December 9, 2013

Mr. David Szymanski
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 9
270 Michigan Avenue
Buffalo, New York 14203-2999

Subject: **2013 Periodic Review Report**
Buffalo Outer Harbor-Radio Tower Area
Site No. 9-15-026

Dear Mr. Szymanski:

MACTEC Engineering and Consulting, P.C. (Mactec) is submitting this Periodic Review Report (PRR) for the Buffalo Outer Harbor-Radio Tower Area (Site) on behalf of the Remedial Party, Honeywell International Inc. (Honeywell).

A completed Site Management PRR Notice - Institutional and Engineering Controls Certification Form is provided herein as Attachment A, which includes a summary of existing covenants and property use restrictions. A report titled "2011-2013 Triennial Operations, Maintenance, and Monitoring Report, Buffalo Outer Harbor-Radio Tower Area" (OM&M Report), is included herein as Attachment B. The remainder of this document is consistent with the outline presented in New York State Department of Environmental Conservation's (NYSDEC's) 45-day notice letter dated November 25, 2013.

I. Introduction

A. Site Summary:

The Site is located on property owned by the Niagara Frontier Transportation Authority (NFTA). The Site address is 901 Fuhrmann Boulevard in Buffalo, Erie County, New York 14205. The Site consists of a 0.9-acre area where land disposal and fill placement formerly occurred and soils were found to be contaminated with nitrobenzene exceeding toxicity characteristic leaching procedure (TCLP) hazardous waste thresholds. The Site is located within a larger 6-acre area known as the Radio Tower Area (RTA). A Record of Decision (ROD) was issued by the NYSDEC for the RTA in March 1999, which was modified by an Explanation of Significant Difference in 2003.

Remedial action completed at the Site consisted of in-situ chemical oxidation and stabilization, and in-place capping of the former disposal area. The Site remediation activities were documented in a Remedial Action Completion Report (August 17, 2005), which was approved by NYSDEC in a letter dated November 22, 2005. Institutional

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controls were also implemented via a Declaration of Covenants and Restrictions that was filed with Erie County in December 2005. The covenants and restrictions include land use restrictions and the requirement for annual inspection and maintenance of the capped area, as specified in Section 6.0 of the NYSDEC-approved Site Management Plan prepared for Honeywell by Remedial Engineering, P.C. (August 17, 2005). Six groundwater monitoring wells (GW-18R, GW-19, GW-20, GW-21, GW-22, and GW-23) are located adjacent to the capped area.

During the period of 2011 through 2013, the following routine OM&M activities were completed in accordance with the Work Plan for Inspection and Monitoring (referred to hereafter as the Work Plan), prepared by Mactec (December 19, 2008), as approved, with amendment, by the NYSDEC as indicated in their letter dated July 10, 2009:

- Collection and laboratory testing of groundwater samples from Site wells once every three years (i.e., 2013); and
- Annual inspection and maintenance of the cover.

B. Effectiveness Monitoring: The cap system is intact with suitable vegetative cover and no subsidence. Analytical results from the 2013 groundwater monitoring event indicate that nitrobenzene was not detected in groundwater above NY Class GA groundwater standards. The reported concentrations for various metals in the 2013 groundwater samples exceeded the NY Class GA groundwater standards. The metals results were consistent with previous Outer Harbor data, as well as data presented in the ROD, which concluded that the concentrations of metals in groundwater may be attributable to "general groundwater quality in the vicinity of the Site".

C. Compliance: The OM&M activities conducted during the period 2011 through 2013 were performed in accordance with the Work Plan and as described in the attached OM&M Report.

D. Recommendations: Implementation of the activities specified in the Work Plan will continue in 2014 through 2016, as described in the attached OM&M Report and in Section VI of this letter.

II. Site Overview

A. Site Location: The property is located at 901 Fuhrmann Boulevard in an area known as Buffalo Outer Harbor on Lake Erie. The Site and surrounding property is currently owned by NFTA. The Outer Harbor property is occupied by the NFTA's port terminal facilities and a large paved parking area. The Site is specifically located near the northern edge of the NFTA terminal parking area and consists of a 0.9-acre capped/remediated former disposal area. There are six groundwater monitoring wells (GW-18R, GW-19, GW-20, GW-21, GW-22, and GW-23) located adjacent to the capped area.

B. Chronology: A ROD was issued by the NYSDEC for the RTA in March 1999 calling for ex-situ bioremediation of the nitrobenzene-contaminated soils. In 2001, a pilot-study was successfully completed for the in-situ chemical oxidation treatment of the nitrobenzene-contaminated soils. An Explanation of Significant Difference was issued in 2003, accepting an in-situ chemical oxidation remedy. Remedial action was conducted in 2003 and initially consisted of two rounds of in-situ chemical oxidation

using potassium permanganate. Subsequently, treatability studies were conducted in support of stabilization of the remaining contamination, and a mixture of Portland cement and activated carbon was used to stabilize the remaining nitrobenzene-contaminated material. Final restoration activities were completed in 2004 and included removal of approximately 1,680 cubic yards of treated and stabilized soil, which were disposed of at the Alltift Landfill site (NYSDEC site No. 9-15-054), and in-place capping of the remaining treated soils. The cap is a soil cover system that is 24 inches thick and consists of a bottom geotextile liner overlain by 20 inches of clean fill and 4 inches of topsoil. Vegetation was established over the capped area via seeding with local grasses. The Site remediation activities were documented in a Remedial Action Completion Report (August 17, 2005), which was approved by NYSDEC in a letter dated November 22, 2005. Institutional controls were also implemented, including land use restrictions and the requirement for annual inspection and maintenance of the capped area, as specified in Section 6.0 of the NYSDEC-approved Site Management Plan prepared for Honeywell by Remedial Engineering, P.C. (August 17, 2005). A Declaration of Covenants and Restrictions was executed by NYSDEC and filed at the Erie County courthouse on December 27, 2005. Quarterly groundwater monitoring events were completed by Mactec in 2005-2006, with the results documented in a letter report issued by Mactec on October 2, 2006. Semi-annual groundwater monitoring events were completed by Mactec in 2006-2007, with results presented in a letter report issued by Mactec on March 26, 2008. A Work Plan was prepared by Mactec in December 2008 that presented requirements for ongoing inspection and monitoring for the Site. This Work Plan was approved, with amendment, by the NYSDEC, as indicated in a letter dated July 10, 2009. On September 30, 2009, Mactec issued a letter to NYSDEC that presented the 2010 inspection and monitoring schedule for the Site.

III. Evaluation of Remedy Performance, Effectiveness and Protectiveness

A. The performance, effectiveness and protectiveness of the remedy is verified by ensuring that the cap system is intact as constructed and that the remaining nitrobenzene-contaminated soils are not leaching to groundwater.

- Ensuring the cap system is intact as constructed: Annual site inspections are conducted that include monitoring of Site vegetation, ground inspections, and visual checks for evidence of erosion or subsidence. The results from the annual inspection indicate that the integrity of the cap is sound. A copy of the annual inspection report is included in the attached OM&M Report.
- Ensuring that the remaining nitrobenzene-contaminated soils are not leaching to groundwater. Beginning in 2010, groundwater samples are to be collected once every three years from the six groundwater monitoring wells located on the Site. The samples will be analyzed for nitrobenzene and Target Analyte List (TAL) metals in accordance with EPA Methods. The 2013 analytical report is included in the attached OM&M Report.

IV. IC/EC Plan Compliance Report – A separate IC/EC Plan has not been prepared. The status of Site engineering controls is discussed in the attached OM&M Report.

V. Monitoring Plan Compliance Report – A separate Monitoring Plan Compliance Report is not required for this site. Monitoring requirements are addressed in the Work Plan, as approved, with amendment, by the NYSDEC.

VI. Operations and Maintenance Plan Compliance Report

A. Components of the Work Plan – Requirements of the Work Plan, as amended and approved, include the following:

- Triennial Groundwater Sampling and Analysis
- Annual Site Inspections
- Maintenance Activities (annual mowing of cap, repair of areas showing erosion or subsidence, etc.).

B. Summary of OM&M Completed 2011 through 2013: Groundwater sampling and analysis (2013 only), annual site inspection, and annual mowing were completed in accordance with the Work Plan. The following summarizes the activities completed:

- The 2013 groundwater sampling event was completed in September 2013 and included collection of aqueous samples from six monitoring wells; the samples were analyzed for the parameters specified in the Work Plan. The results are summarized in the attached OM&M Report.
- Annual site inspections were conducted as outlined in the Work Plan.
- Routine maintenance activities were conducted, consisting of annual mowing events.

C. OM&M Deficiencies: None identified.

D. Conclusions and Recommendations: The following conclusions were developed based on the data collected during the 2011 through 2013 OM&M period:

- Based on the results of the annual inspection report, which verifies that the integrity of the cap is adequate and vegetation is established, the remedy remains protective and functions as a barrier that prevents direct contact with underlying waste and impacted soils.
- Based on the results of the 2013 groundwater monitoring event, which indicates that groundwater is not being contaminated by nitrobenzene leaching from the stabilized soils at concentrations greater than NY Class GA groundwater standards, the remedy is effective at preventing the leaching of contamination to groundwater.

The following recommendations were developed based on the data collected during the 2011 through 2013 OM&M period:

- Concentrations of nitrobenzene were not detected greater than NY Class GA groundwater standards in groundwater samples collected in 2013. Therefore, it is recommended that the next triennial sampling event be conducted in 2016 in accordance with the Work Plan.
- Site inspections should continue on an annual basis during 2014, 2015 and 2016.
- Routine OM&M activities should continue, including annual mowing of the capped area, on an annual basis during 2014, 2015 and 2016.

- Based on discussions with David Szymanski, NYSDEC Project Manager, the next PRR submittal, to include the OM&M report, should be completed and submitted to NYSDEC by December 31, 2016.

VII. Overall PRR Conclusions

A. Compliance: Inspection, maintenance and monitoring activities were completed during the period of 2011 through 2013 in accordance with the Work Plan. The Site remains in compliance with applicable covenants and restrictions.

B. Performance and Effectiveness of the Remedy: The condition of the cap system and results of groundwater monitoring well sampling and analysis for nitrobenzene indicate that the remedy is performing effectively.

C. Future PRR submittals: It is anticipated that the next PRR will be submitted by December 31, 2016.

Closing

Please contact Mr. Dan Forlastro at (412) 279-6661 with any questions or comments on this submittal.

Respectfully,

MACTEC Engineering and Consulting, P.C.

Ryan Belcher
Senior Engineer

Daniel Forlastro, P.E.
Principal Engineer

W/attachments

cc: R. Galloway (Honeywell) – electronic copy
T. Carvana (NFTA) – electronic copy

ATTACHMENT A

PRR NOTICE
IC/EC 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. **915026**

Site Name Buffalo Outer Harbor-Radio Tower Area

Site Address: 901 Fuhrmann Boulevard Zip Code: 14205
City/Town: Buffalo
County: Erie
Site Acreage: 0.9

Reporting Period: November 30, 2010 to November 30, 2013

	YES	NO
1. Is the information above correct?	☒	☐
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?	☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
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?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	☒	☐
7. Are all ICs/ECs in place and functioning as designed?	☒	☐

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.

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

Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. 915026 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
122.17-1-1	Niagara Frontier Transp. Authority	Site Management Plan Soil Management Plan Landuse Restriction Ground Water Use Restriction

1. Maintenance of the soil cover in accordance with Site Management Plan
2. Site limited to industrial or commercial use only, excluding day care, child care and medical care uses.
3. Use of groundwater underlying site prohibited without treatment rendering it safe for drinking water or industrial purposes.
4. Annual inspection required to confirm that the remedy (cover) and required restrictions remain in place.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
122.17-1-1	Cover System

Box 5

Periodic Review Report (PRR) Certification Statements

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

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

   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 compete.

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

   (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.

_____ _____

Signature of Owner, Remedial Party or Designated Representative — Date

IC CERTIFICATIONS
SITE NO. 915026

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 Richard Galloway (print name) at Honeywell, 101 Columbia Road, Morristown NJ 07962 (print business address),

am certifying as Remedial Party (Owner or Remedial Party)

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

Richard W. Galloway
Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

December 2, 2013
Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer 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 DANIEL FORLASTRO (print name) at MACTEC ENGINEERING & CONSULTING PC 800 N. BELL AVE PITTSBURGH PA 15106 (print business address),

am certifying as a Professional Engineer for the HONEYWELL (Owner or Remedial Party)

STATE OF NEW YORK
DANIEL FORLASTRO
091171
LICENSED PROFESSIONAL ENGINEER

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

(Required for PE)

November 27, 2013
Date

Enclosure 3
Periodic Review Report (PRR) General Guidance

I. Executive Summary: (1/2-page or less)
   A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
   B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
      1. progress made during the reporting period toward meeting the remedial objectives for the site
      2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
   C. Compliance
      1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
      2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
   D. Recommendations
      1. recommend whether any changes to the SMP are needed
      2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
      3. recommend whether the requirements for discontinuing site management have been met.

II. Site Overview (one page or less)
   A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
   B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.

III. Evaluate Remedy Performance, Effectiveness, and Protectiveness
   Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.

IV. IC/EC Plan Compliance Report (if applicable)
   A. IC/EC Requirements and Compliance
      1. Describe each control, its objective, and how performance of the control is evaluated.
      2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
      3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
      4. Conclusions and recommendations for changes.
   B. IC/EC Certification
      1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).

V. Monitoring Plan Compliance Report (if applicable)
   A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
   B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
   C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
   D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
   E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.

VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
   A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
   B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.
   C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated the ability of each component of the remedy subject to O&M requirements to perform as

designed/expected.

D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.

E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations

A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
   1. whether all requirements of each plan were met during the reporting period
   2. any requirements not met
   3. proposed plans and a schedule for coming into full compliance.

B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.

C. Future PRR Submittals
   1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
   2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

ATTACHMENT B

2011 – 2013
TRIENNIAL OPERATIONS, MAINTENANCE, AND MONITORING REPORT

2011-2013
TRIENNIAL OPERATIONS, MAINTENANCE, AND MONITORING REPORT

BUFFALO OUTER HARBOR-RADIO TOWER AREA
Buffalo, Erie County, New York
NYSDEC Site No. 9-15-026

Submitted To:

The New York State Department of Environmental Conservation
Division of Hazardous Waste Remediation

Submitted By:

Honeywell

101 Columbia Road
Morristown, New Jersey 07962

Prepared By:

MACTEC Engineering and Consulting, P.C.
800 North Bell Avenue, Suite 200
Pittsburgh, Pennsylvania 15106
(412) 279-6661 Fax (412) 279-8567

November 2013

2011-2013
TRIENNIAL OPERATIONS, MAINTENANCE, AND MONITORING REPORT

BUFFALO OUTER HARBOR-RADIO TOWER AREA
Buffalo, Erie County, New York
NYSDEC Site No. 9-15-026

Submitted To:

The New York State Department of Environmental Conservation
Division of Hazardous Waste Remediation

Submitted By:

Honeywell International Inc.
101 Columbia Road
Morristown, New Jersey 07962

Prepared By:

MACTEC Engineering and Consulting, P.C.
800 North Bell Avenue, Suite 200
Pittsburgh, Pennsylvania 15106
(412) 279-6661 Fax (412) 279-8567

Ryan T. Belcher
Senior Engineer

Daniel Forlastro, P.E.
Principal Engineer

November 2013

Project 3410120906

TABLE OF CONTENTS

TABLES

APPENDICES

ACRONYMS

Honeywell	Honeywell International Inc.
MACTEC	MACTEC Engineering and Consulting, P.C.
µg/l	micrograms per liter
NFTA	Niagara Frontier Transportation Authority
NTU	Nephelometric Turbidity Unit
NYCRR	New York Codes, Rules, and Regulations
NYSDEC	New York State Department of Environmental Conservation
OM&M	operations, maintenance, and monitoring
PRR	Periodic Review Report
ROD	Record of Decision
RTA	Radio Tower Area
Site	Buffalo Outer Harbor-Radio Tower Area site
TCLP	toxicity characteristic leaching procedure
Work Plan	Work Plan for Inspection and Monitoring

1.0 INTRODUCTION

In accordance with the New York State Department of Environmental Conservation (NYSDEC) Record of Decision (ROD) issued in March 1999 and modified by an Explanation of Significant Difference in 2003, Honeywell International Inc. (Honeywell) performed a remedial action at the Buffalo Outer Harbor-Radio Tower Area site (Site), and is performing long-term operations, maintenance, and monitoring (OM&M) at the Site. Mactec Engineering and Consulting, P.C. (Mactec) has prepared this report on behalf of Honeywell to document the results of OM&M activities for the period of 2011 through 2013.

The primary remedial objectives at the Site are to eliminate the potential for direct contact with residual nitrobenzene-contaminated soils solidified and left in place and to eliminate the potential for leaching of nitrobenzene to groundwater. The key remedial actions for the Site included the consolidation and stabilization of nitrobenzene-contaminated soils, off-site disposal of stabilized nitrobenzene soils, and construction of a soil cover. Remedial construction was completed between 2003 and 2004.

Institutional controls consisting of land use covenants and restrictions were also implemented via a Declaration of Covenants and Restrictions that was recorded at the Erie County courthouse on December 27, 2005. The covenants and restrictions include a requirement for inspection and annual maintenance of the capped area, as specified in Section 6.0 of the Site Management Plan prepared for Honeywell by Remedial Engineering, P.C., dated August 17, 2005 (Remedial Engineering, 2005).

In its November 22, 2005 letter approving the Remedial Action Completion Report, NYSDEC specified that groundwater samples were to be collected and analyzed from the Site monitoring wells on a quarterly basis for one year and on a semi-annual basis for the following year. The quarterly groundwater monitoring events were completed in 2005 and 2006 and the results documented in a letter report to NYSDEC dated October 4, 2006.

Mactec completed the semi-annual groundwater sampling events at the Site in December 2006 and June 2007 and documented the results in a letter report to NYSDEC dated March 26, 2008. This letter report concluded that there are no exposure pathways associated with the stabilized waste material present under the capped/remediated Site. The report also indicated that Honeywell would continue to mow, inspect, and maintain the capped area on an annual basis as required under Section 6.0 of the Site Management Plan.

On July 17, 2008, Honeywell received a letter from the NYSDEC requesting the submittal of a sampling plan for the Site. The NYSDEC's letter specified that the following long-term activities must be completed for the Site:

- Collection and laboratory testing of groundwater samples from Site wells once every three years;
- Collection and laboratory testing of representative samples of the stabilized waste material once every six years; and
- Annual inspection and maintenance of the covered area (including submittal of an annual report).

On December 19, 2008, Honeywell submitted to the NYSDEC a Work Plan for Inspection and Monitoring (Work Plan) to address long-term inspection and monitoring requirements for the Site in response to comments provided in the NYSDEC's letter. In the Work Plan, Honeywell proposed to conduct the following:

- Groundwater sampling once every 3 years from the date of NYSDEC's letter (i.e., the fourth quarters of 2011 and 2014), during which Honeywell will collect groundwater samples from the five monitoring wells located closest to the capped area: GW-18R, GW-19, GW-21, GW-22 and GW-23.
- Because sampling of the stabilized waste material would require the need to drill or cut through and subsequently repair the surface soil cover and liner system during each sampling event, Honeywell proposes to review the results of the groundwater monitoring events completed during years 3 and 6 from the date of NYSDEC's letter. Supplemental actions (which may include stabilized material testing if appropriate) will be proposed if detected or estimated (i.e., "J" value) concentrations of nitrobenzene are identified in the groundwater samples in excess of the NY Class GA Standard of 0.4 ug/l. At that time, a supplemental work plan will be prepared and submitted within 60 days of receipt of the analytical results for NYSDEC review and approval that sets forth appropriate supplemental actions. If the groundwater analytical results continue to show no detectable concentrations of nitrobenzene, no waste samples will be collected.
- As required in Section 6.0 of the Site Management Plan (Remedial Engineering, 2005), which was incorporated as part of the Remedial Action Completion Report, the capped area of the Radio Tower Area (RTA) will be inspected by Honeywell on an annual basis. Inspections will be done during late summer or early fall (after annual mowing of the cap) to facilitate repair of the cover, if necessary. During inspections, Honeywell will look for the presence of uneven settling or other conditions that could compromise the integrity of the cover system. Appropriate repairs to the cap will be made as necessary based on conditions noted during the annual inspections. Details of the cap inspection will be included in the Annual Report.

NYSDEC approved the Work Plan, with the following conditions, as indicated in their July 10, 2009 letter:

- Monitoring well GW-20 will be included in the groundwater sampling program;

- The next groundwater monitoring event would be in 2010; and
- If the groundwater from any well is turbid (greater than 50 Nephelometric Turbidity Units [NTUs]) and Honeywell proposes to filter that sample, an unfiltered aliquot will also be collected and analyzed for metals (nitrobenzene samples may not be filtered).

This triennial report has been prepared to summarize the OM&M activities completed at the site in calendar years 2011 through 2013. A Site Plan is included as Appendix A.

1.1 Project Background and Site Description

The Site is located on property owned by the Niagara Frontier Transportation Authority (NFTA) at 901 Fuhrmann Boulevard in Buffalo, Erie County, New York 14205. The NFTA property is occupied by the NFTA's port terminal facilities and a large paved parking area. The Site consists of a 0.9-acre landfill located near the northern edge of the NFTA terminal parking area within a 6-acre area known as the RTA where land disposal and fill placement formerly occurred and soils were found to be contaminated with nitrobenzene exceeding the toxicity characteristic leaching procedure (TCLP) hazardous waste threshold. Six groundwater monitoring wells (GW-18R, GW-19, GW-20, GW-21, GW-22, and GW-23) are located adjacent to the capped area.

The ROD was issued by the NYSDEC for the RTA in March 1999 and called for ex-situ bioremediation of the nitrobenzene-contaminated soils. In 2001, a pilot-study was successfully completed for the in-situ chemical oxidation treatment of the nitrobenzene-contaminated soils. An Explanation of Significant Difference was issued in 2003, accepting an in-situ chemical oxidation remedy. Remedial action was conducted in 2003 and initially consisted of two rounds of in-situ chemical oxidation using potassium permanganate. Subsequently, treatability studies were conducted in support of stabilization of the remaining contamination, and a stabilizing mixture of Portland cement and activated carbon was used to stabilize the remaining nitrobenzene-contaminated soil. Final restoration activities were completed in 2004 and included removal of approximately 1,680 cubic yards of treated and stabilized soil, which were disposed of at the Alltift Landfill site (NYSDEC site No. 9-15-054), and in-place capping of the remaining treated soils. The cap is a soil cover system that is 24 inches thick and consists of a bottom geotextile liner overlain by 20 inches of clean fill and 4 inches of topsoil. Vegetation was established over the capped area via seeding with local grasses. The Site remediation activities were documented in a Remedial Action Completion Report (August 17, 2005), which was approved by NYSDEC in a letter dated November 22, 2005. Institutional controls were also implemented, including land use restrictions and the requirement for annual inspection and maintenance of the capped area, as specified in 2005 Declarations of Covenants and Restrictions and Section 6.0 of the NYSDEC-approved Site Management Plan prepared for Honeywell by Remedial Engineering, P.C. (August 17, 2005).

1.2 OM&M Activities

OM&M activities conducted at the site during the period 2011 through 2013 included groundwater monitoring in 2013, annual site inspections, and routine maintenance activities consisting of annual mowing of the vegetated cover. These activities are described in detail in Section 2.0 of this report.

2.0 SUMMARY OF 2011-2013 OM&M ACTIVITIES

Honeywell has contracted with CH2M Hill - OMI to perform the OM&M activities at the Site. The following sections summarize the OM&M activities completed from 2011 through 2013.

2.1 Groundwater Sampling and Analysis

On September 10, 2013, CH2M Hill - OMI collected groundwater samples from monitoring wells GW-18R, GW-19, GW-20, GW-21, GW-22, and GW-23. A duplicate sample, and associated matrix spike and matrix spike duplicate, was collected from GW-20. The associated Field Data Collection Records are provided as Appendix B.

2.2 Annual Site Inspection

Annual site inspections were completed by CH2M Hill - OMI on September 23, 2011, November 20, 2012, and September 10, 2013, respectively. The inspections were conducted in accordance with the Work Plan, as amended. The results of the inspection are discussed in Section 3.3.

2.3 Maintenance Activities

Maintenance activities consisted of annual mowing events conducted by CH2M Hill- OMI's subcontractor after September 1st of each year. No other maintenance or repairs were necessary.

3.0 RESULTS OF 2011-2013 OM&M ACTIVITIES

As discussed previously, CH2M Hill - OMI completed the OM&M activities at the Site for the period of 2011 through 2013. The following sections summarize the results of the OM&M activities.

3.1 Groundwater Sampling and Analysis

Groundwater sampling was conducted on September 10, 2013 in accordance with the Work Plan, as amended. The analytical laboratory report and data validation summary report from the October 2013 groundwater sampling event is provided as Appendix C.

The water level measurements for all groundwater sampling events since September 2005, and including the September 2013 measurements, are included in Table 1. The analytical results for all groundwater sampling events since September 2005, and including the September 2013 results, are summarized on Table 2. The NY groundwater standards for Class GA aquifers (6 NYCRR Part 703: Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations) are included on Table 2 for comparison.

As shown on Table 2, the reported concentrations for various metals exceeded the NY groundwater standards in the 2013 groundwater samples. The metals results are consistent with previous data for the 2005-2007 and 2010 groundwater monitoring events, which are also summarized in Table 2, and prior groundwater data presented in the ROD. It was concluded in the ROD that the metals concentrations in groundwater may be attributable to “general groundwater quality in the vicinity of the Site”. Nitrobenzene, the organic contaminant of concern at the Site, was detected in one of the six groundwater samples; the sample collected from GW-22 had a detection of 0.13 micrograms per liter (µg/l), which is below the NYS groundwater standard of 0.4 µg/l.

3.2 Annual Site Inspections

The annual site inspections were performed by CH2M Hill - OMI. The inspections were conducted in accordance with the Work Plan, as amended. The wells and cap were visually inspected as appropriate. A representative of NYSDEC participated in the 2013 inspection. Copies of the completed inspection checklists are provided as Appendix D.

The inspection results indicate that the Site has a substantial vegetative cover and there is no subsidence, erosion or other condition that would compromise the effectiveness of the soil

cover. The integrity of the groundwater monitoring wells was also verified during the inspections.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions were developed based on the data collected during the period of 2011 through 2013:

- Based on the results of the annual inspection, which verified that the integrity of the cap is adequate and vegetation is established, the remedy remains protective and prevents direct contact with stabilized waste/impacted soils.
- Based upon the triennial groundwater sampling completed in 2013, groundwater concentrations of nitrobenzene are not present at concentrations above the NYS groundwater standard of 0.4 µg/l.

The following recommendations were developed based on the data collected during the period of 2011 through 2013:

- Site inspections should continue on an annual basis during 2014, 2015, and 2016.
- Routine OM&M activities should continue on an annual basis during 2014, 2015 and 2016.
- Triennial groundwater sampling should be conducted in 2016.
- The next Periodic Review Report (PRR) will be submitted to NYSDEC by December 31, 2016.

TABLES

Table 1: Summary of Depth to Water Measurements

		9/15/2005		12/5/2005		3/9/2006		6/13/2006		6/27/2007		12/28/2007		10/28/2010		9/10/2013	
Well ID	**Top of PVC**	**Depth to Water (ft.**	**Elevation (ft-msl)**	**Depth to Water (ft.**	**Elevation (ft-msl)**	**Depth to Water (ft.**	**Elevation (ft-msl)**	**Depth to Water (ft.**	**Elevation (ft-msl)**	**Depth to Water (ft.**	**Elevation (ft-msl)**	**Depth to Water (ft.**	**Elevation (ft-msl)**	**Depth to Water (ft.**	**Elevation (ft-msl)**	**Depth to Water (ft.**	**Elevation (ft-msl)**
GW-18R	N/A	10.33	-	6.25		7.06	-	9.00	-	9.09	-	5.97	-	10.99	-	10.00	-
GW-19	587.20	13.99	573.21	5.73	581.47	6.95	580.25	9.07	578.13	11.91	575.29	5.67	581.53	14.02	573.18	13.20	574.00
GW-20	N/A	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	16.79	-	14.20	-
GW-21	586.61	8.31	578.30	4.22	582.39	4.97	581.64	8.20	578.41	7.20	579.41	4.07	582.54	8.90	577.71	8.00	578.61
GW-22	585.82	9.13	576.69	2.90	582.92	3.05	582.77	7.11	578.71	7.22	578.60	2.72	583.10	11.03	574.79	10.30	575.52
GW-23	586.00	12.24	573.76	6.18	579.82	7.17	578.83	9.30	576.70	9.79	576.21	5.58	580.42	13.49	572.51	11.70	574.30

Notes:

1) Water level measurements are in units of feet above mean sea level (ft-msl)
2) N/A = elevation of top of PVC casing not established
3) NM = Not measured

Prepared By/Date: RTB 10/30/2013
Checked By/Date: DF 11/25/13

Table 2: Summary of Groundwater Analytical Results

		Location	GW-18R	GW-18R	GW-18R	GW-18R	GW-18R
		Field Sample ID	GW-18R-0905	MW-18R 12/05/2005	GW-18R-0306	GW-18R-0606	GW-18R-1206
		Sample Date	09/15/05	12/05/05	03/09/06	06/01/06	12/28/06
Parameter Name		Units					
ALUMINUM	null	mg/l	<0.2	**1.9J**	**14.9J**	**15.1J**	**9.8**
ANTIMONY	0.003	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
ARSENIC	0.025	mg/l	<0.01	**0.021**	**0.041**	**0.038**	**0.025**
BARIUM	1	mg/l	**0.078**	**0.12**	**0.262**	**0.22**	**0.18**
BERYLLIUM	0.003	mg/l	<0.002	<0.002	<0.002	<0.002	<0.002
CADMIUM	0.005	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
CALCIUM	null	mg/l	**239**	**323**	**303**	**294**	**296**
CHROMIUM	0.05	mg/l	<0.004	<0.004	**0.0217**	**0.026**	**0.016**
COBALT	null	mg/l	<0.004	<0.004	**0.0083**	**0.0087**	**0.0061**
COPPER	0.2	mg/l	<0.01	**0.011**	**0.0321**	**0.035**	**0.025**
IRON	0.3	mg/l	**4.6J**	**2.4J**	**19.1J**	**24.4J**	**13.3**
LEAD	0.025	mg/l	<0.005	**0.024J**	**0.0957J**	**0.11**	**0.08**
MAGNESIUM	35	mg/l	**40**	**53.6**	**55.8**	**54.9J**	**50.5**
MANGANESE	0.3	mg/l	**0.64**	**0.99J**	**1.22**	**1.4J**	**1.2**
MERCURY	0.0007	mg/l	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
NICKEL	null	mg/l	<0.01	<0.015	**0.0208**	**0.022**	**0.015**
POTASSIUM	null	mg/l	**24**	**20.5**	**20.7**	**26.8**	**33.3**
SELENIUM	0.01	mg/l	<0.01	<0.01	<0.015	<0.015	<0.015
SILVER	0.05	mg/l	<0.003	<0.003	<0.003	<0.003	<0.003
SODIUM	20	mg/l	**22.3**	**19.3J**	**18.2**	**19.8**	**19.2**
THALLIUM	0.0005	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
VANADIUM	null	mg/l	<0.005	**0.0074**	**0.034**	**0.032**	**0.021**
ZINC	2	mg/l	<0.02	**0.55**	**0.362J**	**0.41**	**0.54**
NITROBENZENE	0.4	ug/l	<9	<10	<10	<10	<0.5

Table 2: Summary of Groundwater Analytical Results

		GW-18R	GW-18R	GW-18R	GW-18R	GW-19	GW-19
		GW-18R-0607	GW-18RR-0607	GW-18R-102810	GW-18R-091013	GW-19-0905	MW-19 12/05/2005
		06/27/07	06/27/07	10/28/10	09/10/13	09/15/05	12/05/05
Parameter Name							
ALUMINUM	null	**6.1**	**4.8**	**2.39**	**2.4**	**0.68**	**2.2J**
ANTIMONY	0.003	<0.020	<0.020	<0.02	<0.0068	<0.02	<0.02
ARSENIC	0.025	**0.02**	**0.019**	**0.013J**	**0.032**	**0.028**	<0.01
BARIUM	1	**0.14**	**0.13**	**0.106**	**0.1**	**0.012**	**0.038**
BERYLLIUM	0.003	<0.0020	<0.0020	<0.002	<0.0003	<0.002	<0.002
CADMIUM	0.005	<0.0010	<0.0010	<0.001	**0.00083J**	<0.001	<0.001
CALCIUM	null	**273**	**273**	**217J**	**262**	**18.1**	**91.8**
CHROMIUM	0.05	**0.011**	**0.008**	**0.0046**	**0.0062**	<0.004	**0.04**
COBALT	null	<0.0040	<0.0040	**0.0021J**	**0.003J**	<0.004	<0.004
COPPER	0.2	**0.016**	**0.013**	**0.0078J**	**0.016**	**0.02**	**0.013**
IRON	0.3	**11.9**	**10**	**4.19J**	**10.7**	<0.05	**1.4J**
LEAD	0.025	**0.046**	**0.038**	**0.0293J**	**0.075**	<0.005	**0.011J**
MAGNESIUM	35	**47.6**	**46.1**	**38.1J**	**45.8**	<0.2	**1.4J**
MANGANESE	0.3	**0.98**	**0.9**	**0.478J**	**0.6**	<0.003	**0.03J**
MERCURY	0.0007	<0.00020	<0.00020	<0.0002	<0.00012	<0.0002	<0.0002
NICKEL	null	**0.01**	<0.010	**0.0054J**	**0.0055J**	**0.015**	<0.01
POTASSIUM	null	**29.1**	**29.5**	**40.5**	**40.8J**	**513**	**257**
SELENIUM	0.01	<0.015	<0.015	<0.015	<0.0087	<0.01	**0.017**
SILVER	0.05	<0.0030	<0.0030	<0.003	<0.0017	<0.003	<0.003
SODIUM	20	**18.8**	**19.1**	**19.1**	**18.3J**	**49.5**	**20.1J**
THALLIUM	0.0005	<0.020	<0.020	<0.02	<0.01	<0.02	<0.02
VANADIUM	null	**0.014**	**0.012**	**0.0064**	**0.0091**	**0.037**	**0.018**
ZINC	2	**0.29**	**0.25**	**0.244J**	**0.35**	<0.02	**0.02**
NITROBENZENE	0.4	<0.5	<0.5	<0.52	<0.062	<10	<10

Table 2: Summary of Groundwater Analytical Results

		GW-19	GW-19	GW-19	GW-19	GW-19	GW-19	GW-19
		MW-19D 12/05/2005	GW-19-0306	GW-19-0606	GW-19D-0606	GW-19-1206	GW-19-0607	GW-19-102810
		12/05/05	03/09/06	06/01/06	06/01/06	12/28/06	06/27/07	10/28/10
Parameter Name								
ALUMINUM	null	**1.3J**	**1.95J**	**7.4J**	**8.6J**	**1.6**	**1.2**	**0.795**
ANTIMONY	0.003	<0.02	<0.02	<0.02	<0.02	<0.02	<0.020	<0.02
ARSENIC	0.025	<0.01	<0.01	**0.026**	**0.025**	<0.01	**0.03**	**0.0151J**
BARIUM	1	**0.035**	**0.0328**	**0.073**	**0.077**	**0.02J**	**0.021**	**0.0135**
BERYLLIUM	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0020	<0.002
CADMIUM	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0010	<0.001
CALCIUM	null	**109**	**78.2**	**52.7**	**53.4**	**72.6**	**36.9**	**32.9J**
CHROMIUM	0.05	**0.041**	**0.0364**	**0.089**	**0.086**	**0.029**	**0.016**	**0.0018**
COBALT	null	<0.004	<0.004	<0.004	<0.004	<0.004	<0.0040	<0.004
COPPER	0.2	<0.01	<0.01	**0.028**	**0.03**	<0.01	**0.036**	**0.0156J**
IRON	0.3	<0.05	**0.656J**	**6.9J**	**8.5J**	**0.32J**	**1**	**0.098J**
LEAD	0.025	<0.005	<0.005	**0.08**	**0.079**	<0.005	**0.026**	**0.0125J**
MAGNESIUM	35	<0.2	**0.7**	**4.5J**	**4.7J**	**0.34J**	**1.4**	**0.565J**
MANGANESE	0.3	<0.003	**0.0177**	**0.2J**	**0.2J**	**0.0093J**	**0.031**	**0.0024J**
MERCURY	0.0007	<0.0002	<0.0002	**0.00086**	**0.00086**	<0.0002	<0.00020	**0.0001J**
NICKEL	null	<0.01	<0.01	**0.016**	**0.018**	<0.01	**0.013**	**0.009J**
POTASSIUM	null	**176**	**294**	**514**	**517**	**316**	**677**	**473**
SELENIUM	0.01	<0.01	<0.015	**0.015**	**0.015**	<0.015	**0.016**	<0.015
SILVER	0.05	<0.003	<0.003	<0.003	<0.003	<0.003	<0.0030	<0.003
SODIUM	20	**12.2J**	**20.1**	**46.1**	**45.4**	**24.2**	**57.8**	**34.1**
THALLIUM	0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.020	<0.02
VANADIUM	null	**0.013**	**0.0164**	**0.055**	**0.056**	**0.018**	**0.052**	**0.0347**
ZINC	2	<0.02	**0.0162J**	**0.1**	**0.11**	<0.01	**0.039**	**0.0022J**
NITROBENZENE	0.4	<10	<10	<10	<10	<0.5	<0.5	<0.53

Table 2: Summary of Groundwater Analytical Results

		GW-19	GW-20	GW-20	GW-21	GW-21	GW-21	GW-21
		GW-19-091013	GW-20-102810	GW-20-091013	GW-21-0905	MW-21 12/05/2005	GW-21-0306	GW-21-0606
		09/10/13	10/28/10	09/10/13	09/15/05	12/05/05	03/09/06	06/01/06
Parameter Name								
ALUMINUM	null	**1.4**	**0.727**	**0.7**	<0.2	<0.2	<0.2	<0.2
ANTIMONY	0.003	<0.0068	<0.02	<0.0068	<0.02	<0.02	<0.02	<0.02
ARSENIC	0.025	**0.03**	<0.01	<0.0056	<0.01	<0.01	<0.01	<0.01
BARIUM	1	**0.019**	**0.0331**	**0.049**	**0.03**	**0.046**	**0.0402**	**0.033**
BERYLLIUM	0.003	<0.0003	<0.002	<0.0003	<0.002	<0.002	<0.002	<0.002
CADMIUM	0.005	<0.0005	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.001
CALCIUM	null	**60.6**	**28.6J**	**52.8**	**30.2**	**42.6**	**32.6**	**29.6**
CHROMIUM	0.05	**0.011**	**0.0011**	**0.0018J**	<0.004	<0.004	<0.004	<0.004
COBALT	null	<0.00063	<0.004	<0.00063	<0.004	<0.004	<0.004	<0.004
COPPER	0.2	**0.1**	**0.0019J**	**0.0026J**	<0.01	<0.01	<0.01	<0.01
IRON	0.3	**0.25**	**0.436J**	**0.64**	<0.05	**0.086J**	**0.231J**	**0.48J**
LEAD	0.025	<0.006	**0.0105J**	**0.0041J**	<0.005	<0.005	<0.005	<0.005
MAGNESIUM	35	**1.3**	**5.29J**	**7.4**	**1.2**	**4.2J**	**5.26**	**6.6J**
MANGANESE	0.3	**0.0053**	**0.0595J**	**0.1**	<0.003	**0.0037J**	**0.0068**	**0.011J**
MERCURY	0.0007	**0.0012**	<0.0002	<0.00012	<0.0002	<0.0002	<0.0002	<0.0002
NICKEL	null	**0.013**	<0.01	<0.0013	<0.01	<0.01	<0.01	<0.01
POTASSIUM	null	**539**	**137**	**143**	**18.9**	**20.8**	**15.7**	**16.9**
SELENIUM	0.01	**0.042**	<0.015	<0.0087	<0.01	<0.01	<0.015	<0.015
SILVER	0.05	**0.0018J**	<0.003	<0.0017	<0.003	<0.003	<0.003	<0.003
SODIUM	20	**46.9**	**50.7**	**34.6**	**13**	**14.1J**	**10.9**	**11.2**
THALLIUM	0.0005	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
VANADIUM	null	**0.065**	**0.0111**	**0.0078**	<0.005	<0.005	<0.005	<0.005
ZINC	2	**0.013**	**0.0208J**	**0.023**	<0.02	<0.02	**0.013J**	**0.018**
NITROBENZENE	0.4	<0.062	<0.53	<0.062	<10	<10	<10	<10

Table 2: Summary of Groundwater Analytical Results

		GW-21	GW-21	GW-21	GW-21	GW-22	GW-22	GW-22
		GW-21-1206	GW-21-0607	GW-21-102810	GW-21-091013	GW-22-0905	MW-22 12/05/2005	GW-22-0306
		12/28/06	06/27/07	10/28/10	09/10/13	09/15/05	12/05/05	03/09/06
Parameter Name								
ALUMINUM	null	<0.2	<0.20	**0.075J**	**0.067J**	<0.2	**3.9J**	**8.56J**
ANTIMONY	0.003	<0.02	<0.020	<0.02	<0.0068	<0.02	<0.02	<0.02
ARSENIC	0.025	<0.01	<0.010	<0.01	<0.0056	**0.014**	<0.01	<0.01
BARIUM	1	**0.031**	**0.031**	**0.0329**	**0.053**	**0.14**	**0.16**	**0.213**
BERYLLIUM	0.003	<0.002	<0.0020	<0.002	<0.0003	<0.002	<0.002	<0.002
CADMIUM	0.005	<0.001	<0.0010	<0.001	<0.0005	<0.001	<0.001	<0.001
CALCIUM	null	**30.4**	**29**	**31.4J**	**49**	**218**	**409**	**309**
CHROMIUM	0.05	<0.004	<0.0040	<0.004	**0.0011J**	<0.004	**0.008**	**0.0175**
COBALT	null	<0.004	<0.0040	<0.004	<0.00063	<0.004	**0.0052**	**0.0056**
COPPER	0.2	<0.01	<0.010	<0.01	**0.0017J**	<0.01	**0.039**	**0.0654**
IRON	0.3	**0.1**	**0.093**	**0.113J**	**0.088**	**7.7J**	**11.1J**	**19.8J**
LEAD	0.025	<0.005	<0.0050	<0.005	<0.003	<0.005	**0.074J**	**0.173J**
MAGNESIUM	35	**3.5**	**3.7**	**2.39J**	**13.3**	**75**	**127J**	**83.9**
MANGANESE	0.3	**0.003**	**0.0036**	**0.0027J**	**0.012**	**0.47**	**1.6J**	**1.16**
MERCURY	0.0007	<0.0002	<0.00020	<0.0002	<0.00012	<0.0002	<0.0002	<0.0002
NICKEL	null	<0.01	<0.010	<0.01	<0.0013	<0.01	**0.02**	**0.0196**
POTASSIUM	null	**15.2**	**15.6**	**19.4**	**20.7**	**24**	**52.5**	**38.3**
SELENIUM	0.01	<0.015	<0.015	<0.015	<0.0087	<0.01	<0.01	<0.015
SILVER	0.05	<0.003	<0.0030	<0.003	<0.0017	<0.003	<0.003	<0.003
SODIUM	20	**9.5**	**10.5**	**13.9**	**14.2**	**44.4**	**94.5J**	**60.9**
THALLIUM	0.0005	<0.02	<0.020	<0.02	<0.01	<0.02	<0.02	<0.02
VANADIUM	null	<0.005	<0.0050	**0.0022J**	**0.0019J**	<0.005	**0.0072**	**0.016**
ZINC	2	**0.038**	**0.014**	**0.0068J**	**0.0049J**	<0.02	**0.094**	**0.187J**
NITROBENZENE	0.4	<0.5	<0.5	<0.51	<0.062	<12	<10	<10

Table 2: Summary of Groundwater Analytical Results

		GW-22	GW-22	GW-22	GW-22	GW-22	GW-23	GW-23
		GW-22-0606	GW-22-1206	GW-22-0607	GW-22-102810	GW-22-091013	GW-23-0905	GW-23D-0905
		06/01/06	12/28/06	06/27/07	10/28/10	09/10/13	09/15/05	09/15/05
Parameter Name								
ALUMINUM	null	**7.3J**	**4.9**	**11**	**8.85**	**10**	<0.2	<0.2
ANTIMONY	0.003	<0.02	<0.02	<0.020	**0.0409J**	**0.072**	<0.02	<0.02
ARSENIC	0.025	<0.01	<0.01	**0.011**	**0.0301J**	**0.049**	**0.013**	**0.014**
BARIUM	1	**0.24**	**0.16**	**0.22**	**0.145**	**0.1**	**0.28**	**0.27**
BERYLLIUM	0.003	<0.002	<0.002	<0.0020	**0.0003J**	**0.00049J**	<0.002	<0.002
CADMIUM	0.005	<0.001	<0.001	<0.0010	**0.0031J**	**0.0025**	<0.001	<0.001
CALCIUM	null	**269**	**314**	**320**	**278J**	**508**	**210**	**202**
CHROMIUM	0.05	**0.014**	**0.0093**	**0.027**	**0.018**	**0.03**	<0.004	<0.004
COBALT	null	**0.0051**	**0.0048**	**0.0073**	**0.0056**	**0.0089**	<0.004	<0.004
COPPER	0.2	**0.042**	**0.037**	**0.038**	**0.156J**	**0.28**	<0.01	<0.01
IRON	0.3	**17.2J**	**9.8**	**22.4**	**23.2J**	**42.2**	**6.1J**	**5.9**
LEAD	0.025	**0.14**	**0.097**	**0.077**	**0.15J**	**0.2**	<0.005	<0.005
MAGNESIUM	35	**76.7J**	**95.6**	**113**	**113J**	**205**	**92.9**	**86.1**
MANGANESE	0.3	**1J**	**1.3**	**1.4**	**1.07J**	**2**	**0.58**	**0.54**
MERCURY	0.0007	<0.0002	<0.0002	<0.00020	**0.0001J**	**0.00022**	<0.0002	<0.0002
NICKEL	null	**0.015**	**0.017**	**0.023**	**0.0222**	**0.039**	<0.01	<0.01
POTASSIUM	null	**36.4**	**48.8**	**44.4**	**41**	**55.5**	**31.7**	**30.8**
SELENIUM	0.01	<0.015	<0.015	<0.015	<0.015	<0.0087	<0.01	<0.01
SILVER	0.05	<0.003	<0.003	<0.0030	<0.003	<0.0017	<0.003	<0.003
SODIUM	20	**51**	**72.6**	**68.8**	**61.5**	**74.2**	**51.9**	**49.2**
THALLIUM	0.0005	<0.02	<0.02	<0.020	<0.02	<0.01	<0.02	<0.02
VANADIUM	null	**0.014**	**0.0087**	**0.024**	**0.0156**	**0.021**	<0.005	<0.005
ZINC	2	**0.14**	**0.1**	**0.19**	**0.595J**	**0.85**	<0.02	<0.02
NITROBENZENE	0.4	<10	<0.5	<0.5	<0.52	**0.13J**	<10	<10

Table 2: Summary of Groundwater Analytical Results

		GW-23	GW-23	GW-23	GW-23	GW-23	GW-23
		MW-23 12/05/2005	GW-23-0306	GW-23-0606	GW-23-1206	GW-23-1206 DUPLICATE	GW-23-0607
		12/05/05	03/09/06	06/01/06	12/28/06	12/28/06	06/27/07
Parameter Name							
ALUMINUM	null	<0.2	**1.78J**	**1.3J**	**8J**	**2J**	<0.20
ANTIMONY	0.003	<0.02	**0.0409**	**0.044**	**0.28J**	**0.1J**	**0.054**
ARSENIC	0.025	**0.019**	**0.0168**	**0.048**	**0.022J**	<0.01	<0.010
BARIUM	1	**0.27**	**0.306**	**0.36**	**0.38J**	**0.21J**	**0.2**
BERYLLIUM	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0020
CADMIUM	0.005	<0.001	<0.001	<0.001	**0.0098J**	**0.0021J**	<0.0010
CALCIUM	null	**247**	**230**	**236**	**263**	**210**	**202**
CHROMIUM	0.05	<0.004	**0.0072**	**0.0042**	**0.028J**	**0.0068J**	<0.0040
COBALT	null	<0.004	<0.004	<0.004	**0.012J**	<0.004	<0.0040
COPPER	0.2	**0.011**	**0.0826**	**0.048**	**0.39J**	**0.1J**	<0.010
IRON	0.3	**11J**	**12.4J**	**17.8J**	**27.2J**	**9J**	**3.4**
LEAD	0.025	**0.0078J**	**0.0691J**	**0.039**	**0.4J**	**0.1J**	**0.0064**
MAGNESIUM	35	**35.1J**	**57.6**	**34.6J**	**45.2J**	**32.4J**	**37.7**
MANGANESE	0.3	**1.4J**	**0.972**	**0.64J**	**1.3J**	**0.82J**	**0.75**
MERCURY	0.0007	<0.0002	<0.0002	<0.0002	**0.00036**	<0.0002	<0.00020
NICKEL	null	<0.01	<0.01	**0.025**	**0.035J**	**0.01J**	<0.010
POTASSIUM	null	**73.1**	**61.3**	**88**	**65.6**	**64.1**	**67.9**
SELENIUM	0.01	<0.01	<0.015	<0.015	**0.016**	<0.015	<0.015
SILVER	0.05	<0.003	<0.003	<0.003	<0.003	<0.003	<0.0030
SODIUM	20	**26.9J**	**38.3**	**33.9**	**22**	**21.7**	**29.4**
THALLIUM	0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.020
VANADIUM	null	<0.005	**0.005**	**0.0052**	**0.022J**	**0.0061J**	<0.0050
ZINC	2	<0.02	**0.163J**	**0.058**	**2.5J**	**0.78J**	**0.027**
NITROBENZENE	0.4	<10	<10	<9	<0.5	<0.5	<0.5

Table 2: Summary of Groundwater Analytical Results

		GW-23	GW-23	GW-23
		GW-23-102810	GW-23DUP-102810	GW-23-091013
		10/28/10	10/28/10	09/10/13
Parameter Name				
ALUMINUM	null	**0.964**	**0.876**	**1.6**
ANTIMONY	0.003	**0.104J**	**0.0726J**	**0.14**
ARSENIC	0.025	**0.0183J**	<0.01	**0.028**
BARIUM	1	**0.146**	**0.136**	**0.12**
BERYLLIUM	0.003	<0.002	<0.002	<0.0003
CADMIUM	0.005	**0.0126J**	**0.0102J**	**0.018**
CALCIUM	null	**184J**	**182J**	**280**
CHROMIUM	0.05	**0.0038**	**0.0026**	**0.0072**
COBALT	null	**0.0026J**	**0.002J**	**0.0054**
COPPER	0.2	**0.501J**	**0.405J**	**0.94**
IRON	0.3	**8.59J**	**3.07J**	**11.4**
LEAD	0.025	**0.624J**	**0.372J**	**1.4**
MAGNESIUM	35	**35.9J**	**35.6J**	**58.5**
MANGANESE	0.3	**0.504J**	**0.523J**	**0.61**
MERCURY	0.0007	**0.0008J**	**0.0011J**	**0.0011**
NICKEL	null	**0.0144**	**0.0146**	**0.021**
POTASSIUM	null	**72.7**	**72.7**	**81.6J**
SELENIUM	0.01	**0.0376**	**0.0293**	**0.091**
SILVER	0.05	<0.003	<0.003	**0.0024J**
SODIUM	20	**28.2**	**28.3**	**29.8J**
THALLIUM	0.0005	<0.02	<0.02	<0.01
VANADIUM	null	**0.0078**	**0.0045J**	**0.011**
ZINC	2	**2.06J**	**1.22J**	**2.7**
NITROBENZENE	0.4	<0.51	<0.54	<0.061

Prepared by/Date: WCG 10-9-2013
Checked by/Date: BJS 10/21/3013

APPENDIX A

SITE PLAN

MON WELL
GW–20
GROUND=586.07
TOP OF CAP=588.27

LANDS N/F
NIAGARA FRONTIER TRANSPORTATION AUTHORITY
TMP# 122.17–1–1
L.6434 P.43

N 1041144.28
E 1070954.37

N63°56'28"W
34.66'

N79°26'09"W
106.97'

6' CHAIN LINK FENCE

CC–2
PK NAIL
N: 1041161.17
E: 1071297.92
ELEV.=585.64'

MON WELL
GW–18R
GROUND=585.77
TOP OF CAP=588.55
SEAM OF CAP=588.21

CC–2
PK NAIL
N: 1041098.60
E: 1071109.17
ELEV.=585.70'

S28°58'36"W
179.04'

EDGE OF PAVEMENT

AREA:
39,016 SQ.FT.
0.896± ACRES

N25°14'12"E
121.63'

MON WELL
GW–22
GROUND=583.33
TOP OF CAP=586.24
SEAM OF CAP=585.89

CHA #1
PK NAIL
N 1040999.22
E 1071060.99
ELEV.=585.52'

MON WELL
GW–21
GROUND=584.73
TOP OF CAP=586.94

N21°11'57"W
45.89'

LIGHT

MON WELL
GW–23
GROUND=583.70
TOP OF CAP=586.62
SEAM OF CAP=586.27

N43°36'11"E
41.53'

S24°26'10"E
164.87'

N38°46'30"E
45.15'

POINT OF BEGINNING

N49°20'15"E
82.58'

MON WELL
GW–19
GROUND=584.95
TOP OF CAP=587.33

6' CHAIN LINK FENCE

N 1040837.61
E 1070935.97

N20°15'55"W
1115.50'

S20°15'55"E
1.65'

S69°12'31"W
100.31'

CAPPED REBAR
FND.
N 1040172.57
E 1072347.92

993.90'

S69°44'05"W

POINT OF
COMMENCEMENT

HIGHWAY BOUNDARY LINE
FUHRMANN
BOULEVARD

LANDS N/F
FREEZER QUEEN FOOS, INC.
TMP# 132.06–1–1.1
L.9547 P.579

LEGEND

MON WELL	MONITORING WELL
CAPPED REBAR	PROPERTY MONUMENTATION (CAPPED REBAR)
LIGHT	LIGHT POLE
	HIGHWAY BOUNDARY LINE
	PARCEL BOUNDARY LINE
	CHAIN LINK FENCE
	EDGE OF PAVEMENT

REFERENCES:

1. DEED DESCRIBING THE LANDS N/F OF "NIAGARA FRONTIER PORT AUTHORITY", FILED IN THE ERIE COUNTY CLERK'S OFFICE (E.C.C.O.) IN LIBER 6434 OF DEEDS, PAGE 43.
2. DEED DESCRIBING THE LANDS N/F OF "FREEZER QUEEN FOODS, INC.", FILED IN ERIE COUNTY CLERK'S OFFICE (E.C.C.O.) IN LIBER 9547 OF DEEDS, PAGE 579.
3. NGS MONUMENT INFORMATION.

NOTES:

1. PLANTIMENTRICS SHOWN HEREON ARE PREPARED BY CLOUGH, HARBOUR & ASSOCIATES, L.L.P FROM AN APRIL 2005 FIELD SURVEY. REF. "ROCH" FB.75, P.67
2. ELEVATIONS ARE BASED ON N.A.V.D. 1988 DATUM REFERENCING NATIONAL GEODETIC SURVEY MONUMENT MONUMENT Q 388, ELEV. = 581.66', USING DIFFERENTIAL LEVELING TECHNIQUES.
3. NORTH ORIENTATION AND COORDINATES SHOWN HEREON BASED ON N.Y.S. PLANE WEST ZONE, NAD 83, REFERENCING MONUMENTS;

BUFFALO R IMPROVEMENT CORP TK	LEHR
N:1040703.604	N:1030094.885
E:1076485.685	E:1076447.880

4. NO BOUNDARY DETERMINATION PERFORMED IN THE PREPARATION OF THIS PLAN.
5. OWNER'S INFORMATION BASED ON TAX INFORMATION.
6. ADDITIONAL FIELDWORK PERFORMED ON JULY 19, 2005. REF. "ROCH" FB.95, P.1

GRAPHIC SCALE

50 0 25 50 100

1 inch = 50 ft.

I HEREBY CERTIFY THAT THIS PLAN WAS COMPLETED ⚠1 ON JULY 21 2005 USING LISTED REFERENCES AND FIELD NOTES FROM AN ACTUAL FIELD SURVEY COMPLETED ON JULY 19, 2005.

DAVID L. STANDINGER NYSPLS. #050107 DATE

CLOUGH HARBOUR & ASSOCIATES LLP
Powers Building, 16 Main Street West, Suite 830,
Rochester, NY 14614-1607
PHONE (585) 262-2640
FAX (585) 262-2642
www.cloughharbour.com

Revisions	Drawn By:	App'd. By:	Date:
1. REVISED DATE (JUNE TO JULY)	DLS		8/25/05
0. MAP ISSUED	DJH	DLS	7/22/05

David L. Standinger NYSPLS # 050107

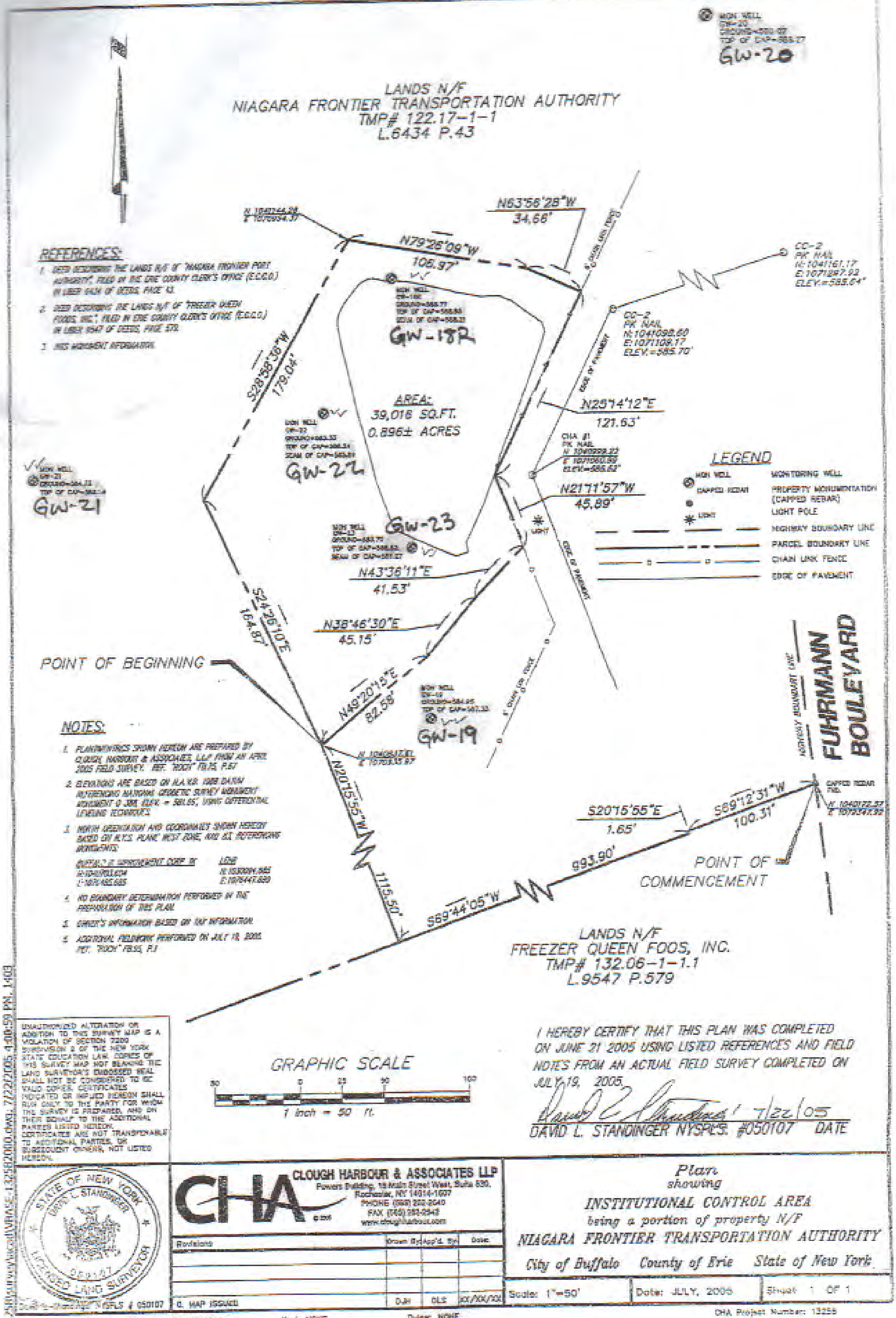
Plan
showing
INSTITUTIONAL CONTROL AREA
being a portion of property N/F
NIAGARA FRONTIER TRANSPORTATION AUTHORITY
City of Buffalo County of Erie State of New York

Scale: 1"=50' | Date: JULY, 2005 | Sheet 1 OF 1

Dwg: I:\13258\survey\acad\VBASE–132582000.dwg Xref: NONE Dview: NONE CHA Project Number: 13258

APPENDIX B

FIELD DATA COLLECTION RECORDS



MON WELL GW-20
GW-20
LANDS N/F
NIAGARA FRONTIER TRANSPORTATION AUTHORITY
TMP# 122.17-1-1
L.6434 P.43
N63°56'28"W
34.66'
N79°26'09"W
106.97'
REFERENCES:
GW-18R
CC-2
PK NAIL
N:1041161.17
E:1071287.92
ELEV.=585.64'
CC-2
PK NAIL
N:1041098.60
E:1071109.17
ELEV.=585.70'
S28°58'56"W
179.04'
AREA:
39,016 SQ.FT.
0.896± ACRES
N25°14'12"E
121.63'
GW-22
GW-21
LEGEND
MONITORING WELL
PROPERTY MONUMENTATION (CAPPED REBAR)
LIGHT POLE
HIGHWAY BOUNDARY LINE
PARCEL BOUNDARY LINE
CHAIN LINK FENCE
EDGE OF PAVEMENT
N21°11'57"W
45.89'
GW-23
N43°36'11"E
41.53'
S24°26'10"E
164.87'
N38°46'30"E
45.15'
FUHRMANN BOULEVARD
POINT OF BEGINNING
N49°20'15"E
82.58'
GW-19
NOTES:
N20°15'55"W
115.50'
S20°15'55"E
1.65'
S89°12'31"W
100.31'
993.90'
POINT OF COMMENCEMENT
S69°44'05"W
LANDS N/F
FREEZER QUEEN FOOS, INC.
TMP# 132.06-1-1.1
L.9547 P.579
GRAPHIC SCALE
1 inch = 50 ft.
I HEREBY CERTIFY THAT THIS PLAN WAS COMPLETED ON JUNE 21 2005 USING LISTED REFERENCES AND FIELD NOTES FROM AN ACTUAL FIELD SURVEY COMPLETED ON JULY 19, 2005.
7/22/05
DAVID L. STANDINGER NYSPLS. #050107 DATE
CLOUGH HARBOUR & ASSOCIATES LLP
Plan
showing
INSTITUTIONAL CONTROL AREA
being a portion of property N/F
NIAGARA FRONTIER TRANSPORTATION AUTHORITY
City of Buffalo County of Erie State of New York
Scale: 1"=50'
Date: JULY, 2005
Sheet 1 OF 1
CHA Project Number: 13258

Chain of Custody Record

TestAmerica

Client Information	Sampler: PAT HIGGINS	Lab PM: Schove, John	Carrier Tracking No(s):	COC No: 480-38093-9995-1
Client Contact: John Formoza	Phone: (315)468 1663	E-Mail: john.schove@testamericainc.com		Page: Page 1 of 1
Company: CH2M Hill				Job #:
Address: 1563 Willis Avenue	Due Date Requested:			
City: Syracuse	TAT Requested (days):			
State, Zip: NY, 13204				
Phone:	PO #: 4500073922			
Email: John.Formoza@CH2M.com	WO #:			
Project Name: Honeywell - Buffalo (Outer Harbor) - 37971/ Event Desc: Honeyw	Project #: 48008270			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 7470A - Total	6010B, 7470A - Dissolved (Lab Filtered)	8270C_LL-8270LL - Nitrobenzene	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N		
GW-20-091013 - MS	9/10/13	0825	G	Water	N		1		2	3	
GW-20-091013 - MSD	9/10/13	0835	G	Water	N		1		2	3	
FDUP - 091013	9/10/13	0845	G	Water	N		1		2	3	
GW-18R - 091013	9/10/13	0915	G	Water	N		1	1	2	4	Need to be filtered and LAB preserved NTU<50
GW-19 - 091013	9/10/13	1240	G	Water	N		1		2	3	
GW-20 - 091013	9/10/13	0815	G	Water	N		1		2	3	
GW-21 - 091013	9/10/13	1400	G	Water	N		1		2	3	
GW-22 - 091013	9/10/13	10:40	G	Water	N		1	1	2	4	Need to be filtered and LAB preserved NTU<50
GW-23 - 091013	9/10/13	11:05	G	Water	N		1	1	2	4	Need to be filtered and LAB preserved NTU<50
EQBLK -			G	Water	N		X		X	0	

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: Nitrobenzene need to analyzed at low-level. Do not filter nirtobenzene samples. Samples to be analyzed for dissolved metals need to be lab filtered.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by: William C. Higgins	Date/Time: 9/10/2013 15:05	Company: CH2M	Received by: Anna Kolb	Date/Time: 9/10/13 1505	Company: TA	
Relinquished by	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

CH2MHILL

Project Name Honeywell -Outer Harbor Buffalo
Job Number 462945.B3.RM.RS
Field Team Patrick Higgins / Mike Stout
Field Conditions Breezy Overcast 73°

Sampling Event
Date September 10th, 2013
Page ____ of ____

Well/Sample Number GW ~~18R~~ 20 (PCW)
Start Time 07:30 Finish Time 08:50
Initial Depth to Water 14.2
Measure Point: (PVC) Steel Casing Other:

Purge Method:
Geopump Ded. Pump (Other)
Sample Method: Bailer

Sample ID GW-20-091013 Sample Time 8:15
Duplicate Sample ID GW-20-091013 MS 8:25
Split Sample ID GW-20-091013 MSD 8:35
GW-20-091013 -FDup 08:45

Depth to Botton (from meas. pt): 18.8 Min. Purge Volume (gal)/(L) ______ Purge Rate (gpm)/(mLpm) ______

Water Quality Parameter Measurment Technique: (flow-thru cell) in-situ open container

Time	Vol. Purged gallons / liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/- 10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
7:45	Connect	to	GEM Readings					
	CH_4	.1%	CO_2	.1%	O_2 20.2%		Bal 79.5	
		LEL CH_4	2%					
7:57	Well is	Purged	dry	2.0 gals.				
08:15	Connect	to	Horiba	Parameters		~~19.45~~		
	1.5 gals	8.63	5.66	21.3	7.93	17.54	-72	
08:15	Collect	Sample	GW-20-091013					
08:25	Collect	Sample	GW-20-091013- MS					
08:35	Collect	Sample	GW-20-091013- MSD					
08:45	Collect	Sample	GW-20-091013- FDup					

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
	Plastic	250ml	N	HNO_3		GW-20-091013
	Amber	1 liter	N	—		GW-091013-20
	Plastic	250ml	N	HNO_3		091013-MS
	Amber	1 liter	N	—		091013-MS
	Plastic	250ml	N	HNO_3		091013 MSD
	Amber	1 liter	N	—		091013 MSD
	Plastic	250 ml	N	HNO_3		091013 FDup
	Amber	1 liter	N	—		091013 FDup

NTU <50

Comments: Water is tinted Black with slight organic odor, Purged 2 gal @ 7:57 well is dry Bailer. Equipment Deconned per CH2MHill standards. Used Independent Bailers

CH2MHILL

Project Name Honeywell -Outer Harbor Buffalo
Job Number 462945.B3.RM.RS
Field Team Patrick Higgins / Mike Stout
Field Conditions Partly Cloudy Muggy

Sampling Event
Date September 10th, 2013
Page 1 of ___

Well/Sample Number GW-18R
Start Time 08:55 Finish Time 0917
Initial Depth to Water 10.0
Measure Point: (PVC) Steel Casing Other:

Purge Method:
Geopump Ded. Pump (Other) ___
Sample Method: BAILER

Sample ID GW-18R-091013 Sample Time 0915
Duplicate Sample ID ___ Dupl. Time ___
Split Sample ID ___ Split. Time ___

Depth to Botton (from meas. pt): 20.4 Min. Purge Volume (gal)/(L) ___ Purge Rate (gpm)/(mLpm) ___
Water Quality Parameter Measurment Technique: (flow-thru cell) In-situ open container

Time	Vol. Purged gallons / liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
09:05	GEM Readings							
	CH_4-0%		CO_2 1.7%		O_2 18.7%	BAL 79.6		
		LEL CH_4 0%						
	3.0							
09:10	Connect to HORIBA		Parameters After 3gal. Purge					
	3.0	7.05	1.07	79.2	5.29	17.76	-34	
0915	Collect Sample GW-18R-091013							

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
	PLASTIC	250ml	N	HNO_3		GW-18R-091013 Preserved Filtered
	Liter	1 Liter	N			GW-18R-091013
	PLASTIC	250ml	N	—		GW-18R-091013 High NH4 750

WATER HAS NO DISTINCT ODOR PRESENT. INITIAL PURGE WATER IS VERY CLOUDY PURGING 3gals. EQUIPMENT DECONNED PER CH2MHILL STANDARDS.
USED INDEPENDENT BAILERS

CH2MHILL

Project Name Honeywell -Outer Harbor Buffalo
Job Number 462945.B3.RM.RS
Field Team Patrick Higgins / Mike Stout
Field Conditions Sunny Humid Muggy 80°F

Sampling Event
Date September 10th, 2013
Page ___ of ___

Well/Sample Number GW-22
Initial Depth to Water 10.3
Start Time 10:20 Finish Time 10:22
Measure Point: (PVC) ~~Steel Casing~~ Other:

Purge Method:
Geopump Ded. Pump (Other) ___
Sample Method: BAILER

Sample ID GW-22-091013 Sample Time 10:40
Duplicate Sample ID Dupl. Time
Split Sample ID Split. Time

Depth to Bottom (from meas. pt): 18.4 Min. Purge Volume (gal)/(L) ___ Purge Rate (gpm)/(mLpm) ___
Water Quality Parameter Measurment Technique: (flow thru cell) in-situ open container

Time	Vol. Purged gallons / liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
10:25	Methane Sniffer GEM Readings							
	CH_4 - 0% CO_2 1.6% O_2 18.0% Bal X806							
	LEL CH_4 0.0%							
10:30	~~3.00~~ Purging Well 2.75 gals. Well is dry							
10:35	CHECK PARAMETER WITH HORIBA purging 3 gals.							
	3.0	7.50	2.91	325	12.06	18.95	-24	
10:40	- NTU > 50 2 PLASTIC (1 w/ HNO_3) (1 w/out PRESERV)							

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
	PLASTIC	250ml	N	HNO_3		Need to be filtered & preserved in LAB
	PLASTIC	250ml	N	—		Need to be filtered & Preserved LAB
	AMBER	1 Liter	N	—		
	AMBER	1 Liter	N	—		

NTU > 50

Purging 2.75 gals. Well is dry. Water is Cloudy with no distinct odor.
Equipment Deemed Independent Blanks

CH2MHILL

Project Name Honeywell -Outer Harbor Buffalo
Job Number 462945.B3.RM.RS
Field Team Patrick Higgins / Mike Stout
Field Conditions Sunny HOT Humid 85°F

Sampling Event
Date September 10th, 2013
Page ___ of ___

Well/Sample Number GW-2023
Initial Depth to Water 11.7
Start Time 10:49 Finish Time
Measure Point: (PVC) Steel Casing Other:

Purge Method:
Geopump Ded. Pump Other
Sample Method: Bailer

Sample ID GW-23-091013 Sample Time: 11:05
Duplicate Sample ID Dupl. Time
Split Sample ID Split. Time

Depth to Botton (from meas. pt): 22.0 Min. Purge Volume (gal)/(L) Purge Rate (gpm)/(mLpm)
Water Quality Parameter Measurment Technique: (flow-thru cell) in-situ open container

Time	Vol. Purged gallons / liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
	GEM READINGS							
10:55	CH4 0% CO2 2.2%				O2 16.6%	BAL 81.2%		
		LEL CH4 0%						
	Connect to HORIBA PARAMETERS							
11:05	3.0	7.45	1.48	93.2	11.46	15.99	-5	
11:05	collect SAMPLE GW-23-091013							

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
	PLASTIC	250ml	N	HNO3		Need to be Filtered and Preserved IN LAB
	PLASTIC	250ml	N	—		

NTU > 50

Purging 3gals. Odor was no distinct odor But water is cloudy with LARGE TSS. Purging Well. Independent Bailers

CH2MHILL

Project Name Honeywell -Outer Harbor Buffalo
Job Number 462945.B3.RM.RS
Field Team Patrick Higgins / Mike Stout
Field Conditions Sunny Nice Day Muggy Humid

Sampling Event
Date September 10th, 2013
Page ___ of ___

Well/Sample Number GW-19
Initial Depth to Water 13.2
Start Time 12:10
Finish Time 12:43
Measure Point: PVC / Steel Casing (circled) Other:

Purge Method: Geopump / Ded. Pump / Other (circled)
Sample Method: Bailor

Sample ID GW-19-091013 Sample Time 12:40
Duplicate Sample ID Dupl. Time
Split Sample ID Split. Time

Depth to Botton (from meas. pt): 19.0 Min. Purge Volume (gal)/(L) ___ Purge Rate (gpm)/(ml.pm) ___
Water Quality Parameter Measurment Technique: flow-thru cell / in-situ / open container

Time	Vol. Purged gallons / liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
12:15	Methane Gem Sniffer Parameters							
	CH_4 - 0% CO_2 0% O_2 20.0% BAL 79.9%							
	LEL CH_4 0.0%							
12:25	Purged 2.0 gals Well is dry							
~~12:30~~	~~START Collect SAMPLE GW-19-091013~~							
12:30	Collect SAMPLE through Hex.UA PARAMETERS							
~~12:35~~	~~Collec.~~ 2.0	12.42	1.94	12.7	9.50	18.91	20	
12:40	collect SAmple GW-19-091013							

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
	Plastic	250ml	N	HNO3		NTU <50
	Amber	1 liter	N	—		
	Amber	1 liter	N	—		

Remarks: Purging 2 gallons. Water is clear with No distinct odors present purged well dry. yellow tinted in color. well purged DRY. Low NTU <50
Equipment deconned per CH2MHill STANDARDS, used independent Bailers

CH2MHILL

Project Name: Honeywell -Outer Harbor Buffalo	**Sampling Event**
Job Number: 462945.B3.RMJRS	Date: September 10th, 2013
Field Team: Patrick Higgins / Mike Stout	Page ___ of ___
Field Conditions: Sunny Hot Humid Muggy 85°F	

Well/Sample Number: GW-21 Start Time: 13:30 Finish Time: 14:20

Initial Depth to Water: 8.0 Measure Point: (PVC) Steel Casing Other:

Purge Method: Geopump Ded. Pump (Other)

Sample ID: GW-21-091013 Sample Time: 14:00

Duplicate Sample ID: Dupl. Time:

Split Sample ID: Split. Time:

Sample Method: Bailor Sterile

Depth to Botton (from meas. pt): 19.0 Min. Purge Volume (gal)/(l): ___ Purge Rate (gpm)/(mLpm): ___

Water Quality Parameter Measurment Technique: flow-thru cell in-situ open container

Time	Vol. Purged gallons / liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
13:40		Methane Sniffer GEM Readings						
	CH_4 = 0%		CO_2 .5%		O_2 20.0%	Bal. 70.5		
	LEL CH_4 = 0.0%.							
13:55	Purging	3 gallons Water						
	3.0	Horiba Parameters.						
	3.0	9.82	.290	0.0	4.67	19.08	-126	
14:00	Collect	Sample	GW-21-091013					

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
	Plastic	250ml	N	HNO3		
	Amber	1 liter	N	—		
	Amber	1 liter	N	—		

NTU<50

Remarks: Purged 3.0 gals. Before sample. Water is clear with No distinct colors which has a pungent organic odor preset used Independent Bailor. No equipment to decon ed.

APPENDIX C

DATA VALIDATION SUMMARY REPORT

DATA VALIDATION SUMMARY REPORT SEPTEMBER 2013 GROUNDWATER HONEYWELL BUFFALO OUTER HARBOR BUFFALO, NEW YORK

1.0 INTRODUCTION

Data validation was completed on groundwater samples collected by AMEC in September 2013. A summary of samples included in this review is presented in Table 1. Samples were analyzed by TestAmerica Laboratories in Buffalo, New York (TAL-BUF) and reported in sample delivery group (SDG) 480-45465-1. The following U.S. Environmental Protection Agency (USEPA) SW-846 (USEPA, 1996) analytical methods were performed:

- Nitrobenzene by USEPA Method 8270C.
- Selected total and dissolved metals by USEPA Method 6010B and 7470A.

Data validation was completed by the AMEC project chemist using Level II procedures described for Honeywell projects. During the Level II review the following data quality indicators were reviewed:

- Case Narrative
- Sample Collection and Holding Times
- QC Blanks
- Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)
- Surrogate Spikes
- Field Duplicates
- Reporting Limits
- Electronic Data Verification

Data were reviewed using general procedures described in USEPA data validation guidance documents (USEPA, 1999; USEPA, 2004) and quality control (QC) limits which are summarized in Table 2. Data qualifications were completed if necessary in accordance with the guidelines and professional judgment.

A field duplicate summary is provided in Table 3. A summary of validation qualifiers and validation reason codes is provided in Table 4. A summary of final target compound results for field samples is provided in Table 5.

2.0 DATA VALIDATION ACTIONS AND OBSERVATIONS

With the exception of the items discussed below, QC parameters and measurements checked during validation met requirements in the analytical method, validation guidelines, and quality assurance (QA) plan goals. Unless specified below, results are interpreted to be usable as reported by the laboratory.

2.1 Nitrobenzene

No data quality issues were identified and results are interpreted to be usable as reported by the lab.

2.2 Metals

QC Blanks

Method blank contamination observed for dissolved iron (0.0308 mg/L). An action level was established at 5 times the blank concentration. The dissolved iron detection in sample GW-22-091013 was less than the action level and was qualified as not detected (U) at the reporting limit.

LCS/LCSD

The LCS associated with dissolved metals had relative percent differences (RPDs) outside the laboratory QC limit of 20 for aluminum (26), barium (25), potassium (25), and sodium (27). Results for aluminum, barium, potassium, and sodium in all dissolved metals samples were qualified as estimated (J/UJ).

References:

U.S. Environmental Protection Agency (USEPA), 1996. "Test Methods for Evaluating Solid Waste"; Laboratory Manual Physical/Chemical Methods; Office of Solid Waste and Emergency Response; Washington, DC; SW-846; November 1986; Revision 4 -December 1996.

U.S. Environmental Protection Agency (USEPA), 1999. "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review"; Office of Emergency and Remedial Response; EPA-540/R-99/008; October 1999.

U.S. Environmental Protection Agency (USEPA), 2004. "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review"; Office of Superfund Remediation and Technology Innovation; EPA-540-R-04-004; October 2004.

Data Validator: Bradley B. LaForest, NRCC-EAC September 27, 2013

Bradley B LaF

Quality Assurance Officer: Chris Ricardi, NRCC-EAC October 4, 2013

Chr Ricardi

TABLE 1
SAMPLE AND ANALYTICAL SUMMARY
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2013 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

Field Sample ID	Sample Date	Lab Sample ID	SDG	Purpose	SW8270C Total	SW6010B Total	SW7470A Total	SW6010B Dissolved	SW7470A Dissolved
FDUP-091013	9/10/2013	480-45465-1	480-45465-1	FD	1	22	1		
GW-18R-091013	9/10/2013	480-45465-2	480-45465-1	REG	1	22	1	22	1
GW-19-091013	9/10/2013	480-45465-3	480-45465-1	REG	1	22	1		
GW-20-091013	9/10/2013	480-45465-4	480-45465-1	REG	1	22	1		
GW-21-091013	9/10/2013	480-45465-5	480-45465-1	REG	1	22	1		
GW-22-091013	9/10/2013	480-45465-6	480-45465-1	REG	1	22	1	22	1
GW-23-091013	9/10/2013	480-45465-7	480-45465-1	REG	1	22	1	22	1

Notes:
FD = Field Duplicate
REG = Field Sample
SDG = Sample Delivery Group

Prepared by:WCG
Date:9/26/13
Checked by:BBL
Date:9/27/13

TABLE 2
SUMMARY OF QC LIMITS FOR SURROGATES, SPIKES, AND DUPLICATES
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2013 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

PARAMETER	QC TEST	ANALYTE	WATER (%R)	Water (RPD)
Semivolatiles	Surrogate	All BN Compounds	50 - 140	
	LCS	All BN Compounds	50 - 140	
	MS/MSD	All BN Compounds	50 - 140	20
	Field Duplicate	All Target Compounds		50
Inorganics-Metals	LCS	All Target Analytes	80 - 120	
	MS/MSD	All Target Analytes	75 -125	
	Lab Duplicate	All Target Analytes		20
	Field Duplicate	All Target Analytes		20

Notes:
LCS - Laboratory Control Sample
MS/MSD - Matrix spike/ Matrix Spike Duplicate
RPD = Relative Percent Difference
%R = Percent Recovery
QC = Quality Control
QC Limits are based on USEPA Region II Data Validation Guidelines and Project QA/QC Objectives

TABLE 3
FIELD DUPLICATE RESULT COMPARISON
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2013 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

Paramerter	GW-20-091013	FDUP-091013	RPD	RL	5x RL	both results >5x RL	both results <5x RL within +/- RL	pass/fail
Nitrobenzene	ND	ND	NA	0.48	NA	NA	NA	pass
Aluminum	0.7	0.94	-29.27	0.2	1	no	no	pass
Antimony	ND	ND	NA	0.02	0.1	NA	NA	pass
Arsenic	ND	0.0066	NA	0.01	0.05	NA	yes	pass
Barium	0.049	0.042	15.38	0.002	0.01	yes	NA	pass
Beryllium	ND	ND	NA	0.002	0.01	NA	NA	pass
Cadmium	ND	ND	NA	0.001	0.005	NA	NA	pass
Calcium	52.8	40.4	26.61	0.5	2.5	yes	NA	pass
Chromium	0.0018	0.0016	NA	0.004	0.02	no	yes	pass
Cobalt	ND	ND	NA	0.004	0.02	NA	NA	pass
Copper	0.0026	0.0026	0.00	0.01	0.05	no	yes	pass
Iron	0.64	0.83	-25.85	0.05	0.25	yes	NA	pass
Lead	0.0041	0.0081	-65.57	0.005	0.025	no	yes	pass
Magnesium	7.4	5.2	34.92	0.2	1	yes	NA	pass
Manganese	0.1	0.081	20.99	0.003	0.015	yes	NA	pass
Nickel	ND	ND	NA	0.01	0.05	NA	NA	pass
Potassium	143	144	-0.70	0.5	2.5	yes	NA	pass
Selenium	ND	ND	NA	0.015	0.075	NA	NA	pass
Silver	ND	ND	NA	0.003	0.015	NA	NA	pass
Sodium	34.6	37.9	-9.10	1	5	yes	NA	pass
Thallium	ND	ND	NA	0.02	0.1	NA	NA	pass
Vanadium	0.0078	0.0088	-12.05	0.005	0.025	no	yes	pass
Zinc	0.023	0.028	-19.61	0.01	0.05	no	yes	pass
Mercury	ND	ND	NA	0.0002	0.001	NA	NA	pass

Notes:
NA = Not Applicable
ND = Not Detected
RL = Reporting Limit
RPD = Relative Percent Difference

Preapared by:BBL
Date:9/26/13
Checked by:CSR
Date:9/30/13

TABLE 4
VALIDATION QUALIFIERS AND REASON CODES
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2013 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

SDG	Analytical Method	Sample Matrix	Field Sample ID	Parameter	Lab Result	Lab Qualifier	Val Qualifier	Units	Validation Codes
480-45465-1	SW6010	Groundwater	GW-18R-091013	Aluminum, dissolved	0.06	U,*	UJ	mg/L	LCSP
480-45465-1	SW6010	Groundwater	GW-18R-091013	Potassium, dissolved	40.8	*	J	mg/L	LCSP
480-45465-1	SW6010	Groundwater	GW-18R-091013	Barium, dissolved	0.082	*	J	mg/L	LCSP
480-45465-1	SW6010	Groundwater	GW-18R-091013	Sodium, dissolved	18.3	*	J	mg/L	LCSP
480-45465-1	SW6010	Groundwater	GW-22-091013	Barium, dissolved	0.035	*	J	mg/L	LCSP
480-45465-1	SW6010	Groundwater	GW-22-091013	Potassium, dissolved	51.7	*	J	mg/L	LCSP
480-45465-1	SW6010	Groundwater	GW-22-091013	Aluminum, dissolved	0.068	J,*	J	mg/L	LCSP
480-45465-1	SW6010	Groundwater	GW-22-091013	Sodium, dissolved	71.8	*	J	mg/L	LCSP
480-45465-1	SW6010	Groundwater	GW-22-091013	Iron, dissolved	0.024	J,B	U	mg/L	BL1
480-45465-1	SW6010	Groundwater	GW-23-091013	Aluminum, dissolved	0.073	J,*	J	mg/L	LCSP
480-45465-1	SW6010	Groundwater	GW-23-091013	Sodium, dissolved	29.8	*	J	mg/L	LCSP
480-45465-1	SW6010	Groundwater	GW-23-091013	Potassium, dissolved	81.6	*	J	mg/L	LCSP
480-45465-1	SW6010	Groundwater	GW-23-091013	Barium, dissolved	0.11	*	J	mg/L	LCSP

Prepared by:WCG
Date:9/30/13
Checked by:BBL
Date:10/1/13

TABLE 5 - Nitrobenzene
FINAL TARGET COMPOUND RESULTS
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2013 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

		Field Sample ID	GW-18R-091013	GW-19-091013	GW-20-091013	FDUP-091013	GW-21-091013	GW-22-091013	GW-23-091013
		Location	GW-18R	GW-19	GW-20	GW-20	GW-21	GW-22	GW-23
		Sample Date	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013
Units	Method	Parameter Name							
ug/L	SW8270	Nitrobenzene	0.062 U	0.062 U	0.062 U	0.062 U	0.062 U	0.13 J	0.061 U

Prepared by:WCG
Date:9/30/13
Checked by:BBL
Date:10/1/13

TABLE 5 - Total Metals
FINAL TARGET COMPOUND RESULTS
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2013 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

		Field Sample ID	GW-18R-091013	GW-19-091013	GW-20-091013	FDUP-091013	GW-21-091013	GW-22-091013	GW-23-091013
		Location	GW-18R	GW-19	GW-20	GW-20	GW-21	GW-22	GW-23
		Sample Date	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013
Units	Method	Parameter Name							
mg/L	SW6010	Aluminum	2.4	1.4	0.7	0.94	0.067 J	10	1.6
mg/L	SW6010	Antimony	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.072	0.14
mg/L	SW6010	Arsenic	0.032	0.03	0.0056 U	0.0066 J	0.0056 U	0.049	0.028
mg/L	SW6010	Barium	0.1	0.019	0.049	0.042	0.053	0.1	0.12
mg/L	SW6010	Beryllium	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.00049 J	0.0003 U
mg/L	SW6010	Cadmium	0.00083 J	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0025	0.018
mg/L	SW6010	Calcium	247	60.6	52.8	40.4	49	508	280
mg/L	SW6010	Chromium	0.0062	0.011	0.0018 J	0.0016 J	0.0011 J	0.03	0.0072
mg/L	SW6010	Cobalt	0.003 J	0.00063 U	0.00063 U	0.00063 U	0.00063 U	0.0089	0.0047
mg/L	SW6010	Copper	0.016	0.1	0.0026 J	0.0026 J	0.0017 J	0.28	0.94
mg/L	SW6010	Iron	10.7	0.25	0.64	0.83	0.088	42.2	11.4
mg/L	SW6010	Lead	0.075	0.006 U	0.0041 J	0.0081	0.003 U	0.2	1.4
mg/L	SW6010	Magnesium	45.8	1.3	7.4	5.2	13.3	205	58.5
mg/L	SW6010	Manganese	0.6	0.0053	0.1	0.081	0.012	2	0.61
mg/L	SW6010	Nickel	0.0055 J	0.013	0.0013 U	0.0013 U	0.0013 U	0.039	0.021
mg/L	SW6010	Potassium	39.1	539	143	144	20.7	55.5	81.1
mg/L	SW6010	Selenium	0.0087 U	0.042	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.091
mg/L	SW6010	Silver	0.0017 U	0.0018 J	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0024 J
mg/L	SW6010	Sodium	17.2	46.9	34.6	37.9	14.2	74.2	29.7
mg/L	SW6010	Thallium	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
mg/L	SW6010	Vanadium	0.0091	0.065	0.0078	0.0088	0.0019 J	0.021	0.011
mg/L	SW6010	Zinc	0.35	0.013	0.023	0.028	0.0049 J	0.85	2.7
mg/L	SW7470	Mercury	0.00012 U	0.0012	0.00012 U	0.00012 U	0.00012 U	0.00022	0.0011

TABLE 5 - Dissolved Metals
FINAL TARGET COMPOUND RESULTS
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2013 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

		Field Sample ID	GW-18R-091013	GW-22-091013	GW-23-091013
		Location	GW-18R	GW-22	GW-23
		Sample Date	9/10/2013	9/10/2013	9/10/2013
Units	Method	Parameter Name			
mg/L	SW6010	Aluminum, dissolved	0.06 UJ	0.068 J	0.073 J
mg/L	SW6010	Antimony, dissolved	0.0068 U	0.011 J	0.12
mg/L	SW6010	Arsenic, dissolved	0.0056 U	0.0056 U	0.0056 U
mg/L	SW6010	Barium, dissolved	0.082 J	0.035 J	0.11 J
mg/L	SW6010	Beryllium, dissolved	0.0003 U	0.0003 U	0.0003 U
mg/L	SW6010	Cadmium, dissolved	0.0005 U	0.0012	0.0034
mg/L	SW6010	Calcium, dissolved	262	463	276
mg/L	SW6010	Chromium, dissolved	0.001 U	0.0016 J	0.0016 J
mg/L	SW6010	Cobalt, dissolved	0.002 J	0.0023 J	0.0054
mg/L	SW6010	Copper, dissolved	0.0026 J	0.017	0.0068 J
mg/L	SW6010	Iron, dissolved	0.019 U	0.024 U	0.019 U
mg/L	SW6010	Lead, dissolved	0.003 U	0.003 U	0.046
mg/L	SW6010	Magnesium, dissolved	44.8	187	57.4
mg/L	SW6010	Manganese, dissolved	0.52	1.2	0.53
mg/L	SW6010	Nickel, dissolved	0.0023 J	0.02	0.021
mg/L	SW6010	Potassium, dissolved	40.8 J	51.7 J	81.6 J
mg/L	SW6010	Selenium, dissolved	0.0087 U	0.0087 U	0.02
mg/L	SW6010	Silver, dissolved	0.0017 U	0.0017 U	0.0017 U
mg/L	SW6010	Sodium, dissolved	18.3 J	71.8 J	29.8 J
mg/L	SW6010	Thallium, dissolved	0.01 U	0.01 U	0.01 U
mg/L	SW6010	Vanadium, dissolved	0.0015 U	0.0015 U	0.0015 U
mg/L	SW6010	Zinc, dissolved	0.067	0.34	1.9
mg/L	SW7470	Mercury, dissolved	0.00012 U	0.00012 U	0.00012 U

Prepared by:WCG
Date:9/30/13
Checked by:BBL
Date:10/1/13

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-45465-1
Client Project/Site: 37971 - Buffalo Outer Harbor
Sampling Event: 37971 - Buffalo Outer Harbor

For:
Honeywell International Inc
101 Columbia Road
Morristown, New Jersey 07962

Attn: Mr. Rich Galloway

Authorized for release by:
9/25/2013 3:16:51 PM
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Designee for

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Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
*	LCS or LCSD exceeds the control limits
*	RPD of the LCS and LCSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-45465-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-45465-1

Comments
No additional comments.

Receipt
The samples were received on 9/10/2013 3:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.0º C and 2.8º C.

GC/MS Semi VOA
No analytical or quality issues were noted.

Metals
Method(s) 6010B: The Method Blank for batch 480-138332 contained Total Potassium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples FDUP-091013 (480-45465-1), GW-18R-091013 (480-45465-2), GW-19-091013 (480-45465-3), GW-20-091013 (480-45465-4), GW-21-091013 (480-45465-5), GW-22-091013 (480-45465-6), GW-23-091013 (480-45465-7) was not performed.

Method(s) 6010B: The following sample was diluted for Total Lead due to the nature of the sample matrix: GW-19-091013 (480-45465-3). Elevated reporting limits (RLs) are provided.

Method(s) 6010B: The Method Blank for batch 480-139213 contained Dissolved Iron and Zinc above the method detection limits. These target analyte concentrations were less than the reporting limits (RLs); therefore, re-extraction and/or re-analysis of samples GW-18R-091013 (480-45465-2), GW-22-091013 (480-45465-6), GW-23-091013 (480-45465-7) was not performed.

Method(s) 6010B: The Laboratory Control Sample Duplicate ((LCSD 480-138987/11-D)) recoveries for Dissolved Aluminum, Barium, Potassium, and Sodium were outside control limits in batch 480-139213. The Laboratory Control Sample (LCS) was compliant for the affected analytes. Due to limited sample volume, the affected samples could not be redigested, therefore results from this batch have been reported.

No other analytical or quality issues were noted.

Organic Prep
Method(s) 3510C: During pH adjustment, the following sample required 20mL of base to reach the desired pH: GW-23-091013 (480-45465-7).

No other analytical or quality issues were noted.

Detection Summary

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-45465-1

Client Sample ID: FDUP-091013 — Lab Sample ID: 480-45465-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.94		0.20	0.060	mg/L	1		6010B	Total/NA
Arsenic	0.0066	J	0.010	0.0056	mg/L	1		6010B	Total/NA
Barium	0.042		0.0020	0.00070	mg/L	1		6010B	Total/NA
Calcium	40.4		0.50	0.10	mg/L	1		6010B	Total/NA
Chromium	0.0016	J	0.0040	0.0010	mg/L	1		6010B	Total/NA
Copper	0.0026	J	0.010	0.0016	mg/L	1		6010B	Total/NA
Iron	0.83		0.050	0.019	mg/L	1		6010B	Total/NA
Lead	0.0081		0.0050	0.0030	mg/L	1		6010B	Total/NA
Magnesium	5.2		0.20	0.043	mg/L	1		6010B	Total/NA
Manganese	0.081		0.0030	0.00040	mg/L	1		6010B	Total/NA
Potassium	144	B	0.50	0.10	mg/L	1		6010B	Total/NA
Sodium	37.9		1.0	0.32	mg/L	1		6010B	Total/NA
Vanadium	0.0088		0.0050	0.0015	mg/L	1		6010B	Total/NA
Zinc	0.028		0.010	0.0015	mg/L	1		6010B	Total/NA

Client Sample ID: GW-18R-091013 — Lab Sample ID: 480-45465-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	2.4		0.20	0.060	mg/L	1		6010B	Total/NA
Arsenic	0.032		0.010	0.0056	mg/L	1		6010B	Total/NA
Barium	0.10		0.0020	0.00070	mg/L	1		6010B	Total/NA
Cadmium	0.00083	J	0.0010	0.00050	mg/L	1		6010B	Total/NA
Calcium	247		0.50	0.10	mg/L	1		6010B	Total/NA
Chromium	0.0062		0.0040	0.0010	mg/L	1		6010B	Total/NA
Cobalt	0.0030	J	0.0040	0.00063	mg/L	1		6010B	Total/NA
Copper	0.016		0.010	0.0016	mg/L	1		6010B	Total/NA
Iron	10.7		0.050	0.019	mg/L	1		6010B	Total/NA
Lead	0.075		0.0050	0.0030	mg/L	1		6010B	Total/NA
Magnesium	45.8		0.20	0.043	mg/L	1		6010B	Total/NA
Manganese	0.60		0.0030	0.00040	mg/L	1		6010B	Total/NA
Nickel	0.0055	J	0.010	0.0013	mg/L	1		6010B	Total/NA
Potassium	39.1	B	0.50	0.10	mg/L	1		6010B	Total/NA
Sodium	17.2		1.0	0.32	mg/L	1		6010B	Total/NA
Vanadium	0.0091		0.0050	0.0015	mg/L	1		6010B	Total/NA
Zinc	0.35		0.010	0.0015	mg/L	1		6010B	Total/NA
Barium	0.082	*	0.0020	0.00070	mg/L	1		6010B	Dissolved
Calcium	262		0.50	0.10	mg/L	1		6010B	Dissolved
Cobalt	0.0020	J	0.0040	0.00063	mg/L	1		6010B	Dissolved
Copper	0.0026	J	0.010	0.0016	mg/L	1		6010B	Dissolved
Magnesium	44.8		0.20	0.043	mg/L	1		6010B	Dissolved
Manganese	0.52		0.0030	0.00040	mg/L	1		6010B	Dissolved
Nickel	0.0023	J	0.010	0.0013	mg/L	1		6010B	Dissolved
Potassium	40.8	*	0.50	0.10	mg/L	1		6010B	Dissolved
Sodium	18.3	*	1.0	0.32	mg/L	1		6010B	Dissolved
Zinc	0.067	B	0.010	0.0015	mg/L	1		6010B	Dissolved

Client Sample ID: GW-19-091013 — Lab Sample ID: 480-45465-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	1.4		0.20	0.060	mg/L	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: GW-19-091013 (Continued) — Lab Sample ID: 480-45465-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.030		0.010	0.0056	mg/L	1		6010B	Total/NA
Barium	0.019		0.0020	0.00070	mg/L	1		6010B	Total/NA
Calcium	60.6		0.50	0.10	mg/L	1		6010B	Total/NA
Chromium	0.011		0.0040	0.0010	mg/L	1		6010B	Total/NA
Copper	0.10		0.010	0.0016	mg/L	1		6010B	Total/NA
Iron	0.25		0.050	0.019	mg/L	1		6010B	Total/NA
Magnesium	1.3		0.20	0.043	mg/L	1		6010B	Total/NA
Manganese	0.0053		0.0030	0.00040	mg/L	1		6010B	Total/NA
Nickel	0.013		0.010	0.0013	mg/L	1		6010B	Total/NA
Potassium	539	B	0.50	0.10	mg/L	1		6010B	Total/NA
Selenium	0.042		0.015	0.0087	mg/L	1		6010B	Total/NA
Silver	0.0018	J	0.0030	0.0017	mg/L	1		6010B	Total/NA
Sodium	46.9		1.0	0.32	mg/L	1		6010B	Total/NA
Vanadium	0.065		0.0050	0.0015	mg/L	1		6010B	Total/NA
Zinc	0.013		0.010	0.0015	mg/L	1		6010B	Total/NA
Mercury	0.0012		0.00020	0.00012	mg/L	1		7470A	Total/NA

Client Sample ID: GW-20-091013 — Lab Sample ID: 480-45465-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.70		0.20	0.060	mg/L	1		6010B	Total/NA
Barium	0.049		0.0020	0.00070	mg/L	1		6010B	Total/NA
Calcium	52.8		0.50	0.10	mg/L	1		6010B	Total/NA
Chromium	0.0018	J	0.0040	0.0010	mg/L	1		6010B	Total/NA
Copper	0.0026	J	0.010	0.0016	mg/L	1		6010B	Total/NA
Iron	0.64		0.050	0.019	mg/L	1		6010B	Total/NA
Lead	0.0041	J	0.0050	0.0030	mg/L	1		6010B	Total/NA
Magnesium	7.4		0.20	0.043	mg/L	1		6010B	Total/NA
Manganese	0.10		0.0030	0.00040	mg/L	1		6010B	Total/NA
Potassium	143	B	0.50	0.10	mg/L	1		6010B	Total/NA
Sodium	34.6		1.0	0.32	mg/L	1		6010B	Total/NA
Vanadium	0.0078		0.0050	0.0015	mg/L	1		6010B	Total/NA
Zinc	0.023		0.010	0.0015	mg/L	1		6010B	Total/NA

Client Sample ID: GW-21-091013 — Lab Sample ID: 480-45465-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.067	J	0.20	0.060	mg/L	1		6010B	Total/NA
Barium	0.053		0.0020	0.00070	mg/L	1		6010B	Total/NA
Calcium	49.0		0.50	0.10	mg/L	1		6010B	Total/NA
Chromium	0.0011	J	0.0040	0.0010	mg/L	1		6010B	Total/NA
Copper	0.0017	J	0.010	0.0016	mg/L	1		6010B	Total/NA
Iron	0.088		0.050	0.019	mg/L	1		6010B	Total/NA
Magnesium	13.3		0.20	0.043	mg/L	1		6010B	Total/NA
Manganese	0.012		0.0030	0.00040	mg/L	1		6010B	Total/NA
Potassium	20.7	B	0.50	0.10	mg/L	1		6010B	Total/NA
Sodium	14.2		1.0	0.32	mg/L	1		6010B	Total/NA
Vanadium	0.0019	J	0.0050	0.0015	mg/L	1		6010B	Total/NA
Zinc	0.0049	J	0.010	0.0015	mg/L	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-45465-1

Client Sample ID: GW-22-091013 — Lab Sample ID: 480-45465-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrobenzene	0.13	J	0.47	0.062	ug/L	1		8270C LL	Total/NA
Aluminum	10.0		0.20	0.060	mg/L	1		6010B	Total/NA
Antimony	0.072		0.020	0.0068	mg/L	1		6010B	Total/NA
Arsenic	0.049		0.010	0.0056	mg/L	1		6010B	Total/NA
Barium	0.10		0.0020	0.00070	mg/L	1		6010B	Total/NA
Beryllium	0.00049	J	0.0020	0.00030	mg/L	1		6010B	Total/NA
Cadmium	0.0025		0.0010	0.00050	mg/L	1		6010B	Total/NA
Calcium	508		0.50	0.10	mg/L	1		6010B	Total/NA
Chromium	0.030		0.0040	0.0010	mg/L	1		6010B	Total/NA
Cobalt	0.0089		0.0040	0.00063	mg/L	1		6010B	Total/NA
Copper	0.28		0.010	0.0016	mg/L	1		6010B	Total/NA
Iron	42.2		0.050	0.019	mg/L	1		6010B	Total/NA
Lead	0.20		0.0050	0.0030	mg/L	1		6010B	Total/NA
Magnesium	205		0.20	0.043	mg/L	1		6010B	Total/NA
Manganese	2.0		0.0030	0.00040	mg/L	1		6010B	Total/NA
Nickel	0.039		0.010	0.0013	mg/L	1		6010B	Total/NA
Potassium	55.5	B	0.50	0.10	mg/L	1		6010B	Total/NA
Sodium	74.2		1.0	0.32	mg/L	1		6010B	Total/NA
Vanadium	0.021		0.0050	0.0015	mg/L	1		6010B	Total/NA
Zinc	0.85		0.010	0.0015	mg/L	1		6010B	Total/NA
Aluminum	0.068	J *	0.20	0.060	mg/L	1		6010B	Dissolved
Antimony	0.011	J	0.020	0.0068	mg/L	1		6010B	Dissolved
Barium	0.035	*	0.0020	0.00070	mg/L	1		6010B	Dissolved
Cadmium	0.0012		0.0010	0.00050	mg/L	1		6010B	Dissolved
Calcium	463		0.50	0.10	mg/L	1		6010B	Dissolved
Chromium	0.0016	J	0.0040	0.0010	mg/L	1		6010B	Dissolved
Cobalt	0.0023	J	0.0040	0.00063	mg/L	1		6010B	Dissolved
Copper	0.017		0.010	0.0016	mg/L	1		6010B	Dissolved
Iron	0.024	J B	0.050	0.019	mg/L	1		6010B	Dissolved
Magnesium	187		0.20	0.043	mg/L	1		6010B	Dissolved
Manganese	1.2		0.0030	0.00040	mg/L	1		6010B	Dissolved
Nickel	0.020		0.010	0.0013	mg/L	1		6010B	Dissolved
Potassium	51.7	*	0.50	0.10	mg/L	1		6010B	Dissolved
Sodium	71.8	*	1.0	0.32	mg/L	1		6010B	Dissolved
Zinc	0.34	B	0.010	0.0015	mg/L	1		6010B	Dissolved
Mercury	0.00022		0.00020	0.00012	mg/L	1		7470A	Total/NA

Client Sample ID: GW-23-091013 — Lab Sample ID: 480-45465-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	1.6		0.20	0.060	mg/L	1		6010B	Total/NA
Antimony	0.14		0.020	0.0068	mg/L	1		6010B	Total/NA
Arsenic	0.028		0.010	0.0056	mg/L	1		6010B	Total/NA
Barium	0.12		0.0020	0.00070	mg/L	1		6010B	Total/NA
Cadmium	0.018		0.0010	0.00050	mg/L	1		6010B	Total/NA
Calcium	280		0.50	0.10	mg/L	1		6010B	Total/NA
Chromium	0.0072		0.0040	0.0010	mg/L	1		6010B	Total/NA
Cobalt	0.0047		0.0040	0.00063	mg/L	1		6010B	Total/NA
Copper	0.94		0.010	0.0016	mg/L	1		6010B	Total/NA
Iron	11.4		0.050	0.019	mg/L	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: GW-23-091013 (Continued)

Lab Sample ID: 480-45465-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	1.4		0.0050	0.0030	mg/L	1		6010B	Total/NA
Magnesium	58.5		0.20	0.043	mg/L	1		6010B	Total/NA
Manganese	0.61		0.0030	0.00040	mg/L	1		6010B	Total/NA
Nickel	0.021		0.010	0.0013	mg/L	1		6010B	Total/NA
Potassium	81.1	B	0.50	0.10	mg/L	1		6010B	Total/NA
Selenium	0.091		0.015	0.0087	mg/L	1		6010B	Total/NA
Silver	0.0024	J	0.0030	0.0017	mg/L	1		6010B	Total/NA
Sodium	29.7		1.0	0.32	mg/L	1		6010B	Total/NA
Vanadium	0.011		0.0050	0.0015	mg/L	1		6010B	Total/NA
Zinc	2.7		0.010	0.0015	mg/L	1		6010B	Total/NA
Aluminum	0.073	J *	0.20	0.060	mg/L	1		6010B	Dissolved
Antimony	0.12		0.020	0.0068	mg/L	1		6010B	Dissolved
Barium	0.11	*	0.0020	0.00070	mg/L	1		6010B	Dissolved
Cadmium	0.0034		0.0010	0.00050	mg/L	1		6010B	Dissolved
Calcium	276		0.50	0.10	mg/L	1		6010B	Dissolved
Chromium	0.0016	J	0.0040	0.0010	mg/L	1		6010B	Dissolved
Cobalt	0.0054		0.0040	0.00063	mg/L	1		6010B	Dissolved
Copper	0.0068	J	0.010	0.0016	mg/L	1		6010B	Dissolved
Lead	0.046		0.0050	0.0030	mg/L	1		6010B	Dissolved
Magnesium	57.4		0.20	0.043	mg/L	1		6010B	Dissolved
Manganese	0.53		0.0030	0.00040	mg/L	1		6010B	Dissolved
Nickel	0.021		0.010	0.0013	mg/L	1		6010B	Dissolved
Potassium	81.6	*	0.50	0.10	mg/L	1		6010B	Dissolved
Selenium	0.020		0.015	0.0087	mg/L	1		6010B	Dissolved
Sodium	29.8	*	1.0	0.32	mg/L	1		6010B	Dissolved
Zinc	1.9	B	0.010	0.0015	mg/L	1		6010B	Dissolved
Mercury	0.0011		0.00020	0.00012	mg/L	1		7470A	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-45465-1

Client Sample ID: FDUP-091013
Date Collected: 09/10/13 08:45
Date Received: 09/10/13 15:05

Lab Sample ID: 480-45465-1
Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		0.47	0.062	ug/L		09/11/13 07:40	09/12/13 20:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*124*		*39 - 146*	*09/11/13 07:40*	*09/12/13 20:39*	*1*
2-Fluorobiphenyl	*90*		*37 - 120*	*09/11/13 07:40*	*09/12/13 20:39*	*1*
2-Fluorophenol (Surr)	*48*		*18 - 120*	*09/11/13 07:40*	*09/12/13 20:39*	*1*
Nitrobenzene-d5 (Surr)	*85*		*34 - 132*	*09/11/13 07:40*	*09/12/13 20:39*	*1*
Phenol-d5 (Surr)	*37*		*11 - 120*	*09/11/13 07:40*	*09/12/13 20:39*	*1*
p-Terphenyl-d14	*108*		*58 - 147*	*09/11/13 07:40*	*09/12/13 20:39*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.94**		0.20	0.060	mg/L		09/11/13 08:40	09/11/13 23:35	1
Antimony	ND		0.020	0.0068	mg/L		09/11/13 08:40	09/11/13 23:35	1
Arsenic	**0.0066**	**J**	0.010	0.0056	mg/L		09/11/13 08:40	09/11/13 23:35	1
Barium	**0.042**		0.0020	0.00070	mg/L		09/11/13 08:40	09/11/13 23:35	1
Beryllium	ND		0.0020	0.00030	mg/L		09/11/13 08:40	09/11/13 23:35	1
Cadmium	ND		0.0010	0.00050	mg/L		09/11/13 08:40	09/11/13 23:35	1
Calcium	**40.4**		0.50	0.10	mg/L		09/11/13 08:40	09/11/13 23:35	1
Chromium	**0.0016**	**J**	0.0040	0.0010	mg/L		09/11/13 08:40	09/11/13 23:35	1
Cobalt	ND		0.0040	0.00063	mg/L		09/11/13 08:40	09/11/13 23:35	1
Copper	**0.0026**	**J**	0.010	0.0016	mg/L		09/11/13 08:40	09/11/13 23:35	1
Iron	**0.83**		0.050	0.019	mg/L		09/11/13 08:40	09/11/13 23:35	1
Lead	**0.0081**		0.0050	0.0030	mg/L		09/11/13 08:40	09/11/13 23:35	1
Magnesium	**5.2**		0.20	0.043	mg/L		09/11/13 08:40	09/11/13 23:35	1
Manganese	**0.081**		0.0030	0.00040	mg/L		09/11/13 08:40	09/11/13 23:35	1
Nickel	ND		0.010	0.0013	mg/L		09/11/13 08:40	09/11/13 23:35	1
Potassium	**144**	**B**	0.50	0.10	mg/L		09/11/13 08:40	09/11/13 23:35	1
Selenium	ND		0.015	0.0087	mg/L		09/11/13 08:40	09/11/13 23:35	1
Silver	ND		0.0030	0.0017	mg/L		09/11/13 08:40	09/11/13 23:35	1
Sodium	**37.9**		1.0	0.32	mg/L		09/11/13 08:40	09/11/13 23:35	1
Thallium	ND		0.020	0.010	mg/L		09/11/13 08:40	09/11/13 23:35	1
Vanadium	**0.0088**		0.0050	0.0015	mg/L		09/11/13 08:40	09/11/13 23:35	1
Zinc	**0.028**		0.010	0.0015	mg/L		09/11/13 08:40	09/11/13 23:35	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/11/13 09:00	09/11/13 16:34	1

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-45465-1

Client Sample ID: GW-18R-091013

Lab Sample ID: 480-45465-2

Date Collected: 09/10/13 09:15

Matrix: Water

Date Received: 09/10/13 15:05

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		0.48	0.062	ug/L		09/11/13 07:40	09/12/13 21:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*120*		*39 - 146*	*09/11/13 07:40*	*09/12/13 21:07*	*1*
2-Fluorobiphenyl	*91*		*37 - 120*	*09/11/13 07:40*	*09/12/13 21:07*	*1*
2-Fluorophenol (Surr)	*51*		*18 - 120*	*09/11/13 07:40*	*09/12/13 21:07*	*1*
Nitrobenzene-d5 (Surr)	*96*		*34 - 132*	*09/11/13 07:40*	*09/12/13 21:07*	*1*
Phenol-d5 (Surr)	*38*		*11 - 120*	*09/11/13 07:40*	*09/12/13 21:07*	*1*
p-Terphenyl-d14	*108*		*58 - 147*	*09/11/13 07:40*	*09/12/13 21:07*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**2.4**		0.20	0.060	mg/L		09/11/13 08:40	09/11/13 23:38	1
Antimony	ND		0.020	0.0068	mg/L		09/11/13 08:40	09/11/13 23:38	1
Arsenic	**0.032**		0.010	0.0056	mg/L		09/11/13 08:40	09/11/13 23:38	1
Barium	**0.10**		0.0020	0.00070	mg/L		09/11/13 08:40	09/11/13 23:38	1
Beryllium	ND		0.0020	0.00030	mg/L		09/11/13 08:40	09/11/13 23:38	1
Cadmium	**0.00083**	**J**	0.0010	0.00050	mg/L		09/11/13 08:40	09/11/13 23:38	1
Calcium	**247**		0.50	0.10	mg/L		09/11/13 08:40	09/11/13 23:38	1
Chromium	**0.0062**		0.0040	0.0010	mg/L		09/11/13 08:40	09/11/13 23:38	1
Cobalt	**0.0030**	**J**	0.0040	0.00063	mg/L		09/11/13 08:40	09/11/13 23:38	1
Copper	**0.016**		0.010	0.0016	mg/L		09/11/13 08:40	09/11/13 23:38	1
Iron	**10.7**		0.050	0.019	mg/L		09/11/13 08:40	09/11/13 23:38	1
Lead	**0.075**		0.0050	0.0030	mg/L		09/11/13 08:40	09/11/13 23:38	1
Magnesium	**45.8**		0.20	0.043	mg/L		09/11/13 08:40	09/11/13 23:38	1
Manganese	**0.60**		0.0030	0.00040	mg/L		09/11/13 08:40	09/11/13 23:38	1
Nickel	**0.0055**	**J**	0.010	0.0013	mg/L		09/11/13 08:40	09/11/13 23:38	1
Potassium	**39.1**	**B**	0.50	0.10	mg/L		09/11/13 08:40	09/11/13 23:38	1
Selenium	ND		0.015	0.0087	mg/L		09/11/13 08:40	09/11/13 23:38	1
Silver	ND		0.0030	0.0017	mg/L		09/11/13 08:40	09/11/13 23:38	1
Sodium	**17.2**		1.0	0.32	mg/L		09/11/13 08:40	09/11/13 23:38	1
Thallium	ND		0.020	0.010	mg/L		09/11/13 08:40	09/11/13 23:38	1
Vanadium	**0.0091**		0.0050	0.0015	mg/L		09/11/13 08:40	09/11/13 23:38	1
Zinc	**0.35**		0.010	0.0015	mg/L		09/11/13 08:40	09/11/13 23:38	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND	*	0.20	0.060	mg/L		09/17/13 15:00	09/18/13 15:03	1
Antimony	ND		0.020	0.0068	mg/L		09/17/13 15:00	09/18/13 15:03	1
Arsenic	ND		0.010	0.0056	mg/L		09/17/13 15:00	09/18/13 15:03	1
Barium	**0.082**	*	0.0020	0.00070	mg/L		09/17/13 15:00	09/18/13 15:03	1
Beryllium	ND		0.0020	0.00030	mg/L		09/17/13 15:00	09/18/13 15:03	1
Cadmium	ND		0.0010	0.00050	mg/L		09/17/13 15:00	09/18/13 15:03	1
Calcium	**262**		0.50	0.10	mg/L		09/17/13 15:00	09/18/13 15:03	1
Chromium	ND		0.0040	0.0010	mg/L		09/17/13 15:00	09/18/13 15:03	1
Cobalt	**0.0020**	**J**	0.0040	0.00063	mg/L		09/17/13 15:00	09/18/13 15:03	1
Copper	**0.0026**	**J**	0.010	0.0016	mg/L		09/17/13 15:00	09/18/13 15:03	1
Iron	ND		0.050	0.019	mg/L		09/17/13 15:00	09/18/13 15:03	1
Lead	ND		0.0050	0.0030	mg/L		09/17/13 15:00	09/18/13 15:03	1
Magnesium	**44.8**		0.20	0.043	mg/L		09/17/13 15:00	09/18/13 15:03	1

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-45465-1

Client Sample ID: GW-18R-091013
Date Collected: 09/10/13 09:15
Date Received: 09/10/13 15:05

Lab Sample ID: 480-45465-2
Matrix: Water

Method: 6010B - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.52		0.0030	0.00040	mg/L		09/17/13 15:00	09/18/13 15:03	1
Nickel	0.0023	J	0.010	0.0013	mg/L		09/17/13 15:00	09/18/13 15:03	1
Potassium	40.8	*	0.50	0.10	mg/L		09/17/13 15:00	09/18/13 15:03	1
Selenium	ND		0.015	0.0087	mg/L		09/17/13 15:00	09/18/13 15:03	1
Silver	ND		0.0030	0.0017	mg/L		09/17/13 15:00	09/18/13 15:03	1
Sodium	18.3	*	1.0	0.32	mg/L		09/17/13 15:00	09/18/13 15:03	1
Thallium	ND		0.020	0.010	mg/L		09/17/13 15:00	09/18/13 15:03	1
Vanadium	ND		0.0050	0.0015	mg/L		09/17/13 15:00	09/18/13 15:03	1
Zinc	0.067	B	0.010	0.0015	mg/L		09/17/13 15:00	09/18/13 15:03	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/11/13 09:00	09/11/13 16:36	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/16/13 11:00	09/16/13 14:38	1

Client Sample ID: GW-19-091013
Date Collected: 09/10/13 12:40
Date Received: 09/10/13 15:05

Lab Sample ID: 480-45465-3
Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		0.47	0.062	ug/L		09/11/13 07:40	09/12/13 21:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*128*		*39 - 146*	*09/11/13 07:40*	*09/12/13 21:34*	*1*
2-Fluorobiphenyl	*91*		*37 - 120*	*09/11/13 07:40*	*09/12/13 21:34*	*1*
2-Fluorophenol (Surr)	*51*		*18 - 120*	*09/11/13 07:40*	*09/12/13 21:34*	*1*
Nitrobenzene-d5 (Surr)	*88*		*34 - 132*	*09/11/13 07:40*	*09/12/13 21:34*	*1*
Phenol-d5 (Surr)	*39*		*11 - 120*	*09/11/13 07:40*	*09/12/13 21:34*	*1*
p-Terphenyl-d14	*91*		*58 - 147*	*09/11/13 07:40*	*09/12/13 21:34*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1.4**		0.20	0.060	mg/L		09/11/13 08:40	09/11/13 23:41	1
Antimony	ND		0.020	0.0068	mg/L		09/11/13 08:40	09/11/13 23:41	1
Arsenic	**0.030**		0.010	0.0056	mg/L		09/11/13 08:40	09/11/13 23:41	1
Barium	**0.019**		0.0020	0.00070	mg/L		09/11/13 08:40	09/11/13 23:41	1
Beryllium	ND		0.0020	0.00030	mg/L		09/11/13 08:40	09/11/13 23:41	1
Cadmium	ND		0.0010	0.00050	mg/L		09/11/13 08:40	09/11/13 23:41	1
Calcium	**60.6**		0.50	0.10	mg/L		09/11/13 08:40	09/11/13 23:41	1
Chromium	**0.011**		0.0040	0.0010	mg/L		09/11/13 08:40	09/11/13 23:41	1
Cobalt	ND		0.0040	0.00063	mg/L		09/11/13 08:40	09/11/13 23:41	1
Copper	**0.10**		0.010	0.0016	mg/L		09/11/13 08:40	09/11/13 23:41	1
Iron	**0.25**		0.050	0.019	mg/L		09/11/13 08:40	09/11/13 23:41	1
Lead	ND		0.010	0.0060	mg/L		09/11/13 08:40	09/16/13 15:18	2
Magnesium	**1.3**		0.20	0.043	mg/L		09/11/13 08:40	09/11/13 23:41	1
Manganese	**0.0053**		0.0030	0.00040	mg/L		09/11/13 08:40	09/11/13 23:41	1
Nickel	**0.013**		0.010	0.0013	mg/L		09/11/13 08:40	09/11/13 23:41	1
Potassium	**539**	**B**	0.50	0.10	mg/L		09/11/13 08:40	09/11/13 23:41	1
Selenium	**0.042**		0.015	0.0087	mg/L		09/11/13 08:40	09/11/13 23:41	1
Silver	**0.0018**	**J**	0.0030	0.0017	mg/L		09/11/13 08:40	09/11/13 23:41	1
Sodium	**46.9**		1.0	0.32	mg/L		09/11/13 08:40	09/11/13 23:41	1
Thallium	ND		0.020	0.010	mg/L		09/11/13 08:40	09/11/13 23:41	1
Vanadium	**0.065**		0.0050	0.0015	mg/L		09/11/13 08:40	09/11/13 23:41	1
Zinc	**0.013**		0.010	0.0015	mg/L		09/11/13 08:40	09/11/13 23:41	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0012**		0.00020	0.00012	mg/L		09/11/13 09:00	09/11/13 16:37	1

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-45465-1

Client Sample ID: GW-20-091013
Date Collected: 09/10/13 08:15
Date Received: 09/10/13 15:05

Lab Sample ID: 480-45465-4
Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		0.48	0.062	ug/L		09/11/13 07:40	09/12/13 22:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*124*		*39 - 146*	*09/11/13 07:40*	*09/12/13 22:01*	*1*
2-Fluorobiphenyl	*97*		*37 - 120*	*09/11/13 07:40*	*09/12/13 22:01*	*1*
2-Fluorophenol (Surr)	*48*		*18 - 120*	*09/11/13 07:40*	*09/12/13 22:01*	*1*
Nitrobenzene-d5 (Surr)	*89*		*34 - 132*	*09/11/13 07:40*	*09/12/13 22:01*	*1*
Phenol-d5 (Surr)	*38*		*11 - 120*	*09/11/13 07:40*	*09/12/13 22:01*	*1*
p-Terphenyl-d14	*111*		*58 - 147*	*09/11/13 07:40*	*09/12/13 22:01*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.70**		0.20	0.060	mg/L		09/11/13 08:40	09/11/13 23:44	1
Antimony	ND		0.020	0.0068	mg/L		09/11/13 08:40	09/11/13 23:44	1
Arsenic	ND		0.010	0.0056	mg/L		09/11/13 08:40	09/11/13 23:44	1
Barium	**0.049**		0.0020	0.00070	mg/L		09/11/13 08:40	09/11/13 23:44	1
Beryllium	ND		0.0020	0.00030	mg/L		09/11/13 08:40	09/11/13 23:44	1
Cadmium	ND		0.0010	0.00050	mg/L		09/11/13 08:40	09/11/13 23:44	1
Calcium	**52.8**		0.50	0.10	mg/L		09/11/13 08:40	09/11/13 23:44	1
Chromium	**0.0018**	**J**	0.0040	0.0010	mg/L		09/11/13 08:40	09/11/13 23:44	1
Cobalt	ND		0.0040	0.00063	mg/L		09/11/13 08:40	09/11/13 23:44	1
Copper	**0.0026**	**J**	0.010	0.0016	mg/L		09/11/13 08:40	09/11/13 23:44	1
Iron	**0.64**		0.050	0.019	mg/L		09/11/13 08:40	09/11/13 23:44	1
Lead	**0.0041**	**J**	0.0050	0.0030	mg/L		09/11/13 08:40	09/11/13 23:44	1
Magnesium	**7.4**		0.20	0.043	mg/L		09/11/13 08:40	09/11/13 23:44	1
Manganese	**0.10**		0.0030	0.00040	mg/L		09/11/13 08:40	09/11/13 23:44	1
Nickel	ND		0.010	0.0013	mg/L		09/11/13 08:40	09/11/13 23:44	1
Potassium	**143**	**B**	0.50	0.10	mg/L		09/11/13 08:40	09/11/13 23:44	1
Selenium	ND		0.015	0.0087	mg/L		09/11/13 08:40	09/11/13 23:44	1
Silver	ND		0.0030	0.0017	mg/L		09/11/13 08:40	09/11/13 23:44	1
Sodium	**34.6**		1.0	0.32	mg/L		09/11/13 08:40	09/11/13 23:44	1
Thallium	ND		0.020	0.010	mg/L		09/11/13 08:40	09/11/13 23:44	1
Vanadium	**0.0078**		0.0050	0.0015	mg/L		09/11/13 08:40	09/11/13 23:44	1
Zinc	**0.023**		0.010	0.0015	mg/L		09/11/13 08:40	09/11/13 23:44	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/11/13 09:00	09/11/13 16:39	1

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-45465-1

Client Sample ID: GW-21-091013
Date Collected: 09/10/13 14:00
Date Received: 09/10/13 15:05

Lab Sample ID: 480-45465-5
Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		0.47	0.062	ug/L		09/11/13 07:40	09/12/13 22:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*127*		*39 - 146*	*09/11/13 07:40*	*09/12/13 22:28*	*1*
2-Fluorobiphenyl	*93*		*37 - 120*	*09/11/13 07:40*	*09/12/13 22:28*	*1*
2-Fluorophenol (Surr)	*58*		*18 - 120*	*09/11/13 07:40*	*09/12/13 22:28*	*1*
Nitrobenzene-d5 (Surr)	*100*		*34 - 132*	*09/11/13 07:40*	*09/12/13 22:28*	*1*
Phenol-d5 (Surr)	*41*		*11 - 120*	*09/11/13 07:40*	*09/12/13 22:28*	*1*
p-Terphenyl-d14	*106*		*58 - 147*	*09/11/13 07:40*	*09/12/13 22:28*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.067**	**J**	0.20	0.060	mg/L		09/11/13 08:40	09/12/13 00:04	1
Antimony	ND		0.020	0.0068	mg/L		09/11/13 08:40	09/12/13 00:04	1
Arsenic	ND		0.010	0.0056	mg/L		09/11/13 08:40	09/12/13 00:04	1
Barium	**0.053**		0.0020	0.00070	mg/L		09/11/13 08:40	09/12/13 00:04	1
Beryllium	ND		0.0020	0.00030	mg/L		09/11/13 08:40	09/12/13 00:04	1
Cadmium	ND		0.0010	0.00050	mg/L		09/11/13 08:40	09/12/13 00:04	1
Calcium	**49.0**		0.50	0.10	mg/L		09/11/13 08:40	09/12/13 00:04	1
Chromium	**0.0011**	**J**	0.0040	0.0010	mg/L		09/11/13 08:40	09/12/13 00:04	1
Cobalt	ND		0.0040	0.00063	mg/L		09/11/13 08:40	09/12/13 00:04	1
Copper	**0.0017**	**J**	0.010	0.0016	mg/L		09/11/13 08:40	09/12/13 00:04	1
Iron	**0.088**		0.050	0.019	mg/L		09/11/13 08:40	09/12/13 00:04	1
Lead	ND		0.0050	0.0030	mg/L		09/11/13 08:40	09/12/13 00:04	1
Magnesium	**13.3**		0.20	0.043	mg/L		09/11/13 08:40	09/12/13 00:04	1
Manganese	**0.012**		0.0030	0.00040	mg/L		09/11/13 08:40	09/12/13 00:04	1
Nickel	ND		0.010	0.0013	mg/L		09/11/13 08:40	09/12/13 00:04	1
Potassium	**20.7**	**B**	0.50	0.10	mg/L		09/11/13 08:40	09/12/13 00:04	1
Selenium	ND		0.015	0.0087	mg/L		09/11/13 08:40	09/12/13 00:04	1
Silver	ND		0.0030	0.0017	mg/L		09/11/13 08:40	09/12/13 00:04	1
Sodium	**14.2**		1.0	0.32	mg/L		09/11/13 08:40	09/12/13 00:04	1
Thallium	ND		0.020	0.010	mg/L		09/11/13 08:40	09/12/13 00:04	1
Vanadium	**0.0019**	**J**	0.0050	0.0015	mg/L		09/11/13 08:40	09/12/13 00:04	1
Zinc	**0.0049**	**J**	0.010	0.0015	mg/L		09/11/13 08:40	09/12/13 00:04	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/11/13 09:00	09/11/13 16:50	1

Client Sample ID: GW-22-091013
Date Collected: 09/10/13 10:40
Date Received: 09/10/13 15:05

Lab Sample ID: 480-45465-6
Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.13	J	0.47	0.062	ug/L		09/11/13 07:40	09/12/13 22:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*119*		*39 - 146*	*09/11/13 07:40*	*09/12/13 22:56*	*1*
2-Fluorobiphenyl	*90*		*37 - 120*	*09/11/13 07:40*	*09/12/13 22:56*	*1*
2-Fluorophenol (Surr)	*51*		*18 - 120*	*09/11/13 07:40*	*09/12/13 22:56*	*1*
Nitrobenzene-d5 (Surr)	*88*		*34 - 132*	*09/11/13 07:40*	*09/12/13 22:56*	*1*
Phenol-d5 (Surr)	*39*		*11 - 120*	*09/11/13 07:40*	*09/12/13 22:56*	*1*
p-Terphenyl-d14	*101*		*58 - 147*	*09/11/13 07:40*	*09/12/13 22:56*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	10.0		0.20	0.060	mg/L		09/11/13 08:40	09/12/13 00:07	1
Antimony	0.072		0.020	0.0068	mg/L		09/11/13 08:40	09/12/13 00:07	1
Arsenic	0.049		0.010	0.0056	mg/L		09/11/13 08:40	09/12/13 00:07	1
Barium	0.10		0.0020	0.00070	mg/L		09/11/13 08:40	09/12/13 00:07	1
Beryllium	0.00049	J	0.0020	0.00030	mg/L		09/11/13 08:40	09/12/13 00:07	1
Cadmium	0.0025		0.0010	0.00050	mg/L		09/11/13 08:40	09/12/13 00:07	1
Calcium	508		0.50	0.10	mg/L		09/11/13 08:40	09/12/13 00:07	1
Chromium	0.030		0.0040	0.0010	mg/L		09/11/13 08:40	09/12/13 00:07	1
Cobalt	0.0089		0.0040	0.00063	mg/L		09/11/13 08:40	09/12/13 00:07	1
Copper	0.28		0.010	0.0016	mg/L		09/11/13 08:40	09/12/13 00:07	1
Iron	42.2		0.050	0.019	mg/L		09/11/13 08:40	09/12/13 00:07	1
Lead	0.20		0.0050	0.0030	mg/L		09/11/13 08:40	09/12/13 00:07	1
Magnesium	205		0.20	0.043	mg/L		09/11/13 08:40	09/12/13 00:07	1
Manganese	2.0		0.0030	0.00040	mg/L		09/11/13 08:40	09/12/13 00:07	1
Nickel	0.039		0.010	0.0013	mg/L		09/11/13 08:40	09/12/13 00:07	1
Potassium	55.5	B	0.50	0.10	mg/L		09/11/13 08:40	09/12/13 00:07	1
Selenium	ND		0.015	0.0087	mg/L		09/11/13 08:40	09/12/13 00:07	1
Silver	ND		0.0030	0.0017	mg/L		09/11/13 08:40	09/12/13 00:07	1
Sodium	74.2		1.0	0.32	mg/L		09/11/13 08:40	09/12/13 00:07	1
Thallium	ND		0.020	0.010	mg/L		09/11/13 08:40	09/12/13 00:07	1
Vanadium	0.021		0.0050	0.0015	mg/L		09/11/13 08:40	09/12/13 00:07	1
Zinc	0.85		0.010	0.0015	mg/L		09/11/13 08:40	09/12/13 00:07	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.068	J *	0.20	0.060	mg/L		09/17/13 15:00	09/18/13 15:17	1
Antimony	0.011	J	0.020	0.0068	mg/L		09/17/13 15:00	09/18/13 15:17	1
Arsenic	ND		0.010	0.0056	mg/L		09/17/13 15:00	09/18/13 15:17	1
Barium	0.035	*	0.0020	0.00070	mg/L		09/17/13 15:00	09/18/13 15:17	1
Beryllium	ND		0.0020	0.00030	mg/L		09/17/13 15:00	09/18/13 15:17	1
Cadmium	0.0012		0.0010	0.00050	mg/L		09/17/13 15:00	09/18/13 15:17	1
Calcium	463		0.50	0.10	mg/L		09/17/13 15:00	09/18/13 15:17	1
Chromium	0.0016	J	0.0040	0.0010	mg/L		09/17/13 15:00	09/18/13 15:17	1
Cobalt	0.0023	J	0.0040	0.00063	mg/L		09/17/13 15:00	09/18/13 15:17	1
Copper	0.017		0.010	0.0016	mg/L		09/17/13 15:00	09/18/13 15:17	1
Iron	0.024	J B	0.050	0.019	mg/L		09/17/13 15:00	09/18/13 15:17	1
Lead	ND		0.0050	0.0030	mg/L		09/17/13 15:00	09/18/13 15:17	1
Magnesium	187		0.20	0.043	mg/L		09/17/13 15:00	09/18/13 15:17	1

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-45465-1

Client Sample ID: GW-22-091013
Date Collected: 09/10/13 10:40
Date Received: 09/10/13 15:05

Lab Sample ID: 480-45465-6
Matrix: Water

Method: 6010B - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**1.2**		0.0030	0.00040	mg/L		09/17/13 15:00	09/18/13 15:17	1
Nickel	**0.020**		0.010	0.0013	mg/L		09/17/13 15:00	09/18/13 15:17	1
Potassium	**51.7**	*	0.50	0.10	mg/L		09/17/13 15:00	09/18/13 15:17	1
Selenium	ND		0.015	0.0087	mg/L		09/17/13 15:00	09/18/13 15:17	1
Silver	ND		0.0030	0.0017	mg/L		09/17/13 15:00	09/18/13 15:17	1
Sodium	**71.8**	*	1.0	0.32	mg/L		09/17/13 15:00	09/18/13 15:17	1
Thallium	ND		0.020	0.010	mg/L		09/17/13 15:00	09/18/13 15:17	1
Vanadium	ND		0.0050	0.0015	mg/L		09/17/13 15:00	09/18/13 15:17	1
Zinc	**0.34**	**B**	0.010	0.0015	mg/L		09/17/13 15:00	09/18/13 15:17	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00022**		0.00020	0.00012	mg/L		09/11/13 09:00	09/11/13 16:52	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/16/13 11:00	09/16/13 14:45	1

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-45465-1

Client Sample ID: GW-23-091013
Date Collected: 09/10/13 11:05
Date Received: 09/10/13 15:05

Lab Sample ID: 480-45465-7
Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		0.47	0.061	ug/L		09/11/13 07:40	09/12/13 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*109*		*39 - 146*	*09/11/13 07:40*	*09/12/13 23:23*	*1*
2-Fluorobiphenyl	*87*		*37 - 120*	*09/11/13 07:40*	*09/12/13 23:23*	*1*
2-Fluorophenol (Surr)	*48*		*18 - 120*	*09/11/13 07:40*	*09/12/13 23:23*	*1*
Nitrobenzene-d5 (Surr)	*90*		*34 - 132*	*09/11/13 07:40*	*09/12/13 23:23*	*1*
Phenol-d5 (Surr)	*36*		*11 - 120*	*09/11/13 07:40*	*09/12/13 23:23*	*1*
p-Terphenyl-d14	*86*		*58 - 147*	*09/11/13 07:40*	*09/12/13 23:23*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1.6**		0.20	0.060	mg/L		09/11/13 08:40	09/12/13 00:09	1
Antimony	**0.14**		0.020	0.0068	mg/L		09/11/13 08:40	09/12/13 00:09	1
Arsenic	**0.028**		0.010	0.0056	mg/L		09/11/13 08:40	09/12/13 00:09	1
Barium	**0.12**		0.0020	0.00070	mg/L		09/11/13 08:40	09/12/13 00:09	1
Beryllium	ND		0.0020	0.00030	mg/L		09/11/13 08:40	09/12/13 00:09	1
Cadmium	**0.018**		0.0010	0.00050	mg/L		09/11/13 08:40	09/12/13 00:09	1
Calcium	**280**		0.50	0.10	mg/L		09/11/13 08:40	09/12/13 00:09	1
Chromium	**0.0072**		0.0040	0.0010	mg/L		09/11/13 08:40	09/12/13 00:09	1
Cobalt	**0.0047**		0.0040	0.00063	mg/L		09/11/13 08:40	09/12/13 00:09	1
Copper	**0.94**		0.010	0.0016	mg/L		09/11/13 08:40	09/12/13 00:09	1
Iron	**11.4**		0.050	0.019	mg/L		09/11/13 08:40	09/12/13 00:09	1
Lead	**1.4**		0.0050	0.0030	mg/L		09/11/13 08:40	09/12/13 00:09	1
Magnesium	**58.5**		0.20	0.043	mg/L		09/11/13 08:40	09/12/13 00:09	1
Manganese	**0.61**		0.0030	0.00040	mg/L		09/11/13 08:40	09/12/13 00:09	1
Nickel	**0.021**		0.010	0.0013	mg/L		09/11/13 08:40	09/12/13 00:09	1
Potassium	**81.1**	**B**	0.50	0.10	mg/L		09/11/13 08:40	09/12/13 00:09	1
Selenium	**0.091**		0.015	0.0087	mg/L		09/11/13 08:40	09/12/13 00:09	1
Silver	**0.0024**	**J**	0.0030	0.0017	mg/L		09/11/13 08:40	09/12/13 00:09	1
Sodium	**29.7**		1.0	0.32	mg/L		09/11/13 08:40	09/12/13 00:09	1
Thallium	ND		0.020	0.010	mg/L		09/11/13 08:40	09/12/13 00:09	1
Vanadium	**0.011**		0.0050	0.0015	mg/L		09/11/13 08:40	09/12/13 00:09	1
Zinc	**2.7**		0.010	0.0015	mg/L		09/11/13 08:40	09/12/13 00:09	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.073**	**J ***	0.20	0.060	mg/L		09/17/13 15:00	09/18/13 15:19	1
Antimony	**0.12**		0.020	0.0068	mg/L		09/17/13 15:00	09/18/13 15:19	1
Arsenic	ND		0.010	0.0056	mg/L		09/17/13 15:00	09/18/13 15:19	1
Barium	**0.11**	*****	0.0020	0.00070	mg/L		09/17/13 15:00	09/18/13 15:19	1
Beryllium	ND		0.0020	0.00030	mg/L		09/17/13 15:00	09/18/13 15:19	1
Cadmium	**0.0034**		0.0010	0.00050	mg/L		09/17/13 15:00	09/18/13 15:19	1
Calcium	**276**		0.50	0.10	mg/L		09/17/13 15:00	09/18/13 15:19	1
Chromium	**0.0016**	**J**	0.0040	0.0010	mg/L		09/17/13 15:00	09/18/13 15:19	1
Cobalt	**0.0054**		0.0040	0.00063	mg/L		09/17/13 15:00	09/18/13 15:19	1
Copper	**0.0068**	**J**	0.010	0.0016	mg/L		09/17/13 15:00	09/18/13 15:19	1
Iron	ND		0.050	0.019	mg/L		09/17/13 15:00	09/18/13 15:19	1
Lead	**0.046**		0.0050	0.0030	mg/L		09/17/13 15:00	09/18/13 15:19	1
Magnesium	**57.4**		0.20	0.043	mg/L		09/17/13 15:00	09/18/13 15:19	1

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-45465-1

Client Sample ID: GW-23-091013
Date Collected: 09/10/13 11:05
Date Received: 09/10/13 15:05

Lab Sample ID: 480-45465-7
Matrix: Water

Method: 6010B - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.53		0.0030	0.00040	mg/L		09/17/13 15:00	09/18/13 15:19	1
Nickel	0.021		0.010	0.0013	mg/L		09/17/13 15:00	09/18/13 15:19	1
Potassium	81.6	*	0.50	0.10	mg/L		09/17/13 15:00	09/18/13 15:19	1
Selenium	0.020		0.015	0.0087	mg/L		09/17/13 15:00	09/18/13 15:19	1
Silver	ND		0.0030	0.0017	mg/L		09/17/13 15:00	09/18/13 15:19	1
Sodium	29.8	*	1.0	0.32	mg/L		09/17/13 15:00	09/18/13 15:19	1
Thallium	ND		0.020	0.010	mg/L		09/17/13 15:00	09/18/13 15:19	1
Vanadium	ND		0.0050	0.0015	mg/L		09/17/13 15:00	09/18/13 15:19	1
Zinc	1.9	B	0.010	0.0015	mg/L		09/17/13 15:00	09/18/13 15:19	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0011		0.00020	0.00012	mg/L		09/11/13 09:00	09/11/13 14:54	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/16/13 11:00	09/16/13 14:47	1

Surrogate Summary

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-45465-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(39-146)	(37-120)	(18-120)	(34-132)	(11-120)	(58-147)
480-45465-1	FDUP-091013	124	90	48	85	37	108
480-45465-2	GW-18R-091013	120	91	51	96	38	108
480-45465-3	GW-19-091013	128	91	51	88	39	91
480-45465-4	GW-20-091013	124	97	48	89	38	111
480-45465-4 MS	GW-20-091013 MS	112	83	42	78	34	84
480-45465-4 MSD	GW-20-091013 MSD	117	95	53	96	40	91
480-45465-5	GW-21-091013	127	93	58	100	41	106
480-45465-6	GW-22-091013	119	90	51	88	39	101
480-45465-7	GW-23-091013	109	87	48	90	36	86
LCS 480-138337/2-A	Lab Control Sample	114	105	65	110	50	110
MB 480-138337/1-A	Method Blank	82	94	54	97	41	115

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = p-Terphenyl-d14

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 480-138337/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138640 — **Prep Batch: 138337**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		0.50	0.065	ug/L		09/11/13 07:40	09/12/13 16:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*82*		*39 - 146*	*09/11/13 07:40*	*09/12/13 16:04*	*1*
2-Fluorobiphenyl	*94*		*37 - 120*	*09/11/13 07:40*	*09/12/13 16:04*	*1*
2-Fluorophenol (Surr)	*54*		*18 - 120*	*09/11/13 07:40*	*09/12/13 16:04*	*1*
Nitrobenzene-d5 (Surr)	*97*		*34 - 132*	*09/11/13 07:40*	*09/12/13 16:04*	*1*
Phenol-d5 (Surr)	*41*		*11 - 120*	*09/11/13 07:40*	*09/12/13 16:04*	*1*
p-Terphenyl-d14	*115*		*58 - 147*	*09/11/13 07:40*	*09/12/13 16:04*	*1*

Lab Sample ID: LCS 480-138337/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138640 — **Prep Batch: 138337**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrobenzene			8.00	8.76		ug/L		110	42 - 131		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*114*		*39 - 146*
2-Fluorobiphenyl	*105*		*37 - 120*
2-Fluorophenol (Surr)	*65*		*18 - 120*
Nitrobenzene-d5 (Surr)	*110*		*34 - 132*
Phenol-d5 (Surr)	*50*		*11 - 120*
p-Terphenyl-d14	*110*		*58 - 147*

Lab Sample ID: 480-45465-4 MS — **Client Sample ID: GW-20-091013 MS**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138640 — **Prep Batch: 138337**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrobenzene	ND		7.68	6.00		ug/L		78	42 - 131		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*112*		*39 - 146*
2-Fluorobiphenyl	*83*		*37 - 120*
2-Fluorophenol (Surr)	*42*		*18 - 120*
Nitrobenzene-d5 (Surr)	*78*		*34 - 132*
Phenol-d5 (Surr)	*34*		*11 - 120*
p-Terphenyl-d14	*84*		*58 - 147*

Lab Sample ID: 480-45465-4 MSD — **Client Sample ID: GW-20-091013 MSD**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138640 — **Prep Batch: 138337**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrobenzene	ND		7.64	7.30		ug/L		96	42 - 131	20	24

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 480-45465-4 MSD
Matrix: Water
Analysis Batch: 138640

Client Sample ID: GW-20-091013 MSD
Prep Type: Total/NA
Prep Batch: 138337

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*117*		*39 - 146*
2-Fluorobiphenyl	*95*		*37 - 120*
2-Fluorophenol (Surr)	*53*		*18 - 120*
Nitrobenzene-d5 (Surr)	*96*		*34 - 132*
Phenol-d5 (Surr)	*40*		*11 - 120*
p-Terphenyl-d14	*91*		*58 - 147*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 480-138332/1-A
Matrix: Water
Analysis Batch: 138600

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138332

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		09/11/13 08:40	09/11/13 23:30	1
Antimony	ND		0.020	0.0068	mg/L		09/11/13 08:40	09/11/13 23:30	1
Arsenic	ND		0.010	0.0056	mg/L		09/11/13 08:40	09/11/13 23:30	1
Barium	ND		0.0020	0.00070	mg/L		09/11/13 08:40	09/11/13 23:30	1
Beryllium	ND		0.0020	0.00030	mg/L		09/11/13 08:40	09/11/13 23:30	1
Cadmium	ND		0.0010	0.00050	mg/L		09/11/13 08:40	09/11/13 23:30	1
Calcium	ND		0.50	0.10	mg/L		09/11/13 08:40	09/11/13 23:30	1
Chromium	ND		0.0040	0.0010	mg/L		09/11/13 08:40	09/11/13 23:30	1
Cobalt	ND		0.0040	0.00063	mg/L		09/11/13 08:40	09/11/13 23:30	1
Copper	ND		0.010	0.0016	mg/L		09/11/13 08:40	09/11/13 23:30	1
Iron	ND		0.050	0.019	mg/L		09/11/13 08:40	09/11/13 23:30	1
Lead	ND		0.0050	0.0030	mg/L		09/11/13 08:40	09/11/13 23:30	1
Magnesium	ND		0.20	0.043	mg/L		09/11/13 08:40	09/11/13 23:30	1
Manganese	ND		0.0030	0.00040	mg/L		09/11/13 08:40	09/11/13 23:30	1
Nickel	ND		0.010	0.0013	mg/L		09/11/13 08:40	09/11/13 23:30	1
Potassium	0.123	J	0.50	0.10	mg/L		09/11/13 08:40	09/11/13 23:30	1
Selenium	ND		0.015	0.0087	mg/L		09/11/13 08:40	09/11/13 23:30	1
Silver	ND		0.0030	0.0017	mg/L		09/11/13 08:40	09/11/13 23:30	1
Sodium	ND		1.0	0.32	mg/L		09/11/13 08:40	09/11/13 23:30	1
Thallium	ND		0.020	0.010	mg/L		09/11/13 08:40	09/11/13 23:30	1
Vanadium	ND		0.0050	0.0015	mg/L		09/11/13 08:40	09/11/13 23:30	1
Zinc	ND		0.010	0.0015	mg/L		09/11/13 08:40	09/11/13 23:30	1

Lab Sample ID: LCS 480-138332/2-A
Matrix: Water
Analysis Batch: 138600

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138332

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10.0	10.20		mg/L		102	80 - 120
Antimony	0.200	0.204		mg/L		102	80 - 120
Arsenic	0.200	0.208		mg/L		104	80 - 120
Barium	0.200	0.204		mg/L		102	80 - 120
Beryllium	0.200	0.210		mg/L		105	80 - 120
Cadmium	0.200	0.203		mg/L		101	80 - 120

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-138332/2-A
Matrix: Water
Analysis Batch: 138600

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138332

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	10.0	10.11		mg/L		101	80 - 120
Chromium	0.200	0.206		mg/L		103	80 - 120
Cobalt	0.200	0.203		mg/L		101	80 - 120
Copper	0.200	0.203		mg/L		101	80 - 120
Iron	10.0	10.10		mg/L		101	80 - 120
Lead	0.200	0.203		mg/L		101	80 - 120
Magnesium	10.0	10.33		mg/L		103	80 - 120
Manganese	0.200	0.206		mg/L		103	80 - 120
Nickel	0.200	0.203		mg/L		101	80 - 120
Potassium	10.0	9.84		mg/L		98	80 - 120
Selenium	0.200	0.201		mg/L		101	80 - 120
Silver	0.0500	0.0518		mg/L		104	80 - 120
Sodium	10.0	9.72		mg/L		97	80 - 120
Thallium	0.200	0.205		mg/L		102	80 - 120
Vanadium	0.200	0.201		mg/L		101	80 - 120
Zinc	0.200	0.204		mg/L		102	80 - 120

Lab Sample ID: 480-45465-4 MS
Matrix: Water
Analysis Batch: 138600

Client Sample ID: GW-20-091013 MS
Prep Type: Total/NA
Prep Batch: 138332

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	0.70		10.0	11.08		mg/L		104	75 - 125
Antimony	ND		0.200	0.210		mg/L		105	75 - 125
Arsenic	ND		0.200	0.215		mg/L		108	75 - 125
Barium	0.049		0.200	0.248		mg/L		99	75 - 125
Beryllium	ND		0.200	0.208		mg/L		104	75 - 125
Cadmium	ND		0.200	0.206		mg/L		103	75 - 125
Calcium	52.8		10.0	58.07	4	mg/L		53	75 - 125
Chromium	0.0018	J	0.200	0.206		mg/L		102	75 - 125
Cobalt	ND		0.200	0.207		mg/L		103	75 - 125
Copper	0.0026	J	0.200	0.207		mg/L		102	75 - 125
Iron	0.64		10.0	10.46		mg/L		98	75 - 125
Lead	0.0041	J	0.200	0.208		mg/L		102	75 - 125
Magnesium	7.4		10.0	16.00		mg/L		86	75 - 125
Manganese	0.10		0.200	0.316		mg/L		108	75 - 125
Nickel	ND		0.200	0.207		mg/L		103	75 - 125
Potassium	143	B	10.0	153.3	4	mg/L		106	75 - 125
Selenium	ND		0.200	0.202		mg/L		101	75 - 125
Silver	ND		0.0500	0.0520		mg/L		104	75 - 125
Sodium	34.6		10.0	45.91		mg/L		113	75 - 125
Thallium	ND		0.200	0.201		mg/L		100	75 - 125
Vanadium	0.0078		0.200	0.209		mg/L		100	75 - 125
Zinc	0.023		0.200	0.229		mg/L		103	75 - 125

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 480-45465-4 MSD | **Client Sample ID: GW-20-091013 MSD**
Matrix: Water | **Prep Type: Total/NA**
Analysis Batch: 138600 | **Prep Batch: 138332**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	0.70		10.0	11.51		mg/L		108	75 - 125	4	20
Antimony	ND		0.200	0.211		mg/L		105	75 - 125	0	20
Arsenic	ND		0.200	0.217		mg/L		109	75 - 125	1	20
Barium	0.049		0.200	0.252		mg/L		102	75 - 125	2	20
Beryllium	ND		0.200	0.210		mg/L		105	75 - 125	1	20
Cadmium	ND		0.200	0.207		mg/L		104	75 - 125	1	20
Calcium	52.8		10.0	55.12	4	mg/L		23	75 - 125	5	20
Chromium	0.0018	J	0.200	0.208		mg/L		103	75 - 125	1	20
Cobalt	ND		0.200	0.208		mg/L		104	75 - 125	1	20
Copper	0.0026	J	0.200	0.209		mg/L		103	75 - 125	1	20
Iron	0.64		10.0	10.76		mg/L		101	75 - 125	3	20
Lead	0.0041	J	0.200	0.214		mg/L		105	75 - 125	3	20
Magnesium	7.4		10.0	15.55		mg/L		81	75 - 125	3	20
Manganese	0.10		0.200	0.309		mg/L		104	75 - 125	2	20
Nickel	ND		0.200	0.209		mg/L		105	75 - 125	1	20
Potassium	143	B	10.0	151.1	4	mg/L		84	75 - 125	1	20
Selenium	ND		0.200	0.197		mg/L		98	75 - 125	3	20
Silver	ND		0.0500	0.0530		mg/L		106	75 - 125	2	20
Sodium	34.6		10.0	46.51		mg/L		119	75 - 125	1	20
Thallium	ND		0.200	0.202		mg/L		101	75 - 125	1	20
Vanadium	0.0078		0.200	0.213		mg/L		103	75 - 125	2	20
Zinc	0.023		0.200	0.235		mg/L		106	75 - 125	2	20

Lab Sample ID: MB 480-138987/1-C | **Client Sample ID: Method Blank**
Matrix: Water | **Prep Type: Dissolved**
Analysis Batch: 139945 | **Prep Batch: 139213**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		09/17/13 15:00	09/18/13 14:59	1
Antimony	ND		0.020	0.0068	mg/L		09/17/13 15:00	09/18/13 14:59	1
Arsenic	ND		0.010	0.0056	mg/L		09/17/13 15:00	09/18/13 14:59	1
Barium	ND		0.0020	0.00070	mg/L		09/17/13 15:00	09/18/13 14:59	1
Beryllium	ND		0.0020	0.00030	mg/L		09/17/13 15:00	09/18/13 14:59	1
Cadmium	ND		0.0010	0.00050	mg/L		09/17/13 15:00	09/18/13 14:59	1
Calcium	ND		0.50	0.10	mg/L		09/17/13 15:00	09/18/13 14:59	1
Chromium	ND		0.0040	0.0010	mg/L		09/17/13 15:00	09/18/13 14:59	1
Cobalt	ND		0.0040	0.00063	mg/L		09/17/13 15:00	09/18/13 14:59	1
Copper	ND		0.010	0.0016	mg/L		09/17/13 15:00	09/18/13 14:59	1
Iron	0.0308	J	0.050	0.019	mg/L		09/17/13 15:00	09/18/13 14:59	1
Lead	ND		0.0050	0.0030	mg/L		09/17/13 15:00	09/18/13 14:59	1
Magnesium	ND		0.20	0.043	mg/L		09/17/13 15:00	09/18/13 14:59	1
Manganese	ND		0.0030	0.00040	mg/L		09/17/13 15:00	09/18/13 14:59	1
Nickel	ND		0.010	0.0013	mg/L		09/17/13 15:00	09/18/13 14:59	1
Potassium	ND		0.50	0.10	mg/L		09/17/13 15:00	09/18/13 14:59	1
Selenium	ND		0.015	0.0087	mg/L		09/17/13 15:00	09/18/13 14:59	1
Silver	ND		0.0030	0.0017	mg/L		09/17/13 15:00	09/18/13 14:59	1
Sodium	ND		1.0	0.32	mg/L		09/17/13 15:00	09/18/13 14:59	1
Thallium	ND		0.020	0.010	mg/L		09/17/13 15:00	09/18/13 14:59	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 480-138987/1-C
Matrix: Water
Analysis Batch: 139945

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 139213

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.0050	0.0015	mg/L		09/17/13 15:00	09/18/13 14:59	1
Zinc	0.00509	J	0.010	0.0015	mg/L		09/17/13 15:00	09/18/13 14:59	1

Lab Sample ID: LCS 480-138987/2-C
Matrix: Water
Analysis Batch: 139945

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 139213

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10.0	10.19		mg/L		102	80 - 120
Antimony	0.200	0.197		mg/L		99	80 - 120
Arsenic	0.200	0.194		mg/L		97	80 - 120
Barium	0.200	0.204		mg/L		102	80 - 120
Beryllium	0.200	0.201		mg/L		101	80 - 120
Cadmium	0.200	0.198		mg/L		99	80 - 120
Calcium	10.0	9.91		mg/L		99	80 - 120
Chromium	0.200	0.203		mg/L		101	80 - 120
Cobalt	0.200	0.194		mg/L		97	80 - 120
Copper	0.200	0.202		mg/L		101	80 - 120
Iron	10.0	9.90		mg/L		99	80 - 120
Lead	0.200	0.192		mg/L		96	80 - 120
Magnesium	10.0	10.01		mg/L		100	80 - 120
Manganese	0.200	0.199		mg/L		100	80 - 120
Nickel	0.200	0.193		mg/L		97	80 - 120
Potassium	10.0	9.97		mg/L		100	80 - 120
Selenium	0.200	0.204		mg/L		102	80 - 120
Silver	0.0500	0.0504		mg/L		101	80 - 120
Sodium	10.0	9.94		mg/L		99	80 - 120
Thallium	0.200	0.198		mg/L		99	80 - 120
Vanadium	0.200	0.203		mg/L		102	80 - 120
Zinc	0.200	0.204		mg/L		102	80 - 120

Lab Sample ID: LCSD 480-138987/11-D
Matrix: Water
Analysis Batch: 139945

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved
Prep Batch: 139213

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	10.0	7.85	*	mg/L		79	80 - 120	26	20
Antimony	0.200	0.195		mg/L		98	80 - 120	1	20
Arsenic	0.200	0.199		mg/L		99	80 - 120	3	20
Barium	0.200	0.158	*	mg/L		79	80 - 120	25	20
Beryllium	0.200	0.201		mg/L		100	80 - 120	0	20
Cadmium	0.200	0.197		mg/L		98	80 - 120	1	20
Calcium	10.0	9.79		mg/L		98	80 - 120	1	20
Chromium	0.200	0.205		mg/L		102	80 - 120	1	20
Cobalt	0.200	0.193		mg/L		96	80 - 120	1	20
Copper	0.200	0.204		mg/L		102	80 - 120	1	20
Iron	10.0	9.79		mg/L		98	80 - 120	1	20
Lead	0.200	0.195		mg/L		97	80 - 120	1	20
Magnesium	10.0	10.08		mg/L		101	80 - 120	1	20

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 480-138987/11-D — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 139945 — **Prep Batch: 139213**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Manganese			0.200	0.201		mg/L		101	80 - 120	1	20
Nickel			0.200	0.194		mg/L		97	80 - 120	0	20
Potassium			10.0	7.73	*	mg/L		77	80 - 120	25	20
Selenium			0.200	0.205		mg/L		103	80 - 120	1	20
Silver			0.0500	0.0514		mg/L		103	80 - 120	2	20
Sodium			10.0	7.61	*	mg/L		76	80 - 120	27	20
Thallium			0.200	0.198		mg/L		99	80 - 120	0	20
Vanadium			0.200	0.203		mg/L		102	80 - 120	0	20
Zinc			0.200	0.205		mg/L		102	80 - 120	0	20

Lab Sample ID: 480-45465-2 MS — **Client Sample ID: GW-18R-091013**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 139945 — **Prep Batch: 139213**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	ND	*	10.0	10.30		mg/L		103	75 - 125
Antimony	ND		0.200	0.189		mg/L		94	75 - 125
Arsenic	ND		0.200	0.197		mg/L		98	75 - 125
Barium	0.082	*	0.200	0.285		mg/L		101	75 - 125
Beryllium	ND		0.200	0.191		mg/L		96	75 - 125
Cadmium	ND		0.200	0.191		mg/L		95	75 - 125
Calcium	262		10.0	257.7	4	mg/L		-38	75 - 125
Chromium	ND		0.200	0.190		mg/L		95	75 - 125
Cobalt	0.0020	J	0.200	0.189		mg/L		94	75 - 125
Copper	0.0026	J	0.200	0.190		mg/L		94	75 - 125
Iron	ND		10.0	9.14		mg/L		91	75 - 125
Lead	ND		0.200	0.191		mg/L		95	75 - 125
Magnesium	44.8		10.0	53.04	4	mg/L		83	75 - 125
Manganese	0.52		0.200	0.695		mg/L		88	75 - 125
Nickel	0.0023	J	0.200	0.190		mg/L		94	75 - 125
Potassium	40.8	*	10.0	50.02	4	mg/L		92	75 - 125
Selenium	ND		0.200	0.197		mg/L		99	75 - 125
Silver	ND		0.0500	0.0526		mg/L		105	75 - 125
Sodium	18.3	*	10.0	27.59		mg/L		93	75 - 125
Thallium	ND		0.200	0.186		mg/L		93	75 - 125
Vanadium	ND		0.200	0.193		mg/L		97	75 - 125
Zinc	0.067	B	0.200	0.250		mg/L		91	75 - 125

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-138357/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138565 — **Prep Batch: 138357**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/11/13 09:00	09/11/13 14:22	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 480-138357/2-A
Matrix: Water
Analysis Batch: 138565

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138357

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00667	0.00647		mg/L		97	80 - 120		

Lab Sample ID: MB 480-138359/1-A
Matrix: Water
Analysis Batch: 138565

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138359

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/11/13 09:00	09/11/13 15:52	1

Lab Sample ID: LCS 480-138359/2-A
Matrix: Water
Analysis Batch: 138565

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138359

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00667	0.00670		mg/L		100	80 - 120		

Lab Sample ID: 480-45465-4 MS
Matrix: Water
Analysis Batch: 138565

Client Sample ID: GW-20-091013 MS
Prep Type: Total/NA
Prep Batch: 138359

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	ND		0.00667	0.00657		mg/L		98	75 - 125		

Lab Sample ID: 480-45465-4 MSD
Matrix: Water
Analysis Batch: 138565

Client Sample ID: GW-20-091013 MSD
Prep Type: Total/NA
Prep Batch: 138359

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00667	0.00647		mg/L		97	75 - 125	2	20

Lab Sample ID: MB 480-138987/1-D
Matrix: Water
Analysis Batch: 139307

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 139243

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/16/13 11:00	09/16/13 14:31	1

Lab Sample ID: LCS 480-138987/2-D
Matrix: Water
Analysis Batch: 139307

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 139243

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00667	0.00657		mg/L		98	80 - 120		

Lab Sample ID: LCSD 480-138987/11-C
Matrix: Water
Analysis Batch: 139307

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved
Prep Batch: 139243

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury			0.00667	0.00640		mg/L		96	80 - 120	3	20

QC Sample Results

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-45465-1

Lab Sample ID: 480-45465-2 MS
Matrix: Water
Analysis Batch: 139307

Client Sample ID: GW-18R-091013
Prep Type: Dissolved
Prep Batch: 139243

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.00667	0.00615		mg/L		92	75 - 125

Lab Sample ID: 480-45465-2 MSD
Matrix: Water
Analysis Batch: 139307

Client Sample ID: GW-18R-091013
Prep Type: Dissolved
Prep Batch: 139243

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00667	0.00607		mg/L		91	75 - 125	1	20

GC/MS Semi VOA

Prep Batch: 138337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45465-1	FDUP-091013	Total/NA	Water	3510C	
480-45465-2	GW-18R-091013	Total/NA	Water	3510C	
480-45465-3	GW-19-091013	Total/NA	Water	3510C	
480-45465-4	GW-20-091013	Total/NA	Water	3510C	
480-45465-4 MS	GW-20-091013 MS	Total/NA	Water	3510C	
480-45465-4 MSD	GW-20-091013 MSD	Total/NA	Water	3510C	
480-45465-5	GW-21-091013	Total/NA	Water	3510C	
480-45465-6	GW-22-091013	Total/NA	Water	3510C	
480-45465-7	GW-23-091013	Total/NA	Water	3510C	
LCS 480-138337/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 480-138337/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 138640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45465-1	FDUP-091013	Total/NA	Water	8270C LL	138337
480-45465-2	GW-18R-091013	Total/NA	Water	8270C LL	138337
480-45465-3	GW-19-091013	Total/NA	Water	8270C LL	138337
480-45465-4	GW-20-091013	Total/NA	Water	8270C LL	138337
480-45465-4 MS	GW-20-091013 MS	Total/NA	Water	8270C LL	138337
480-45465-4 MSD	GW-20-091013 MSD	Total/NA	Water	8270C LL	138337
480-45465-5	GW-21-091013	Total/NA	Water	8270C LL	138337
480-45465-6	GW-22-091013	Total/NA	Water	8270C LL	138337
480-45465-7	GW-23-091013	Total/NA	Water	8270C LL	138337
LCS 480-138337/2-A	Lab Control Sample	Total/NA	Water	8270C LL	138337
MB 480-138337/1-A	Method Blank	Total/NA	Water	8270C LL	138337

Metals

Prep Batch: 138332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45465-1	FDUP-091013	Total/NA	Water	3005A	
480-45465-2	GW-18R-091013	Total/NA	Water	3005A	
480-45465-3	GW-19-091013	Total/NA	Water	3005A	
480-45465-4	GW-20-091013	Total/NA	Water	3005A	
480-45465-4 MS	GW-20-091013 MS	Total/NA	Water	3005A	
480-45465-4 MSD	GW-20-091013 MSD	Total/NA	Water	3005A	
480-45465-5	GW-21-091013	Total/NA	Water	3005A	
480-45465-6	GW-22-091013	Total/NA	Water	3005A	
480-45465-7	GW-23-091013	Total/NA	Water	3005A	
LCS 480-138332/2-A	Lab Control Sample	Total/NA	Water	3005A	
MB 480-138332/1-A	Method Blank	Total/NA	Water	3005A	

Prep Batch: 138357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45465-7	GW-23-091013	Total/NA	Water	7470A	
LCS 480-138357/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 480-138357/1-A	Method Blank	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 138359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45465-1	FDUP-091013	Total/NA	Water	7470A	
480-45465-2	GW-18R-091013	Total/NA	Water	7470A	
480-45465-3	GW-19-091013	Total/NA	Water	7470A	
480-45465-4	GW-20-091013	Total/NA	Water	7470A	
480-45465-4 MS	GW-20-091013 MS	Total/NA	Water	7470A	
480-45465-4 MSD	GW-20-091013 MSD	Total/NA	Water	7470A	
480-45465-5	GW-21-091013	Total/NA	Water	7470A	
480-45465-6	GW-22-091013	Total/NA	Water	7470A	
LCS 480-138359/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 480-138359/1-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 138565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45465-1	FDUP-091013	Total/NA	Water	7470A	138359
480-45465-2	GW-18R-091013	Total/NA	Water	7470A	138359
480-45465-3	GW-19-091013	Total/NA	Water	7470A	138359
480-45465-4	GW-20-091013	Total/NA	Water	7470A	138359
480-45465-4 MS	GW-20-091013 MS	Total/NA	Water	7470A	138359
480-45465-4 MSD	GW-20-091013 MSD	Total/NA	Water	7470A	138359
480-45465-5	GW-21-091013	Total/NA	Water	7470A	138359
480-45465-6	GW-22-091013	Total/NA	Water	7470A	138359
480-45465-7	GW-23-091013	Total/NA	Water	7470A	138357
LCS 480-138357/2-A	Lab Control Sample	Total/NA	Water	7470A	138357
LCS 480-138359/2-A	Lab Control Sample	Total/NA	Water	7470A	138359
MB 480-138357/1-A	Method Blank	Total/NA	Water	7470A	138357
MB 480-138359/1-A	Method Blank	Total/NA	Water	7470A	138359

Analysis Batch: 138600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45465-1	FDUP-091013	Total/NA	Water	6010B	138332
480-45465-2	GW-18R-091013	Total/NA	Water	6010B	138332
480-45465-3	GW-19-091013	Total/NA	Water	6010B	138332
480-45465-4	GW-20-091013	Total/NA	Water	6010B	138332
480-45465-4 MS	GW-20-091013 MS	Total/NA	Water	6010B	138332
480-45465-4 MSD	GW-20-091013 MSD	Total/NA	Water	6010B	138332
480-45465-5	GW-21-091013	Total/NA	Water	6010B	138332
480-45465-6	GW-22-091013	Total/NA	Water	6010B	138332
480-45465-7	GW-23-091013	Total/NA	Water	6010B	138332
LCS 480-138332/2-A	Lab Control Sample	Total/NA	Water	6010B	138332
MB 480-138332/1-A	Method Blank	Total/NA	Water	6010B	138332

Filtration Batch: 138987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45465-2	GW-18R-091013	Dissolved	Water	FILTRATION	
480-45465-2 MS	GW-18R-091013	Dissolved	Water	FILTRATION	
480-45465-2 MSD	GW-18R-091013	Dissolved	Water	FILTRATION	
480-45465-6	GW-22-091013	Dissolved	Water	FILTRATION	
480-45465-7	GW-23-091013	Dissolved	Water	FILTRATION	
LCS 480-138987/2-C	Lab Control Sample	Dissolved	Water	FILTRATION	
LCS 480-138987/2-D	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 480-138987/11-C	Lab Control Sample Dup	Dissolved	Water	FILTRATION	

Metals (Continued)

Filtration Batch: 138987 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 480-138987/11-D	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
MB 480-138987/1-C	Method Blank	Dissolved	Water	FILTRATION	
MB 480-138987/1-D	Method Blank	Dissolved	Water	FILTRATION	

Prep Batch: 139213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45465-2	GW-18R-091013	Dissolved	Water	3005A	138987
480-45465-2 MS	GW-18R-091013	Dissolved	Water	3005A	138987
480-45465-6	GW-22-091013	Dissolved	Water	3005A	138987
480-45465-7	GW-23-091013	Dissolved	Water	3005A	138987
LCS 480-138987/2-C	Lab Control Sample	Dissolved	Water	3005A	138987
LCSD 480-138987/11-D	Lab Control Sample Dup	Dissolved	Water	3005A	138987
MB 480-138987/1-C	Method Blank	Dissolved	Water	3005A	138987

Prep Batch: 139243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45465-2	GW-18R-091013	Dissolved	Water	7470A	138987
480-45465-2 MS	GW-18R-091013	Dissolved	Water	7470A	138987
480-45465-2 MSD	GW-18R-091013	Dissolved	Water	7470A	138987
480-45465-6	GW-22-091013	Dissolved	Water	7470A	138987
480-45465-7	GW-23-091013	Dissolved	Water	7470A	138987
LCS 480-138987/2-D	Lab Control Sample	Dissolved	Water	7470A	138987
LCSD 480-138987/11-C	Lab Control Sample Dup	Dissolved	Water	7470A	138987
MB 480-138987/1-D	Method Blank	Dissolved	Water	7470A	138987

Analysis Batch: 139307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45465-2	GW-18R-091013	Dissolved	Water	7470A	139243
480-45465-2 MS	GW-18R-091013	Dissolved	Water	7470A	139243
480-45465-2 MSD	GW-18R-091013	Dissolved	Water	7470A	139243
480-45465-6	GW-22-091013	Dissolved	Water	7470A	139243
480-45465-7	GW-23-091013	Dissolved	Water	7470A	139243
LCS 480-138987/2-D	Lab Control Sample	Dissolved	Water	7470A	139243
LCSD 480-138987/11-C	Lab Control Sample Dup	Dissolved	Water	7470A	139243
MB 480-138987/1-D	Method Blank	Dissolved	Water	7470A	139243

Analysis Batch: 139418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45465-3	GW-19-091013	Total/NA	Water	6010B	138332

Analysis Batch: 139945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45465-2	GW-18R-091013	Dissolved	Water	6010B	139213
480-45465-2 MS	GW-18R-091013	Dissolved	Water	6010B	139213
480-45465-6	GW-22-091013	Dissolved	Water	6010B	139213
480-45465-7	GW-23-091013	Dissolved	Water	6010B	139213
LCS 480-138987/2-C	Lab Control Sample	Dissolved	Water	6010B	139213
LCSD 480-138987/11-D	Lab Control Sample Dup	Dissolved	Water	6010B	139213
MB 480-138987/1-C	Method Blank	Dissolved	Water	6010B	139213

Client Sample ID: FDUP-091013

Lab Sample ID: 480-45465-1

Date Collected: 09/10/13 08:45

Matrix: Water

Date Received: 09/10/13 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			138337	09/11/13 07:40	DLE	TAL BUF
Total/NA	Analysis	8270C LL		1	138640	09/12/13 20:39	RMM	TAL BUF
Total/NA	Prep	7470A			138359	09/11/13 09:00	JRK	TAL BUF
Total/NA	Analysis	7470A		1	138565	09/11/13 16:34	JRK	TAL BUF
Total/NA	Prep	3005A			138332	09/11/13 08:40	NMD2	TAL BUF
Total/NA	Analysis	6010B		1	138600	09/11/13 23:35	LMH	TAL BUF

Client Sample ID: GW-18R-091013

Lab Sample ID: 480-45465-2

Date Collected: 09/10/13 09:15

Matrix: Water

Date Received: 09/10/13 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			138337	09/11/13 07:40	DLE	TAL BUF
Total/NA	Analysis	8270C LL		1	138640	09/12/13 21:07	RMM	TAL BUF
Total/NA	Prep	7470A			138359	09/11/13 09:00	JRK	TAL BUF
Total/NA	Analysis	7470A		1	138565	09/11/13 16:36	JRK	TAL BUF
Total/NA	Prep	3005A			138332	09/11/13 08:40	NMD2	TAL BUF
Total/NA	Analysis	6010B		1	138600	09/11/13 23:38	LMH	TAL BUF
Dissolved	Filtration	FILTRATION			138987	09/13/13 15:20	NMD2	TAL BUF
Dissolved	Prep	7470A			139243	09/16/13 11:00	JRK	TAL BUF
Dissolved	Analysis	7470A		1	139307	09/16/13 14:38	JRK	TAL BUF
Dissolved	Filtration	FILTRATION			138987	09/13/13 15:20	NMD2	TAL BUF
Dissolved	Prep	3005A			139213	09/17/13 15:00	NMD2	TAL BUF
Dissolved	Analysis	6010B		1	139945	09/18/13 15:03	JRK	TAL BUF

Client Sample ID: GW-19-091013

Lab Sample ID: 480-45465-3

Date Collected: 09/10/13 12:40

Matrix: Water

Date Received: 09/10/13 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			138337	09/11/13 07:40	DLE	TAL BUF
Total/NA	Analysis	8270C LL		1	138640	09/12/13 21:34	RMM	TAL BUF
Total/NA	Prep	7470A			138359	09/11/13 09:00	JRK	TAL BUF
Total/NA	Analysis	7470A		1	138565	09/11/13 16:37	JRK	TAL BUF
Total/NA	Analysis	6010B		1	138600	09/11/13 23:41	LMH	TAL BUF
Total/NA	Prep	3005A			138332	09/11/13 08:40	NMD2	TAL BUF
Total/NA	Analysis	6010B		2	139418	09/16/13 15:18	LMH	TAL BUF

Client Sample ID: GW-20-091013

Lab Sample ID: 480-45465-4

Date Collected: 09/10/13 08:15

Matrix: Water

Date Received: 09/10/13 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			138337	09/11/13 07:40	DLE	TAL BUF
Total/NA	Analysis	8270C LL		1	138640	09/12/13 22:01	RMM	TAL BUF
Total/NA	Prep	7470A			138359	09/11/13 09:00	JRK	TAL BUF
Total/NA	Analysis	7470A		1	138565	09/11/13 16:39	JRK	TAL BUF
Total/NA	Prep	3005A			138332	09/11/13 08:40	NMD2	TAL BUF
Total/NA	Analysis	6010B		1	138600	09/11/13 23:44	LMH	TAL BUF

Client Sample ID: GW-21-091013

Lab Sample ID: 480-45465-5

Date Collected: 09/10/13 14:00

Matrix: Water

Date Received: 09/10/13 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			138337	09/11/13 07:40	DLE	TAL BUF
Total/NA	Analysis	8270C LL		1	138640	09/12/13 22:28	RMM	TAL BUF
Total/NA	Prep	7470A			138359	09/11/13 09:00	JRK	TAL BUF
Total/NA	Analysis	7470A		1	138565	09/11/13 16:50	JRK	TAL BUF
Total/NA	Prep	3005A			138332	09/11/13 08:40	NMD2	TAL BUF
Total/NA	Analysis	6010B		1	138600	09/12/13 00:04	LMH	TAL BUF

Client Sample ID: GW-22-091013

Lab Sample ID: 480-45465-6

Date Collected: 09/10/13 10:40

Matrix: Water

Date Received: 09/10/13 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			138337	09/11/13 07:40	DLE	TAL BUF
Total/NA	Analysis	8270C LL		1	138640	09/12/13 22:56	RMM	TAL BUF
Total/NA	Prep	7470A			138359	09/11/13 09:00	JRK	TAL BUF
Total/NA	Analysis	7470A		1	138565	09/11/13 16:52	JRK	TAL BUF
Total/NA	Prep	3005A			138332	09/11/13 08:40	NMD2	TAL BUF
Total/NA	Analysis	6010B		1	138600	09/12/13 00:07	LMH	TAL BUF
Dissolved	Filtration	FILTRATION			138987	09/13/13 15:20	NMD2	TAL BUF
Dissolved	Prep	7470A			139243	09/16/13 11:00	JRK	TAL BUF
Dissolved	Analysis	7470A		1	139307	09/16/13 14:45	JRK	TAL BUF
Dissolved	Filtration	FILTRATION			138987	09/13/13 15:20	NMD2	TAL BUF
Dissolved	Prep	3005A			139213	09/17/13 15:00	NMD2	TAL BUF
Dissolved	Analysis	6010B		1	139945	09/18/13 15:17	JRK	TAL BUF

Client Sample ID: GW-23-091013

Lab Sample ID: 480-45465-7

Date Collected: 09/10/13 11:05

Matrix: Water

Date Received: 09/10/13 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			138337	09/11/13 07:40	DLE	TAL BUF

Lab Chronicle

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-45465-1

Client Sample ID: GW-23-091013
Date Collected: 09/10/13 11:05
Date Received: 09/10/13 15:05

Lab Sample ID: 480-45465-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270C LL		1	138640	09/12/13 23:23	RMM	TAL BUF
Total/NA	Prep	7470A			138357	09/11/13 09:00	JRK	TAL BUF
Total/NA	Analysis	7470A		1	138565	09/11/13 14:54	JRK	TAL BUF
Total/NA	Prep	3005A			138332	09/11/13 08:40	NMD2	TAL BUF
Total/NA	Analysis	6010B		1	138600	09/12/13 00:09	LMH	TAL BUF
Dissolved	Filtration	FILTRATION			138987	09/13/13 15:20	NMD2	TAL BUF
Dissolved	Prep	7470A			139243	09/16/13 11:00	JRK	TAL BUF
Dissolved	Analysis	7470A		1	139307	09/16/13 14:47	JRK	TAL BUF
Dissolved	Filtration	FILTRATION			138987	09/13/13 15:20	NMD2	TAL BUF
Dissolved	Prep	3005A			139213	09/17/13 15:00	NMD2	TAL BUF
Dissolved	Analysis	6010B		1	139945	09/18/13 15:19	JRK	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-45465-1

Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	10-06-13
California	NELAP	9	1169CA	09-30-13
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Illinois	NELAP	5	200003	09-30-13
Iowa	State Program	7	374	03-15-15
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2973	09-11-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	09-30-13
Wisconsin	State Program	5	998310390	08-31-14

Method Summary

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-45465-1

Method	Method Description	Protocol	Laboratory
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL BUF
6010B	Metals (ICP)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-45465-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-45465-1	FDUP-091013	Water	09/10/13 08:45	09/10/13 15:05
480-45465-2	GW-18R-091013	Water	09/10/13 09:15	09/10/13 15:05
480-45465-3	GW-19-091013	Water	09/10/13 12:40	09/10/13 15:05
480-45465-4	GW-20-091013	Water	09/10/13 08:15	09/10/13 15:05
480-45465-5	GW-21-091013	Water	09/10/13 14:00	09/10/13 15:05
480-45465-6	GW-22-091013	Water	09/10/13 10:40	09/10/13 15:05
480-45465-7	GW-23-091013	Water	09/10/13 11:05	09/10/13 15:05

Chain of Custody Record

TestAmerica

Client Information	Sampler: PAT Higgins	Lab PM: Schove, John	Carrier Tracking No(s):	COC No: 480-38093-9995-1
Client Contact: John Formoza	Phone: (315)468 1663	E-Mail: john.schove@testamericainc.com		Page: Page 1 of 1
Company: CH2M Hill				Job #:
Address: 1563 Willis Avenue	Due Date Requested:			
City: Syracuse	TAT Requested (days):			
State, Zip: NY, 13204				
Phone:	PO #: 4500073922			
Email: John.Formoza@CH2M.com	WO #:			
Project Name: Honeywell - Buffalo (Outer Harbor) - 37971/ Event Desc: Honeyw	Project #: 48008270			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 7470A - Total	6010B, 7470A - Dissolved (Lab Filtered)	8270C_LL-8270LL - Nitrobenzene	Total Number of containers	Special Instructions/Note:
Preservation Code:							D	N	N		
091013 - MS	9/10/13	0825	G	Water	N		1		2	3	
091013 - MSD	9/10/13	0835	G	Water	N		1		2	3	
FDUP - 091013	9/10/13	0845	G	Water	N		1		2	3	
GW- 18R - 091013	9/10/13	0915	G	Water	N		1	1	2	4	Need to be filtered per LMS preserved NTU>50
GW - 19 - 091013	9/10/13	1240	G	Water	N		1		2	3	
GW - 20 - 091013	9/10/13	0815	G	Water	N		1		2	3	
GW - 21 - 091013	9/10/13	1400	G	Water	N		1		2	3	
GW - 22 - 091013	9/10/13	10:40	G	Water	N		1	1	2	4	Need to be filtered per LMS preserved NTU>50
GW - 23 - 091013	9/10/13	11:05	G	Water	N		1	1	2	4	Need to be filtered per LMS preserved NTU>50
EQBLK -			G	Water	N		X		X	0	

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: Nitrobenzene need to analyzed at low-level. Do not filter nitrobenzene samples. Samples to be analyzed for dissolved metals need to be lab filtered.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Patrick C. Higgins	09/10/2013 @ 15:05	CH2M	Chuck Kolb	9/10/13 1505	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.5, 2.0 #1

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 480-45465-1

Login Number: 45465

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	omi
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

APPENDIX D

SITE INSPECTION FORMS

Site Inspection Form

Site Name: Buffalo Outer Harbor
Project Number: 37971
Date: 11/20/2012

Weather: Partially Cloudy 40f
Assessment by: Mohammed Mohammed

Yes	No	N/A	
			A. Security
☐	☒	☐	1. Does fence exist? _____
☐	☐	☒	2. Is there a breach in fence? _____
☐	☐	☒	3. Locks on gate? _____
☐	☐	☒	4. Posted signs? _____
☐	☒	☐	5. Signs of trespassers/vandalism? _____
			6. Other _____
			B. General Site Conditions
☐	☒	☐	1. Vegetation stress? _____
☐	☒	☐	2. Mowing required? _____
☒	☐	☐	3. Access road drivable? _____
☐	☒	☐	4. Odors? _____
			5. Other _____
			C. Cap Inspection
☐	☒	☐	1. Exposed waste? _____
☒	☐	☐	2. Side slope stable? _____
☐	☒	☐	3. Erosion? _____
☐	☒	☐	4. Leachate seeps (discolored vegetation)? _____
☐	☒	☐	5. Synthetic liner exposed? _____
☐	☒	☐	6. Bare spots? _____
☐	☒	☐	7. Presence of burrowing animals? _____
☐	☒	☐	8. Deep rooted vegetation? _____
☐	☒	☐	9. Cracking? _____
☐	☒	☐	10. Ponding water? _____
☐	☒	☐	11. Evidence of methane seeps? _____
			12. Other _____
			D. Surface Water
☐	☐	☒	1. Obstruction of flow ditches? _____
☐	☐	☒	2. Erosion of ditches? _____
☐	☐	☒	3. Silt & erosion control? _____
☐	☐	☒	4. Culverts in good condition? _____
☐	☐	☒	5. Evidence of overflow or uncontrolled flow? _____
☐	☐	☒	6. Outfalls in good condition? _____
☐	☐	☒	7. Sedimentation basin/ponds secure? _____
			8. Other _____
			E. Methane Gas Control
☐	☐	☒	1. Does one exist? _____

Site Inspection Form

Yes	No	N/A	
☐	☐	☒	2. Is system active or passive? active
☐	☐	☒	3. Permanent methane gas probes? _____
☐	☐	☒	4. Locks on monitoring wells? _____
☐	☐	☒	5. Vents in working order? _____
☐	☐	☒	6. Well seals in place? _____
☐	☐	☒	7. Methane levels within LEL limits? _____
☐	☐	☒	8. Monitoring reports current?
			9. Other _____

F. Leachate Collection System

☐	☒	☐	1. Does one exist? _____
			2. Collection method:
☐	☐	☒	a. Sump?
☐	☐	☒	b. Well point? _____
☐	☐	☒	c. Earthen basin/pond? _____
☐	☐	☒	d. Structure secured? _____
			e. Other _____
			3. Pumping system:
☐	☐	☒	a. Automatic? _____
☐	☐	☒	b. Manual? _____
☐	☐	☒	c. Mechanically operable? _____
☐	☐	☒	d. Leaks/failures? _____
			4. Disposals:
☐	☐	☒	a. Onsite pretreatment/treatment? _____
☐	☐	☒	b. Surface discharge? (NPDES/SPDES) _____
☐	☐	☒	c. POTW – hardpiped? _____
☐	☐	☒	d. Quick disconnect caps in place? _____
			5. Transportation (if any):
☐	☐	☒	a. Chemicals? _____
☐	☐	☒	b. Filter cake? _____
☐	☐	☒	6. Ancillary equipment in good condition? (Pipes, valves, pumps, vaults, instruments and etc.) _____
☐	☐	☒	7. Monitoring reports current? _____
			8. Other _____

G. Groundwater Monitoring & Recovery Wells (if any)

☒	☐	☐	1. Locks on wells? _____
☒	☐	☐	2. Wells in good condition? _____
☒	☐	☐	3. Well seals in good condition? _____
☒	☐	☐	4. Access to wells? _____
☒	☐	☐	5. Monitoring reports current? _____
			6. Other _____

Site Inspection Form

Yes	No	N/A	
☐	☐	☒	**H. Treatment Plant**
☐	☐	☒	1. Building in good condition? (Doors, windows, wells, roof) _____
☐	☐	☒	2. Visual tank inspection performed? _____
☐	☐	☒	3. Visual inspection of pipes, valves, fittings etc.? _____
☐	☐	☒	4. Pump operation/inspection performed? _____
☐	☐	☒	5. Instruments operation/calibration? _____
☐	☐	☒	6. Mixer operation/inspection? _____
☐	☐	☒	7. Proper personal protection equipment? _____
☐	☐	☒	8. Air compressor system functioning properly? _____
☐	☐	☒	9. Filter press inspected? _____
☐	☐	☒	10. Emergency generator functioning properly? _____
			I. Polymeric Marine Mattress (PMM)
☐	☐	☒	1. Damage due to burrowing animals? _____
☐	☐	☒	2. Damage due ice and/or ice flowages? _____
☐	☐	☒	3. Impacts or damage due to the periodic dredging of the Buffalo River? _____
☐	☐	☒	4. Impacts or damage due to navigation activities in the Buffalo River? _____
☐	☐	☒	5. Establishment of woody plant growth causing displacement or stress on the system? _____
☐	☐	☒	6. Areas of settlement or displacement of the system? _____
☐	☐	☒	7. Erosion at the upstream and downstream limits of the system? _____
☐	☐	☒	8. Damage to the stone infill adjacent to Outfall #006 and the concrete wall/sheet pile along the upstream limit of the system? _____
☐	☐	☒	9. Damage to the stone infill within the marine mattresses? _____
☐	☐	☒	10. Damage to the general integrity of the system (Look for splits, cuts and gaps)? _____

J. General Comments

THE NYSDEC DID NOT ATTEND.

Mohammed Mohammed

11/20/12

CH2MHILL

Site Inspection Form

Site Name: Buffalo Outer Harbor
Project Number: 37972
Date: 9/10/2013

Weather: Overcast Hot Muggy 85F
Assessment by: Mike Stout and Patrick Higgins

RTB 10/31/13

Yes	No	N/A	
			A. Security
☒	☒	☐	1. Does fence exist? _____
☐	☐	☒	2. Is there a breach in fence? _____
☒	☐	☒	3. Locks on gate? _____
☐	☐	☒	4. Posted signs?
☐	☒	☐	5. Signs of trespassers/vandalism? _____
			6. Other _____
			B. General Site Conditions
☐	☒	☐	1. Vegetation stress? _____
☐	☒	☐	2. Mowing required? _____
☒	☐	☐	3. Access road drivable? _____
☐	☒	☐	4. Odors? _____
			5. Other _____
			C. Cap Inspection
☐	☒	☐	1. Exposed waste? _____
☒	☐	☐	2. Side slope stable? _____
☐	☒	☐	3. Erosion? _____
☐	☒	☐	4. Leachate seeps (discolored vegetation)? _____
☐	☒	☐	5. Synthetic liner exposed? _____
☐	☒	☐	6. Bare spots? _____
☐	☒	☐	7. Presence of burrowing animals? _____
☐	☒	☐	8. Deep rooted vegetation? _____
☐	☒	☐	9. Cracking? _____
☐	☒	☐	10. Ponding water? _____
☐	☒	☐	11. Evidence of methane seeps? _____
			12. Other _____
			D. Surface Water
☐	☐	☒	1. Obstruction of flow ditches? _____
☐	☐	☒	2. Erosion of ditches? _____
☐	☐	☒	3. Silt & erosion control? _____
☐	☐	☒	4. Culverts in good condition? _____
☐	☐	☒	5. Evidence of overflow or uncontrolled flow? _____
☐	☐	☒	6. Outfalls in good condition? _____
☐	☐	☒	7. Sedimentation basin/ponds secure? _____
			8. Other _____
			E. Methane Gas Control
☐	☐	☒	1. Does one exist? _____

Site Inspection Form

Yes	No	N/A	
☐	☐	☒	2. Is system active or passive? active
☐	☐	☒	3. Permanent methane gas probes? _____
☐	☐	☒	4. Locks on monitoring wells? _____
☐	☐	☒	5. Vents in working order? _____
☐	☐	☒	6. Well seals in place? _____
☐	☐	☒	7. Methane levels within LEL limits? _____
☐	☐	☒	8. Monitoring reports current?
			9. Other _____
			F. Leachate Collection System
☐	☒	☐	1. Does one exist? _____
			2. Collection method:
☐	☐	☒	a. Sump? 2
☐	☐	☒	b. Well point? _____
☐	☐	☒	c. Earthen basin/pond? _____
☐	☐	☒	d. Structure secured? _____
			e. Other _____
			3. Pumping system:
☐	☐	☒	a. Automatic? _____
☐	☐	☒	b. Manual? _____
☐	☐	☒	c. Mechanically operable? _____
☐	☐	☒	d. Leaks/failures? _____
			4. Disposals:
☐	☐	☒	a. Onsite pretreatment/treatment? _____
☐	☐	☒	b. Surface discharge? (NPDES/SPDES) _____
☐	☐	☒	c. POTW – hardpiped? yes
☐	☐	☒	d. Quick disconnect caps in place? _____
			5. Transportation (if any):
☐	☐	☒	a. Chemicals? _____
☐	☐	☒	b. Filter cake? _____
☐	☐	☒	6. Ancillary equipment in good condition? (Pipes, valves, pumps, vaults, instruments and etc.) _____
☐	☐	☒	7. Monitoring reports current? _____
			8. Other _____
			G. Groundwater Monitoring & Recovery Wells (if any)
☒	☐	☐	1. Locks on wells? _____
☒	☐	☐	2. Wells in good condition? _____
☒	☐	☐	3. Well seals in good condition? _____
☒	☐	☐	4. Access to wells? _____
☒	☐	☐	5. Monitoring reports current? _____
			6. Other _____

Site Inspection Form

Yes	No	N/A	
			H. Treatment Plant
☐	☐	☒	1. Building in good condition? (Doors, windows, wells, roof) ____
☐	☐	☒	2. Visual tank inspection performed?
☐	☐	☒	3. Visual inspection of pipes, valves, fittings etc.? ____
☐	☐	☒	4. Pump operation/inspection performed? ____
☐	☐	☒	5. Instruments operation/calibration? ____
☐	☐	☒	6. Mixer operation/inspection? ____
☐	☐	☒	7. Proper personal protection equipment? ____
☐	☐	☒	8. Air compressor system functioning properly? ____
☐	☐	☒	9. Filter press inspected? ____
☐	☐	☒	10. Emergency generator functioning properly? ____
			I. Polymeric Marine Mattress (PMM)
☐	☐	☒	1. Damage due to burrowing animals? ____
☐	☐	☒	2. Damage due ice and/or ice flowages? ____
☐	☐	☒	3. Impacts or damage due to the periodic dredging of the Buffalo River? ____
☐	☐	☒	4. Impacts or damage due to navigation activities in the Buffalo River? ____
☐	☐	☒	5. Establishment of woody plant growth causing displacement or stress on the system? ____
☐	☐	☒	6. Areas of settlement or displacement of the system? ____
☐	☐	☒	7. Erosion at the upstream and downstream limits of the system? ____
☐	☐	☒	8. Damage to the stone infill adjacent to Outfall #006 and the concrete wall/sheet pile along the upstream limit of the system? ____
☐	☐	☒	9. Damage to the stone infill within the marine mattresses? ____
☐	☐	☒	10. Damage to the general integrity of the system (Look for splits, cuts and gaps)? ____

J. General Comments

Mike Stout and Patrick Higgins met with Mr. Dave Szymanski from the NYSDEC on September 10, 2013 at 9:30 am. Mr. Szymanski walk the Outer Harbor, DEC Dave Szymanski, did not have any comments or concerns. The inspection took approximately 1 hour. Dave Szymanski informed Mike and I that the sample wells are required by the State of New York to have GPS Locations.

Rebecca Higgins 9/13/2013

Site Inspection Form

Site Name: Buffalo Outer Habor
Project Number: 37971
Date: 09/23/2011

Weather: 71 F and Cloudy
Assessment by: Scott Sayles

Yes	No	N/A	
			A. Security
☐	☒	☐	1. Does fence exist? _____
☐	☐	☒	2. Is there a breach in fence? _____
☐	☐	☒	3. Locks on gate? _____
☐	☐	☒	4. Posted signs? _____
☐	☒	☐	5. Signs of trespassers/vandalism? _____
			6. Other _____
			B. General Site Conditions
☐	☒	☐	1. Vegetation stress? _____
☐	☒	☐	2. Mowing required? Mowed on 9/5
☒	☐	☐	3. Access road drivable? _____
☐	☒	☐	4. Odors? _____
			5. Other _____
			C. Cap Inspection
☐	☒	☐	1. Exposed waste? _____
☒	☐	☐	2. Side slope stable? _____
☐	☒	☐	3. Erosion? _____
☐	☒	☐	4. Leachate seeps (discolored vegetation)? _____
☐	☒	☐	5. Synthetic liner exposed? _____
☐	☒	☐	6. Bare spots? _____
☐	☒	☐	7. Presence of burrowing animals? _____
☐	☒	☐	8. Deep rooted vegetation? _____
☐	☒	☐	9. Cracking? _____
☐	☒	☐	10. Ponding water? _____
☐	☒	☐	11. Evidence of methane seeps? _____
			12. Other _____
			D. Surface Water
☐	☐	☒	1. Obstruction of flow ditches? _____
☐	☐	☒	2. Erosion of ditches? _____
☐	☐	☒	3. Silt & erosion control? _____
☐	☐	☒	4. Culverts in good condition? _____
☐	☐	☒	5. Evidence of overflow or uncontrolled flow? _____
☐	☐	☒	6. Outfalls in good condition? _____
☐	☐	☒	7. Sedimentation basin/ponds secure? _____
			8. Other _____
			E. Methane Gas Control
☐	☐	☒	1. Does one exist? _____

Site Inspection Form

Yes	No	N/A	
☐	☐	☒	2. Is system active or passive? _____
☐	☐	☒	3. Permanent methane gas probes? _____
☐	☐	☒	4. Locks on monitoring wells? _____
☐	☐	☒	5. Vents in working order? _____
☐	☐	☒	6. Well seals in place? _____
☐	☐	☒	7. Methane levels within LEL limits? _____
☐	☐	☒	8. Monitoring reports current? _____
			9. Other _____
			F. Leachate Collection System
☐	☒	☐	1. Does one exist? No
			2. Collection method:
☐	☐	☒	a. Sump? _____
☐	☐	☒	b. Well point? _____
☐	☐	☒	c. Earthen basin/pond? _____
☐	☐	☒	d. Structure secured? _____
			e. Other _____
			3. Pumping system:
☐	☐	☒	a. Automatic? _____
☐	☐	☒	b. Manual? _____
☐	☐	☒	c. Mechanically operable? _____
☐	☐	☒	d. Leaks/failures? _____
			4. Disposals:
☐	☐	☒	a. Onsite pretreatment/treatment? _____
☐	☐	☒	b. Surface discharge? (NPDES/SPDES) _____
☐	☐	☒	c. POTW – hardpiped? _____
☐	☐	☒	d. Quick disconnect caps in place? _____
			5. Transportation (if any):
☐	☐	☒	a. Chemicals? _____
☐	☐	☒	b. Filter cake? _____
☐	☐	☒	6. Ancillary equipment in good condition? (Pipes, valves, pumps, vaults, instruments and etc.) _____
☐	☐	☒	7. Monitoring reports current? _____
			8. Other _____
			G. Groundwater Monitoring & Recovery Wells (if any)
☒	☐	☐	1. Locks on wells? _____
☒	☐	☐	2. Wells in good condition? _____
☒	☐	☐	3. Well seals in good condition? _____
☒	☐	☐	4. Access to wells? _____
☒	☐	☐	5. Monitoring reports current? _____
			6. Other _____

Site Inspection Form

Yes	No	N/A	
			H. Treatment Plant
☐	☐	☒	1. Building in good condition? (Doors, windows, wells, roof) _____
☐	☐	☒	2. Visual tank inspection performed? _____
☐	☐	☒	3. Visual inspection of pipes, valves, fittings etc.? _____
☐	☐	☒	4. Pump operation/inspection performed? _____
☐	☐	☒	5. Instruments operation/calibration? _____
☐	☐	☒	6. Mixer operation/inspection? _____
☐	☐	☒	7. Proper personal protection equipment? _____
☐	☐	☒	8. Air compressor system functioning properly? _____
☐	☐	☒	9. Filter press inspected? _____
☐	☐	☒	10. Emergency generator functioning properly? _____
			I. Polymeric Marine Mattress (PMM)
☐	☐	☒	1. Damage due to burrowing animals? _____
☐	☐	☒	2. Damage due ice and/or ice flowages? _____
☐	☐	☒	3. Impacts or damage due to the periodic dredging of the Buffalo River? _____
☐	☐	☒	4. Impacts or damage due to navigation activities in the Buffalo River? _____
☐	☐	☒	5. Establishment of woody plant growth causing displacement or stress on the system? _____
☐	☐	☒	6. Areas of settlement or displacement of the system? _____
☐	☐	☒	7. Erosion at the upstream and downstream limits of the system? _____
☐	☐	☒	8. Damage to the stone infill adjacent to Outfall #006 and the concrete wall/sheet pile along the upstream limit of the system? _____
☐	☐	☒	9. Damage to the stone infill within the marine mattresses? _____
☐	☐	☒	10. Damage to the general integrity of the system (Look for splits, cuts and gaps)? _____

J. General Comments

Signature: Scott Sayles Date: 9/23/11