..... 8

**4.3:** JC4520-3: MWHD6-150923D ..... 9

**4.4:** JC4520-4: MWHD4-150923 ..... 10

**4.5:** JC4520-5: FB-150923 ..... 11

**4.6:** JC4520-6: TB-150923 ..... 12

**Section 5: Misc. Forms ..... 13**

**5.1:** Chain of Custody ..... 14

## Sample Summary

Ramboll Environ US Corporation

Job No: JC4520

Bulova, Valley Stream, NY

Project No: 02-1961A

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JC4520-1	09/23/15	09:28 RE	09/23/15	AQ	Ground Water	MWHD7-150923
JC4520-2	09/23/15	10:55 RE	09/23/15	AQ	Ground Water	MWHD6-150923
JC4520-2D	09/23/15	10:55 RE	09/23/15	AQ	Water Dup/MSD	MWHD6-150923
JC4520-2S	09/23/15	10:55 RE	09/23/15	AQ	Water Matrix Spike	MWHD6-150923
JC4520-3	09/23/15	10:55 RE	09/23/15	AQ	Ground Water	MWHD6-150923D
JC4520-4	09/23/15	11:24 RE	09/23/15	AQ	Ground Water	MWHD4-150923
JC4520-5	09/23/15	11:14 RE	09/23/15	AQ	Field Blank Water	FB-150923
JC4520-6	09/23/15	11:24 RE	09/23/15	AQ	Trip Blank Water	TB-150923



## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** Ramboll Environ US Corporation

**Job No** JC4520

**Site:** Bulova, Valley Stream, NY

**Report Date** 10/6/2015 11:05:33 A

On 09/23/2015, 4 Sample(s), 1 Trip Blank(s) and 1 Field Blank(s) were received at Accutest Laboratories at a maximum corrected temperature of 1.5 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JC4520 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 8260C

**Matrix:** AQ

**Batch ID:** VL7564

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC4520-2MS, JC4520-2MSD were used as the QC samples indicated.
- JC4520-6: (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.
- JC4520-5: (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.
- JC4520-4: (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.
- JC4520-3: (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.
- JC4520-2MSD: (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.
- JC4520-2MS: (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.
- JC4520-2: (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.
- JC4520-1: (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days 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

## Summary of Hits

Page 1 of 1

**Job Number:** JC4520  
**Account:** Ramboll Environ US Corporation  
**Project:** Bulova, Valley Stream, NY  
**Collected:** 09/23/15



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
<b>JC4520-1      MWHD7-150923</b>						
Trichloroethene <sup>a</sup>		0.33 J	1.0	0.22	ug/l	SW846 8260C
<b>JC4520-2      MWHD6-150923</b>						
Trichloroethene <sup>a</sup>		1.1	1.0	0.22	ug/l	SW846 8260C
<b>JC4520-3      MWHD6-150923D</b>						
Trichloroethene <sup>a</sup>		1.2	1.0	0.22	ug/l	SW846 8260C
<b>JC4520-4      MWHD4-150923</b>						
1,1-Dichloroethane <sup>a</sup>		24.6	1.0	0.17	ug/l	SW846 8260C
1,1-Dichloroethene <sup>a</sup>		160	1.0	0.51	ug/l	SW846 8260C
Freon 113 <sup>a</sup>		15.1	5.0	0.52	ug/l	SW846 8260C
Tetrachloroethene <sup>a</sup>		1.2	1.0	0.40	ug/l	SW846 8260C
1,1,1-Trichloroethane <sup>a</sup>		95.3	1.0	0.25	ug/l	SW846 8260C
Trichloroethene <sup>a</sup>		44.8	1.0	0.22	ug/l	SW846 8260C

### JC4520-5      FB-150923

No hits reported in this sample.

### JC4520-6      TB-150923

No hits reported in this sample.

(a) (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.



Sample Results

Report of Analysis

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b>	MWHD7-150923	<b>Date Sampled:</b>	09/23/15
<b>Lab Sample ID:</b>	JC4520-1	<b>Date Received:</b>	09/23/15
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	L276542.D	1	09/26/15	ST	n/a	n/a	VL7564
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-01-6	Trichloroethene	0.33	1.0	0.22	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	102%		73-122%
2037-26-5	Toluene-D8	104%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

(a) (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

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

<b>Client Sample ID:</b>	MWHD6-150923	<b>Date Sampled:</b>	09/23/15
<b>Lab Sample ID:</b>	JC4520-2	<b>Date Received:</b>	09/23/15
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	L276538.D	1	09/26/15	ST	n/a	n/a	VL7564
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-01-6	Trichloroethene	1.1	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		76-120%
17060-07-0	1,2-Dichloroethane-D4	100%		73-122%
2037-26-5	Toluene-D8	104%		84-119%
460-00-4	4-Bromofluorobenzene	101%		78-117%

(a) (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

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

<b>Client Sample ID:</b>	MWHD6-150923D	<b>Date Sampled:</b>	09/23/15
<b>Lab Sample ID:</b>	JC4520-3	<b>Date Received:</b>	09/23/15
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	L276543.D	1	09/26/15	ST	n/a	n/a	VL7564
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-01-6	Trichloroethene	1.2	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	104%		73-122%
2037-26-5	Toluene-D8	103%		84-119%
460-00-4	4-Bromofluorobenzene	104%		78-117%

(a) (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

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

<b>Client Sample ID:</b>	MWHD4-150923	<b>Date Sampled:</b>	09/23/15
<b>Lab Sample ID:</b>	JC4520-4	<b>Date Received:</b>	09/23/15
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	L276544.D	1	09/26/15	ST	n/a	n/a	VL7564
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	24.6	1.0	0.17	ug/l	
75-35-4	1,1-Dichloroethene	160	1.0	0.51	ug/l	
76-13-1	Freon 113	15.1	5.0	0.52	ug/l	
127-18-4	Tetrachloroethene	1.2	1.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	95.3	1.0	0.25	ug/l	
79-01-6	Trichloroethene	44.8	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	105%		73-122%
2037-26-5	Toluene-D8	104%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

(a) (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

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

<b>Client Sample ID:</b>	FB-150923	<b>Date Sampled:</b>	09/23/15
<b>Lab Sample ID:</b>	JC4520-5	<b>Date Received:</b>	09/23/15
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	L276540.D	1	09/26/15	ST	n/a	n/a	VL7564
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		76-120%
17060-07-0	1,2-Dichloroethane-D4	101%		73-122%
2037-26-5	Toluene-D8	105%		84-119%
460-00-4	4-Bromofluorobenzene	102%		78-117%

(a) (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

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

<b>Client Sample ID:</b>	TB-150923	<b>Date Sampled:</b>	09/23/15
<b>Lab Sample ID:</b>	JC4520-6	<b>Date Received:</b>	09/23/15
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	L276541.D	1	09/26/15	ST	n/a	n/a	VL7564
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		76-120%
17060-07-0	1,2-Dichloroethane-D4	102%		73-122%
2037-26-5	Toluene-D8	105%		84-119%
460-00-4	4-Bromofluorobenzene	104%		78-117%

(a) (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

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

## Misc. Forms

5

### Custody Documents and Other Forms

---

Includes the following where applicable:

- Chain of Custody





# CHAIN OF CUSTODY

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

PAGE 1 OF 1

Client / Reporting Information		Project Information		Requested Analysis		Matrix Codes												
Company Name <b>Ramboll Environ</b>	Project Name <b>Bulova</b>																	
Address <b>101 Carnegie Ctr</b>	Street <b>Bulova</b>																	
City <b>Princeton NJ</b>	City <b>Valley Stream NY</b>																	
State <b>NJ</b>	State <b>NY</b>																	
Zip <b>08540</b>	Project #																	
Project Contact <b>L. Diehl / A. Brody</b>	Fax #																	
Phone # <b>609 452 9000</b>	Client Purchase Order #																	
Sampler(s) Name(s) <b>L. Diehl / A. Brody</b>																		
Accutest Sample #	Field ID / Point of Collection	SUMMA #	MEOH Vial #	Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEQ	ENDURE	LAB USE ONLY	
1	MWHD7-150923	*		9/15/15	923	RE	GW	3										
2	MWHD6-150923				1055		GW	3										V165
3	MWHD6-150923D				1055		GW	3										
4	MWHD4-150923				1124		GW	3										
5	EB-150923				1114		DI	2										
6	TB-150923	*			1115		DI	2										
Turnaround Time (Business days)		Data Deliverable Information		Comments / Remarks														
<input checked="" type="checkbox"/> Std. 15 Business Days <input type="checkbox"/> 70 Day RUSH <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		Approved By: / Date: <b>INITIAL ASSESSMENT 12/2A</b> <b>LABEL VERIFICATION 03</b>		Commercial "A" = Results Only Commercial "B" = Results + QC Summary		Site Specific MS + MSD viols included MWHD6-150923 * UP3 10/23/15												
Emergency & Rush TIA data available VIA Lablink		Sample Custody must be documented below each time samples change possession, including courier delivery.																
Relinquished By: / Date Time: 1 <b>AK</b> / 9/15/15 1610	Received By: / Date Time: 1 <b>[Signature]</b> /	Relinquished By: / Date Time: 2 <b>[Signature]</b> /	Received By: / Date Time: 2 <b>[Signature]</b> /	Relinquished By: / Date Time: 3 <b>[Signature]</b> /	Received By: / Date Time: 3 <b>[Signature]</b> /	Relinquished By: / Date Time: 4 <b>[Signature]</b> /	Received By: / Date Time: 4 <b>[Signature]</b> /	Relinquished By: / Date Time: 5 <b>[Signature]</b> /	Received By: / Date Time: 5 <b>[Signature]</b> /	Custody Seal #	Preserved where applicable	On Ice	Cooler Temp. <b>1.3°C IP</b>					

JC4520: Chain of Custody

Page 1 of 2

## Accutest Laboratories Sample Receipt Summary

**Accutest Job Number:** JC4520      **Client:** \_\_\_\_\_      **Project:** \_\_\_\_\_  
**Date / Time Received:** 9/23/2015 4:10:00 PM      **Delivery Method:** \_\_\_\_\_      **Airbill #s:** \_\_\_\_\_

Cooler Temps (Raw Measured) °C: Cooler 1: (1.3);  
 Cooler Temps (Corrected) °C: Cooler 1: (1.5);

**Cooler Security**
**Y or N**
**Y or N**

- |  |   |
|--|---|
| 1. Custody Seals Present: <input checked="" type="checkbox"/> <input type="checkbox"/> | 3. COC Present: <input checked="" type="checkbox"/> <input type="checkbox"/>        |
| 2. Custody Seals Intact: <input checked="" type="checkbox"/> <input type="checkbox"/>  | 4. Smpl Dates/Time OK: <input checked="" type="checkbox"/> <input type="checkbox"/> |

**Cooler Temperature**
**Y or N**

- |   |           |
|---|-----------|
| 1. Temp criteria achieved: <input checked="" type="checkbox"/> <input type="checkbox"/> |           |
| 2. Cooler temp verification: _____  | IR Gun    |
| 3. Cooler media: _____  | Ice (Bag) |
| 4. No. Coolers: _____   | 1         |

**Quality Control Preservation**
**Y or N**
**N/A**

- |   |  |
|---|--|
| 1. Trip Blank present / cooler: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |  |
| 2. Trip Blank listed on COC: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>    |  |
| 3. Samples preserved properly: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  |  |
| 4. VOCs headspace free: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>         |  |

**Sample Integrity - Documentation**
**Y or N**

- |   |  |
|---|--|
| 1. Sample labels present on bottles: <input checked="" type="checkbox"/> <input type="checkbox"/>   |  |
| 2. Container labeling complete: <input checked="" type="checkbox"/> <input type="checkbox"/>        |  |
| 3. Sample container label / COC agree: <input checked="" type="checkbox"/> <input type="checkbox"/> |  |

**Sample Integrity - Condition**
**Y or N**

- |   |        |
|---|--------|
| 1. Sample recvd within HT: <input checked="" type="checkbox"/> <input type="checkbox"/>       |        |
| 2. All containers accounted for: <input checked="" type="checkbox"/> <input type="checkbox"/> |        |
| 3. Condition of sample: _____   | Intact |

**Sample Integrity - Instructions**
**Y or N N/A**

- |   |                                     |
|---|-------------------------------------|
| 1. Analysis requested is clear: <input checked="" type="checkbox"/> <input type="checkbox"/>            |                                     |
| 2. Bottles received for unspecified tests: <input type="checkbox"/> <input checked="" type="checkbox"/> |                                     |
| 3. Sufficient volume recvd for analysis: <input checked="" type="checkbox"/> <input type="checkbox"/>   |                                     |
| 4. Compositing instructions clear: <input type="checkbox"/> <input type="checkbox"/>                    | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: <input type="checkbox"/> <input type="checkbox"/>                      | <input checked="" type="checkbox"/> |

 Comments

### Technical Report for

Ramboll Environ US Corporation

Bulova, Valley Stream, NY

02-1961B

SGS Accutest Job Number: JC16014

Sampling Date: 03/10/16

Report to:

Ramboll Environ US Corporation

EDDPrinceton@environcorp.com

ATTN: Mary Cottingham

Total number of pages in report: **15**



Test results contained within this data package meet the requirements  
of the National Environmental Laboratory Accreditation Program  
and/or state specific certification programs as applicable.

*Nancy F. Cole*

Nancy Cole  
Laboratory Director

Client Service contact: Marty Vitanza 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC,  
OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TN, TX, VA, WV, DoD ELAP (L-A-B L2248)

This report shall not be reproduced, except in its entirety, without the written approval of SGS Accutest.  
Test results relate only to samples analyzed.

# Table of Contents

-1-

**Section 1: Sample Summary ..... 3**

**Section 2: Case Narrative/Conformance Summary ..... 4**

**Section 3: Summary of Hits ..... 5**

**Section 4: Sample Results ..... 6**

**4.1:** JC16014-1: MWHD7-160310 ..... 7

**4.2:** JC16014-2: MWHD6-160310 ..... 8

**4.3:** JC16014-3: MWHD6-160310D ..... 9

**4.4:** JC16014-4: MWHD4-160310 ..... 10

**4.5:** JC16014-5: FB-160310 ..... 11

**4.6:** JC16014-6: TB-160310 ..... 12

**Section 5: Misc. Forms ..... 13**

**5.1:** Chain of Custody ..... 14



Sample Summary

Ramboll Environ US Corporation

Job No: JC16014

Bulova, Valley Stream, NY  
Project No: 02-1961B

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JC16014-1	03/10/16	09:54 JS/AB	03/10/16	AQ	Ground Water	MWHD7-160310
JC16014-2	03/10/16	10:57 JS/AB	03/10/16	AQ	Ground Water	MWHD6-160310
JC16014-2D	03/10/16	10:57 JS/AB	03/10/16	AQ	Water Dup/MSD	MWHD6-160310MSD
JC16014-2S	03/10/16	10:57 JS/AB	03/10/16	AQ	Water Matrix Spike	MWHD6-160310MS
JC16014-3	03/10/16	10:57 JS/AB	03/10/16	AQ	Ground Water	MWHD6-160310D
JC16014-4	03/10/16	11:44 JS/AB	03/10/16	AQ	Ground Water	MWHD4-160310
JC16014-5	03/10/16	09:30 JS/AB	03/10/16	AQ	Field Blank Water	FB-160310
JC16014-6	03/10/16	11:44 JS/AB	03/10/16	AQ	Trip Blank Water	TB-160310

## CASE NARRATIVE / CONFORMANCE SUMMARY

2

**Client:** Ramboll Environ US Corporation

**Job No** JC16014

**Site:** Bulova, Valley Stream, NY

**Report Date** 3/23/2016 2:58:05 PM

On 03/10/2016, 4 Sample(s), 1 Trip Blank(s) and 1 Field Blank(s) were received at Accutest Laboratories at a maximum corrected temperature of 4 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JC16014 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 8260C

**Matrix:** AQ

**Batch ID:** V2D6463

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC16014-2MS, JC16014-2MSD were used as the QC samples indicated.
- JC16014-6: (pH=5) Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.
- JC16014-5: (pH=5) Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.
- JC16014-4: (pH=6) Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.
- JC16014-3: (pH=7) Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.
- JC16014-2MSD: (pH=7) Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.
- JC16014-2MS: (pH=7) Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.
- JC16014-2: (pH=7) Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.
- JC16014-1: (pH=5) Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days 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

Wednesday, March 23, 2016

Page 1 of 1

## Summary of Hits

**Job Number:** JC16014  
**Account:** Ramboll Environ US Corporation  
**Project:** Bulova, Valley Stream, NY  
**Collected:** 03/10/16



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
--------------------------	------------------	-----------------	----	-----	-------	--------

### JC16014-1 MWHD7-160310

Trichloroethene <sup>a</sup>	0.39 J	1.0	0.22	ug/l	SW846 8260C
------------------------------	--------	-----	------	------	-------------

### JC16014-2 MWHD6-160310

Trichloroethene <sup>b</sup>	1.6	1.0	0.22	ug/l	SW846 8260C
------------------------------	-----	-----	------	------	-------------

### JC16014-3 MWHD6-160310D

Trichloroethene <sup>b</sup>	1.6	1.0	0.22	ug/l	SW846 8260C
------------------------------	-----	-----	------	------	-------------

### JC16014-4 MWHD4-160310

1,1-Dichloroethane <sup>c</sup>	10.2	1.0	0.17	ug/l	SW846 8260C
1,1-Dichloroethene <sup>c</sup>	23.6	1.0	0.51	ug/l	SW846 8260C
Freon 113 <sup>c</sup>	6.6	5.0	0.52	ug/l	SW846 8260C
Tetrachloroethene <sup>c</sup>	1.1	1.0	0.40	ug/l	SW846 8260C
1,1,1-Trichloroethane <sup>c</sup>	13.1	1.0	0.25	ug/l	SW846 8260C
Trichloroethene <sup>c</sup>	10.4	1.0	0.22	ug/l	SW846 8260C

### JC16014-5 FB-160310

No hits reported in this sample.

### JC16014-6 TB-160310

No hits reported in this sample.

(a) (pH= 5) Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

(b) (pH= 7) Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

(c) (pH= 6) Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

**Sample Results**

**Report of Analysis**



## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b>	MWHD7-160310	<b>Date Sampled:</b>	03/10/16
<b>Lab Sample ID:</b>	JC16014-1	<b>Date Received:</b>	03/10/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	2D153728.D	1	03/16/16	AM	n/a	n/a	V2D6463
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-01-6	Trichloroethene	0.39	1.0	0.22	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	103%		73-122%
2037-26-5	Toluene-D8	101%		84-119%
460-00-4	4-Bromofluorobenzene	101%		78-117%

(a) (pH= 5) Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

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

<b>Client Sample ID:</b>	MWHD6-160310	<b>Date Sampled:</b>	03/10/16
<b>Lab Sample ID:</b>	JC16014-2	<b>Date Received:</b>	03/10/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	2D153725.D	1	03/16/16	AM	n/a	n/a	V2D6463
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-01-6	Trichloroethene	1.6	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	101%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	101%		78-117%

(a) (pH= 7) Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

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

<b>Client Sample ID:</b>	MWHD6-160310D	<b>Date Sampled:</b>	03/10/16
<b>Lab Sample ID:</b>	JC16014-3	<b>Date Received:</b>	03/10/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	2D153729.D	1	03/16/16	AM	n/a	n/a	V2D6463
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-01-6	Trichloroethene	1.6	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		76-120%
17060-07-0	1,2-Dichloroethane-D4	104%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	100%		78-117%

(a) (pH= 7) Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

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

<b>Client Sample ID:</b>	MWHD4-160310	<b>Date Sampled:</b>	03/10/16
<b>Lab Sample ID:</b>	JC16014-4	<b>Date Received:</b>	03/10/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	2D153730.D	1	03/16/16	AM	n/a	n/a	V2D6463
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	10.2	1.0	0.17	ug/l	
75-35-4	1,1-Dichloroethene	23.6	1.0	0.51	ug/l	
76-13-1	Freon 113	6.6	5.0	0.52	ug/l	
127-18-4	Tetrachloroethene	1.1	1.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	13.1	1.0	0.25	ug/l	
79-01-6	Trichloroethene	10.4	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	104%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	100%		78-117%

(a) (pH= 6) Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

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

<b>Client Sample ID:</b>	FB-160310	<b>Date Sampled:</b>	03/10/16
<b>Lab Sample ID:</b>	JC16014-5	<b>Date Received:</b>	03/10/16
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	2D153726.D	1	03/16/16	AM	n/a	n/a	V2D6463
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	101%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	101%		78-117%

(a) (pH= 5) Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

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

<b>Client Sample ID:</b>	TB-160310	<b>Date Sampled:</b>	03/10/16
<b>Lab Sample ID:</b>	JC16014-6	<b>Date Received:</b>	03/10/16
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	2D153727.D	1	03/16/16	AM	n/a	n/a	V2D6463
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	101%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	100%		78-117%

(a) (pH= 5) Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

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

## Misc. Forms

5

## Custody Documents and Other Forms

---

Includes the following where applicable:

- Chain of Custody

SGS

GW  
WFB  
WTFB

ACCUTEST

UP CHAIN OF CUSTODY

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

PAGE 1 OF 1

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)		Matrix Codes	
Company Name <b>Ramboll Environ</b>		Project Name <b>Bulova</b>		FED-EX Tracking #		Bottle Order Control #	
Street Address <b>101 Carnegie Ctr.</b>		Street <b>Valley Stream, NY</b>		SGS Accutest Quote #		SGS Accutest Job # <b>JC16014</b>	
City, State, Zip <b>Roseton, NY 08540</b>		Billing Information (if different from Report to) Company Name		SGS Accutest Job #		Matrix Codes	
Project Contact <b>Nscala@ramboll.com</b>		Project # <b>02.1961B</b>		Street Address		DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Phone # <b>609 452 9006</b>		Client Purchase Order #		City, State, Zip		LAB USE ONLY	
Sample(s) Name(s) <b>S. Symply / A. Broadway</b>		Project Manager		Attention:			
Field ID / Point of Collection		MEOH/ID#		Collection		Number of preserved Bottles	
1 MWH07-160310		3/10/16		0954		3	
2 MWH06-160310		1057		1		1	
3 MWH06-160310D		1057		1		1	
2 MWH06-160310MS		1057		1		1	
4 MWH06-160310MSD		1057		1		1	
4 MWH04-160310		1144		2		2	
5 FB-160310		0930		2		2	
6 TB-160310		1144		2		2	
Turnaround Time (Business days)		Approved By (SGS 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 RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day RUSH <input type="checkbox"/> other		<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" <input type="checkbox"/> NJ Data of Known Quality Protocol Reporting		<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		INITIAL ASSESSMENT <b>3/10/16</b> LABEL VERIFICATION <b>3/10/16</b>	
Emergency & Rush T/A data available VIA Lablink		NJ Reduced = Results + QC Summary + Partial Raw data		Commercial "A" = Results Only, Commercial "B" = Results + QC Summary		Sample inventory is verified upon receipt in the Laboratory	
Relinquished by Sampler:		Date Time:		Received By:		Date Time:	
1 <b>W. W. W.</b>		3/10/16/1440		1 <b>W. W. W.</b>		2	
Relinquished by Sampler:		Date Time:		Received By:		Date Time:	
3				3			
Relinquished by:		Date Time:		Received By:		Date Time:	
5				5			
Custody Seal #		335		Intact		Preserved where applicable	
				Not intact		Cooler Temp. <b>3.6</b>	

JC16014: Chain of Custody

Page 1 of 2

SGS

14 of 15  
ACCUTEST  
JC16014



## SGS Accutest Sample Receipt Summary

**Job Number:** JC16014

**Client:**
**Project:**
**Date / Time Received:** 3/10/2016 2:20:00 PM

**Delivery Method:**
**Airbill #s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (3.6);

Cooler Temps (Corrected) °C: Cooler 1: (4.0);

**Cooler Security**
**Y or N**

- |                           |                                     |                          |                       |                                     |                          |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Cooler Temperature**
**Y or N**

- |                              |                                     |                          |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun                              |                          |
| 3. Cooler media:             | Ice (Bag)                           |                          |
| 4. No. Coolers:              | 1                                   |                          |

**Quality Control Preservation**
**Y or N**
**N/A**

- |                                 |                                     |                          |                          |
|---------------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. Trip Blank present / cooler: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC:    | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                          |
| 4. VOCs headspace free:         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**Sample Integrity - Documentation**
**Y or N**

- |  |                                     |                          |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete:        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Sample Integrity - Condition**
**Y or N**

- |                                  |                                     |                          |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample:          | Intact                              |                          |

**Sample Integrity - Instructions**
**Y or N N/A**

- |   |                                     |                                     |                                     |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |
| 3. Sufficient volume recvd for analysis:  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Comments

JC16014: Chain of Custody

Page 2 of 2