MACTEC

engineering and constructing a better tomorrow

May 10, 2017

Mr. David Szymanski,
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 9
270 Michigan Avenue
Buffalo, New York 14203-2915

Subject: 2016/2017 Periodic Review Report
Alltift Landfill Site
NYSDEC Site No. 915054

Dear Mr. Szymanski:

MACTEC Engineering and Consulting, P.C. (MACTEC), is submitting this Periodic Review Report (PRR) for the Alltift Landfill Site/Ramco Steel Site (site) on behalf of Honeywell International Inc. (Honeywell). The completed Site Management PRR Notice - Institutional and Engineering Controls Certification Form is provided herein as Attachment A, which includes a summary of deed restrictions. Supporting Tables, Figures, and Appendices are included herein as Attachment B. The remainder of this document follows the outline presented in the Site Management Periodic Review Report and IC/EC Certification Submittal reminder notice letter dated March 8, 2017.

I. Introduction

A. Site Summary:
The primary remedial objectives at the Site are to eliminate the potential for direct contact with waste and impacted soils and sediments, and to eliminate the potential for impacted groundwater to discharge to the adjacent wetlands. Remedial construction activities began in November 2003 and were completed in November 2005. The key remedial actions for the site included:

- consolidation and capping of landfill waste and impacted soils and sediments
- construction of groundwater collection and relief trenches for groundwater control (see figures included in Attachment B.1)
- groundwater monitoring
- restoration of ponds and wetlands.

The Alltift Landfill Site is located at 302 Abby Street in the southern portion of the City of Buffalo, Erie County, New York. The Ramco Steel Site is adjacent to the southeastern tip of the Alltift Landfill (see figures included in Attachment B.1).

The Alltift Landfill Site is a landfill/waste disposal area that was remediated between November 2003 and November 2005 under an Order of Consent between AlliedSignal (now Honeywell) and the New York State Department of Environmental Conservation (NYSDEC).

The remediation activities included those at the adjacent Ramco Steel Site (NYSDEC Site No. 915046B). The remediation involved consolidation of the wastes present on the Alltift Landfill and Ramco Steel sites into a capped landfill on the Alltift Landfill Site. A groundwater control system was installed at the downgradient toe of the landfill to collect and pump groundwater that emanates from the landfill to a sewer line owned by the Buffalo Sewer Authority (BSA) in accordance with the Buffalo Pollutant Discharge Elimination System (BPDES) Permit. As part of the remedial construction, man-made wetlands were created on the western and southern ends of the Alltift Landfill Site and the adjacent Ramco Steel Site.

On April 5, 2013, the NYSDEC accepted and approved the Construction Certification Report and Operation, Maintenance, and Monitoring Plan for the Alltift Landfill Site/Ramco Steel Site. The NYSDEC then re-classified the Alltift Landfill Site (NYSDEC Site No. 915054) from Class 2 to Class 4, and de-listed the Ramco Steel Site (NYSDEC Site No. 915046B).

During the 2016/2017 reporting period, the following routine OM&M activities were completed in accordance with the Operations, Maintenance, and Monitoring Manual, prepared by Parson Engineers, dated March 2006 (referred to hereafter as the OM&M Manual):

- BSA discharge monitoring
- groundwater monitoring
- quarterly site inspections
- routine maintenance activities.

B. Effectiveness Monitoring: The cap system is intact with suitable vegetative cover, and the wetlands mitigation area appears to be a successfully functioning wetland. Groundwater from the site is flowing into the groundwater capture trench as designed. Analytical results from the BSA monthly discharge sampling were within the BSA permit limits.

C. Compliance: The OM&M activities conducted during the reporting period were performed in accordance with the OM&M Manual.

D. Recommendations: Implementation of the activities specified in the OM&M Manual will continue, as described in Section VI E of this letter.

II. Site Overview

A. Site Location: The site plan is illustrated on the figures included in Attachment B.1. The site is located south of Tifft Street, approximately 1,300 feet west of Hopkins Street, and 5,000 feet east of the intersection of Tifft Street and Route 5. It is bounded on the north by Tifft Street; on the west by a railroad right-of-way and tracks; on the south by several ponds and the Ramco Steel Site; and on the east by Skyway Auto Parts, Inc. Prior to remediation, soils and sediments containing contaminant concentrations exceeding relevant NYSDEC standards were identified at the site.

The site remedy included consolidation and capping of landfill waste and impacted soils and sediments; construction of a groundwater collection trench and a groundwater relief trench; implementation of monthly BSA discharge monitoring; implementation of annual groundwater monitoring; and restoration of ponds and wetlands.

Groundwater collected in the trench is conveyed via a pumping system to a lift station located at the southeastern corner of the site. The lift station then discharges the collected groundwater to the sewer, under a BSA discharge permit. As required by the current BSA discharge permit, samples of the effluent are collected from the lift station on a semi-annual basis and analyzed for compliance with the parameter limits listed in the permit.

B. Chronology: Remediation of the site began in November 2003 and concluded in November 2005. Waste and impacted sediment relocation was completed in September 2004, the construction of the groundwater collection trench was completed in October 2004, and the landfill capping system was completed in June 2005. Planting of wetland and woody vegetation, creating at least 11.2 acres of emergent marsh and open water habitats, was completed in November 2005.

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, that groundwater is being routed to the groundwater collection trench, and that the wetlands area is successfully functioning as designed.

- Ensuring the cap system is intact as constructed: Quarterly site inspections that include monitoring of landfill vegetation, ground inspections, and visual checks for evidence of erosion or subsidence are conducted. Resulting observations from the inspections indicate that the integrity of the cap appears sound (see the quarterly inspection reports included in Attachment B.2).

- Ensuring that groundwater is being routed to the groundwater collection trench: The integrity of the surface drainage and

groundwater collection systems is evaluated during the quarterly site inspections, and maintenance of these systems is performed when problems are identified. Water level measurements collected monthly from site monitoring wells, piezometers, and sumps are used to establish quarterly groundwater elevations at the site (water level measurements and calculated groundwater elevations are included in Attachment B.3 and B.4, respectively). The quarterly groundwater elevations are then used to plot quarterly groundwater contour maps. The contour maps indicate that groundwater at the site is being routed to the groundwater collection trench as designed (quarterly groundwater contour maps are included in Attachment B.5).

- Ensuring that the wetlands area is successfully functioning as designed: In its letter addressed to Honeywell, dated October 24, 2012, the USACE indicated that the terms and conditions of Permit No. 98-976-0162(0) had been met and that no further actions are required.

IV. IC/EC Plan Compliance Report – An IC/EC Plan was submitted to the NYSDEC on December 13, 2012. The IC/EC Plan has been adopted, and a description of the status of institutional and engineering controls is included in Attachment A of this PRR.

V. Monitoring Plan Compliance Report – A separate Monitoring Plan Compliance Report is not required for this site. Monitoring requirements are addressed in the OM&M Manual.

VI. Operations and Maintenance Plan Compliance Report

A. Components of the OM&M Manual – Requirements of the OM&M Manual include the following:

- BSA Discharge Monitoring
- Groundwater Monitoring and Annual Groundwater Sampling
- Landfill Gas Monitoring
- Surface Water Level Measurements
- Quarterly Site Inspections
- Maintenance Activities (including annual mowing of cap, repair of access roads and areas without vegetative cover, repair of areas showing erosion or subsidence, and maintenance of the surface drainage and groundwater collection systems).

B. Summary of OM&M Completed during Reporting Period: BSA discharge monitoring, groundwater monitoring, quarterly site inspections, and other OM&M activities were completed in accordance with the OM&M Manual. The following summarizes the activities completed:

- BSA discharge monitoring was conducted on a semi-annual basis in accordance with the BPDES Permit in effect (Permit #15-12-BU098). Collected samples were submitted to TestAmerica Laboratories of Amherst, New York for analyses of the required parameters. Honeywell's OM&M Contractor - CH2M (formerly CH2M Hill) - prepared and submitted semi-annual discharge monitoring reports that documented the results of the monitoring to BSA. All sample results were within the permit limits (refer to Attachment B.6).
- Groundwater levels for site piezometers, wells and groundwater collection trench sumps were recorded on a quarterly basis. The annual groundwater sampling event completed on September 21, 2016 included collection of aqueous samples from background monitoring well MW-2 and collection system sumps; the samples were analyzed for parameters described in the OM&M Manual. The results are summarized below, and the analytical results are included in Attachment B.7.
- Landfill gas monitoring was last conducted on April 7, 2016 and the results were presented in the previous PRR. The 2017 landfill gas monitoring was not conducted prior to April 21, 2017, therefore gas monitoring results and discussion will be reported in the next PRR.
- Quarterly site inspections were conducted as outlined in the OM&M Manual.
- Routine and non-routine maintenance activities completed during the reporting period included the following:
    - Periodic inspection and cleaning of the lift station flow meter
    - Periodic inspection/maintenance of sump pumps
    - Plowing of snow from the entrance road as necessary
    - Mowing of landfill cover on September 21, 2016
    - Cleaning of collection piping in December 2016

C. Evaluation of Remedial Systems: During the reporting period, the remedial systems appeared to be effectively achieving the objectives of the remedial action, as described in the attached OM&M Report.

D. OM&M Deficiencies: Most of the monitoring points are fully functional; however, there are three damaged or destroyed monitoring points (MW-1,

PZ-14, and PZ-16). This condition does not impact the ability to monitor groundwater conditions, and no actions to repair or replace are planned at this time.

E. Conclusions and Recommendations: The following conclusions are presented based on the data collected during the reporting period:

- Based on the results of the quarterly inspection reports, which verify that the integrity of the cap is satisfactory and vegetation is established, the remedy remains protective in its ability to eliminate the potential for direct contact with waste and impacted soils and sediments.
- Based on the evaluation of the collected groundwater elevation data, which indicates that impacted groundwater is flowing into the groundwater collection trench as designed, the remedy is eliminating the potential for impacted groundwater to discharge to the adjacent wetlands.
- Based on the analytical results from BSA discharge monitoring, concentrations of effluent parameters are within the BSA permit limits.

The following recommendations were developed based on the data collected during the reporting period:

- BSA Discharge Monitoring – In accordance with the current BSA permit, discharge monitoring will be conducted on a semi-annual basis, with reports issued to BSA and copied to the NYSDEC.
- Groundwater Monitoring – Annual groundwater monitoring will be completed in 2017 with groundwater monitoring results reported in the next annual PRR submittal.
- Water Level Measurements – Collection of water level measurements will be conducted on a quarterly basis.
- Landfill Gas Monitoring – Landfill gas monitoring will continue on an annual basis.
- Surface Water Level Measurements – in conjunction with the site inspections, surface water level measurements will continue to be collected using the top of the weir structure at the north end of Pond A as a reference.
- Site inspections will continue on a quarterly basis.
- Routine OM&M activities will continue on a monthly basis, or more frequently as needed based upon results of site inspections or to respond to groundwater collection system autodialer callouts.
- The next PRR submittal should be completed and submitted to NYSDEC by the end of May 2018.

VII. Overall PRR Conclusions

A. Compliance: Activities were completed during the reporting period as noted above.

B. Performance and Effectiveness of the Remedy: The condition of the cap system and consistent groundwater flow into the groundwater collection trench indicate that the remedy is performing effectively.

C. Future PRR submittals: It is anticipated that the next PRR will be submitted by the end of May 2018.

**Closing**

Please contact Ryan Belcher at (207) 828-3530 with any questions or comments on this submittal.

Respectfully,

**MACTEC Engineering and Consulting P.C.**

Ryan Belcher
Senior Engineer

Mark Stelmack, P.E.
Associate Engineer

Attachments

cc: M. Sweitzer (Honeywell)
D. Sutton (City of Buffalo)
K. Boland (CSX)

# 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.** **915054**

**Site Name Alltift Landfill**

Site Address: 302 Abby Street Zip Code: 14202
City/Town: Buffalo
County: Erie
Site Acreage: 37.8

Reporting Period: April 21, 2016 to April 21, 2017

| | 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? Closed Landfill | ☑ | ☐ |
| 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. 915054** **Box 3**

**Description of Institutional Controls**

| Parcel | Owner | Institutional Control |
|---|---|---|
| **132-12-1-22** | CSX Transportation Inc. - Adrian Realty | Ground Water Use Restriction<br>Landuse Restriction<br>O&M Plan |

A Declaration of Covenants and Restrictions was placed on this property by the owner on 08/05/2011(Filed 08/11/2011)as a requirment of the ROD dated 3/27/1995 for the Alltift Landfill Site, Site #915054.

Deed Restriction - 106 Abby Street:
No activity that will prevent or interfere with ongoing remediation;
will not disturb cap or cover;
prohibition of any new use without Department waiver;
prohibit use of groundwater;
allow Department access;
no interference with maintenance of wetlands;
will not impede maintenance of water elevation control (headwall);
no interference with ECs and Institutional Controls (ICs);
declaration deemed covenant, runs with the land and binding on sucessors and assigns;and,
any deed of conveyance shall recite the covenants and restrictions.

| | | |
|---|---|---|
| **132.12-1-21** | City of Buffalo, Prefecting | Ground Water Use Restriction<br>Site Management Plan<br>IC/EC Plan<br>Monitoring Plan<br>Landuse Restriction<br>O&M Plan |

In addition to the Engineering Controls in place after the remediation, this site is under the control of an Environmental Notice placed by the Department filed 3/12/2012.

Institutional Controls - Environmental Notice:

Property subject to provision of OM&M Manual;
no excavation that threatens engineering control(EC);
no disturbance of EC w/out Department waiver;
restrict re-use to commercial/industrial; and,
prohibit use of groundwater.

| | | |
|---|---|---|
| **133.09-1-17** | Skyway Auto Parts | Ground Water Use Restriction<br>Landuse Restriction<br>O&M Plan |

No Engineering controls are required on this site. A Declaration of Covenants and Restrictions was placed on this property by the owner on 2/15/2012(Filed 3/01/2012)as a requirment of the ROD.

Deed Restriction - 637 Tifft Street

No activity that will prevent or interfere with ongoing remediation;
provide 60 day notice of any change of use;
prohibit groundwater use;
allow access for Department;
declaration deemed covenant, runs with the land and binding on sucessors and assigns;and,
any deed of conveyance shall recite the covenants and restrictions.

**Box 4**

**Description of Engineering Controls**

| Parcel | Engineering Control |
|---|---|
| **132.12-1-21** | Leachate Collection<br>Cover System<br>Fencing/Access Control |

Engineering Controls:

Cover system - Part 360 composite cap
Leachate collection trench and sump system
Fencing around entire site

**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. 915054**

**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 MARK A. SWEITZER at 6100 PHILADELPHIA PIKE CLAYMONT, DE 19703
print name print business address

am certifying as REMEDIAL PARTY (Owner or Remedial Party)

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

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

5-5-17
Date

## IC/EC CERTIFICATIONS

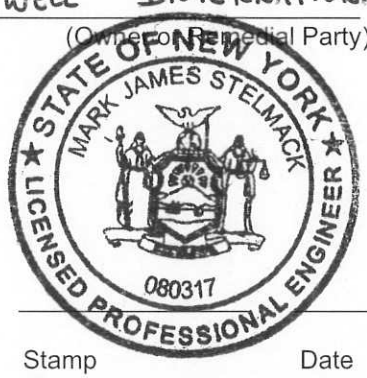
**Box 7**

### 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 Mark Stelmack (print name) at MACTEC Engineering & Consulting, PC 511 Congress St., Suite 200, Portland, ME 04101 (print business address)

am certifying as a Professional Engineer for the HONEYWELL INTERNATIONAL, INC. (Owner or Remedial Party)




Mark Stelmack

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

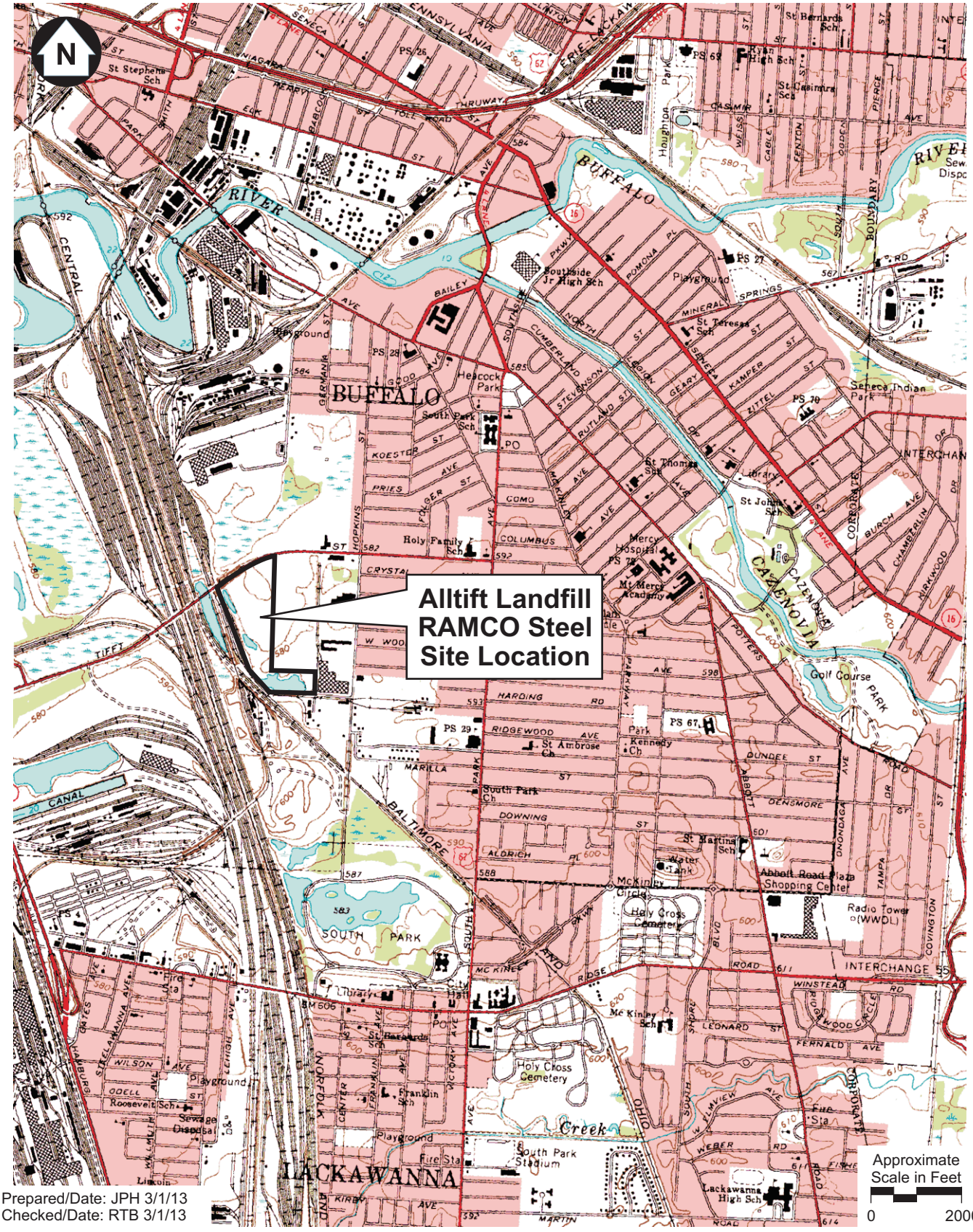
Stamp (Required for PE)

Date MAY 10, 2017

# ATTACHMENT B

# SUPPORTING TABLES, FIGURES, AND APPENDICES

# Attachment B.1 Site Figures




Prepared/Date: JPH 3/1/13
Checked/Date: RTB 3/1/13

Honeywell

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Site Location Map
Alltift Landfill/Ramco Steel Site
Project No. 3410120905
Figure 1

PORT2011018a.cdr

MW-1

MW-2

Sump-1

SSA1

SW1

SSA2

Sump-2

Sump-3

Lift Station

Sump-4

**Legend**

- Monitoring Well
- Planting Areas
- Sediment
- Coarse Woody Debris
- Surface Water
- Open Water
- Lift Station
- Deep Water Emergent
- Sump
- Wet Meadow Emergent
- Approximate Wetland Boundary

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

N

0 90 180 Feet

Prepared/Date: BRP 04/27/15
Checked/Date: RTB 04/27/15

HONEYWELL

amec

Current Conditions
Site Plan

Project 3410120905 Figure 2

Document: P:\Projects\Honeywell\O,M and M Team\Altift Landfill\4.0 Project Deliverables\4.3 Drawings\GIS\MapDocuments\Site_Conditions_11x17P.mxd PDF: P:\Projects\Honeywell\O,M and M Team\Altift Landfill\4.0 Project Deliverables\4.3 Drawings\GIS\Figures\April 2015\Figure 2 - Current Conditions.pdf 04/27/2015 2:27 PM brian.peters

# Attachment B.2 Quarterly Inspection Reports

# Site Inspection Form

Site Name: Alltift
Project Number: 30130
Date: 7/7/16

Weather: Sun and Clouds, Hot, 90 degrees
Assessment by: Bethany Macera and Mike Stout

| 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? Drought |
| ☐ | ☒ | ☐ | 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** |

# Site Inspection Form

| Yes | No | N/A | |
|---|---|---|---|
| ☒ | ☐ | ☐ | 1. Does one exist? _____ |
| ☒ | ☐ | ☐ | 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? _____ |
| ☐ | ☐ | ☒ | 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 _____ |

| 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**

.

None

Bethany Macera

# Site Inspection Form

Site Name: Alltift
Project Number: 30130
Date: 11/17/16

Weather: Sunny and 50
Assessment by: Bethany Macera and Mike Stout

| 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** |

# Site Inspection Form

| Yes | No | N/A | |
|---|---|---|---|
| ☒ | ☐ | ☐ | 1. Does one exist? _____ |
| ☒ | ☐ | ☐ | 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? _____ |
| ☐ | ☐ | ☒ | 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**

.

None

Bethany Macera

# Site Inspection Form

Site Name: Alltift
Project Number: 30130
Date: 2/7/17

Weather: Cold with light rain
Assessment by: Robert Davies

| 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** |

# Site Inspection Form

| Yes | No | N/A | |
|---|---|---|---|
| ☒ | ☐ | ☐ | 1. Does one exist? _____ |
| ☒ | ☐ | ☐ | 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? _____ |
| ☐ | ☐ | ☒ | 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

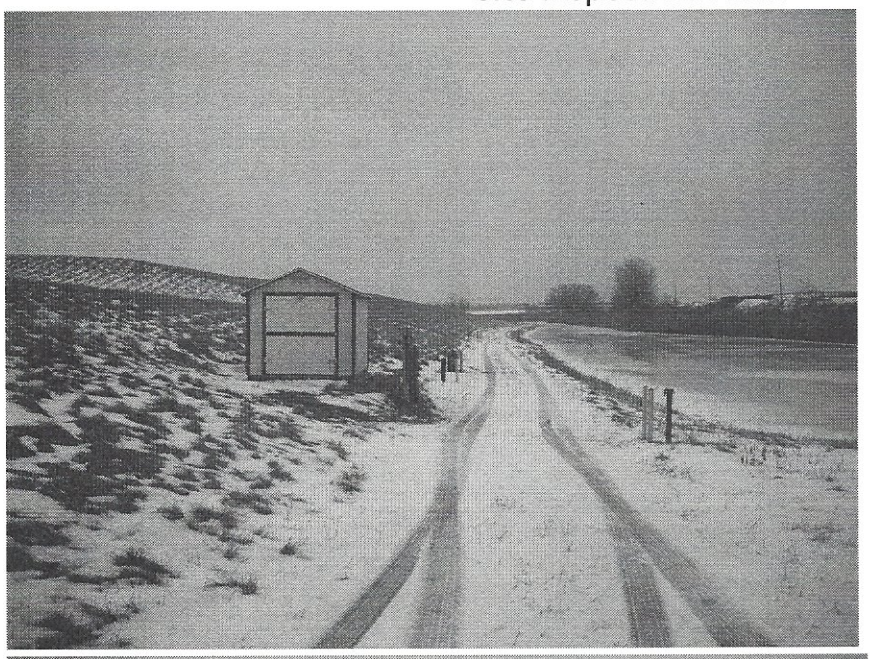
| Yes | No | N/A | |
|---|---|---|---|
| | | | **H. Treatment Plant** |
| ☐ | ☐ | ☒ | 1. Building in good condition? (Doors, windows, wells, roof) _____ |
| ☐ | ☐ | ☒ | 2. Visual tank inspection performed? _____ |
| ☐ | ☐ | ☒ | 3. Visual inspection of pipes, valves, fittings etc.? _____ |
| ☐ | ☐ | ☒ | 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)? _____ |

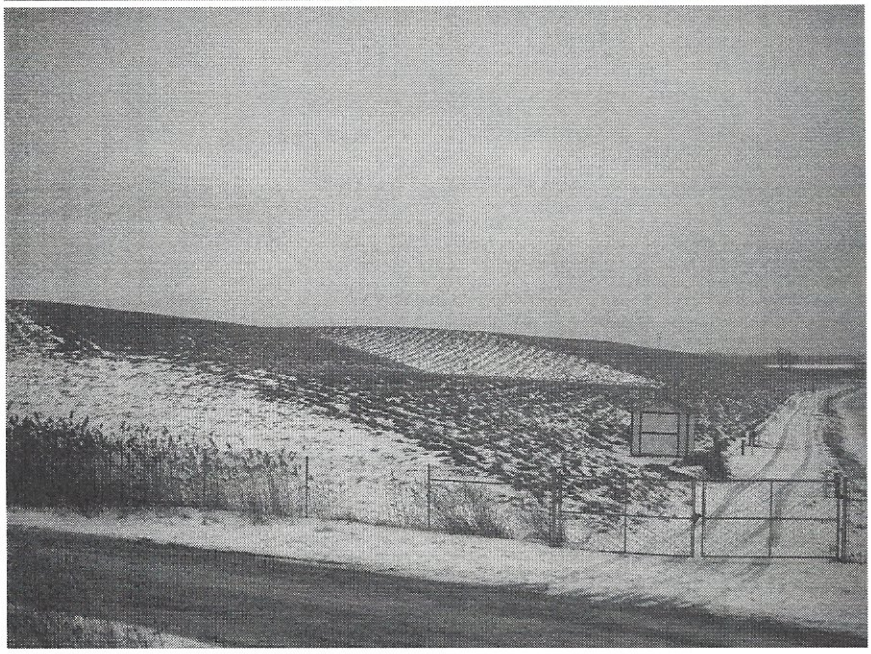
**J. General Comments**

.

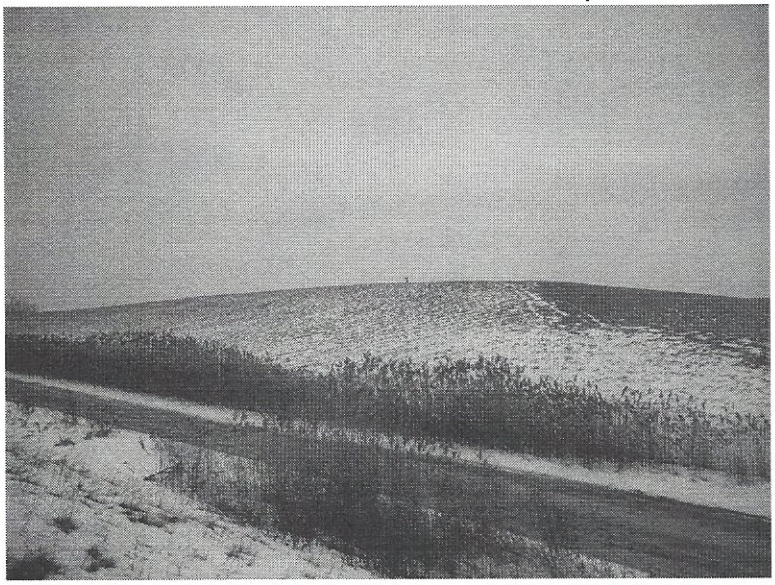
None

Site Inspection Form





Site Inspection Form



Robert Davis
2/9/17

# Site Inspection Form

Site Name: Alltift
Project Number: 30130
Date: 4/12/17

Weather: Cloudy and cool
Assessment by: Bethany Macera and Mike Stout

| 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** |

# Site Inspection Form

| Yes | No | N/A | |
|---|---|---|---|
| ☒ | ☐ | ☐ | 1. Does one exist? _____ |
| ☒ | ☐ | ☐ | 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? _____ |
| ☐ | ☐ | ☒ | 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**

None

# Attachment B.3 Water Level Measurements

**Alltift Landfill**
**Buffalo, New York**

| Piezometer Readings (DTW, ft) | 7-Jul-16 | 17-Nov-16 | 7-Feb-17 | 12-Apr-17 |
|---|---|---|---|---|
| **PZ-1** | 7.41 | 6.45 | 6.45 | 6.34 |
| **PZ-2** | 6.37 | 6.47 | 6.26 | 8.30 |
| **PZ-3** | 6.05 | 7.01 | 6.91 | 11.78 |
| **PZ-4** | 7.10 | 6.30 | 6.00 | 5.78 |
| **PZ-5** | 5.60 | 5.90 | 5.65 | 7.15 |
| **PZ-6** | 5.75 | 6.70 | 6.52 | 6.13 |
| **PZ-7** | 5.40 | 6.45 | 6.15 | 8.40 |
| **PZ-8** | 3.83 | 5.65 | 5.35 | 6.39 |
| **PZ-9** | 6.74 | 7.30 | 8.60 | 6.89 |
| **PZ-10** | 11.25 | 9.15 | 8.13 | 7.86 |
| **PZ-11** | 8.90 | 8.86 | 7.34 | 6.63 |
| **PZ-12** | 10.10 | 9.61 | 8.23 | 7.60 |
| **PZ-13** | 7.88 | 6.74 | 5.49 | 5.16 |
| **PZ-14** | dry | dry | dry | dry |
| **PZ-15** | 8.11 | 8.11 | 7.50 | 7.00 |
| **PZ-16** | dry | dry | dry | dry |
| **Groundwater Collection Trench Sumps (DTW, ft)** | | | | |
| **GWCT-1** | 9.60 | 7.00 | 7.10 | 7.20 |
| **GWCT-2** | 6.90 | 7.22 | 7.38 | 9.02 |
| **GWCT-3** | 5.73 | 6.82 | 6.64 | 9.70 |
| **GWCT-4** | 5.30 | 6.20 | 5.82 | 7.30 |
| **Relief Trench Sumps (DTW, ft)** | | | | |
| **GWR-1** | 6.48 | 8.37 | 8.37 | 8.20 |
| **GWR-2** | 6.58 | 8.40 | 8.40 | 8.20 |
| **Lift Station (DTW, ft)** | | | | |
| **Lift** | 7.90 | 10.18 | 10.58 | 9.38 |
| **Offsite Background Wells (DTW, ft)** | | | | |
| **MW-1** | | | | |
| **MW-2** | | | | |
| **Overflow Weir (DTW, ft)** | dry | dry | 2" below | 2" below |

# Attachment B.4 Quarterly Groundwater Elevations

**QUARTERLY GROUNDWATER ELEVATIONS**

**2016/2017 ANNUAL REPORT**

**ALLTIFT LANDFILL SITE**

**BUFFALO, NEW YORK**

| | | | 7/7/2016 | | 11/17/2016 | | 2/7/2017 | | 4/12/2017 | |
|---|---|---|---|---|---|---|---|---|---|---|
| **MONITORING POINT** | **TOTAL DEPTH (FT.)** | **TOP OF CASING ELEVATION** | **DEPTH TO WATER** | **GROUND WATER ELEVATION** | **DEPTH TO WATER** | **GROUND WATER ELEVATION** | **DEPTH TO WATER** | **GROUND WATER ELEVATION** | **DEPTH TO WATER** | **GROUND WATER ELEVATION** |
| **PIEZOMETERS** | | | | | | | | | | |
| PZ-1 | 16.8 | 585.01 | 7.41 | 577.60 | 6.45 | 578.56 | 6.45 | 578.56 | 6.34 | 578.67 |
| PZ-2 | 16.9 | 584.96 | 6.37 | 578.59 | 6.47 | 578.49 | 6.26 | 578.70 | 8.30 | 576.66 |
| PZ-3 | 16.9 | 585.05 | 6.05 | 579.00 | 7.01 | 578.04 | 6.91 | 578.14 | 11.78 | 573.27 |
| PZ-4 | 16.6 | 585.79 | 7.10 | 578.69 | 6.30 | 579.49 | 6.00 | 579.79 | 5.78 | 580.01 |
| PZ-5 | 16.9 | 584.52 | 5.6 | 578.92 | 5.90 | 578.62 | 5.65 | 578.87 | 7.15 | 577.37 |
| PZ-6 | 17.8 | 584.74 | 5.75 | 578.99 | 6.70 | 578.04 | 6.52 | 578.22 | 6.13 | 578.61 |
| PZ-7 | 20.0 | 584.99 | 5.40 | 579.59 | 6.45 | 578.54 | 6.15 | 578.84 | 8.40 | 576.59 |
| PZ-8 | 20.7 | 584.48 | 3.83 | 580.65 | 5.65 | 578.83 | 5.35 | 579.13 | 6.39 | 578.09 |
| PZ-9 | 15.1 | 586.86 | 6.74 | 580.12 | 7.30 | 579.56 | 8.60 | 578.26 | 6.89 | 579.97 |
| PZ-10 | 11.5 | 589.41 | 11.25 | 578.16 | 9.15 | 580.26 | 8.13 | 581.28 | 7.86 | 581.55 |
| PZ-11 | 19.5 | 594.72 | 8.9 | 585.82 | 8.86 | 585.86 | 7.34 | 587.38 | 6.63 | 588.09 |
| PZ-12 | 21.8 | 592.78 | 10.1 | 582.68 | 9.61 | 583.17 | 8.23 | 584.55 | 7.60 | 585.18 |
| PZ-13 | 22.5 | 589.04 | 7.88 | 581.16 | 6.74 | 582.30 | 5.49 | 583.55 | 5.16 | 583.88 |
| PZ-14 | 55.0 | 619.11 | dry | * | dry | * | dry | * | dry | * |
| PZ-15 | 17.0 | 588.79 | 8.11 | 580.68 | 8.11 | 580.68 | 7.50 | 581.29 | 7.00 | 581.79 |
| PZ-16 | 66.5 | 629.30 | dry | ** | dry | ** | dry | ** | dry | ** |
| **BACKGROUND WELLS** | | | | | | | | | | |
| MW-1 | 20.4 | 585.22 | NM | *** | NM | *** | NM | *** | NM | *** |
| MW-2 | 17.0 | 586.67 | NM | NC | ***6.60*** | 580.07 | NM | NC | NM | NC |
| **GROUNDWATER COLLECTION TRENCH SUMPS** | | | | | | | | | | |
| S1 | 17.2 | 585.19 | 9.6 | 575.59 | 7.00 | 578.19 | 7.10 | 578.09 | 7.20 | 577.99 |
| S2 | 24.8 | 585.45 | 6.90 | 578.55 | 7.22 | 578.23 | 7.38 | 578.07 | 9.02 | 576.43 |
| S3 | 17.3 | 585.25 | 5.73 | 579.52 | 6.82 | 578.43 | 6.64 | 578.61 | 9.70 | 575.55 |
| S4 | 17.8 | 585.00 | 5.3 | 579.70 | 6.20 | 578.80 | 5.82 | 579.18 | 7.30 | 577.70 |

*PZ-14 riser pipe damaged; no depth to water level measurement possible. Tape stops at 10.29 feet below top of casing.

**PZ-16: Tape stops at 32.50 feet below top of casing; indicates that the well is dry at this level.

***Background well MW-1 riser pipe damaged; no depth to water level measurement possible.

***Depth to Water for MW-2 is measured on 9/21/2016.***

NC - Not calculable

NM - Not measured

# Attachment B.5 Quarterly Groundwater Contour Maps

Stone Road

Tifft Street

Stone Road

581

PZ-13
(581.16)

PZ-15
(580.68)

576

PZ-4
(578.69)

PZ-1
(577.60)

Sump-1

PZ-12
(582.68)

PZ-14
(Dry)

585

PZ-5
(578.92)

PZ-2
(578.59)

PZ-11
(585.82)

Sump-2

Groundwater Collection Trench

PZ-16
(Dry)

PZ-3
(579.00)

PZ-6
(578.99)

579

Sump-3

583

PZ-7
(579.59)

PZ-9
(580.12)

PZ-8
(580.65)

Sump-4

581

579

PZ-10
(578.16)

Legend

Piezometer

Groundwater Collection Sump

(579.00) Measured Groundwater Elevation

Inferred Groundwater Contour

Interpreted Groundwater Contour

Interpreted Groundwater Flow Direction

N

0 60 120

Feet

Prepared/Date: ICD 05/04/17

Checked/Date: RTB 05/08/17

Honeywell Alltift Landfill Site
Buffalo, New York

amec foster wheeler

Interpreted Groundwater Contours
July 7, 2016
Project 3410120905 Figure 1

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Stone Road

Tifft Street

Stone Road

581

579

583

585

585

583

581

579

PZ-13
(582.30)

PZ-15
(580.68)

PZ-4
(579.49)

PZ-1
(578.56)

Sump-1

PZ-14
(Dry)

PZ-12
(583.17)

PZ-5
(578.62)

PZ-2
(578.49)

PZ-11
(585.86)

Sump-2

Groundwater Collection Trench

PZ-16
(Dry)

PZ-6
(578.04)

PZ-3
(578.04)

Sump-3

PZ-7
(578.54)

PZ-9
(579.56)

PZ-8
(578.83)

Sump-4

PZ-10
(580.26)

**Legend**

- Piezometer
- Groundwater Collection Sump
- *(585.86)* Measured Groundwater Elevation
- Inferred Groundwater Contour
- Interpreted Groundwater Contour
- Interpreted Groundwater Flow Direction

N

0 60 120 Feet

Prepared/Date: ICD 05/04/17
Checked/Date: RTB 05/08/17

Honeywell Alltift Landfill Site
Buffalo, New York

amec foster wheeler

Interpreted Groundwater Contours
November 17, 2016
Project 3410120905 Figure 2

\\IE10NT3KS001\HONEYWELL\ALLTIFT\REPORTS\MAPFILES\2014\GWE_Q1-2014.mxd B. Manjunath 05/09/2017 9:21:09

Tifft Street
Stone Road
Stone Road
583
581
579
577
PZ-15
(581.29)
PZ-4
(579.79)
579
PZ-1
(578.56)
Sump-1
PZ-5
(578.87)
PZ-2
(578.70)
Sump-2
PZ-6
(578.22)
PZ-3
(578.14)
Sump-3
579
PZ-7
(578.84)
PZ-8
(579.13)
579
579
Sump-4
PZ-9
(578.26)
579
583
PZ-13
(583.55)
PZ-12
(584.55)
585
587
PZ-14
(Dry)
Groundwater Collection Trench
PZ-16
(Dry)
587
PZ-11
(587.38)
585
583
581
PZ-10
(581.28)

**Legend**

- Piezometer
- Groundwater Collection Sump
- Inferred Groundwater Contour
- Interpreted Groundwater Contour
- Interpreted Groundwater Flow Direction
- *(583.55)* Measured Groundwater Elevation

N

0 60 120 Feet

Prepared/Date: ICD 05/04/17
Checked/Date: RTB 05/08/17

Honeywell Alltift Landfill Site
Buffalo, New York

amec foster wheeler

Interpreted Groundwater Contours
February 7, 2017
Project 3410120905 Figure 3

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Tifft Street

Stone Road

Stone Road

583

581

579

577

577

579

577

577

577

575

573

573

575

575

577

579

585

587

587

585

583

PZ-13
(583.88)

PZ-15
(581.79)

PZ-4
(580.01)

PZ-1
(578.67)

Sump-1

PZ-14
(Dry)

PZ-12
(585.18)

PZ-5
(577.37)

PZ-2
(576.66)

PZ-11
(588.09)

Sump-2

Groundwater Collection Trench

PZ-16
(Dry)

PZ-3
(573.27)

PZ-6
(578.61)

Sump-3

PZ-9
(579.97)

PZ-8
(578.09)

PZ-7
(576.59)

Sump-4

PZ-10
(581.55)

**Legend**

- Piezometer
- Groundwater Collection Sump
- Inferred Groundwater Contour
- Interpreted Groundwater Contour
- Interpreted Groundwater Flow Direction
- *(583.88)* Measured Groundwater Elevation

N

0 60 120 Feet

Prepared/Date: ICD 05/04/17
Checked/Date: RTB 05/08/17

Honeywell Alltift Landfill Site
Buffalo, New York

amec foster wheeler

Interpreted Groundwater Contours
April 12, 2017
Project 3410120905 Figure 4

\\IE10NT3KS001\HONEYWELL\ALLTIFT\REPORTS\MAPFILES\2014\GWE_Q1-2014.mxd B. Manjunath 05/09/2017 9:30:55

# Attachment B.6 Discharge Monitoring Reports

CH2M
1563 Willis Avenue
Syracuse, New York 13204
O +1 315 468 1663
F +1 315 468-1664
www..ch2m.com

May 13, 2016

Ms. Traserra Adams
Buffalo Sewer Authority
Industrial Waste Section
90 West Ferry Street
Buffalo, New York 14213

Subject: **Alltift Landfill/Ramco Steel Site**
**Discharge Monitoring Report**
**2016 First Semi-Annual Report**
**BPDES Permit Number 15-12-BU098**

Dear Ms. Adams:

Enclosed please find the 2016 First Semi-Annual discharge monitoring report for the pumping facility located at the Alltift Landfill/Ramco Steel (Alltift) Site. The total flow to the Buffalo Sewer Authority (BSA) during this period was 1,574,132 gallons. The flow was measured from a totalizing meter within the lift station at the Alltift Site from October 14, 2015 through April 14, 2016 for a total of 183 days. Flow metering readings collected during the reporting period are included as Attachment 1.

A time composite discharge sample was collected from within the pump station on April 14, 2016. Four samples were collected over an evenly-spaced work day period for VOCs and SVOCs, with the four samples composited in the laboratory per permit requirements. The sample for metals, total suspended solids, total phosphorus, and pH was collected as a composite sample. A summary of the analytical results, compared to permit limits, is provided in Table 1. All parameters were in compliance with permit limits. The laboratory analytical report is provided as Attachment 2. If you have any questions or require additional information, please contact me at (315) 468-1663.

Sincerely,

**CH2M,**

John W. Formoza
Area Manager

QC Review By: Ryan Belcher (Amec Foster Wheeler)

cc.: Mr. Mark Sweitzer (Honeywell)
Mr. Maurice Moore (NYSDEC)
Mr. David Szymanski (NYSDEC)
Mr. Dennis Sutton (City of Buffalo)
Mr. Robert Gersh (Amec Foster Wheeler)

**Table 1**
**Alltift Landfill/Ramco Steel Site**
**First Semi-annual Report for 2016**
**Discharge Monitoring Report**

| | |
|---|---|
| BSA Permit No. 15-12-BU098 | |
| Sample Date: | April 14, 2016 |
| Sample Location: | Onsite Pump Station to BSA |

| BSA Permit Parameter | Input Analytical Results | | | | Converted Analytical Results | | BSA Daily Max Discharge Limit | | Permit Compliance |
|---|---|---|---|---|---|---|---|---|---|
| | Quantity | Qualifier | Reporting Limit | Unit | Quantity | Unit | Quantity | Unit | |
| pH | 7.54 | | 0.100 | SU | 7.54 | SU | 5.0 - 12.0 | SU | Yes |
| Copper | 0.0096 | J | 0.010 | mg/L | 0.001 | lbs/day | 7.68 | lbs/day | Yes |
| Zinc | 0.0072 | J | 0.010 | mg/L | 0.0005 | lbs/day | 12 | lbs/day | Yes |
| Total Suspended Solids | 29.2 | | 4.0 | mg/L | 29.2 | mg/L | 250 | mg/L | Yes |
| Total Phosphorus | 0.021 | | 0.010 | mg/L | 0.021 | mg/L | 15.35 | mg/L | Yes |
| USEPA Test Method 624 | ND - 37 | | | µg/L | Monitor Only | | | | |
| USEPA Test Method 625 | ND | | | µg/L | | | | | |
| Total Flow (average) | 5.97 | | | gpm | 8,602 | gpd | 57,600 | gpd | Yes |

Notes:
J - estimated value below Reporting Limit/Practical Quantitation Limit
ND - Not detected at the reporting limit
µg/L - micrograms per liter
mg/L - milligrams per liter
gpm - gallons per minute
gpd - gallons per day
SU - Standard Units

| Flow Calculations | Meter | |
|---|---|---|
| Initial Reading (pump station) | 2445368 | 10/14/2015 |
| Final Reading (pump station) | 4019500 | 4/14/2016 |
| | | |
| Total Days in Period | | 183 |
| | | |
| **Total Flow for Period** | **1,574,132** | **gallons** |
| **Average Flow for Period** | **5.97** | **gpm** |

Prepared by, Date: Formoza J, 5/12/16
Checked by, Date: Ryan Belcher, 5/13/16

**Attachment 1 - Flow Meter Readings**

| Buffalo Alltift Lift Station | |
|---|---|
| **Date** | **Totalizer Reading (gallons)** |
| 10/14/2015 | 2,445,368 |
| 1/26/2016 | 3,184,900 |
| 4/7/2016 | 3,939,000 |
| 4/14/2016 | 4,019,500 |

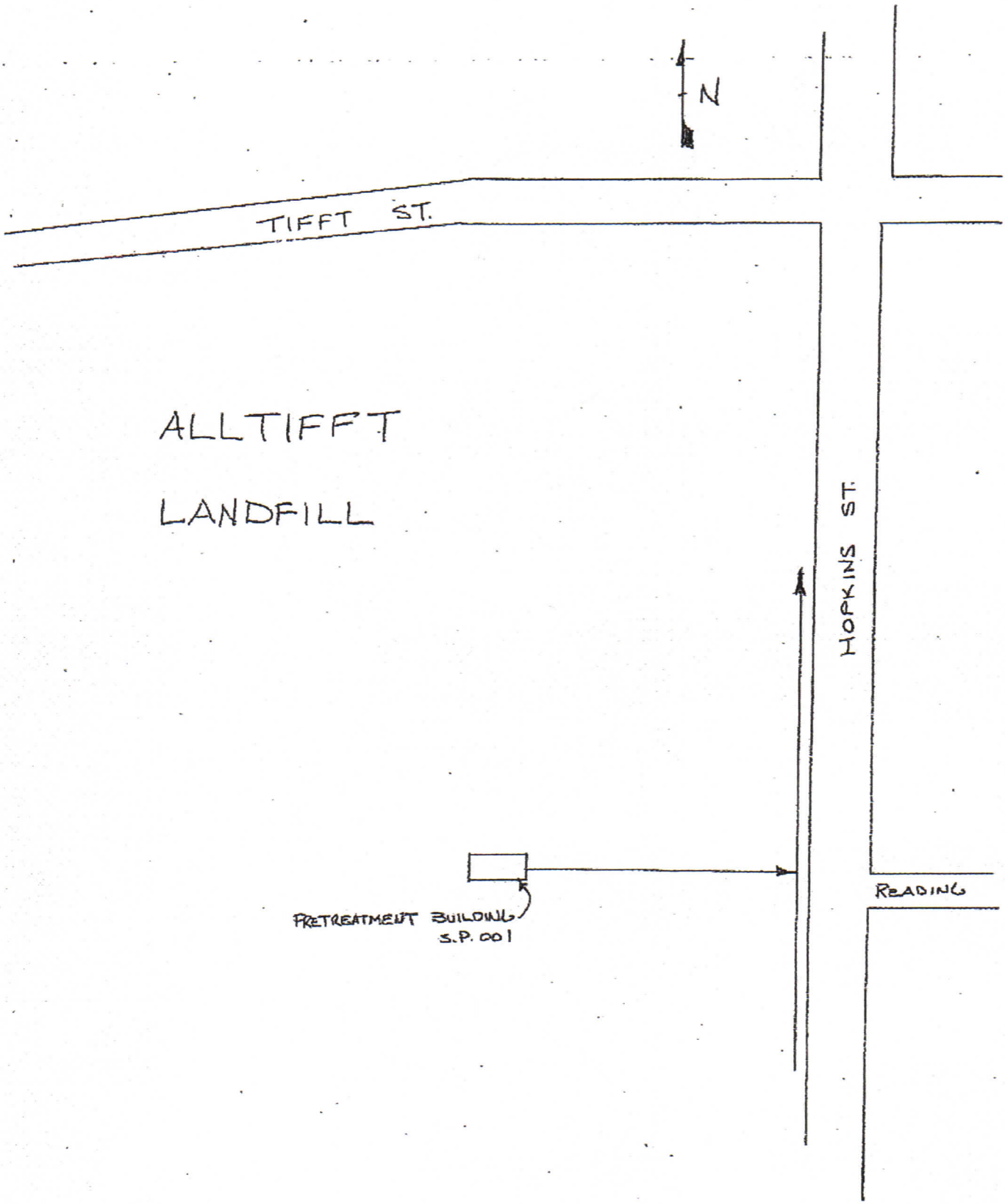
## CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

(Your signature here) John W Formoza 5/13/16

(Print your name & title here) JOHN W. FORMOZA, AREA MANAGER Date

(Print your company name here) CH2M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TIFFT ST.
ALLTIFFT
LANDFILL
HOPKINS ST.
READING
PRETREATMENT BUILDING
S.P. 001

**CH2MHILL**

alt

**Project Name** Honeywell - Buffalo
Job Number
Field Team M. Stout B. Macera
Field Conditions Sunny 35°F

**Sampling Event** Semi Annual Sampli
Date April 14, 2016
Page 1 of 1

**Well/Sample Number** ~~BSA~~ Lift Station
Start Time 07:30 Finish Time 14:15
Initial Depth to Water 10.00 Measure Point: PVC Steel Casing Other:

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

**Sample ID** Grab 1 - 041416 Sample Time 0800
**Duplicate Sample ID** Grab 2 - 041416 Dupl. Time 1000
**Split Sample ID** Grab 3 - 041416 Split. Time 1200
Grab 4 - 041416 1400
Composite - 041416 1410

Depth to Botton (from meas. pt):
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 |
|---|---|---|---|---|---|---|---|
| 0800 | - Collect Sample Grab 1 - 041416 - 10.98 | | | | | | 10.00 |
| 1000 | - Collect Sample Grab 2 - 041416 | | | | | | |
| 1200 | - Collect Sample Grab 3 - 041416 | | | | | | |
| 1400 | - Collect Sample Grab 4 - 041416 | | | | | | |
| 1410 | - Collect Sample Composite - 041416 | | | | | | |

**SAMPLE COLLECTION INFORMATION**

| Parameter | Type of Bottle | Volume | Field Filtered (y/n) | Preservative | pH | Notes |
|---|---|---|---|---|---|---|
| 624 - 5mL | VOA | 40mL | N | HCL | | VOC 624 |
| 625 | Amber | 1 Liter | N | N | | Priority pollutant |
| Phosphorous | Plastic | 250mL | N | $H_2SO_4$ | | 4500 P-E |
| 200.7 | Plastic | 250 mL | N | $HNO_3$ | | Metals ICP - Custom |
| 2540D | Plastic | 1 Liter | N | N | | Total Suspended Sol |
| SM4500 PH | Plastic | 125mL | N | N | | PH |
| | | | | | | |
| | | | | | | |

Remarks: Water is turned yellow - No odor
Water meter reading: 4019.5

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: 480-98328-1
Client Project/Site: 30130 - Alltift OM Phase / Semi Annual

For:
Honeywell International Inc
Remediation & Evaluation Services
115 Tabor Road
Morris Plains, New Jersey 07950

Attn: Mr. Rich Galloway

*Authorized for release by:*
*4/27/2016 11:18:37 AM*
Rebecca Jones, Project Management Assistant I
rebecca.jones@testamericainc.com

Designee for

John Schove, Project Manager II
(716)504-9838
john.schove@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

# Table of Contents

## Qualifiers

### GC/MS 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. |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. |

## 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 |
| CFL | Contains Free Liquid |
| 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) |

# Case Narrative

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-98328-1

## Job ID: 480-98328-1

### Laboratory: TestAmerica Buffalo

**Narrative**

**Job Narrative**
**480-98328-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 4/14/2016 2:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.6º C.

**GC/MS VOA**
Method(s) 624: The following Volatile samples were composited by the laboratory on 4/15/16 as requested by the client: Grab1-4-041416 LAB COMPOSITE (480-98328-1). Regulatory defined guidance for in-laboratory compositing of samples, is currently not available. Laboratory sample compositing was performed using established project specifications and/or laboratory standard operating procedures.

Method(s) 624: The preservative used in the sample containers provided is not compatible with the Method 624 analytes requested.The following samples were received preserved with hydrochloric acid: Grab1-4-041416 LAB COMPOSITE (480-98328-1) and TB-041416 (480-98328-7). The requested target analyte list contains 2-chloroethyl vinyl ether, which is an acid-labile compound that degrade in an acidic medium.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**GC/MS Semi VOA**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**Metals**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**General Chemistry**
Method(s) 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: COMP-041416 (480-98328-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**Organic Prep**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-98328-1

## Client Sample ID: Grab1-4-041416 LAB COMPOSITE — Lab Sample ID: 480-98328-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | 0.70 | J | 5.0 | 0.44 | ug/L | 1 | | 624 | Total/NA |
| 1,2-Dichloroethene, Total | 31 | | 10 | 3.2 | ug/L | 1 | | 624 | Total/NA |
| 1,4-Dichlorobenzene | 0.76 | J | 5.0 | 0.51 | ug/L | 1 | | 624 | Total/NA |
| Benzene | 3.4 | J | 5.0 | 0.60 | ug/L | 1 | | 624 | Total/NA |
| Chlorobenzene | 37 | | 5.0 | 0.48 | ug/L | 1 | | 624 | Total/NA |
| Chloroethane | 1.5 | J | 5.0 | 0.87 | ug/L | 1 | | 624 | Total/NA |
| trans-1,2-Dichloroethene | 4.2 | J | 5.0 | 0.59 | ug/L | 1 | | 624 | Total/NA |
| Trichloroethene | 1.3 | J | 5.0 | 0.60 | ug/L | 1 | | 624 | Total/NA |
| Vinyl chloride | 13 | | 5.0 | 0.75 | ug/L | 1 | | 624 | Total/NA |

## Client Sample ID: COMP-041416 — Lab Sample ID: 480-98328-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 0.0096 | J | 0.010 | 0.0016 | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Zinc | 0.0072 | J | 0.010 | 0.0015 | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Phosphorus, Total | 0.021 | | 0.010 | 0.0050 | mg/L | 1 | | SM 4500 P E | Total/NA |

| Analyte | Result | Qualifier | RL | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 29.2 | | 4.0 | 4.0 | mg/L | 1 | | SM 2540D | Total/NA |
| pH | 7.54 | HF | 0.100 | 0.100 | SU | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: TB-041416 — Lab Sample ID: 480-98328-7

No Detections.

This Detection Summary does not include radiochemical test results.

**Client Sample ID: Grab1-4-041416 LAB COMPOSITE**
**Date Collected: 04/14/16 14:00**
**Date Received: 04/14/16 14:30**

**Lab Sample ID: 480-98328-1**
**Matrix: Water**

## Method: 624 - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | | 5.0 | 0.39 | ug/L | | | 04/16/16 10:15 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 5.0 | 0.26 | ug/L | | | 04/16/16 10:15 | 1 |
| 1,1,2-Trichloroethane | ND | | 5.0 | 0.48 | ug/L | | | 04/16/16 10:15 | 1 |
| 1,1-Dichloroethane | ND | | 5.0 | 0.59 | ug/L | | | 04/16/16 10:15 | 1 |
| 1,1-Dichloroethene | ND | | 5.0 | 0.85 | ug/L | | | 04/16/16 10:15 | 1 |
| **1,2-Dichlorobenzene** | **0.70** | **J** | 5.0 | 0.44 | ug/L | | | 04/16/16 10:15 | 1 |
| 1,2-Dichloroethane | ND | | 5.0 | 0.60 | ug/L | | | 04/16/16 10:15 | 1 |
| **1,2-Dichloroethene, Total** | **31** | | 10 | 3.2 | ug/L | | | 04/16/16 10:15 | 1 |
| 1,2-Dichloropropane | ND | | 5.0 | 0.61 | ug/L | | | 04/16/16 10:15 | 1 |
| 1,3-Dichlorobenzene | ND | | 5.0 | 0.54 | ug/L | | | 04/16/16 10:15 | 1 |
| **1,4-Dichlorobenzene** | **0.76** | **J** | 5.0 | 0.51 | ug/L | | | 04/16/16 10:15 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 25 | 1.9 | ug/L | | | 04/16/16 10:15 | 1 |
| Acrolein | ND | | 100 | 17 | ug/L | | | 04/16/16 10:15 | 1 |
| Acrylonitrile | ND | | 50 | 1.9 | ug/L | | | 04/16/16 10:15 | 1 |
| **Benzene** | **3.4** | **J** | 5.0 | 0.60 | ug/L | | | 04/16/16 10:15 | 1 |
| Bromoform | ND | | 5.0 | 0.47 | ug/L | | | 04/16/16 10:15 | 1 |
| Bromomethane | ND | | 5.0 | 1.2 | ug/L | | | 04/16/16 10:15 | 1 |
| Carbon tetrachloride | ND | | 5.0 | 0.51 | ug/L | | | 04/16/16 10:15 | 1 |
| **Chlorobenzene** | **37** | | 5.0 | 0.48 | ug/L | | | 04/16/16 10:15 | 1 |
| Chlorodibromomethane | ND | | 5.0 | 0.41 | ug/L | | | 04/16/16 10:15 | 1 |
| **Chloroethane** | **1.5** | **J** | 5.0 | 0.87 | ug/L | | | 04/16/16 10:15 | 1 |
| Chloroform | ND | | 5.0 | 0.54 | ug/L | | | 04/16/16 10:15 | 1 |
| Chloromethane | ND | | 5.0 | 0.64 | ug/L | | | 04/16/16 10:15 | 1 |
| cis-1,3-Dichloropropene | ND | | 5.0 | 0.33 | ug/L | | | 04/16/16 10:15 | 1 |
| Dichlorobromomethane | ND | | 5.0 | 0.54 | ug/L | | | 04/16/16 10:15 | 1 |
| Ethylbenzene | ND | | 5.0 | 0.46 | ug/L | | | 04/16/16 10:15 | 1 |
| Methylene Chloride | ND | | 5.0 | 0.81 | ug/L | | | 04/16/16 10:15 | 1 |
| Tetrachloroethene | ND | | 5.0 | 0.34 | ug/L | | | 04/16/16 10:15 | 1 |
| Toluene | ND | | 5.0 | 0.45 | ug/L | | | 04/16/16 10:15 | 1 |
| **trans-1,2-Dichloroethene** | **4.2** | **J** | 5.0 | 0.59 | ug/L | | | 04/16/16 10:15 | 1 |
| trans-1,3-Dichloropropene | ND | | 5.0 | 0.44 | ug/L | | | 04/16/16 10:15 | 1 |
| **Trichloroethene** | **1.3** | **J** | 5.0 | 0.60 | ug/L | | | 04/16/16 10:15 | 1 |
| **Vinyl chloride** | **13** | | 5.0 | 0.75 | ug/L | | | 04/16/16 10:15 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *127* | | *72 - 130* | | *04/16/16 10:15* | *1* |
| *4-Bromofluorobenzene (Surr)* | *104* | | *69 - 121* | | *04/16/16 10:15* | *1* |
| *Toluene-d8 (Surr)* | *93* | | *70 - 123* | | *04/16/16 10:15* | *1* |
| *Dibromofluoromethane (Surr)* | *119* | | *70 - 130* | | *04/16/16 10:15* | *1* |

## Method: 625 - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | ND | | 10 | 0.82 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| 1,2-Dichlorobenzene | ND | | 10 | 5.0 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| 1,2-Diphenylhydrazine | ND | | 10 | 0.78 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| 1,3-Dichlorobenzene | ND | | 10 | 0.69 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| 1,4-Dichlorobenzene | ND | | 10 | 5.0 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| 2,4,6-Trichlorophenol | ND | | 5.0 | 1.0 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| 2,4-Dichlorophenol | ND | | 5.0 | 0.77 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| 2,4-Dimethylphenol | ND | | 5.0 | 1.4 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-98328-1

**Client Sample ID: Grab1-4-041416 LAB COMPOSITE**
**Date Collected: 04/14/16 14:00**
**Date Received: 04/14/16 14:30**

**Lab Sample ID: 480-98328-1**
**Matrix: Water**

**Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrophenol | ND | | 10 | 5.0 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| 2,4-Dinitrotoluene | ND | | 10 | 5.0 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| 2,6-Dinitrotoluene | ND | | 5.0 | 1.0 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| 2-Chloronaphthalene | ND | | 5.0 | 0.91 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| 2-Chlorophenol | ND | | 5.0 | 0.66 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| 2-Nitrophenol | ND | | 5.0 | 0.70 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| 3,3'-Dichlorobenzidine | ND | | 5.0 | 0.82 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| 4,6-Dinitro-2-methylphenol | ND | | 10 | 0.66 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| 4-Bromophenyl phenyl ether | ND | | 5.0 | 1.4 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| 4-Chloro-3-methylphenol | ND | | 5.0 | 1.1 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| 4-Chloroaniline | ND | | 5.0 | 0.64 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| 4-Chlorophenyl phenyl ether | ND | | 5.0 | 1.3 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| 4-Nitrophenol | ND | | 15 | 10 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Acenaphthene | ND | | 5.0 | 0.81 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Acenaphthylene | ND | | 5.0 | 0.87 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Anthracene | ND | | 5.0 | 1.4 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Benzidine | ND | | 80 | 35 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Benzo[a]anthracene | ND | | 5.0 | 1.1 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Benzo[a]pyrene | ND | | 5.0 | 1.3 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Benzo[b]fluoranthene | ND | | 5.0 | 1.2 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Benzo[g,h,i]perylene | ND | | 5.0 | 1.5 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Benzo[k]fluoranthene | ND | | 5.0 | 1.3 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| bis (2-chloroisopropyl) ether | ND | | 5.0 | 0.84 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Bis(2-chloroethoxy)methane | ND | | 5.0 | 0.75 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Bis(2-chloroethyl)ether | ND | | 5.0 | 0.93 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Bis(2-ethylhexyl) phthalate | ND | | 10 | 1.2 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Butyl benzyl phthalate | ND | | 5.0 | 1.1 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Chrysene | ND | | 5.0 | 1.0 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Dibenz(a,h)anthracene | ND | | 5.0 | 1.5 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Diethyl phthalate | ND | | 5.0 | 1.0 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Dimethyl phthalate | ND | | 5.0 | 0.91 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Di-n-butyl phthalate | ND | | 5.0 | 1.6 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Di-n-octyl phthalate | ND | | 5.0 | 1.2 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Fluoranthene | ND | | 5.0 | 1.6 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Fluorene | ND | | 5.0 | 1.0 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Hexachlorobenzene | ND | | 5.0 | 1.0 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Hexachlorobutadiene | ND | | 5.0 | 1.0 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Hexachlorocyclopentadiene | ND | | 10 | 5.0 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Hexachloroethane | ND | | 5.0 | 0.60 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 5.0 | 1.5 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Isophorone | ND | | 5.0 | 0.74 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Naphthalene | ND | | 5.0 | 0.86 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Nitrobenzene | ND | | 5.0 | 0.81 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| N-Nitrosodimethylamine | ND | | 10 | 5.0 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| N-Nitrosodi-n-propylamine | ND | | 5.0 | 0.89 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| N-Nitrosodiphenylamine | ND | | 5.0 | 0.40 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Pentachlorophenol | ND | | 10 | 1.6 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Phenanthrene | ND | | 5.0 | 1.2 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |
| Phenol | ND | | 5.0 | 0.35 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-98328-1

**Client Sample ID: Grab1-4-041416 LAB COMPOSITE**
**Date Collected: 04/14/16 14:00**
**Date Received: 04/14/16 14:30**

**Lab Sample ID: 480-98328-1**
**Matrix: Water**

**Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Pyrene | ND | | 5.0 | 1.4 | ug/L | | 04/15/16 08:00 | 04/22/16 03:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *92* | | *52 - 151* | *04/15/16 08:00* | *04/22/16 03:37* | *1* |
| *2-Fluorobiphenyl* | *82* | | *44 - 120* | *04/15/16 08:00* | *04/22/16 03:37* | *1* |
| *2-Fluorophenol* | *42* | | *17 - 120* | *04/15/16 08:00* | *04/22/16 03:37* | *1* |
| *Nitrobenzene-d5* | *70* | | *42 - 120* | *04/15/16 08:00* | *04/22/16 03:37* | *1* |
| *Phenol-d5* | *29* | | *10 - 120* | *04/15/16 08:00* | *04/22/16 03:37* | *1* |
| *p-Terphenyl-d14* | *51* | | *22 - 125* | *04/15/16 08:00* | *04/22/16 03:37* | *1* |

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-98328-1

**Client Sample ID: COMP-041416**
**Date Collected: 04/14/16 14:10**
**Date Received: 04/14/16 14:30**

**Lab Sample ID: 480-98328-6**
**Matrix: Water**

### Method: 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 0.0096 | J | 0.010 | 0.0016 | mg/L | | 04/18/16 07:40 | 04/18/16 22:53 | 1 |
| Zinc | 0.0072 | J | 0.010 | 0.0015 | mg/L | | 04/18/16 07:40 | 04/18/16 22:53 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Phosphorus, Total | 0.021 | | 0.010 | 0.0050 | mg/L | | | 04/18/16 10:49 | 1 |

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 29.2 | | 4.0 | 4.0 | mg/L | | | 04/21/16 09:32 | 1 |
| pH | 7.54 | HF | 0.100 | 0.100 | SU | | | 04/15/16 18:09 | 1 |

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-98328-1

**Client Sample ID: TB-041416**
**Date Collected: 04/14/16 08:00**
**Date Received: 04/14/16 14:30**

**Lab Sample ID: 480-98328-7**
**Matrix: Water**

**Method: 624 - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | | 5.0 | 0.39 | ug/L | | | 04/16/16 01:38 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 5.0 | 0.26 | ug/L | | | 04/16/16 01:38 | 1 |
| 1,1,2-Trichloroethane | ND | | 5.0 | 0.48 | ug/L | | | 04/16/16 01:38 | 1 |
| 1,1-Dichloroethane | ND | | 5.0 | 0.59 | ug/L | | | 04/16/16 01:38 | 1 |
| 1,1-Dichloroethene | ND | | 5.0 | 0.85 | ug/L | | | 04/16/16 01:38 | 1 |
| 1,2-Dichlorobenzene | ND | | 5.0 | 0.44 | ug/L | | | 04/16/16 01:38 | 1 |
| 1,2-Dichloroethane | ND | | 5.0 | 0.60 | ug/L | | | 04/16/16 01:38 | 1 |
| 1,2-Dichloroethene, Total | ND | | 10 | 3.2 | ug/L | | | 04/16/16 01:38 | 1 |
| 1,2-Dichloropropane | ND | | 5.0 | 0.61 | ug/L | | | 04/16/16 01:38 | 1 |
| 1,3-Dichlorobenzene | ND | | 5.0 | 0.54 | ug/L | | | 04/16/16 01:38 | 1 |
| 1,4-Dichlorobenzene | ND | | 5.0 | 0.51 | ug/L | | | 04/16/16 01:38 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 25 | 1.9 | ug/L | | | 04/16/16 01:38 | 1 |
| Acrolein | ND | | 100 | 17 | ug/L | | | 04/16/16 01:38 | 1 |
| Acrylonitrile | ND | | 50 | 1.9 | ug/L | | | 04/16/16 01:38 | 1 |
| Benzene | ND | | 5.0 | 0.60 | ug/L | | | 04/16/16 01:38 | 1 |
| Bromoform | ND | | 5.0 | 0.47 | ug/L | | | 04/16/16 01:38 | 1 |
| Bromomethane | ND | | 5.0 | 1.2 | ug/L | | | 04/16/16 01:38 | 1 |
| Carbon tetrachloride | ND | | 5.0 | 0.51 | ug/L | | | 04/16/16 01:38 | 1 |
| Chlorobenzene | ND | | 5.0 | 0.48 | ug/L | | | 04/16/16 01:38 | 1 |
| Chlorodibromomethane | ND | | 5.0 | 0.41 | ug/L | | | 04/16/16 01:38 | 1 |
| Chloroethane | ND | | 5.0 | 0.87 | ug/L | | | 04/16/16 01:38 | 1 |
| Chloroform | ND | | 5.0 | 0.54 | ug/L | | | 04/16/16 01:38 | 1 |
| Chloromethane | ND | | 5.0 | 0.64 | ug/L | | | 04/16/16 01:38 | 1 |
| cis-1,3-Dichloropropene | ND | | 5.0 | 0.33 | ug/L | | | 04/16/16 01:38 | 1 |
| Dichlorobromomethane | ND | | 5.0 | 0.54 | ug/L | | | 04/16/16 01:38 | 1 |
| Ethylbenzene | ND | | 5.0 | 0.46 | ug/L | | | 04/16/16 01:38 | 1 |
| Methylene Chloride | ND | | 5.0 | 0.81 | ug/L | | | 04/16/16 01:38 | 1 |
| Tetrachloroethene | ND | | 5.0 | 0.34 | ug/L | | | 04/16/16 01:38 | 1 |
| Toluene | ND | | 5.0 | 0.45 | ug/L | | | 04/16/16 01:38 | 1 |
| trans-1,2-Dichloroethene | ND | | 5.0 | 0.59 | ug/L | | | 04/16/16 01:38 | 1 |
| trans-1,3-Dichloropropene | ND | | 5.0 | 0.44 | ug/L | | | 04/16/16 01:38 | 1 |
| Trichloroethene | ND | | 5.0 | 0.60 | ug/L | | | 04/16/16 01:38 | 1 |
| Vinyl chloride | ND | | 5.0 | 0.75 | ug/L | | | 04/16/16 01:38 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *125* | | *72 - 130* | | *04/16/16 01:38* | *1* |
| *4-Bromofluorobenzene (Surr)* | *101* | | *69 - 121* | | *04/16/16 01:38* | *1* |
| *Toluene-d8 (Surr)* | *93* | | *70 - 123* | | *04/16/16 01:38* | *1* |
| *Dibromofluoromethane (Surr)* | *118* | | *70 - 130* | | *04/16/16 01:38* | *1* |

# Surrogate Summary

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-98328-1

## Method: 624 - Volatile Organic Compounds (GC/MS)

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

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 12DCE | BFB | TOL | DBFM | | | | |
| Lab Sample ID | Client Sample ID | (72-130) | (69-121) | (70-123) | (70-130) | | | | |
| 480-98328-1 | Grab1-4-041416 LAB COMPOSITE | 127 | 104 | 93 | 119 | | | | |
| 480-98328-7 | TB-041416 | 125 | 101 | 93 | 118 | | | | |
| LCS 480-296164/5 | Lab Control Sample | 118 | 102 | 95 | 115 | | | | |
| MB 480-296164/7 | Method Blank | 119 | 104 | 94 | 114 | | | | |

**Surrogate Legend**

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

## Method: 625 - Semivolatile Organic Compounds (GC/MS)

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

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | TBP | FBP | 2FP | NBZ | PHL | TPH | | |
| Lab Sample ID | Client Sample ID | (52-151) | (44-120) | (17-120) | (42-120) | (10-120) | (22-125) | | |
| 480-98328-1 | Grab1-4-041416 LAB COMPOSITE | 92 | 82 | 42 | 70 | 29 | 51 | | |
| LCS 480-296091/2-A | Lab Control Sample | 86 | 79 | 42 | 72 | 28 | 88 | | |
| MB 480-296091/1-A | Method Blank | 52 | 65 | 35 | 65 | 24 | 89 | | |

**Surrogate Legend**

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

## Method: 624 - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 480-296164/7**
**Matrix: Water**
**Analysis Batch: 296164**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | | 5.0 | 0.39 | ug/L | | | 04/15/16 15:55 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 5.0 | 0.26 | ug/L | | | 04/15/16 15:55 | 1 |
| 1,1,2-Trichloroethane | ND | | 5.0 | 0.48 | ug/L | | | 04/15/16 15:55 | 1 |
| 1,1-Dichloroethane | ND | | 5.0 | 0.59 | ug/L | | | 04/15/16 15:55 | 1 |
| 1,1-Dichloroethene | ND | | 5.0 | 0.85 | ug/L | | | 04/15/16 15:55 | 1 |
| 1,2-Dichlorobenzene | ND | | 5.0 | 0.44 | ug/L | | | 04/15/16 15:55 | 1 |
| 1,2-Dichloroethane | ND | | 5.0 | 0.60 | ug/L | | | 04/15/16 15:55 | 1 |
| 1,2-Dichloroethene, Total | ND | | 10 | 3.2 | ug/L | | | 04/15/16 15:55 | 1 |
| 1,2-Dichloropropane | ND | | 5.0 | 0.61 | ug/L | | | 04/15/16 15:55 | 1 |
| 1,3-Dichlorobenzene | ND | | 5.0 | 0.54 | ug/L | | | 04/15/16 15:55 | 1 |
| 1,4-Dichlorobenzene | ND | | 5.0 | 0.51 | ug/L | | | 04/15/16 15:55 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 25 | 1.9 | ug/L | | | 04/15/16 15:55 | 1 |
| Acrolein | ND | | 100 | 17 | ug/L | | | 04/15/16 15:55 | 1 |
| Acrylonitrile | ND | | 50 | 1.9 | ug/L | | | 04/15/16 15:55 | 1 |
| Benzene | ND | | 5.0 | 0.60 | ug/L | | | 04/15/16 15:55 | 1 |
| Bromoform | ND | | 5.0 | 0.47 | ug/L | | | 04/15/16 15:55 | 1 |
| Bromomethane | ND | | 5.0 | 1.2 | ug/L | | | 04/15/16 15:55 | 1 |
| Carbon tetrachloride | ND | | 5.0 | 0.51 | ug/L | | | 04/15/16 15:55 | 1 |
| Chlorobenzene | ND | | 5.0 | 0.48 | ug/L | | | 04/15/16 15:55 | 1 |
| Chlorodibromomethane | ND | | 5.0 | 0.41 | ug/L | | | 04/15/16 15:55 | 1 |
| Chloroethane | ND | | 5.0 | 0.87 | ug/L | | | 04/15/16 15:55 | 1 |
| Chloroform | ND | | 5.0 | 0.54 | ug/L | | | 04/15/16 15:55 | 1 |
| Chloromethane | ND | | 5.0 | 0.64 | ug/L | | | 04/15/16 15:55 | 1 |
| cis-1,3-Dichloropropene | ND | | 5.0 | 0.33 | ug/L | | | 04/15/16 15:55 | 1 |
| Dichlorobromomethane | ND | | 5.0 | 0.54 | ug/L | | | 04/15/16 15:55 | 1 |
| Ethylbenzene | ND | | 5.0 | 0.46 | ug/L | | | 04/15/16 15:55 | 1 |
| Methylene Chloride | ND | | 5.0 | 0.81 | ug/L | | | 04/15/16 15:55 | 1 |
| Tetrachloroethene | ND | | 5.0 | 0.34 | ug/L | | | 04/15/16 15:55 | 1 |
| Toluene | ND | | 5.0 | 0.45 | ug/L | | | 04/15/16 15:55 | 1 |
| trans-1,2-Dichloroethene | ND | | 5.0 | 0.59 | ug/L | | | 04/15/16 15:55 | 1 |
| trans-1,3-Dichloropropene | ND | | 5.0 | 0.44 | ug/L | | | 04/15/16 15:55 | 1 |
| Trichloroethene | ND | | 5.0 | 0.60 | ug/L | | | 04/15/16 15:55 | 1 |
| Vinyl chloride | ND | | 5.0 | 0.75 | ug/L | | | 04/15/16 15:55 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *119* | | *72 - 130* | | *04/15/16 15:55* | *1* |
| *4-Bromofluorobenzene (Surr)* | *104* | | *69 - 121* | | *04/15/16 15:55* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *70 - 123* | | *04/15/16 15:55* | *1* |
| *Dibromofluoromethane (Surr)* | *114* | | *70 - 130* | | *04/15/16 15:55* | *1* |

**Lab Sample ID: LCS 480-296164/5**
**Matrix: Water**
**Analysis Batch: 296164**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 20.0 | 19.4 | | ug/L | | 97 | 52 - 162 |
| 1,1,2,2-Tetrachloroethane | 20.0 | 14.5 | | ug/L | | 72 | 46 - 157 |
| 1,1,2-Trichloroethane | 20.0 | 16.8 | | ug/L | | 84 | 52 - 150 |

## Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 480-296164/5**
**Matrix: Water**
**Analysis Batch: 296164**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 20.0 | 16.3 | | ug/L | | 81 | 59 - 155 |
| 1,1-Dichloroethene | 20.0 | 8.41 | | ug/L | | 42 | 1 - 234 |
| 1,2-Dichlorobenzene | 20.0 | 19.1 | | ug/L | | 95 | 18 - 190 |
| 1,2-Dichloroethane | 20.0 | 22.1 | | ug/L | | 110 | 49 - 155 |
| 1,2-Dichloropropane | 20.0 | 17.8 | | ug/L | | 89 | 1 - 210 |
| 1,3-Dichlorobenzene | 20.0 | 19.1 | | ug/L | | 96 | 59 - 156 |
| 1,4-Dichlorobenzene | 20.0 | 19.0 | | ug/L | | 95 | 18 - 190 |
| 2-Chloroethyl vinyl ether | 20.0 | 15.6 | J | ug/L | | 78 | 1 - 305 |
| Benzene | 20.0 | 16.9 | | ug/L | | 84 | 37 - 151 |
| Bromoform | 20.0 | 19.1 | | ug/L | | 96 | 45 - 169 |
| Bromomethane | 20.0 | 18.7 | | ug/L | | 94 | 1 - 242 |
| Carbon tetrachloride | 20.0 | 19.3 | | ug/L | | 96 | 70 - 140 |
| Chlorobenzene | 20.0 | 18.3 | | ug/L | | 92 | 37 - 160 |
| Chlorodibromomethane | 20.0 | 19.6 | | ug/L | | 98 | 53 - 149 |
| Chloroethane | 20.0 | 16.0 | | ug/L | | 80 | 14 - 230 |
| Chloroform | 20.0 | 21.5 | | ug/L | | 108 | 51 - 138 |
| Chloromethane | 20.0 | 16.5 | | ug/L | | 83 | 1 - 273 |
| cis-1,3-Dichloropropene | 20.0 | 19.6 | | ug/L | | 98 | 1 - 227 |
| Dichlorobromomethane | 20.0 | 22.2 | | ug/L | | 111 | 35 - 155 |
| Ethylbenzene | 20.0 | 18.5 | | ug/L | | 93 | 37 - 162 |
| Methylene Chloride | 20.0 | 16.1 | | ug/L | | 81 | 1 - 221 |
| Tetrachloroethene | 20.0 | 18.4 | | ug/L | | 92 | 64 - 148 |
| Toluene | 20.0 | 17.4 | | ug/L | | 87 | 47 - 150 |
| trans-1,2-Dichloroethene | 20.0 | 14.9 | | ug/L | | 74 | 54 - 156 |
| trans-1,3-Dichloropropene | 20.0 | 18.3 | | ug/L | | 92 | 17 - 183 |
| Trichloroethene | 20.0 | 19.8 | | ug/L | | 99 | 71 - 157 |
| Vinyl chloride | 20.0 | 14.9 | | ug/L | | 74 | 1 - 251 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *118* | | *72 - 130* |
| *4-Bromofluorobenzene (Surr)* | *102* | | *69 - 121* |
| *Toluene-d8 (Surr)* | *95* | | *70 - 123* |
| *Dibromofluoromethane (Surr)* | *115* | | *70 - 130* |

## Method: 625 - Semivolatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 480-296091/1-A**
**Matrix: Water**
**Analysis Batch: 297360**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 296091**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | ND | | 10 | 0.82 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| 1,2-Dichlorobenzene | ND | | 10 | 5.0 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| 1,2-Diphenylhydrazine | ND | | 10 | 0.78 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| 1,3-Dichlorobenzene | ND | | 10 | 0.69 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| 1,4-Dichlorobenzene | ND | | 10 | 5.0 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| 2,4,6-Trichlorophenol | ND | | 5.0 | 1.0 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| 2,4-Dichlorophenol | ND | | 5.0 | 0.77 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |

## Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 480-296091/1-A**
**Matrix: Water**
**Analysis Batch: 297360**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 296091**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dimethylphenol | ND | | 5.0 | 1.4 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| 2,4-Dinitrophenol | ND | | 10 | 5.0 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| 2,4-Dinitrotoluene | ND | | 10 | 5.0 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| 2,6-Dinitrotoluene | ND | | 5.0 | 1.0 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| 2-Chloronaphthalene | ND | | 5.0 | 0.91 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| 2-Chlorophenol | ND | | 5.0 | 0.66 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| 2-Nitrophenol | ND | | 5.0 | 0.70 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| 3,3'-Dichlorobenzidine | ND | | 5.0 | 0.82 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| 4,6-Dinitro-2-methylphenol | ND | | 10 | 0.66 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| 4-Bromophenyl phenyl ether | ND | | 5.0 | 1.4 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| 4-Chloro-3-methylphenol | ND | | 5.0 | 1.1 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| 4-Chloroaniline | ND | | 5.0 | 0.64 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| 4-Chlorophenyl phenyl ether | ND | | 5.0 | 1.3 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| 4-Nitrophenol | ND | | 15 | 10 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Acenaphthene | ND | | 5.0 | 0.81 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Acenaphthylene | ND | | 5.0 | 0.87 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Anthracene | ND | | 5.0 | 1.4 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Benzidine | ND | | 80 | 35 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Benzo[a]anthracene | ND | | 5.0 | 1.1 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Benzo[a]pyrene | ND | | 5.0 | 1.3 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Benzo[b]fluoranthene | ND | | 5.0 | 1.2 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Benzo[g,h,i]perylene | ND | | 5.0 | 1.5 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Benzo[k]fluoranthene | ND | | 5.0 | 1.3 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| bis (2-chloroisopropyl) ether | ND | | 5.0 | 0.84 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Bis(2-chloroethoxy)methane | ND | | 5.0 | 0.75 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Bis(2-chloroethyl)ether | ND | | 5.0 | 0.93 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Bis(2-ethylhexyl) phthalate | ND | | 10 | 1.2 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Butyl benzyl phthalate | ND | | 5.0 | 1.1 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Chrysene | ND | | 5.0 | 1.0 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Dibenz(a,h)anthracene | ND | | 5.0 | 1.5 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Diethyl phthalate | ND | | 5.0 | 1.0 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Dimethyl phthalate | ND | | 5.0 | 0.91 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Di-n-butyl phthalate | ND | | 5.0 | 1.6 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Di-n-octyl phthalate | ND | | 5.0 | 1.2 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Fluoranthene | ND | | 5.0 | 1.6 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Fluorene | ND | | 5.0 | 1.0 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Hexachlorobenzene | ND | | 5.0 | 1.0 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Hexachlorobutadiene | ND | | 5.0 | 1.0 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Hexachlorocyclopentadiene | ND | | 10 | 5.0 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Hexachloroethane | ND | | 5.0 | 0.60 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 5.0 | 1.5 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Isophorone | ND | | 5.0 | 0.74 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Naphthalene | ND | | 5.0 | 0.86 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Nitrobenzene | ND | | 5.0 | 0.81 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| N-Nitrosodimethylamine | ND | | 10 | 5.0 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| N-Nitrosodi-n-propylamine | ND | | 5.0 | 0.89 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| N-Nitrosodiphenylamine | ND | | 5.0 | 0.40 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Pentachlorophenol | ND | | 10 | 1.6 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |

## Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 480-296091/1-A**
**Matrix: Water**
**Analysis Batch: 297360**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 296091**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Phenanthrene | ND | | 5.0 | 1.2 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Phenol | ND | | 5.0 | 0.35 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |
| Pyrene | ND | | 5.0 | 1.4 | ug/L | | 04/15/16 08:00 | 04/22/16 01:22 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *52* | | *52 - 151* | *04/15/16 08:00* | *04/22/16 01:22* | *1* |
| *2-Fluorobiphenyl* | *65* | | *44 - 120* | *04/15/16 08:00* | *04/22/16 01:22* | *1* |
| *2-Fluorophenol* | *35* | | *17 - 120* | *04/15/16 08:00* | *04/22/16 01:22* | *1* |
| *Nitrobenzene-d5* | *65* | | *42 - 120* | *04/15/16 08:00* | *04/22/16 01:22* | *1* |
| *Phenol-d5* | *24* | | *10 - 120* | *04/15/16 08:00* | *04/22/16 01:22* | *1* |
| *p-Terphenyl-d14* | *89* | | *22 - 125* | *04/15/16 08:00* | *04/22/16 01:22* | *1* |

**Lab Sample ID: LCS 480-296091/2-A**
**Matrix: Water**
**Analysis Batch: 297360**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 296091**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 50.0 | 30.2 | | ug/L | | 60 | 44 - 142 |
| 1,2-Dichlorobenzene | 50.0 | 26.2 | | ug/L | | 52 | 32 - 129 |
| 1,3-Dichlorobenzene | 50.0 | 24.0 | | ug/L | | 48 | 1 - 172 |
| 1,4-Dichlorobenzene | 50.0 | 26.9 | | ug/L | | 54 | 20 - 124 |
| 2,4,6-Trichlorophenol | 50.0 | 39.2 | | ug/L | | 78 | 37 - 144 |
| 2,4-Dichlorophenol | 50.0 | 37.6 | | ug/L | | 75 | 39 - 135 |
| 2,4-Dimethylphenol | 50.0 | 40.1 | | ug/L | | 80 | 32 - 119 |
| 2,4-Dinitrophenol | 100 | 87.2 | | ug/L | | 87 | 1 - 191 |
| 2,4-Dinitrotoluene | 50.0 | 43.5 | | ug/L | | 87 | 39 - 139 |
| 2,6-Dinitrotoluene | 50.0 | 40.7 | | ug/L | | 81 | 50 - 158 |
| 2-Chloronaphthalene | 50.0 | 39.0 | | ug/L | | 78 | 60 - 118 |
| 2-Chlorophenol | 50.0 | 31.7 | | ug/L | | 63 | 23 - 134 |
| 2-Nitrophenol | 50.0 | 35.8 | | ug/L | | 72 | 29 - 182 |
| 3,3'-Dichlorobenzidine | 100 | 93.0 | | ug/L | | 93 | 1 - 262 |
| 4,6-Dinitro-2-methylphenol | 100 | 87.5 | | ug/L | | 87 | 1 - 181 |
| 4-Bromophenyl phenyl ether | 50.0 | 43.4 | | ug/L | | 87 | 53 - 127 |
| 4-Chloro-3-methylphenol | 50.0 | 43.6 | | ug/L | | 87 | 22 - 147 |
| 4-Chlorophenyl phenyl ether | 50.0 | 43.1 | | ug/L | | 86 | 25 - 158 |
| 4-Nitrophenol | 100 | 50.0 | | ug/L | | 50 | 1 - 132 |
| Acenaphthene | 50.0 | 41.3 | | ug/L | | 83 | 47 - 145 |
| Acenaphthylene | 50.0 | 42.4 | | ug/L | | 85 | 33 - 145 |
| Anthracene | 50.0 | 45.5 | | ug/L | | 91 | 27 - 133 |
| Benzo[a]anthracene | 50.0 | 46.5 | | ug/L | | 93 | 33 - 143 |
| Benzo[a]pyrene | 50.0 | 47.0 | | ug/L | | 94 | 17 - 163 |
| Benzo[b]fluoranthene | 50.0 | 47.3 | | ug/L | | 95 | 24 - 159 |
| Benzo[g,h,i]perylene | 50.0 | 50.0 | | ug/L | | 100 | 1 - 219 |
| Benzo[k]fluoranthene | 50.0 | 45.6 | | ug/L | | 91 | 11 - 162 |
| bis (2-chloroisopropyl) ether | 50.0 | 33.4 | | ug/L | | 67 | 36 - 166 |
| Bis(2-chloroethoxy)methane | 50.0 | 37.3 | | ug/L | | 75 | 33 - 184 |
| Bis(2-chloroethyl)ether | 50.0 | 33.3 | | ug/L | | 67 | 12 - 158 |
| Bis(2-ethylhexyl) phthalate | 50.0 | 50.7 | | ug/L | | 101 | 8 - 158 |

## Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 480-296091/2-A**
**Matrix: Water**
**Analysis Batch: 297360**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 296091**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Butyl benzyl phthalate | 50.0 | 49.1 | | ug/L | | 98 | 1 - 152 |
| Chrysene | 50.0 | 46.1 | | ug/L | | 92 | 17 - 168 |
| Dibenz(a,h)anthracene | 50.0 | 46.9 | | ug/L | | 94 | 1 - 227 |
| Diethyl phthalate | 50.0 | 47.6 | | ug/L | | 95 | 1 - 114 |
| Dimethyl phthalate | 50.0 | 42.8 | | ug/L | | 86 | 1 - 112 |
| Di-n-butyl phthalate | 50.0 | 45.5 | | ug/L | | 91 | 1 - 118 |
| Di-n-octyl phthalate | 50.0 | 49.1 | | ug/L | | 98 | 4 - 146 |
| Fluoranthene | 50.0 | 46.9 | | ug/L | | 94 | 26 - 137 |
| Fluorene | 50.0 | 44.0 | | ug/L | | 88 | 59 - 121 |
| Hexachlorobenzene | 50.0 | 44.2 | | ug/L | | 88 | 1 - 152 |
| Hexachlorocyclopentadiene | 50.0 | 28.2 | | ug/L | | 56 | 5 - 120 |
| Hexachloroethane | 50.0 | 24.9 | | ug/L | | 50 | 40 - 113 |
| Indeno[1,2,3-cd]pyrene | 50.0 | 47.9 | | ug/L | | 96 | 1 - 171 |
| Isophorone | 50.0 | 40.9 | | ug/L | | 82 | 21 - 196 |
| Naphthalene | 50.0 | 33.6 | | ug/L | | 67 | 21 - 133 |
| Nitrobenzene | 50.0 | 36.8 | | ug/L | | 74 | 35 - 180 |
| N-Nitrosodi-n-propylamine | 50.0 | 39.1 | | ug/L | | 78 | 1 - 230 |
| N-Nitrosodiphenylamine | 50.0 | 46.3 | | ug/L | | 93 | 54 - 125 |
| Pentachlorophenol | 100 | 52.3 | | ug/L | | 52 | 14 - 176 |
| Phenanthrene | 50.0 | 45.0 | | ug/L | | 90 | 54 - 120 |
| Phenol | 50.0 | 16.8 | | ug/L | | 34 | 5 - 112 |
| Pyrene | 50.0 | 47.5 | | ug/L | | 95 | 52 - 115 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *2,4,6-Tribromophenol* | *86* | | *52 - 151* |
| *2-Fluorobiphenyl* | *79* | | *44 - 120* |
| *2-Fluorophenol* | *42* | | *17 - 120* |
| *Nitrobenzene-d5* | *72* | | *42 - 120* |
| *Phenol-d5* | *28* | | *10 - 120* |
| *p-Terphenyl-d14* | *88* | | *22 - 125* |

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 480-296170/1-A**
**Matrix: Water**
**Analysis Batch: 296740**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 296170**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Copper | ND | | 0.010 | 0.0016 | mg/L | | 04/18/16 07:40 | 04/18/16 22:43 | 1 |
| Zinc | ND | | 0.010 | 0.0015 | mg/L | | 04/18/16 07:40 | 04/18/16 22:43 | 1 |

**Lab Sample ID: LCS 480-296170/2-A**
**Matrix: Water**
**Analysis Batch: 296740**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 296170**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Copper | 0.200 | 0.194 | | mg/L | | 97 | 85 - 115 |
| Zinc | 0.200 | 0.201 | | mg/L | | 101 | 85 - 115 |

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 480-297343/1**
**Matrix: Water**
**Analysis Batch: 297343**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | ND | | 1.0 | 1.0 | mg/L | | | 04/21/16 09:32 | 1 |

**Lab Sample ID: LCS 480-297343/2**
**Matrix: Water**
**Analysis Batch: 297343**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 225 | 224.0 | | mg/L | | 100 | 88 - 110 |

## Method: SM 4500 H+ B - pH

**Lab Sample ID: LCS 480-296587/1**
**Matrix: Water**
**Analysis Batch: 296587**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| pH | 7.00 | 7.010 | | SU | | 100 | 99 - 101 |

## Method: SM 4500 P E - Phosphorus

**Lab Sample ID: MB 480-296610/3**
**Matrix: Water**
**Analysis Batch: 296610**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Phosphorus, Total | ND | | 0.010 | 0.0050 | mg/L | | | 04/18/16 10:49 | 1 |

**Lab Sample ID: LCS 480-296610/4**
**Matrix: Water**
**Analysis Batch: 296610**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Phosphorus, Total | 0.200 | 0.200 | | mg/L | | 100 | 90 - 110 |

## GC/MS VOA

### Analysis Batch: 296164

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-98328-1 | Grab1-4-041416 LAB COMPOSITE | Total/NA | Water | 624 | |
| 480-98328-7 | TB-041416 | Total/NA | Water | 624 | |
| LCS 480-296164/5 | Lab Control Sample | Total/NA | Water | 624 | |
| MB 480-296164/7 | Method Blank | Total/NA | Water | 624 | |

## GC/MS Semi VOA

### Prep Batch: 296091

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-98328-1 | Grab1-4-041416 LAB COMPOSITE | Total/NA | Water | 625 | |
| LCS 480-296091/2-A | Lab Control Sample | Total/NA | Water | 625 | |
| MB 480-296091/1-A | Method Blank | Total/NA | Water | 625 | |

### Analysis Batch: 297360

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-98328-1 | Grab1-4-041416 LAB COMPOSITE | Total/NA | Water | 625 | 296091 |
| LCS 480-296091/2-A | Lab Control Sample | Total/NA | Water | 625 | 296091 |
| MB 480-296091/1-A | Method Blank | Total/NA | Water | 625 | 296091 |

## Metals

### Prep Batch: 296170

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-98328-6 | COMP-041416 | Total/NA | Water | 200.7 | |
| LCS 480-296170/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| MB 480-296170/1-A | Method Blank | Total/NA | Water | 200.7 | |

### Analysis Batch: 296740

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-98328-6 | COMP-041416 | Total/NA | Water | 200.7 Rev 4.4 | 296170 |
| LCS 480-296170/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 296170 |
| MB 480-296170/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 296170 |

## General Chemistry

### Analysis Batch: 296587

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-98328-6 | COMP-041416 | Total/NA | Water | SM 4500 H+ B | |
| LCS 480-296587/1 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 296610

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-98328-6 | COMP-041416 | Total/NA | Water | SM 4500 P E | |
| LCS 480-296610/4 | Lab Control Sample | Total/NA | Water | SM 4500 P E | |
| MB 480-296610/3 | Method Blank | Total/NA | Water | SM 4500 P E | |

### Analysis Batch: 297343

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-98328-6 | COMP-041416 | Total/NA | Water | SM 2540D | |
| LCS 480-297343/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |

## General Chemistry (Continued)

### Analysis Batch: 297343 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 480-297343/1 | Method Blank | Total/NA | Water | SM 2540D | |

# Lab Chronicle

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-98328-1

## Client Sample ID: Grab1-4-041416 LAB COMPOSITE

**Lab Sample ID: 480-98328-1**

**Date Collected: 04/14/16 14:00**
**Matrix: Water**
**Date Received: 04/14/16 14:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 624 | | 1 | 296164 | 04/16/16 10:15 | RJF | TAL BUF |
| Total/NA | Prep | 625 | | | 296091 | 04/15/16 08:00 | CPH | TAL BUF |
| Total/NA | Analysis | 625 | | 1 | 297360 | 04/22/16 03:37 | CAV | TAL BUF |

## Client Sample ID: COMP-041416

**Lab Sample ID: 480-98328-6**

**Date Collected: 04/14/16 14:10**
**Matrix: Water**
**Date Received: 04/14/16 14:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 296170 | 04/18/16 07:40 | CMM | TAL BUF |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 296740 | 04/18/16 22:53 | AMH | TAL BUF |
| Total/NA | Analysis | SM 2540D | | 1 | 297343 | 04/21/16 09:32 | EKB | TAL BUF |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 296587 | 04/15/16 18:09 | JJK | TAL BUF |
| Total/NA | Analysis | SM 4500 P E | | 1 | 296610 | 04/18/16 10:49 | DLG | TAL BUF |

## Client Sample ID: TB-041416

**Lab Sample ID: 480-98328-7**

**Date Collected: 04/14/16 08:00**
**Matrix: Water**
**Date Received: 04/14/16 14:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 624 | | 1 | 296164 | 04/16/16 01:38 | RJF | 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: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-98328-1

## Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

| Authority | Program | EPA Region | Certification ID | Expiration Date |
|---|---|---|---|---|
| New York | NELAP | 2 | 10026 | 03-31-17 |

The following analytes are included in this report, but certification is not offered by the governing authority:

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| 624 | | Water | 1,2-Dichloroethene, Total |
| 625 | 625 | Water | 1,2-Dichlorobenzene |
| 625 | 625 | Water | 1,2-Diphenylhydrazine |
| 625 | 625 | Water | 1,3-Dichlorobenzene |
| 625 | 625 | Water | 1,4-Dichlorobenzene |
| 625 | 625 | Water | 4-Chloroaniline |
| SM 4500 H+ B | | Water | pH |

# Method Summary

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-98328-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 624 | Volatile Organic Compounds (GC/MS) | 40CFR136A | TAL BUF |
| 625 | Semivolatile Organic Compounds (GC/MS) | 40CFR136A | TAL BUF |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | TAL BUF |
| SM 2540D | Solids, Total Suspended (TSS) | SM | TAL BUF |
| SM 4500 H+ B | pH | SM | TAL BUF |
| SM 4500 P E | Phosphorus | SM | TAL BUF |

**Protocol References:**

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
SM = "Standard Methods For The Examination Of Water And Wastewater",

**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: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-98328-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 480-98328-1 | Grab1-4-041416 LAB COMPOSITE | Water | 04/14/16 14:00 | 04/14/16 14:30 |
| 480-98328-6 | COMP-041416 | Water | 04/14/16 14:10 | 04/14/16 14:30 |
| 480-98328-7 | TB-041416 | Water | 04/14/16 08:00 | 04/14/16 14:30 |

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler: Michael Stout | Lab PM: John Schove | Carrier Tracking No(s): | COC No: 480-81906-16791 |
|---|---|---|---|---|
| Client Contact: John Formoza | Phone: 315-468-1663 | E-Mail: john.schove@testamericainc.com | | Page: Page 1 of 1 |
| Company: Honeywell International Inc | | | | Job #: |
| Address: 1563 Willis Ave. | Due Date Requested: | | | |
| City: Syracuse | TAT Requested (days): 2 Weeks | | | |
| State, Zip: NY, 13204 | | | | |
| Phone: 315-468-1663 | PO #: 4400032722 | | | |
| Email: john.formoza@ch2m.com | WO #: | | | |
| Project Name: Honeywell - Alltift OM phase / Semi Annual | Project #: 48004175 | | | |
| Site: Honeywell - Buffalo Sites | SSOW#: | | | |

**Analysis Requested**

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3

480-98328 Chain of Custody

| Location Identification | 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) | 4500_P_E - Phosphorus, Total | 200.7 - Metals ICP - Cu, Zn | 2540D - Total Suspended Solids | SM4500_H+ - pH | 624_5mL - Priority Pollutant List - VOA - 624 | 625 - Priority Pollutant List - SVOA - 625 | Total Number | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Preservation Code: | | | | S | D | N | N | A | N | | |
| BSA Discharge | GRAB 1-041416 | 4/14/16 | 0800 | G | W | N | N | | | | | 2 | 2 | 4 | Prior to analysis grab samples to be composited by lab |
| BSA Discharge | GRAB 2-041416 | 4/14/16 | 1000 | G | W | N | N | | | | | 2 | 2 | 4 | |
| BSA Discharge | GRAB 3-041416 | 4/14/16 | 1200 | G | W | N | N | | | | | 2 | 2 | 4 | |
| BSA Discharge | GRAB 4 -041416 | 4/14/16 | 1400 | G | W | N | N | | | | | 2 | 2 | 4 | |
| BSA Discharge | COMP-041416 | 4/14/16 | 1410 | C | W | N | N | 1 | 1 | 1 | 1 | | | 4 | |
| TRIPBLANK | TB-041416 | 4/14/16 | 0800 | | W | N | N | | | | | 1 | | 1 | TRIB BLANK |
| | | | | | | | | | | | | | | | |

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:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: | | | | |
|---|---|---|---|---|---|---|---|
| Relinquished by: Bethany M Macesa | Date/Time: 4/14/2016@1450 | Company | Received by: | Date/Time: 4-14-16 1430 | 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: 3.1@ #1

# Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 480-98328-1

**Login Number: 98328**

**List Source: TestAmerica Buffalo**

**List Number: 1**

**Creator: Kolb, Chris 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 (Excluding tests with immediate HTs).. | 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. | False | |
| Samples received within 48 hours of sampling. | True | |
| Samples requiring field filtration have been filtered in the field. | True | |
| Chlorine Residual checked. | True | Yes: Samples checked, no residual chlorine detected |

CH2M
1563 Willis Avenue
Syracuse, New York 13204
O +1 315 468 1663
F +1 315 468-1664
www..ch2m.com

October 12, 2016

Ms. Traserra Adams
Buffalo Sewer Authority
Industrial Waste Section
90 West Ferry Street
Buffalo, New York 14213

Subject: **Alltift Landfill/Ramco Steel Site**
**Discharge Monitoring Report**
**2016 Second Semi-Annual Report**
**BPDES Permit Number 15-12-BU098**

Dear Ms. Adams:

Enclosed please find the 2016 Second Semi-Annual discharge monitoring report for the pumping facility located at the Alltift Landfill/Ramco Steel (Alltift) Site. The total flow to the Buffalo Sewer Authority (BSA) during this period was 701,700 gallons. The flow was measured from a totalizing meter within the lift station at the Alltift Site from April 14, 2016 through September 21, 2016 for a total of 160 days. Flow metering readings collected during the reporting period are included as Attachment 1.

A time composite discharge sample was collected from within the pump station on September 21, 2016. Four samples were collected over an evenly-spaced work day period for VOCs and SVOCs, with the four samples composited in the laboratory per permit requirements. The sample for metals, total suspended solids, total phosphorus, and pH was collected as a composite sample. A summary of the analytical results, compared to permit limits, is provided in Table 1. All parameters were in compliance with permit limits. The laboratory analytical report is provided as Attachment 2. If you have any questions or require additional information, please contact me at (315) 468-1663.

Sincerely,

**CH2M,**

John W. Formoza
Area Manager

QC Review By: Ryan Belcher (Amec Foster Wheeler)

cc.: Mr. Mark Sweitzer (Honeywell)
Mr. Maurice Moore (NYSDEC)
Mr. Dennis Sutton (City of Buffalo)
Mr. Robert Gersh (Amec Foster Wheeler)

**Table 1**
**Alltift Landfill/Ramco Steel Site**
**Second Semi-annual Report for 2016**
**Discharge Monitoring Report**

| | |
|---|---|
| BSA Permit No. 15-12-BU098 | |
| Sample Date: | September 21, 2016 |
| Sample Location: | Onsite Pump Station to BSA |

| BSA Permit Parameter | Input Analytical Results | | | | Converted Analytical Results | | BSA Daily Max Discharge Limit | | Permit Compliance |
|---|---|---|---|---|---|---|---|---|---|
| | Quantity | Qualifier | Reporting Limit | Unit | Quantity | Unit | Quantity | Unit | |
| pH | 7.4 | | 0.100 | SU | 7.40 | SU | 5.0 - 12.0 | SU | Yes |
| Copper | 0.011 | | 0.010 | mg/L | 0.0004 | lbs/day | 7.68 | lbs/day | Yes |
| Zinc | 0.0073 | J | 0.010 | mg/L | 0.0003 | lbs/day | 12 | lbs/day | Yes |
| Total Suspended Solids | 34.8 | | 4.0 | mg/L | 34.8 | mg/L | 250 | mg/L | Yes |
| Total Phosphorus | 0.110 | | 0.010 | mg/L | 0.110 | mg/L | 15.35 | mg/L | Yes |
| USEPA Test Method 624 | ND - 43 | | | µg/L | Monitor Only | | | | |
| USEPA Test Method 625 | ND - 14 | | | µg/L | | | | | |
| Total Flow (average) | 3.05 | | | gpm | 4,386 | gpd | 57,600 | gpd | Yes |

Notes:
J - estimated value below Reporting Limit/Practical Quantitation Limit
ND - Not detected at the reporting limit
µg/L - micrograms per liter
mg/L - milligrams per liter
gpm - gallons per minute
gpd - gallons per day
SU - Standard Units

| Flow Calculations | Meter | |
|---|---|---|
| Initial Reading (pump station) | 4019500 | 4/14/2016 |
| Final Reading (pump station) | 4721200 | 9/21/2016 |
| | | |
| Total Days in Period | | 160 |
| | | |
| **Total Flow for Period** | **701,700** | **gallons** |
| **Average Flow for Period** | **3.05** | **gpm** |

Prepared by, Date: Parthiban P, 10/07/16
Checked by, Date: Ryan Belcher, 10/11/16

**Attachment 1 - Flow Meter Readings**

| Buffalo Alltift Lift Station | |
|---|---|
| **Date** | **Totalizer Reading (gallons)** |
| 4/14/2016 | 4,019,500 |
| 5/3/2016 | 4,263,100 |
| 7/7/2016 | 4,580,000 |
| 8/25/2016 | 4,693,300 |
| 9/21/2016 | 4,721,200 |

## CERTIFICATION STATEMENT

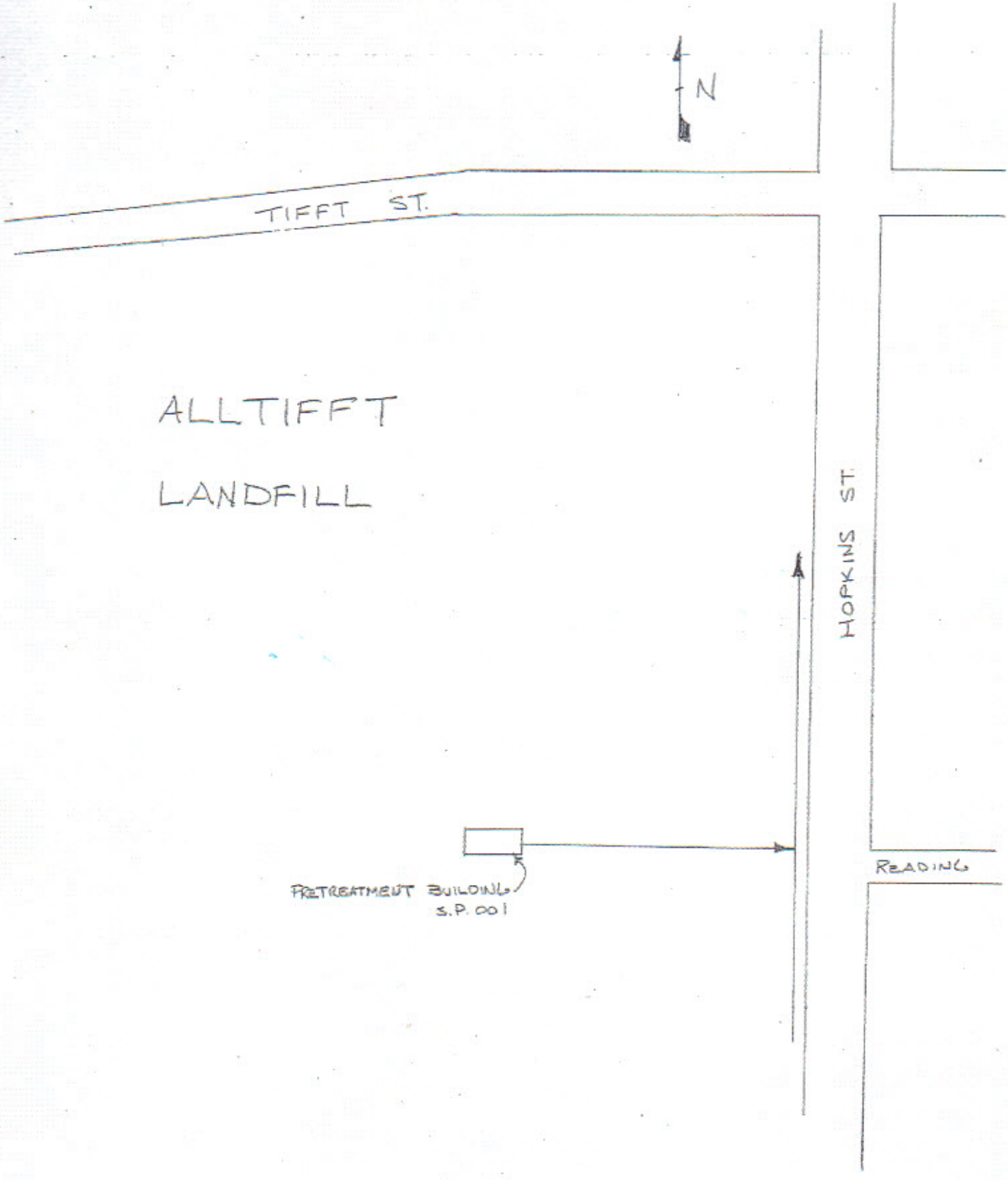
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

(Your signature here) 

JOHN W FORMOZA, AREA MANAGER — 10/12/16

(Print your name & title here) — Date

(Print your company name here) CH2M


N
TIFFT ST.
ALLTIFFT
LANDFILL
HOPKINS ST.
READING
PRETREATMENT BUILDING
S.P. 001

ch2m

**Project Name** Honeywell - Buffalo
Job Number 667410.RT.160.CEI
Field Team M. Stout / B. Macera
Field Conditions Sunny 70

**Sampling Event** Semi Annual
Date September 21, 2016
Page 1 of 1

**Well/Sample Number** BSA Lift Station
Start Time 07:00 Finish Time
Initial Depth to Water 9.79
Measure Point: PVC Steel Casing Other:

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

| | | |
|---|---|---|
| **Sample ID** | GRAB 1-092116 | 07:26 |
| | GRAB 2-092116 | Sample Time 09:26 |
| **Duplicate Sample ID** | GRAB 3-092116 | Dupl. Time 11:26 |
| **Split Sample ID** | GRAB 4-092116 | Split. Time 13:26 |
| | COMPOSITE-092116 | 13:40 |

Depth to Botton (from meas. pt): 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 |
|---|---|---|---|---|---|---|---|---|
| 07:26 — COLLECT SAMPLE GRAB 1 - 092116 | | | | | | | | |
| 09:26 — COLLECT SAMPLE GRAB 2 - 092116 | | | | | | | | |
| 11:26 — COLLECT SAMPLE GRAB 3 - 092116 | | | | | | | | |
| 13:26 — COLLECT SAMPLE GRAB 4 - 092116 | | | | | | | | |
| 13:40 — COLLECT SAMPLE COMPOSITE - 092116 | | | | | | | | |
| PH READING — 7.57 | | | | | | | | |

**SAMPLE COLLECTION INFORMATION**

| Parameter | Type of Bottle | Volume | Field Filtered (y/n) | Preservative | pH | Notes |
|---|---|---|---|---|---|---|
| 624 5mL | VOA | 40mL | N | HCL | | VOA - 624 |
| 625 | AMBER | 1 LITER | N | N | | SVOA - 625 |
| 4500-P_E_PHOSPHORUS | PLASTIC | 250 ML | N | $H_2SO_4$ | | 4500-P_E_Phosphorus, total |
| 200.7 | PLASTIC | 250 ML | N | $HNO_3$ | | 200.7 - Metals ICP - Cu, Zn |
| 2540 D | PLASTIC | 1 LITER | N | N | | 2540 D - total suspended solids |
| SM 4500_H+-PH | PLASTIC | 125 ML | N | N | | PH |
| | | | | | | |
| | | | | | | |

Remarks: Water is golden tinged w/ small sediment - NO noticable odor
Water meter reading is ~~4720.9~~ BM 4720.9

Semi Annual

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: 480-106310-1
Client Project/Site: 30130 - Alltift OM Phase / Semi Annual

For:
Honeywell International Inc
Remediation & Evaluation Services
115 Tabor Road
Morris Plains, New Jersey 07950

Attn: Mr. Rich Galloway

*Authorized for release by:*
*9/30/2016 10:45:33 AM*
Rebecca Jones, Project Management Assistant I
rebecca.jones@testamericainc.com

Designee for

John Schove, Project Manager II
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john.schove@testamericainc.com

LINKS

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Have a Question? Ask The Expert

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*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

# Table of Contents

# Definitions/Glossary

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-106310-1

## Qualifiers

### GC/MS 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. |

### GC/MS Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| * | LCS or LCSD is outside acceptance limits. |

### 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. |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. |

## 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 |
| CFL | Contains Free Liquid |
| 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) |

# Case Narrative

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-106310-1

## Job ID: 480-106310-1

### Laboratory: TestAmerica Buffalo

**Narrative**

**Job Narrative**
**480-106310-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 9/21/2016 2:35 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.0º C and 4.8º C.

**GC/MS VOA**
Method(s) 624: The preservative used in the sample containers provided is not compatible with the Method 624 analytes requested. The following samples were received preserved with hydrochloric acid: Grab (1-4) - 092116 LAB COMPOSITE (480-106310-1) and TB-092116 (480-106310-7). The requested target analyte list contains 2-chloroethyl vinyl ether, which is an acid-labile compound that degrade in an acidic medium.

Method(s) 624: The following Volatile sample(s) was composited by the laboratory on 9/21/16 as requested by the client: Grab (1-4) - 092116 LAB COMPOSITE (480-106310-1). Regulatory defined guidance for in-laboratory compositing of samples, is currently not available. Laboratory sample compositing was performed using established project specifications and/or laboratory standard operating procedures.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**GC/MS Semi VOA**
Method(s) 625: The laboratory control sample (LCS) for preparation batch 480-322300 recovered outside control limits for the following analyte: Di-n-butyl phthalate. This analyte was biased high in the LCS and was not detected in the associated sample; therefore, the data have been reported: Grab (1-4) - 092116 LAB COMPOSITE (480-106310-1).

Method(s) 625: The following sample was diluted due to the nature of the sample matrix: Grab (1-4) - 092116 LAB COMPOSITE (480-106310-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**Metals**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**General Chemistry**
Method(s) 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: COMP-092116 (480-106310-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**Organic Prep**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-106310-1

## Client Sample ID: Grab (1-4) - 092116 LAB COMPOSITE — Lab Sample ID: 480-106310-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | 0.86 | J | 5.0 | 0.44 | ug/L | 1 | | 624 | Total/NA |
| 1,2-Dichloroethene, Total | 21 | | 10 | 3.2 | ug/L | 1 | | 624 | Total/NA |
| 1,4-Dichlorobenzene | 1.3 | J | 5.0 | 0.51 | ug/L | 1 | | 624 | Total/NA |
| Benzene | 3.2 | J | 5.0 | 0.60 | ug/L | 1 | | 624 | Total/NA |
| Chlorobenzene | 43 | | 5.0 | 0.48 | ug/L | 1 | | 624 | Total/NA |
| trans-1,2-Dichloroethene | 2.8 | J | 5.0 | 0.59 | ug/L | 1 | | 624 | Total/NA |
| Vinyl chloride | 10 | | 5.0 | 0.75 | ug/L | 1 | | 624 | Total/NA |
| 4-Chloroaniline | 14 | | 10 | 1.3 | ug/L | 2 | | 625 | Total/NA |

## Client Sample ID: COMP-092116 — Lab Sample ID: 480-106310-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 0.011 | | 0.010 | 0.0016 | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Zinc | 0.0073 | J | 0.010 | 0.0015 | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Phosphorus, Total | 0.11 | | 0.010 | 0.0050 | mg/L | 1 | | SM 4500 P E | Total/NA |

| Analyte | Result | Qualifier | RL | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 34.8 | | 4.0 | 4.0 | mg/L | 1 | | SM 2540D | Total/NA |
| pH | 7.4 | HF | 0.1 | 0.1 | SU | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: TB-092116 — Lab Sample ID: 480-106310-7

No Detections.

This Detection Summary does not include radiochemical test results.

**Client Sample ID: Grab (1-4) - 092116 LAB COMPOSITE**
**Date Collected: 09/21/16 13:26**
**Date Received: 09/21/16 14:35**

**Lab Sample ID: 480-106310-1**
**Matrix: Water**

## Method: 624 - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | | 5.0 | 0.39 | ug/L | | | 09/21/16 23:47 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 5.0 | 0.26 | ug/L | | | 09/21/16 23:47 | 1 |
| 1,1,2-Trichloroethane | ND | | 5.0 | 0.48 | ug/L | | | 09/21/16 23:47 | 1 |
| 1,1-Dichloroethane | ND | | 5.0 | 0.59 | ug/L | | | 09/21/16 23:47 | 1 |
| 1,1-Dichloroethene | ND | | 5.0 | 0.85 | ug/L | | | 09/21/16 23:47 | 1 |
| **1,2-Dichlorobenzene** | **0.86** | **J** | 5.0 | 0.44 | ug/L | | | 09/21/16 23:47 | 1 |
| 1,2-Dichloroethane | ND | | 5.0 | 0.60 | ug/L | | | 09/21/16 23:47 | 1 |
| **1,2-Dichloroethene, Total** | **21** | | 10 | 3.2 | ug/L | | | 09/21/16 23:47 | 1 |
| 1,2-Dichloropropane | ND | | 5.0 | 0.61 | ug/L | | | 09/21/16 23:47 | 1 |
| 1,3-Dichlorobenzene | ND | | 5.0 | 0.54 | ug/L | | | 09/21/16 23:47 | 1 |
| **1,4-Dichlorobenzene** | **1.3** | **J** | 5.0 | 0.51 | ug/L | | | 09/21/16 23:47 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 25 | 1.9 | ug/L | | | 09/21/16 23:47 | 1 |
| Acrolein | ND | | 100 | 17 | ug/L | | | 09/21/16 23:47 | 1 |
| Acrylonitrile | ND | | 50 | 1.9 | ug/L | | | 09/21/16 23:47 | 1 |
| **Benzene** | **3.2** | **J** | 5.0 | 0.60 | ug/L | | | 09/21/16 23:47 | 1 |
| Bromoform | ND | | 5.0 | 0.47 | ug/L | | | 09/21/16 23:47 | 1 |
| Bromomethane | ND | | 5.0 | 1.2 | ug/L | | | 09/21/16 23:47 | 1 |
| Carbon tetrachloride | ND | | 5.0 | 0.51 | ug/L | | | 09/21/16 23:47 | 1 |
| **Chlorobenzene** | **43** | | 5.0 | 0.48 | ug/L | | | 09/21/16 23:47 | 1 |
| Chlorodibromomethane | ND | | 5.0 | 0.41 | ug/L | | | 09/21/16 23:47 | 1 |
| Chloroethane | ND | | 5.0 | 0.87 | ug/L | | | 09/21/16 23:47 | 1 |
| Chloroform | ND | | 5.0 | 0.54 | ug/L | | | 09/21/16 23:47 | 1 |
| Chloromethane | ND | | 5.0 | 0.64 | ug/L | | | 09/21/16 23:47 | 1 |
| cis-1,3-Dichloropropene | ND | | 5.0 | 0.33 | ug/L | | | 09/21/16 23:47 | 1 |
| Dichlorobromomethane | ND | | 5.0 | 0.54 | ug/L | | | 09/21/16 23:47 | 1 |
| Ethylbenzene | ND | | 5.0 | 0.46 | ug/L | | | 09/21/16 23:47 | 1 |
| Methylene Chloride | ND | | 5.0 | 0.81 | ug/L | | | 09/21/16 23:47 | 1 |
| Tetrachloroethene | ND | | 5.0 | 0.34 | ug/L | | | 09/21/16 23:47 | 1 |
| Toluene | ND | | 5.0 | 0.45 | ug/L | | | 09/21/16 23:47 | 1 |
| **trans-1,2-Dichloroethene** | **2.8** | **J** | 5.0 | 0.59 | ug/L | | | 09/21/16 23:47 | 1 |
| trans-1,3-Dichloropropene | ND | | 5.0 | 0.44 | ug/L | | | 09/21/16 23:47 | 1 |
| Trichloroethene | ND | | 5.0 | 0.60 | ug/L | | | 09/21/16 23:47 | 1 |
| **Vinyl chloride** | **10** | | 5.0 | 0.75 | ug/L | | | 09/21/16 23:47 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *88* | | *80 - 120* | | *09/21/16 23:47* | *1* |
| *4-Bromofluorobenzene (Surr)* | *100* | | *80 - 120* | | *09/21/16 23:47* | *1* |
| *Toluene-d8 (Surr)* | *95* | | *77 - 120* | | *09/21/16 23:47* | *1* |
| *Dibromofluoromethane (Surr)* | *90* | | *78 - 120* | | *09/21/16 23:47* | *1* |

## Method: 625 - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | ND | | 20 | 1.6 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| 1,2-Dichlorobenzene | ND | | 20 | 10 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| 1,2-Diphenylhydrazine | ND | | 20 | 1.6 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| 1,3-Dichlorobenzene | ND | | 20 | 1.4 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| 1,4-Dichlorobenzene | ND | | 20 | 11 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| 2,4,6-Trichlorophenol | ND | | 10 | 2.0 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| 2,4-Dichlorophenol | ND | | 10 | 1.5 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| 2,4-Dimethylphenol | ND | | 10 | 2.8 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |

**Client Sample ID: Grab (1-4) - 092116 LAB COMPOSITE**
**Date Collected: 09/21/16 13:26**
**Date Received: 09/21/16 14:35**

**Lab Sample ID: 480-106310-1**
**Matrix: Water**

## Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrophenol | ND | | 20 | 10 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| 2,4-Dinitrotoluene | ND | | 20 | 10 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| 2,6-Dinitrotoluene | ND | | 10 | 2.0 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| 2-Chloronaphthalene | ND | | 10 | 1.8 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| 2-Chlorophenol | ND | | 10 | 1.3 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| 2-Nitrophenol | ND | | 10 | 1.4 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| 3,3'-Dichlorobenzidine | ND | | 10 | 1.6 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| 4,6-Dinitro-2-methylphenol | ND | | 20 | 1.3 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| 4-Bromophenyl phenyl ether | ND | | 10 | 2.8 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| 4-Chloro-3-methylphenol | ND | | 10 | 2.2 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| **4-Chloroaniline** | **14** | | 10 | 1.3 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| 4-Chlorophenyl phenyl ether | ND | | 10 | 2.6 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| 4-Nitrophenol | ND | | 30 | 20 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Acenaphthene | ND | | 10 | 1.6 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Acenaphthylene | ND | | 10 | 1.7 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Anthracene | ND | | 10 | 2.8 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Benzidine | ND | | 160 | 70 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Benzo[a]anthracene | ND | | 10 | 2.2 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Benzo[a]pyrene | ND | | 10 | 2.6 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Benzo[b]fluoranthene | ND | | 10 | 2.4 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Benzo[g,h,i]perylene | ND | | 10 | 3.0 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Benzo[k]fluoranthene | ND | | 10 | 2.6 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| bis (2-chloroisopropyl) ether | ND | | 10 | 1.7 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Bis(2-chloroethoxy)methane | ND | | 10 | 1.5 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Bis(2-chloroethyl)ether | ND | | 10 | 1.9 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Bis(2-ethylhexyl) phthalate | ND | | 20 | 2.4 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Butyl benzyl phthalate | ND | | 10 | 2.2 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Chrysene | ND | | 10 | 2.0 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Dibenz(a,h)anthracene | ND | | 10 | 3.0 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Diethyl phthalate | ND | | 10 | 2.0 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Dimethyl phthalate | ND | | 10 | 1.8 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Di-n-butyl phthalate | ND | * | 10 | 3.2 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Di-n-octyl phthalate | ND | | 10 | 2.4 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Fluoranthene | ND | | 10 | 3.2 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Fluorene | ND | | 10 | 2.0 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Hexachlorobenzene | ND | | 10 | 2.0 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Hexachlorobutadiene | ND | | 10 | 2.0 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Hexachlorocyclopentadiene | ND | | 20 | 10 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Hexachloroethane | ND | | 10 | 1.2 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Indeno[1,2,3-cd]pyrene | ND | | 10 | 3.0 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Isophorone | ND | | 10 | 1.5 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Naphthalene | ND | | 10 | 1.7 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Nitrobenzene | ND | | 10 | 1.6 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| N-Nitrosodimethylamine | ND | | 20 | 10 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| N-Nitrosodi-n-propylamine | ND | | 10 | 1.8 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| N-Nitrosodiphenylamine | ND | | 10 | 0.79 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Pentachlorophenol | ND | | 20 | 3.2 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Phenanthrene | ND | | 10 | 2.4 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |
| Phenol | ND | | 10 | 0.70 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-106310-1

**Client Sample ID: Grab (1-4) - 092116 LAB COMPOSITE**
**Date Collected: 09/21/16 13:26**
**Date Received: 09/21/16 14:35**

**Lab Sample ID: 480-106310-1**
**Matrix: Water**

## Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Pyrene | ND | | 10 | 2.8 | ug/L | | 09/26/16 06:43 | 09/29/16 00:23 | 2 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *106* | | *52 - 151* | *09/26/16 06:43* | *09/29/16 00:23* | *2* |
| *2-Fluorobiphenyl* | *93* | | *44 - 120* | *09/26/16 06:43* | *09/29/16 00:23* | *2* |
| *2-Fluorophenol* | *51* | | *17 - 120* | *09/26/16 06:43* | *09/29/16 00:23* | *2* |
| *Nitrobenzene-d5* | *91* | | *42 - 120* | *09/26/16 06:43* | *09/29/16 00:23* | *2* |
| *Phenol-d5* | *35* | | *10 - 120* | *09/26/16 06:43* | *09/29/16 00:23* | *2* |
| *p-Terphenyl-d14* | *86* | | *22 - 125* | *09/26/16 06:43* | *09/29/16 00:23* | *2* |

# Client Sample Results

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-106310-1

**Client Sample ID: COMP-092116**
**Date Collected: 09/21/16 13:40**
**Date Received: 09/21/16 14:35**

**Lab Sample ID: 480-106310-6**
**Matrix: Water**

## Method: 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 0.011 | | 0.010 | 0.0016 | mg/L | | 09/22/16 08:14 | 09/22/16 15:29 | 1 |
| Zinc | 0.0073 | J | 0.010 | 0.0015 | mg/L | | 09/22/16 08:14 | 09/22/16 15:29 | 1 |

## General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Phosphorus, Total | 0.11 | | 0.010 | 0.0050 | mg/L | | | 09/22/16 12:20 | 1 |

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 34.8 | | 4.0 | 4.0 | mg/L | | | 09/26/16 09:12 | 1 |
| pH | 7.4 | HF | 0.1 | 0.1 | SU | | | 09/22/16 15:45 | 1 |

**Client Sample ID: TB-092116**
**Date Collected: 09/21/16 00:00**
**Date Received: 09/21/16 14:35**

**Lab Sample ID: 480-106310-7**
**Matrix: Water**

## Method: 624 - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | | 5.0 | 0.39 | ug/L | | | 09/22/16 00:11 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 5.0 | 0.26 | ug/L | | | 09/22/16 00:11 | 1 |
| 1,1,2-Trichloroethane | ND | | 5.0 | 0.48 | ug/L | | | 09/22/16 00:11 | 1 |
| 1,1-Dichloroethane | ND | | 5.0 | 0.59 | ug/L | | | 09/22/16 00:11 | 1 |
| 1,1-Dichloroethene | ND | | 5.0 | 0.85 | ug/L | | | 09/22/16 00:11 | 1 |
| 1,2-Dichlorobenzene | ND | | 5.0 | 0.44 | ug/L | | | 09/22/16 00:11 | 1 |
| 1,2-Dichloroethane | ND | | 5.0 | 0.60 | ug/L | | | 09/22/16 00:11 | 1 |
| 1,2-Dichloroethene, Total | ND | | 10 | 3.2 | ug/L | | | 09/22/16 00:11 | 1 |
| 1,2-Dichloropropane | ND | | 5.0 | 0.61 | ug/L | | | 09/22/16 00:11 | 1 |
| 1,3-Dichlorobenzene | ND | | 5.0 | 0.54 | ug/L | | | 09/22/16 00:11 | 1 |
| 1,4-Dichlorobenzene | ND | | 5.0 | 0.51 | ug/L | | | 09/22/16 00:11 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 25 | 1.9 | ug/L | | | 09/22/16 00:11 | 1 |
| Acrolein | ND | | 100 | 17 | ug/L | | | 09/22/16 00:11 | 1 |
| Acrylonitrile | ND | | 50 | 1.9 | ug/L | | | 09/22/16 00:11 | 1 |
| Benzene | ND | | 5.0 | 0.60 | ug/L | | | 09/22/16 00:11 | 1 |
| Bromoform | ND | | 5.0 | 0.47 | ug/L | | | 09/22/16 00:11 | 1 |
| Bromomethane | ND | | 5.0 | 1.2 | ug/L | | | 09/22/16 00:11 | 1 |
| Carbon tetrachloride | ND | | 5.0 | 0.51 | ug/L | | | 09/22/16 00:11 | 1 |
| Chlorobenzene | ND | | 5.0 | 0.48 | ug/L | | | 09/22/16 00:11 | 1 |
| Chlorodibromomethane | ND | | 5.0 | 0.41 | ug/L | | | 09/22/16 00:11 | 1 |
| Chloroethane | ND | | 5.0 | 0.87 | ug/L | | | 09/22/16 00:11 | 1 |
| Chloroform | ND | | 5.0 | 0.54 | ug/L | | | 09/22/16 00:11 | 1 |
| Chloromethane | ND | | 5.0 | 0.64 | ug/L | | | 09/22/16 00:11 | 1 |
| cis-1,3-Dichloropropene | ND | | 5.0 | 0.33 | ug/L | | | 09/22/16 00:11 | 1 |
| Dichlorobromomethane | ND | | 5.0 | 0.54 | ug/L | | | 09/22/16 00:11 | 1 |
| Ethylbenzene | ND | | 5.0 | 0.46 | ug/L | | | 09/22/16 00:11 | 1 |
| Methylene Chloride | ND | | 5.0 | 0.81 | ug/L | | | 09/22/16 00:11 | 1 |
| Tetrachloroethene | ND | | 5.0 | 0.34 | ug/L | | | 09/22/16 00:11 | 1 |
| Toluene | ND | | 5.0 | 0.45 | ug/L | | | 09/22/16 00:11 | 1 |
| trans-1,2-Dichloroethene | ND | | 5.0 | 0.59 | ug/L | | | 09/22/16 00:11 | 1 |
| trans-1,3-Dichloropropene | ND | | 5.0 | 0.44 | ug/L | | | 09/22/16 00:11 | 1 |
| Trichloroethene | ND | | 5.0 | 0.60 | ug/L | | | 09/22/16 00:11 | 1 |
| Vinyl chloride | ND | | 5.0 | 0.75 | ug/L | | | 09/22/16 00:11 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *93* | | *80 - 120* | | *09/22/16 00:11* | *1* |
| *4-Bromofluorobenzene (Surr)* | *102* | | *80 - 120* | | *09/22/16 00:11* | *1* |
| *Toluene-d8 (Surr)* | *96* | | *77 - 120* | | *09/22/16 00:11* | *1* |
| *Dibromofluoromethane (Surr)* | *94* | | *78 - 120* | | *09/22/16 00:11* | *1* |

# Surrogate Summary

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-106310-1

## Method: 624 - Volatile Organic Compounds (GC/MS)

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

| | | Percent Surrogate Recovery (Acceptance Limits) | | | |
|---|---|---|---|---|---|
| | | 12DCE | BFB | TOL | DBFM |
| Lab Sample ID | Client Sample ID | (80-120) | (80-120) | (77-120) | (78-120) |
| 480-106310-1 | Grab (1-4) - 092116 LAB COMP | 88 | 100 | 95 | 90 |
| 480-106310-7 | TB-092116 | 93 | 102 | 96 | 94 |
| LCS 480-321431/5 | Lab Control Sample | 90 | 102 | 96 | 96 |
| MB 480-321431/7 | Method Blank | 92 | 99 | 96 | 92 |

**Surrogate Legend**

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

## Method: 625 - Semivolatile Organic Compounds (GC/MS)

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

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | |
|---|---|---|---|---|---|---|---|
| | | TBP | FBP | 2FP | NBZ | PHL | TPH |
| Lab Sample ID | Client Sample ID | (52-151) | (44-120) | (17-120) | (42-120) | (10-120) | (22-125) |
| 480-106310-1 | Grab (1-4) - 092116 LAB COMP | 106 | 93 | 51 | 91 | 35 | 86 |
| LCS 480-322300/2-A | Lab Control Sample | 103 | 92 | 53 | 90 | 38 | 105 |
| MB 480-322300/1-A | Method Blank | 85 | 85 | 46 | 84 | 33 | 105 |

**Surrogate Legend**

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

## Method: 624 - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 480-321431/7**
**Matrix: Water**
**Analysis Batch: 321431**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | | 5.0 | 0.39 | ug/L | | | 09/21/16 11:27 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 5.0 | 0.26 | ug/L | | | 09/21/16 11:27 | 1 |
| 1,1,2-Trichloroethane | ND | | 5.0 | 0.48 | ug/L | | | 09/21/16 11:27 | 1 |
| 1,1-Dichloroethane | ND | | 5.0 | 0.59 | ug/L | | | 09/21/16 11:27 | 1 |
| 1,1-Dichloroethene | ND | | 5.0 | 0.85 | ug/L | | | 09/21/16 11:27 | 1 |
| 1,2-Dichlorobenzene | ND | | 5.0 | 0.44 | ug/L | | | 09/21/16 11:27 | 1 |
| 1,2-Dichloroethane | ND | | 5.0 | 0.60 | ug/L | | | 09/21/16 11:27 | 1 |
| 1,2-Dichloroethene, Total | ND | | 10 | 3.2 | ug/L | | | 09/21/16 11:27 | 1 |
| 1,2-Dichloropropane | ND | | 5.0 | 0.61 | ug/L | | | 09/21/16 11:27 | 1 |
| 1,3-Dichlorobenzene | ND | | 5.0 | 0.54 | ug/L | | | 09/21/16 11:27 | 1 |
| 1,4-Dichlorobenzene | ND | | 5.0 | 0.51 | ug/L | | | 09/21/16 11:27 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 25 | 1.9 | ug/L | | | 09/21/16 11:27 | 1 |
| Acrolein | ND | | 100 | 17 | ug/L | | | 09/21/16 11:27 | 1 |
| Acrylonitrile | ND | | 50 | 1.9 | ug/L | | | 09/21/16 11:27 | 1 |
| Benzene | ND | | 5.0 | 0.60 | ug/L | | | 09/21/16 11:27 | 1 |
| Bromoform | ND | | 5.0 | 0.47 | ug/L | | | 09/21/16 11:27 | 1 |
| Bromomethane | ND | | 5.0 | 1.2 | ug/L | | | 09/21/16 11:27 | 1 |
| Carbon tetrachloride | ND | | 5.0 | 0.51 | ug/L | | | 09/21/16 11:27 | 1 |
| Chlorobenzene | ND | | 5.0 | 0.48 | ug/L | | | 09/21/16 11:27 | 1 |
| Chlorodibromomethane | ND | | 5.0 | 0.41 | ug/L | | | 09/21/16 11:27 | 1 |
| Chloroethane | ND | | 5.0 | 0.87 | ug/L | | | 09/21/16 11:27 | 1 |
| Chloroform | ND | | 5.0 | 0.54 | ug/L | | | 09/21/16 11:27 | 1 |
| Chloromethane | ND | | 5.0 | 0.64 | ug/L | | | 09/21/16 11:27 | 1 |
| cis-1,3-Dichloropropene | ND | | 5.0 | 0.33 | ug/L | | | 09/21/16 11:27 | 1 |
| Dichlorobromomethane | ND | | 5.0 | 0.54 | ug/L | | | 09/21/16 11:27 | 1 |
| Ethylbenzene | ND | | 5.0 | 0.46 | ug/L | | | 09/21/16 11:27 | 1 |
| Methylene Chloride | ND | | 5.0 | 0.81 | ug/L | | | 09/21/16 11:27 | 1 |
| Tetrachloroethene | ND | | 5.0 | 0.34 | ug/L | | | 09/21/16 11:27 | 1 |
| Toluene | ND | | 5.0 | 0.45 | ug/L | | | 09/21/16 11:27 | 1 |
| trans-1,2-Dichloroethene | ND | | 5.0 | 0.59 | ug/L | | | 09/21/16 11:27 | 1 |
| trans-1,3-Dichloropropene | ND | | 5.0 | 0.44 | ug/L | | | 09/21/16 11:27 | 1 |
| Trichloroethene | ND | | 5.0 | 0.60 | ug/L | | | 09/21/16 11:27 | 1 |
| Vinyl chloride | ND | | 5.0 | 0.75 | ug/L | | | 09/21/16 11:27 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *92* | | *80 - 120* | | *09/21/16 11:27* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *80 - 120* | | *09/21/16 11:27* | *1* |
| *Toluene-d8 (Surr)* | *96* | | *77 - 120* | | *09/21/16 11:27* | *1* |
| *Dibromofluoromethane (Surr)* | *92* | | *78 - 120* | | *09/21/16 11:27* | *1* |

**Lab Sample ID: LCS 480-321431/5**
**Matrix: Water**
**Analysis Batch: 321431**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 20.0 | 20.5 | | ug/L | | 102 | 52 - 162 |
| 1,1,2,2-Tetrachloroethane | 20.0 | 20.7 | | ug/L | | 103 | 46 - 157 |
| 1,1,2-Trichloroethane | 20.0 | 19.7 | | ug/L | | 99 | 52 - 150 |

## Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 480-321431/5**
**Matrix: Water**
**Analysis Batch: 321431**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 20.0 | 20.3 | | ug/L | | 101 | 59 - 155 |
| 1,1-Dichloroethene | 20.0 | 21.6 | | ug/L | | 108 | 1 - 234 |
| 1,2-Dichlorobenzene | 20.0 | 20.1 | | ug/L | | 100 | 18 - 190 |
| 1,2-Dichloroethane | 20.0 | 20.0 | | ug/L | | 100 | 49 - 155 |
| 1,2-Dichloropropane | 20.0 | 20.6 | | ug/L | | 103 | 1 - 210 |
| 1,3-Dichlorobenzene | 20.0 | 20.3 | | ug/L | | 101 | 59 - 156 |
| 1,4-Dichlorobenzene | 20.0 | 20.6 | | ug/L | | 103 | 18 - 190 |
| 2-Chloroethyl vinyl ether | 20.0 | 20.3 | J | ug/L | | 102 | 1 - 305 |
| Benzene | 20.0 | 20.9 | | ug/L | | 104 | 37 - 151 |
| Bromoform | 20.0 | 20.7 | | ug/L | | 104 | 45 - 169 |
| Bromomethane | 20.0 | 21.4 | | ug/L | | 107 | 1 - 242 |
| Carbon tetrachloride | 20.0 | 21.0 | | ug/L | | 105 | 70 - 140 |
| Chlorobenzene | 20.0 | 20.2 | | ug/L | | 101 | 37 - 160 |
| Chlorodibromomethane | 20.0 | 19.2 | | ug/L | | 96 | 53 - 149 |
| Chloroethane | 20.0 | 20.5 | | ug/L | | 103 | 14 - 230 |
| Chloroform | 20.0 | 20.3 | | ug/L | | 101 | 51 - 138 |
| Chloromethane | 20.0 | 20.9 | | ug/L | | 104 | 1 - 273 |
| cis-1,3-Dichloropropene | 20.0 | 20.8 | | ug/L | | 104 | 1 - 227 |
| Dichlorobromomethane | 20.0 | 20.1 | | ug/L | | 100 | 35 - 155 |
| Ethylbenzene | 20.0 | 20.5 | | ug/L | | 102 | 37 - 162 |
| Methylene Chloride | 20.0 | 20.4 | | ug/L | | 102 | 1 - 221 |
| Tetrachloroethene | 20.0 | 20.9 | | ug/L | | 104 | 64 - 148 |
| Toluene | 20.0 | 19.8 | | ug/L | | 99 | 47 - 150 |
| trans-1,2-Dichloroethene | 20.0 | 21.0 | | ug/L | | 105 | 54 - 156 |
| trans-1,3-Dichloropropene | 20.0 | 19.5 | | ug/L | | 97 | 17 - 183 |
| Trichloroethene | 20.0 | 20.9 | | ug/L | | 105 | 71 - 157 |
| Vinyl chloride | 20.0 | 21.5 | | ug/L | | 107 | 1 - 251 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *90* | | *80 - 120* |
| *4-Bromofluorobenzene (Surr)* | *102* | | *80 - 120* |
| *Toluene-d8 (Surr)* | *96* | | *77 - 120* |
| *Dibromofluoromethane (Surr)* | *96* | | *78 - 120* |

## Method: 625 - Semivolatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 480-322300/1-A**
**Matrix: Water**
**Analysis Batch: 322765**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 322300**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | ND | | 10 | 0.82 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| 1,2-Dichlorobenzene | ND | | 10 | 5.0 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| 1,2-Diphenylhydrazine | ND | | 10 | 0.78 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| 1,3-Dichlorobenzene | ND | | 10 | 0.69 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| 1,4-Dichlorobenzene | ND | | 10 | 5.6 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| 2,4,6-Trichlorophenol | ND | | 5.0 | 1.0 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| 2,4-Dichlorophenol | ND | | 5.0 | 0.77 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |

## Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 480-322300/1-A**
**Matrix: Water**
**Analysis Batch: 322765**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 322300**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dimethylphenol | ND | | 5.0 | 1.4 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| 2,4-Dinitrophenol | ND | | 10 | 5.0 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| 2,4-Dinitrotoluene | ND | | 10 | 5.0 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| 2,6-Dinitrotoluene | ND | | 5.0 | 1.0 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| 2-Chloronaphthalene | ND | | 5.0 | 0.91 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| 2-Chlorophenol | ND | | 5.0 | 0.66 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| 2-Nitrophenol | ND | | 5.0 | 0.70 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| 3,3'-Dichlorobenzidine | ND | | 5.0 | 0.82 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| 4,6-Dinitro-2-methylphenol | ND | | 10 | 0.66 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| 4-Bromophenyl phenyl ether | ND | | 5.0 | 1.4 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| 4-Chloro-3-methylphenol | ND | | 5.0 | 1.1 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| 4-Chloroaniline | ND | | 5.0 | 0.64 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| 4-Chlorophenyl phenyl ether | ND | | 5.0 | 1.3 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| 4-Nitrophenol | ND | | 15 | 10 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Acenaphthene | ND | | 5.0 | 0.81 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Acenaphthylene | ND | | 5.0 | 0.87 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Anthracene | ND | | 5.0 | 1.4 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Benzidine | ND | | 80 | 35 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Benzo[a]anthracene | ND | | 5.0 | 1.1 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Benzo[a]pyrene | ND | | 5.0 | 1.3 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Benzo[b]fluoranthene | ND | | 5.0 | 1.2 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Benzo[g,h,i]perylene | ND | | 5.0 | 1.5 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Benzo[k]fluoranthene | ND | | 5.0 | 1.3 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| bis (2-chloroisopropyl) ether | ND | | 5.0 | 0.84 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Bis(2-chloroethoxy)methane | ND | | 5.0 | 0.75 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Bis(2-chloroethyl)ether | ND | | 5.0 | 0.93 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Bis(2-ethylhexyl) phthalate | ND | | 10 | 1.2 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Butyl benzyl phthalate | ND | | 5.0 | 1.1 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Chrysene | ND | | 5.0 | 1.0 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Dibenz(a,h)anthracene | ND | | 5.0 | 1.5 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Diethyl phthalate | ND | | 5.0 | 1.0 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Dimethyl phthalate | ND | | 5.0 | 0.91 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Di-n-butyl phthalate | ND | | 5.0 | 1.6 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Di-n-octyl phthalate | ND | | 5.0 | 1.2 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Fluoranthene | ND | | 5.0 | 1.6 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Fluorene | ND | | 5.0 | 1.0 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Hexachlorobenzene | ND | | 5.0 | 1.0 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Hexachlorobutadiene | ND | | 5.0 | 1.0 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Hexachlorocyclopentadiene | ND | | 10 | 5.0 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Hexachloroethane | ND | | 5.0 | 0.60 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 5.0 | 1.5 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Isophorone | ND | | 5.0 | 0.74 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Naphthalene | ND | | 5.0 | 0.86 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Nitrobenzene | ND | | 5.0 | 0.81 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| N-Nitrosodimethylamine | ND | | 10 | 5.0 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| N-Nitrosodi-n-propylamine | ND | | 5.0 | 0.89 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| N-Nitrosodiphenylamine | ND | | 5.0 | 0.40 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Pentachlorophenol | ND | | 10 | 1.6 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |

## Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 480-322300/1-A**
**Matrix: Water**
**Analysis Batch: 322765**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 322300**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Phenanthrene | ND | | 5.0 | 1.2 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Phenol | ND | | 5.0 | 0.35 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |
| Pyrene | ND | | 5.0 | 1.4 | ug/L | | 09/26/16 06:43 | 09/28/16 20:01 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *85* | | *52 - 151* | *09/26/16 06:43* | *09/28/16 20:01* | *1* |
| *2-Fluorobiphenyl* | *85* | | *44 - 120* | *09/26/16 06:43* | *09/28/16 20:01* | *1* |
| *2-Fluorophenol* | *46* | | *17 - 120* | *09/26/16 06:43* | *09/28/16 20:01* | *1* |
| *Nitrobenzene-d5* | *84* | | *42 - 120* | *09/26/16 06:43* | *09/28/16 20:01* | *1* |
| *Phenol-d5* | *33* | | *10 - 120* | *09/26/16 06:43* | *09/28/16 20:01* | *1* |
| *p-Terphenyl-d14* | *105* | | *22 - 125* | *09/26/16 06:43* | *09/28/16 20:01* | *1* |

**Lab Sample ID: LCS 480-322300/2-A**
**Matrix: Water**
**Analysis Batch: 322765**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 322300**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 50.0 | 34.4 | | ug/L | | 69 | 44 - 142 |
| 1,2-Dichlorobenzene | 50.0 | 33.6 | | ug/L | | 67 | 32 - 129 |
| 1,3-Dichlorobenzene | 50.0 | 30.8 | | ug/L | | 62 | 1 - 172 |
| 1,4-Dichlorobenzene | 50.0 | 32.0 | | ug/L | | 64 | 20 - 124 |
| 2,4,6-Trichlorophenol | 50.0 | 48.1 | | ug/L | | 96 | 37 - 144 |
| 2,4-Dichlorophenol | 50.0 | 45.7 | | ug/L | | 91 | 39 - 135 |
| 2,4-Dimethylphenol | 50.0 | 46.6 | | ug/L | | 93 | 32 - 119 |
| 2,4-Dinitrophenol | 100 | 78.3 | | ug/L | | 78 | 1 - 191 |
| 2,4-Dinitrotoluene | 50.0 | 53.2 | | ug/L | | 106 | 39 - 139 |
| 2,6-Dinitrotoluene | 50.0 | 50.2 | | ug/L | | 100 | 50 - 158 |
| 2-Chloronaphthalene | 50.0 | 44.4 | | ug/L | | 89 | 60 - 118 |
| 2-Chlorophenol | 50.0 | 40.1 | | ug/L | | 80 | 23 - 134 |
| 2-Nitrophenol | 50.0 | 41.5 | | ug/L | | 83 | 29 - 182 |
| 3,3'-Dichlorobenzidine | 100 | 95.9 | | ug/L | | 96 | 1 - 262 |
| 4,6-Dinitro-2-methylphenol | 100 | 89.5 | | ug/L | | 89 | 1 - 181 |
| 4-Bromophenyl phenyl ether | 50.0 | 52.5 | | ug/L | | 105 | 53 - 127 |
| 4-Chloro-3-methylphenol | 50.0 | 49.3 | | ug/L | | 99 | 22 - 147 |
| 4-Chlorophenyl phenyl ether | 50.0 | 50.0 | | ug/L | | 100 | 25 - 158 |
| 4-Nitrophenol | 100 | 64.0 | | ug/L | | 64 | 1 - 132 |
| Acenaphthene | 50.0 | 48.0 | | ug/L | | 96 | 47 - 145 |
| Acenaphthylene | 50.0 | 47.0 | | ug/L | | 94 | 33 - 145 |
| Anthracene | 50.0 | 54.0 | | ug/L | | 108 | 27 - 133 |
| Benzo[a]anthracene | 50.0 | 52.6 | | ug/L | | 105 | 33 - 143 |
| Benzo[a]pyrene | 50.0 | 56.9 | | ug/L | | 114 | 17 - 163 |
| Benzo[b]fluoranthene | 50.0 | 53.9 | | ug/L | | 108 | 24 - 159 |
| Benzo[g,h,i]perylene | 50.0 | 56.0 | | ug/L | | 112 | 1 - 219 |
| Benzo[k]fluoranthene | 50.0 | 61.3 | | ug/L | | 123 | 11 - 162 |
| bis (2-chloroisopropyl) ether | 50.0 | 41.2 | | ug/L | | 82 | 36 - 166 |
| Bis(2-chloroethoxy)methane | 50.0 | 45.9 | | ug/L | | 92 | 33 - 184 |
| Bis(2-chloroethyl)ether | 50.0 | 41.3 | | ug/L | | 83 | 12 - 158 |
| Bis(2-ethylhexyl) phthalate | 50.0 | 59.6 | | ug/L | | 119 | 8 - 158 |

## Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 480-322300/2-A**
**Matrix: Water**
**Analysis Batch: 322765**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 322300**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Butyl benzyl phthalate | 50.0 | 57.9 | | ug/L | | 116 | 1 - 152 |
| Chrysene | 50.0 | 52.6 | | ug/L | | 105 | 17 - 168 |
| Dibenz(a,h)anthracene | 50.0 | 56.3 | | ug/L | | 113 | 1 - 227 |
| Diethyl phthalate | 50.0 | 55.6 | | ug/L | | 111 | 1 - 114 |
| Dimethyl phthalate | 50.0 | 53.1 | | ug/L | | 106 | 1 - 112 |
| Di-n-butyl phthalate | 50.0 | 59.7 | * | ug/L | | 119 | 1 - 118 |
| Di-n-octyl phthalate | 50.0 | 58.6 | | ug/L | | 117 | 4 - 146 |
| Fluoranthene | 50.0 | 54.7 | | ug/L | | 109 | 26 - 137 |
| Fluorene | 50.0 | 51.0 | | ug/L | | 102 | 59 - 121 |
| Hexachlorobenzene | 50.0 | 53.6 | | ug/L | | 107 | 1 - 152 |
| Hexachlorocyclopentadiene | 50.0 | 31.2 | | ug/L | | 62 | 5 - 120 |
| Hexachloroethane | 50.0 | 29.0 | | ug/L | | 58 | 40 - 113 |
| Indeno[1,2,3-cd]pyrene | 50.0 | 56.0 | | ug/L | | 112 | 1 - 171 |
| Isophorone | 50.0 | 47.6 | | ug/L | | 95 | 21 - 196 |
| Naphthalene | 50.0 | 38.4 | | ug/L | | 77 | 21 - 133 |
| Nitrobenzene | 50.0 | 44.2 | | ug/L | | 88 | 35 - 180 |
| N-Nitrosodi-n-propylamine | 50.0 | 44.9 | | ug/L | | 90 | 1 - 230 |
| N-Nitrosodiphenylamine | 50.0 | 50.9 | | ug/L | | 102 | 54 - 125 |
| Pentachlorophenol | 100 | 97.3 | | ug/L | | 97 | 14 - 176 |
| Phenanthrene | 50.0 | 51.7 | | ug/L | | 103 | 54 - 120 |
| Phenol | 50.0 | 20.9 | | ug/L | | 42 | 5 - 112 |
| Pyrene | 50.0 | 54.9 | | ug/L | | 110 | 52 - 115 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *2,4,6-Tribromophenol* | *103* | | *52 - 151* |
| *2-Fluorobiphenyl* | *92* | | *44 - 120* |
| *2-Fluorophenol* | *53* | | *17 - 120* |
| *Nitrobenzene-d5* | *90* | | *42 - 120* |
| *Phenol-d5* | *38* | | *10 - 120* |
| *p-Terphenyl-d14* | *105* | | *22 - 125* |

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 480-321663/1-A**
**Matrix: Water**
**Analysis Batch: 321915**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321663**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Copper | ND | | 0.010 | 0.0016 | mg/L | | 09/22/16 08:14 | 09/22/16 14:25 | 1 |
| Zinc | ND | | 0.010 | 0.0015 | mg/L | | 09/22/16 08:14 | 09/22/16 14:25 | 1 |

**Lab Sample ID: LCS 480-321663/2-A**
**Matrix: Water**
**Analysis Batch: 321915**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321663**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Copper | 0.200 | 0.204 | | mg/L | | 102 | 85 - 115 |
| Zinc | 0.200 | 0.194 | | mg/L | | 97 | 85 - 115 |

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 480-322357/1**
**Matrix: Water**
**Analysis Batch: 322357**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | ND | | 1.0 | 1.0 | mg/L | | | 09/26/16 09:12 | 1 |

**Lab Sample ID: LCS 480-322357/2**
**Matrix: Water**
**Analysis Batch: 322357**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 251 | 256.4 | | mg/L | | 102 | 88 - 110 |

## Method: SM 4500 H+ B - pH

**Lab Sample ID: LCS 480-321834/1**
**Matrix: Water**
**Analysis Batch: 321834**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| pH | 7.00 | 7.0 | | SU | | 100 | 99 - 101 |

## Method: SM 4500 P E - Phosphorus

**Lab Sample ID: MB 480-321778/27**
**Matrix: Water**
**Analysis Batch: 321778**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Phosphorus, Total | ND | | 0.010 | 0.0050 | mg/L | | | 09/22/16 12:20 | 1 |

**Lab Sample ID: LCS 480-321778/28**
**Matrix: Water**
**Analysis Batch: 321778**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Phosphorus, Total | 0.200 | 0.192 | | mg/L | | 96 | 90 - 110 |

# QC Association Summary

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-106310-1

## GC/MS VOA

### Analysis Batch: 321431

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-106310-1 | Grab (1-4) - 092116 LAB COMPOSITE | Total/NA | Water | 624 | |
| 480-106310-7 | TB-092116 | Total/NA | Water | 624 | |
| MB 480-321431/7 | Method Blank | Total/NA | Water | 624 | |
| LCS 480-321431/5 | Lab Control Sample | Total/NA | Water | 624 | |

## GC/MS Semi VOA

### Prep Batch: 322300

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-106310-1 | Grab (1-4) - 092116 LAB COMPOSITE | Total/NA | Water | 625 | |
| MB 480-322300/1-A | Method Blank | Total/NA | Water | 625 | |
| LCS 480-322300/2-A | Lab Control Sample | Total/NA | Water | 625 | |

### Analysis Batch: 322765

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-106310-1 | Grab (1-4) - 092116 LAB COMPOSITE | Total/NA | Water | 625 | 322300 |
| MB 480-322300/1-A | Method Blank | Total/NA | Water | 625 | 322300 |
| LCS 480-322300/2-A | Lab Control Sample | Total/NA | Water | 625 | 322300 |

## Metals

### Prep Batch: 321663

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-106310-6 | COMP-092116 | Total/NA | Water | 200.7 | |
| MB 480-321663/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 480-321663/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |

### Analysis Batch: 321915

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-106310-6 | COMP-092116 | Total/NA | Water | 200.7 Rev 4.4 | 321663 |
| MB 480-321663/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321663 |
| LCS 480-321663/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321663 |

## General Chemistry

### Analysis Batch: 321778

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-106310-6 | COMP-092116 | Total/NA | Water | SM 4500 P E | |
| MB 480-321778/27 | Method Blank | Total/NA | Water | SM 4500 P E | |
| LCS 480-321778/28 | Lab Control Sample | Total/NA | Water | SM 4500 P E | |

### Analysis Batch: 321834

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-106310-6 | COMP-092116 | Total/NA | Water | SM 4500 H+ B | |
| LCS 480-321834/1 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 322357

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-106310-6 | COMP-092116 | Total/NA | Water | SM 2540D | |
| MB 480-322357/1 | Method Blank | Total/NA | Water | SM 2540D | |

## General Chemistry (Continued)

### Analysis Batch: 322357 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 480-322357/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |

# Lab Chronicle

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-106310-1

## Client Sample ID: Grab (1-4) - 092116 LAB COMPOSITE

**Lab Sample ID: 480-106310-1**
**Date Collected: 09/21/16 13:26**
**Matrix: Water**
**Date Received: 09/21/16 14:35**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 624 | | 1 | 321431 | 09/21/16 23:47 | SWO | TAL BUF |
| Total/NA | Prep | 625 | | | 322300 | 09/26/16 06:43 | MCZ | TAL BUF |
| Total/NA | Analysis | 625 | | 2 | 322765 | 09/29/16 00:23 | LMW | TAL BUF |

## Client Sample ID: COMP-092116

**Lab Sample ID: 480-106310-6**
**Date Collected: 09/21/16 13:40**
**Matrix: Water**
**Date Received: 09/21/16 14:35**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321663 | 09/22/16 08:14 | RMZ | TAL BUF |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321915 | 09/22/16 15:29 | TRB | TAL BUF |
| Total/NA | Analysis | SM 2540D | | 1 | 322357 | 09/26/16 09:12 | EKB | TAL BUF |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321834 | 09/22/16 15:45 | KMF | TAL BUF |
| Total/NA | Analysis | SM 4500 P E | | 1 | 321778 | 09/22/16 12:20 | CLT | TAL BUF |

## Client Sample ID: TB-092116

**Lab Sample ID: 480-106310-7**
**Date Collected: 09/21/16 00:00**
**Matrix: Water**
**Date Received: 09/21/16 14:35**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 624 | | 1 | 321431 | 09/22/16 00:11 | SWO | 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: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-106310-1

## Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

| Authority | Program | EPA Region | Certification ID | Expiration Date |
|---|---|---|---|---|
| New York | NELAP | 2 | 10026 | 03-31-17 |

The following analytes are included in this report, but certification is not offered by the governing authority:

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| 624 | | Water | 1,2-Dichloroethene, Total |
| 625 | 625 | Water | 1,2-Dichlorobenzene |
| 625 | 625 | Water | 1,2-Diphenylhydrazine |
| 625 | 625 | Water | 1,3-Dichlorobenzene |
| 625 | 625 | Water | 1,4-Dichlorobenzene |
| 625 | 625 | Water | 4-Chloroaniline |
| SM 4500 H+ B | | Water | pH |

# Method Summary

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-106310-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 624 | Volatile Organic Compounds (GC/MS) | 40CFR136A | TAL BUF |
| 625 | Semivolatile Organic Compounds (GC/MS) | 40CFR136A | TAL BUF |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | TAL BUF |
| SM 2540D | Solids, Total Suspended (TSS) | SM | TAL BUF |
| SM 4500 H+ B | pH | SM | TAL BUF |
| SM 4500 P E | Phosphorus | SM | TAL BUF |

**Protocol References:**

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
SM = "Standard Methods For The Examination Of Water And Wastewater",

**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: 30130 - Alltift OM Phase / Semi Annual

TestAmerica Job ID: 480-106310-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 480-106310-1 | Grab (1-4) - 092116 LAB COMPOSITE | Water | 09/21/16 13:26 | 09/21/16 14:35 |
| 480-106310-6 | COMP-092116 | Water | 09/21/16 13:40 | 09/21/16 14:35 |
| 480-106310-7 | TB-092116 | Water | 09/21/16 00:00 | 09/21/16 14:35 |

480-106310 COC

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler: Michael Stout | Lab PM: John Schove | Carrier Tracking No(s): | COC No: 480-86475-16971.1 |
|---|---|---|---|---|
| Client Contact: John Formoza | Phone: 315-468-1663 | E-Mail: john.schove@testamericainc.com | | Page: Page 1 of 1 |
| Company: Honeywell International Inc | | | | Job #: 106310 |
| Address: 1563 Willis Ave. | Due Date Requested: | | | |
| City: Syracuse | TAT Requested (days): 2 Weeks | | | |
| State, Zip: NY, 13204 | | | | |
| Phone: 315-468-1663 | PO #: 4400032722 | | | |
| Email: john.formoza@ch2m.com | WO #: | | | |
| Project Name: Honeywell - Altitf OM phase / Semi Annual | Project #: 48004175 | | | |
| Site: Honeywell - Buffalo Sites | 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:

| Location Identification | 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) | 4600_P_E - Phosphorus, Total | 200.7 - Metals ICP - Cu, Zn | 2540D - Total Suspended Solids | SM4500_H+ - pH | 624_6ml - Priority Pollutant List - VOA - 624 | 625 - Priority Pollutant List - SVOA - 625 | Total Number of Containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Preservation Code: | | X | X | S | D | N | N | A | N | | |
| BSA Discharge | GRAB 1- 092116 | 9/21/16 | [illegible] | G | W | N | N | | | | | 2 | 2 | 4 | Prior to analysis grab samples to be composited by lab |
| BSA Discharge | GRAB 2- 092116 | 9/21/16 | [illegible] | G | W | N | N | | | | | 2 | 2 | 4 | |
| BSA Discharge | GRAB 3- 092116 | 9/21/16 | 11:26 | G | W | N | N | | | | | 2 | 2 | 4 | |
| BSA Discharge | GRAB 4 - 092116 | 9/21/16 | 13:26 | G | W | N | N | | | | | 2 | 2 | 4 | |
| BSA Discharge | COMP- 092116 | 9/21/16 | 13:40 | C | W | N | N | 1 | 1 | 1 | 1 | | | 4 | |
| TRIPBLANK | TB- 092116 | 9/21/16 | | | W | N | N | | | | | 1 | | 1 | TRIB BLANK |
| | | | | | | | | | | | | | | | |

**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:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|
| Relinquished by: Bethany Chacon | Date/Time: 9/21/16 14:35 | Company: CH2M | Received by: [signature] Date/Time: 9/21/16 1435 Company: TABUS |
| 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: 4.9°C, 4.0°C #1 |

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6/30/2016

# Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 480-106310-1

**Login Number: 106310**
**List Number: 1**
**Creator: Conway, Curtis R**

**List Source: TestAmerica Buffalo**

| 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 (Excluding tests with immediate HTs).. | 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 | LAB TO COMP 624 AND 625 VOLUMES |
| Sampling Company provided. | True | CH2M |
| Samples received within 48 hours of sampling. | True | |
| Samples requiring field filtration have been filtered in the field. | N/A | |
| Chlorine Residual checked. | True | Yes: Samples checked, no residual chlorine detected |

# Attachment B.7 Annual Groundwater Monitoring Data

**TABLE 1**
**Summary of Groundwater Analytical Results - 2016**
**2016/2017 Annual OM&M Report**
**Alltift Landfill /Ramco Steel Site**

| Parameter Name | Units | NYSDEC Class GA Standards | MW-2-092116 9/21/2016 | Sump 1-092116 9/21/2016 | Sump 2-092116 9/21/2016 | Sump 3-092116 9/21/2016 | Sump 4-092116 9/21/2016 | FDUP-SUMP 4 092116 9/21/2016 | Sump Comp-092116 9/21/2016 |
|---|---|---|---|---|---|---|---|---|---|
| **Metals (Dissolved)** | | | | | | | | | |
| **ANTIMONY** | **mg/L** | **0.003** | **0.0011** | -- -- | -- -- | -- -- | **0.0023** | **0.0016** | **0.0012** |
| **ARSENIC** | **mg/L** | **0.025** | **0.002** | -- -- | -- -- | -- -- | **0.0127** | **0.0115** | **0.0176** |
| **CADMIUM** | **mg/L** | **0.005** | 0.0005 U | -- -- | -- -- | -- -- | 0.0005 U | 0.0005 U | 0.0005 U |
| **CHROMIUM** | **mg/L** | **0.05** | **0.0014 J** | -- -- | -- -- | -- -- | **0.0016 J** | **0.0013 J** | **0.0091** |
| **IRON** | **mg/L** | **0.3** | **0.047 J** | -- -- | -- -- | -- -- | **30.5** | **26.9** | **21.7** |
| **LEAD** | **mg/L** | **0.025** | 0.0050 U | -- -- | -- -- | -- -- | 0.0050 U | 0.0050 U | **0.0071** |
| **MANGANESE** | **mg/L** | **0.3** | **0.010** | -- -- | -- -- | -- -- | **1.4** | **1.4** | **2.1** |
| **MERCURY** | **mg/L** | **0.0007** | 0.00020 U | -- -- | -- -- | -- -- | 0.00020 U | 0.00020 U | 0.00020 U |
| **VOCs** | | | | | | | | | |
| **BENZENE** | **ug/L** | **1** | 1.0 U | **0.89 J** | **5.0** | 4.0 U | 4.0 U | 4.0 U | -- -- |
| **CHLOROBENZENE** | **ug/L** | **5** | 1.0 U | **18** | **41** | 4.0 U | **12** | **16** | -- -- |
| **ETHYLBENZENE** | **ug/L** | **5** | 1.0 U | 2.0 U | 5.0 U | 4.0 U | 4.0 U | 4.0 U | -- -- |
| **XYLENES, TOTAL** | **ug/L** | **5** | 2.0 U | 4.0 U | 10 U | 8.0 U | 8.0 U | 8.0 U | -- -- |
| **1,2-DICHLOROBENZENE** | **ug/L** | **3** | 1.0 U | 2.0 U | 5.0 U | 4.0 U | 4.0 U | 4.0 U | -- -- |
| **1,4-DICHLOROBENZENE** | **ug/L** | **3** | 1.0 U | 2.0 U | 5.0 U | 4.0 U | 4.0 U | 4.0 U | -- -- |
| **SVOCs** | | | | | | | | | |
| **4-CHLOROANILINE** | **ug/L** | **5** | 4.6 U | -- -- | -- -- | -- -- | 5.0 U | 5.0 U | **1.7 J** |
| **NAPHTHALENE** | **ug/L** | **10** | 4.6 U | -- -- | -- -- | -- -- | 5.0 U | 5.0 U | 5.0 U |

**Note:**
Bold - Detected during Laboratory Analysis
J - Analyte Detected Below Reporting Limit
U - Analyte not detected
-- - Not Analyzed
Shading indicates exceedance of NYSDEC Class GA Standard



Prepared By: PTB 04/26/2017
Checked By: RTB 04/27/2017

ch2m

**Project Name** Honeywell - Buffalo
Job Number 667610.B2.00.16
Field Team M. Stout / B Macera
Field Conditions Sunny 77°

**Sampling Event** Annual Sampling
Date 9/21/2016
Page ___ of ___

**Well/Sample Number** Sump ~~MW~~ MW-2
Start Time 12:40 Finish Time ___
Initial Depth to Water 6.6 Measure Point: PVC Steel Casing Other: ___

Purge Method:
Geopump Ded. Pump Other ___
Sample Method: Parastolic

**Sample ID** MW2-092116 Sample Time 13:00
**Duplicate Sample ID** ___ Dupl. Time ___
**Split Sample ID** ___ Split. Time ___

Depth to Botton (from meas. pt): 17.0 Min. Purge Volume (gal)/(L) 4.0 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 |
|---|---|---|---|---|---|---|---|---|
| 12:50 | 4.0 | 8.8 | 1.47 | .3 | 7.7 | 19.37 | 98 | 6.6 |
| 13:00 | Collect Sample MW2-092116 | | | | | | | |

**SAMPLE COLLECTION INFORMATION**

| Parameter | Type of Bottle | Volume | Field Filtered (y/n) | Preservative | pH | Notes |
|---|---|---|---|---|---|---|
| 6010B, 7470A, Merc. | Plastic | 250 mL | N | $HNO_3$ | | |
| 8270C | Amber | 250 mL | N | — | | |
| 8260B | VOA | 40 mL | N | HCl | | |

Remarks: Water is clear w/ no aparent odor.

ch2m

**Project Name** Honeywell - Buffalo
Job Number 666760.B2.60.61
Field Team M Stout / B. Macera
Field Conditions Sunny 71°

**Sampling Event** Annual Sampling at TRF
Date 9/21/2016
Page ___ of ___

**Well/Sample Number** Sump Comp

Initial Depth to Water ___ Start Time 10:50 Finish Time ___

Measure Point: PVC Steel Casing Other: ___

Purge Method:
Geopump Ded. Pump Other ___
Sample Method: Monsoon

**Sample ID** Sump Comp092116 Sample Time 10:50
**Duplicate Sample ID** Dupl. Time ___
**Split Sample ID** Split. Time ___

Depth to Botton (from meas. pt): ___ 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 |
|---|---|---|---|---|---|---|---|---|
| 10:50 | Collect Sample Sump Comp 092116 | | | | | | | → |

**SAMPLE COLLECTION INFORMATION**

| Parameter | Type of Bottle | Volume | Field Filtered (y/n) | Preservative | pH | Notes |
|---|---|---|---|---|---|---|
| 6010B ~~8270C~~ | Plastic | 250mL | N | $HNO_3$ | | |
| 8270C | Amber | 1000mL | N | None | | |

Remarks: Sample taken from composite

ch2m

**Project Name** HoneyWell - Buffalo
Job Number 667640.B2.60.61
Field Team M Stout / B Macera
Field Conditions Sunny 71°

**Sampling Event** Annual Sampling GWTiff
Date 09/21/2016
Page ___ of ___

**Well/Sample Number** Sump 1
Start Time 10:25 Finish Time ___
Initial Depth to Water 6.00 Measure Point: PVC Steel Casing Other: ___

Purge Method:
Geopump Ded. Pump Other ___
Sample Method: Monsoon

**Sample ID** Sump 1 - 092116 Sample Time 10:35
**Duplicate Sample ID** Dupl. Time ___
**Split Sample ID** Split. Time ___

Depth to Botton (from meas. pt): 17.3 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 | 2.0 | 7.96 | 2.53 | 17.5 | 0 | 16.52 | -98 | 6.00 |
| 10:35 | COLLECT Sample Sump 1 | | | | 092116 | | | 12 ft |

**SAMPLE COLLECTION INFORMATION**

| Parameter | Type of Bottle | Volume | Field Filtered (y/n) | Preservative | pH | Notes |
|---|---|---|---|---|---|---|
| 8260B | VOA | 40 mL | N | HCL | | |

Remarks: Clear water with no distinct odor. depth of Sample taken was 12 ft. Equipment decon'ed per CH2M standards.

CH4 0.0 LEL CH4 000
CO2 0.0
O2 19.6

ch2m

**Project Name** Honeywell - Buffalo
Job Number 667410.B2.60.101
Field Team M Stout / B. Macera
Field Conditions Sunny 71°

**Sampling Event** Annual Sampling ATTF
Date 09/21/2016
Page ___ of ___

**Well/Sample Number** Sump 2
Start Time 10:00 Finish Time
Initial Depth to Water 7.3
Measure Point: PVC (Steel Casing) Other:

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

**Sample ID** Sump 2 092116 Sample Time 10:10
**Duplicate Sample ID** Dupl. Time
**Split Sample ID** Split. Time

Depth to Botton (from meas. pt): 24.6 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 |
|---|---|---|---|---|---|---|---|---|
| 10:00 | 2.0 | 7.43 | 4.85 | 73.4 | .42 | 15.89 | -34 | 7.3 |
| 10:10 | | Collect | Sample | Sump | 2 092116 | | | 12 ft. |

**SAMPLE COLLECTION INFORMATION**

| Parameter | Type of Bottle | Volume | Field Filtered (y/n) | Preservative | pH | Notes |
|---|---|---|---|---|---|---|
| 8260B | VOA | 40mL | N | HCL | | |

Remarks: Water has slight yellow tinge - No oder - Sample taken at 12 ft. Equipment decontd per CH2M standards

$CH_4$ 0.0 LEL $CH_4$ 000%
$CO_2$ 0.0
$O_2$ 20.2
BAL 79.8

ch2m

**Project Name** Honeywell - Buffalo
Job Number 667610.B2.100.101
Field Team Mike Stout / Bethany Macera
Field Conditions Sunny 71°

**Sampling Event** Annual Sampling at Tiff
Date 09/21/2016
Page ___ of ___

**Well/Sample Number** Sump 3
Start Time 09:35 Finish Time ___
Initial Depth to Water 6.58 Measure Point: PVC Steel Casing Other: ___

Purge Method:
Geopump Ded. Pump Other ___
Sample Method: Monsoon

**Sample ID** Sump 3-092116 Sample Time ___
**Duplicate Sample ID** ___ Dupl. Time ___
**Split Sample ID** ___ Split. Time ___

Depth to Botton (from meas. pt): 17.3 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 |
|---|---|---|---|---|---|---|---|---|
| 09:40 | 2.0 | 6.98 | 3.66 | 68 | .47 | 17.89 | -24 | 6.58 |
| 09:50 | - Collect | Sample Sump | 3 - 092116 | | | | | 12.0 |

**SAMPLE COLLECTION INFORMATION**

| Parameter | Type of Bottle | Volume | Field Filtered (y/n) | Preservative | pH | Notes |
|---|---|---|---|---|---|---|
| 8260B | VOA | 40mL | N | HCL | | |

Remarks: Water has slight yellow froze - no distinct odor.
Collect sample @ 12 ft.
Equipment decon'ed per CH2M standards.

CH4 0.0 LEL CH4 000%
CO2 0.0
O2 20.4

ch2m

**Project Name** Honeywell - Buffalo
Job Number 667640.B2.60.61
Field Team Mike Stout / Bethany Macera
Field Conditions Sunny 71°

**Sampling Event** Annual Sampling Activity
Date 09-21-2016
Page ___ of ___

**Well/Sample Number** Sump 4
Start Time 0810 Finish Time
Initial Depth to Water 6.6
Measure Point: PVC (Steel Casing) Other:

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

**Sample ID** Sump 4 092116 Sample Time 0830
**Duplicate Sample ID** Sump 4 092116 MS Dupl. Time 0835
**Split Sample ID** Sump 4 092116 MSD Split. Time 0840
Sump 4 092116 Dup 0845

Depth to Botton (from meas. pt): 17.8 Min. Purge Volume (gal)/(L) Purge Rate (gprh)/(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 |
|---|---|---|---|---|---|---|---|---|
| 0810 | 2.0 | 6.99 | 3.04 | 76.8 | .02 | 17.03 | -55 | 6.6 |
| 0830 | | Collect Sample Sump 4 092116 | | | | | | 12.0 |
| 0835 | | Collect Sample Sump 4MS 092116 | | | | | | 12.0 |
| 0840 | | Collect Sample Sump 4 MSD 092116 | | | | | | 12.0 |
| 0845 | | Collect Sample Sump 4 Dup 092116 | | | | | | 12.0 |

**SAMPLE COLLECTION INFORMATION**

| Parameter | Type of Bottle | Volume | Field Filtered (y/n) | Preservative | pH | Notes |
|---|---|---|---|---|---|---|
| 8260B | VOA | 40mL | N | HCl | | Sump 4 MS, MSD, FDup |
| 8270C | AMBER | 250mL | N | | | Sump 4 MS, MSD, FDup |
| 200.7, 7470A | PLASTIC | 250mL | N | HNO3 | | Sump 4 MS, MSD, FDup |

Remarks: Water is Cloudy w/ yellow tint and no distinct odor. Sample depth is 12 feet. Equipment decon'd per CH2M standards

$CH_4$ : 0.0 LEL $CH_4$ 000%
$CO_2$ : 0.1
$O_2$ : 21.0

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler: Michael Stout | Lab PM: John Schove | Carrier Tracking No(s): | COC No: 480-86477-7003.1 |
|---|---|---|---|---|
| Client Contact: John Formoza | Phone: 315-468-1663 | E-Mail: john.schove@testamericainc.com | | Page: Page 1 of 1 |
| Company: Honeywell International Inc | | | | Job #: |
| Address: 1563 Willis Ave. | Due Date Requested: | | | |
| City: Syracuse | TAT Requested (days): 2 Weeks | | | |
| State, Zip: NY, 13204 | | | | |
| Phone: 315-468-1663 | PO #: 4400032722 | | | |
| Email: john.formoza@ch2m.com | WO #: | | | |
| Project Name: Honeywell - Buffalo Alltift - 30130 Annual Sampling | Project #: 48004175 | | | |
| Site: Honeywell - Buffalo Sites | 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:

| Location 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 - Metals ICP - As, Cd, Cr, Fe, Pb, Mn, Sb, 7470A, Mercury | 8270C - SVOCs (4-Chloroaniline and Napthalene) | 8260B - 1,2 - dichlorobenzene, 1,4 - dichlorobenzene, benzene, chlorobenzene, ethylbenzene, and total xylene | | | | | | | | | | | | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | D | N | A | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | 0 | |
| Sump Comp - 092116 | 09/21/16 | 10:50 | G | W | N | N | 1 | 2 | | | | | | | | | | | | | 3 | |
| Sump 1 - 092116 | 09/21/16 | 10:35 | G | W | N | N | | | 3 | | | | | | | | | | | | 3 | |
| Sump 2 - 092116 | 09/21/16 | 10:10 | G | W | N | N | | | 3 | | | | | | | | | | | | 3 | |
| Sump 3 - 092116 | 09/21/16 | 09:50 | G | W | N | N | | | 3 | | | | | | | | | | | | 3 | |
| Sump 4- 092116 | 09/21/16 | 0830 | G | W | N | N | 1 | 2 | 3 | | | | | | | | | | | | 6 | |
| MW2 - 092116 | 09/21/16 | 1300 | G | W | N | N | 1 | 2 | 3 | | | | | | | | | | | | 6 | |
| FDUP - Sump 4 092116 | 09/21/16 | 0845 | G | W | N | N | 1 | 2 | 3 | | | | | | | | | | | | 6 | |
| Trip Blank | 09/21/16 | | G | W | N | N | | | 1 | | | | | | | | | | | | 1 | Trip Blank |
| Sump 4 092116 MS | 09/21/16 | 0835 | G | W | N | N | 1 | 2 | 3 | | | | | | | | | | | | 6 | |
| Sump 4 092116 MSD | 09/21/16 | 0840 | G | W | N | N | 1 | 2 | 3 | | | | | | | | | | | | 6 | |

**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:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|
| Relinquished by: Bethany Allen | Date/Time: 9/21/16 14:35 | Company: CH2M | Received by: | Date/Time: 9/21/16 1425 | Company: TAB |
| 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:

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: 480-106314-1
Client Project/Site: 30130 - Alltift GW Monitoring
Sampling Event: Honeywell - Alltift GW Monitoring (10)

For:
Honeywell International Inc
Remediation & Evaluation Services
115 Tabor Road
Morris Plains, New Jersey 07950

Attn: Mr. Rich Galloway

*Authorized for release by:*
*9/29/2016 3:21:08 PM*
Rebecca Jones, Project Management Assistant I
rebecca.jones@testamericainc.com

Designee for

John Schove, Project Manager II
(716)504-9838
john.schove@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

# Table of Contents

# Definitions/Glossary

Client: Honeywell International Inc
Project/Site: 30130 - Alltift GW Monitoring

TestAmerica Job ID: 480-106314-1

## Qualifiers

### GC/MS 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. |

### 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. |
| F1 | MS and/or MSD Recovery is outside acceptance limits. |
| X | Surrogate is outside control limits |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| B | Compound was found in the blank and sample. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times 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 |
| CFL | Contains Free Liquid |
| 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: 480-106314-1

### Laboratory: TestAmerica Buffalo

**Narrative**

**Job Narrative**
**480-106314-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 9/21/2016 2:35 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.1º C.

**GC/MS VOA**
Method(s) 8260C: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: Sump 1-092116 (480-106314-2), Sump 2-092116 (480-106314-3), Sump 3-092116 (480-106314-4), Sump 4-092116 (480-106314-5), Sump 4-092116 MS (480-106314-5[MS]), Sump 4-092116 MSD (480-106314-5[MSD]) and FDUP-SUMP 4 092116 (480-106314-7). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following samples were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: Sump 2-092116 (480-106314-3). The sample was analyzed within 7 days per EPA recommendation.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**GC/MS Semi VOA**
Method(s) 8270D: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: Sump 4-092116 MS (480-106314-5[MS]) and Sump 4-092116 MSD (480-106314-5[MSD]). These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**Metals**
Method(s) 6020A: The serial dilution (480-106314-C-5-D SD) associated with batch 480-322010, exhibited results outside the quality control limits for Total Arsenic. However, the post digestion spike (PDS) was compliant, therefore no corrective action was necessary.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**Organic Prep**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Honeywell International Inc
Project/Site: 30130 - Alltift GW Monitoring

TestAmerica Job ID: 480-106314-1

## Client Sample ID: Sump Comp-092116 — Lab Sample ID: 480-106314-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chloroaniline | 1.7 | J | 5.0 | 0.59 | ug/L | 1 | | 8270D | Total/NA |
| Chromium | 0.0091 | | 0.0040 | 0.0010 | mg/L | 1 | | 6010C | Total/NA |
| Iron | 21.7 | B | 0.050 | 0.019 | mg/L | 1 | | 6010C | Total/NA |
| Lead | 0.0071 | | 0.0050 | 0.0030 | mg/L | 1 | | 6010C | Total/NA |
| Manganese | 2.1 | | 0.0030 | 0.00040 | mg/L | 1 | | 6010C | Total/NA |
| Antimony | 1.2 | | 1.0 | 0.35 | ug/L | 1 | | 6020A | Total/NA |
| Arsenic | 17.6 | | 1.0 | 0.27 | ug/L | 1 | | 6020A | Total/NA |

## Client Sample ID: Sump 1-092116 — Lab Sample ID: 480-106314-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.89 | J | 2.0 | 0.82 | ug/L | 2 | | 8260C | Total/NA |
| Chlorobenzene | 18 | | 2.0 | 1.5 | ug/L | 2 | | 8260C | Total/NA |

## Client Sample ID: Sump 2-092116 — Lab Sample ID: 480-106314-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 5.0 | | 5.0 | 2.1 | ug/L | 5 | | 8260C | Total/NA |
| Chlorobenzene | 41 | | 5.0 | 3.8 | ug/L | 5 | | 8260C | Total/NA |

## Client Sample ID: Sump 3-092116 — Lab Sample ID: 480-106314-4

No Detections.

## Client Sample ID: Sump 4-092116 — Lab Sample ID: 480-106314-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chlorobenzene | 12 | | 4.0 | 3.0 | ug/L | 4 | | 8260C | Total/NA |
| Chromium | 0.0016 | J | 0.0040 | 0.0010 | mg/L | 1 | | 6010C | Total/NA |
| Iron | 30.5 | | 0.050 | 0.019 | mg/L | 1 | | 6010C | Total/NA |
| Manganese | 1.4 | | 0.0030 | 0.00040 | mg/L | 1 | | 6010C | Total/NA |
| Antimony | 2.3 | | 1.0 | 0.35 | ug/L | 1 | | 6020A | Total/NA |
| Arsenic | 12.7 | | 1.0 | 0.27 | ug/L | 1 | | 6020A | Total/NA |

## Client Sample ID: MW-2-092116 — Lab Sample ID: 480-106314-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 0.0014 | J | 0.0040 | 0.0010 | mg/L | 1 | | 6010C | Total/NA |
| Iron | 0.047 | J | 0.050 | 0.019 | mg/L | 1 | | 6010C | Total/NA |
| Manganese | 0.010 | | 0.0030 | 0.00040 | mg/L | 1 | | 6010C | Total/NA |
| Antimony | 1.1 | | 1.0 | 0.35 | ug/L | 1 | | 6020A | Total/NA |
| Arsenic | 2.0 | | 1.0 | 0.27 | ug/L | 1 | | 6020A | Total/NA |

## Client Sample ID: FDUP-SUMP 4 092116 — Lab Sample ID: 480-106314-7

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chlorobenzene | 16 | | 4.0 | 3.0 | ug/L | 4 | | 8260C | Total/NA |
| Chromium | 0.0013 | J | 0.0040 | 0.0010 | mg/L | 1 | | 6010C | Total/NA |
| Iron | 26.9 | | 0.050 | 0.019 | mg/L | 1 | | 6010C | Total/NA |
| Manganese | 1.4 | | 0.0030 | 0.00040 | mg/L | 1 | | 6010C | Total/NA |
| Antimony | 1.6 | | 1.0 | 0.35 | ug/L | 1 | | 6020A | Total/NA |

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Detection Summary

Client: Honeywell International Inc
Project/Site: 30130 - Alltift GW Monitoring

TestAmerica Job ID: 480-106314-1

## Client Sample ID: FDUP-SUMP 4 092116 (Continued) — Lab Sample ID: 480-106314-7

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 11.5 | | 1.0 | 0.27 | ug/L | 1 | | 6020A | Total/NA |

## Client Sample ID: TRIP BLANK — Lab Sample ID: 480-106314-8

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Honeywell International Inc
Project/Site: 30130 - Alltift GW Monitoring

TestAmerica Job ID: 480-106314-1

**Client Sample ID: Sump Comp-092116**
**Date Collected: 09/21/16 10:50**
**Date Received: 09/21/16 14:35**

**Lab Sample ID: 480-106314-1**
**Matrix: Water**

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **4-Chloroaniline** | **1.7** | **J** | 5.0 | 0.59 | ug/L | | 09/22/16 06:53 | 09/23/16 14:55 | 1 |
| Naphthalene | ND | | 5.0 | 0.76 | ug/L | | 09/22/16 06:53 | 09/23/16 14:55 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Nitrobenzene-d5* | *80* | | *46 - 120* | *09/22/16 06:53* | *09/23/16 14:55* | *1* |
| *2-Fluorobiphenyl* | *89* | | *48 - 120* | *09/22/16 06:53* | *09/23/16 14:55* | *1* |
| *p-Terphenyl-d14* | *81* | | *67 - 150* | *09/22/16 06:53* | *09/23/16 14:55* | *1* |

### Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **0.0091** | | 0.0040 | 0.0010 | mg/L | | 09/22/16 08:15 | 09/22/16 19:33 | 1 |
| **Iron** | **21.7** | **B** | 0.050 | 0.019 | mg/L | | 09/22/16 08:15 | 09/22/16 19:33 | 1 |
| **Lead** | **0.0071** | | 0.0050 | 0.0030 | mg/L | | 09/22/16 08:15 | 09/22/16 19:33 | 1 |
| **Manganese** | **2.1** | | 0.0030 | 0.00040 | mg/L | | 09/22/16 08:15 | 09/22/16 19:33 | 1 |

### Method: 6020A - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Antimony** | **1.2** | | 1.0 | 0.35 | ug/L | | 09/22/16 08:45 | 09/23/16 08:09 | 1 |
| **Arsenic** | **17.6** | | 1.0 | 0.27 | ug/L | | 09/22/16 08:45 | 09/23/16 08:09 | 1 |
| Cadmium | ND | | 0.50 | 0.071 | ug/L | | 09/22/16 08:45 | 09/23/16 08:09 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00012 | mg/L | | 09/22/16 10:10 | 09/22/16 13:52 | 1 |

Client: Honeywell International Inc
Project/Site: 30130 - Alltift GW Monitoring

TestAmerica Job ID: 480-106314-1

**Client Sample ID: Sump 1-092116**
**Date Collected: 09/21/16 10:35**
**Date Received: 09/21/16 14:35**

**Lab Sample ID: 480-106314-2**
**Matrix: Water**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | ND | | 2.0 | 1.6 | ug/L | | | 09/26/16 23:37 | 2 |
| 1,4-Dichlorobenzene | ND | | 2.0 | 1.7 | ug/L | | | 09/26/16 23:37 | 2 |
| **Benzene** | **0.89** | **J** | 2.0 | 0.82 | ug/L | | | 09/26/16 23:37 | 2 |
| **Chlorobenzene** | **18** | | 2.0 | 1.5 | ug/L | | | 09/26/16 23:37 | 2 |
| Ethylbenzene | ND | | 2.0 | 1.5 | ug/L | | | 09/26/16 23:37 | 2 |
| Xylenes, Total | ND | | 4.0 | 1.3 | ug/L | | | 09/26/16 23:37 | 2 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *102* | | *77 - 120* | | *09/26/16 23:37* | *2* |
| *4-Bromofluorobenzene (Surr)* | *97* | | *73 - 120* | | *09/26/16 23:37* | *2* |
| *Toluene-d8 (Surr)* | *94* | | *80 - 120* | | *09/26/16 23:37* | *2* |
| *Dibromofluoromethane (Surr)* | *105* | | *75 - 123* | | *09/26/16 23:37* | *2* |

Client: Honeywell International Inc
Project/Site: 30130 - Alltift GW Monitoring

TestAmerica Job ID: 480-106314-1

**Client Sample ID: Sump 2-092116**
**Date Collected: 09/21/16 10:10**
**Date Received: 09/21/16 14:35**

**Lab Sample ID: 480-106314-3**
**Matrix: Water**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | ND | | 5.0 | 4.0 | ug/L | | | 09/27/16 00:01 | 5 |
| 1,4-Dichlorobenzene | ND | | 5.0 | 4.2 | ug/L | | | 09/27/16 00:01 | 5 |
| **Benzene** | **5.0** | | 5.0 | 2.1 | ug/L | | | 09/27/16 00:01 | 5 |
| **Chlorobenzene** | **41** | | 5.0 | 3.8 | ug/L | | | 09/27/16 00:01 | 5 |
| Ethylbenzene | ND | | 5.0 | 3.7 | ug/L | | | 09/27/16 00:01 | 5 |
| Xylenes, Total | ND | | 10 | 3.3 | ug/L | | | 09/27/16 00:01 | 5 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *101* | | *77 - 120* | | *09/27/16 00:01* | *5* |
| *4-Bromofluorobenzene (Surr)* | *98* | | *73 - 120* | | *09/27/16 00:01* | *5* |
| *Toluene-d8 (Surr)* | *95* | | *80 - 120* | | *09/27/16 00:01* | *5* |
| *Dibromofluoromethane (Surr)* | *104* | | *75 - 123* | | *09/27/16 00:01* | *5* |

## Client Sample ID: Sump 3-092116

**Date Collected: 09/21/16 09:50**
**Date Received: 09/21/16 14:35**

## Lab Sample ID: 480-106314-4

**Matrix: Water**

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | ND | | 4.0 | 3.2 | ug/L | | | 09/27/16 00:25 | 4 |
| 1,4-Dichlorobenzene | ND | | 4.0 | 3.4 | ug/L | | | 09/27/16 00:25 | 4 |
| Benzene | ND | | 4.0 | 1.6 | ug/L | | | 09/27/16 00:25 | 4 |
| Chlorobenzene | ND | | 4.0 | 3.0 | ug/L | | | 09/27/16 00:25 | 4 |
| Ethylbenzene | ND | | 4.0 | 3.0 | ug/L | | | 09/27/16 00:25 | 4 |
| Xylenes, Total | ND | | 8.0 | 2.6 | ug/L | | | 09/27/16 00:25 | 4 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *104* | | *77 - 120* | | *09/27/16 00:25* | *4* |
| *4-Bromofluorobenzene (Surr)* | *96* | | *73 - 120* | | *09/27/16 00:25* | *4* |
| *Toluene-d8 (Surr)* | *96* | | *80 - 120* | | *09/27/16 00:25* | *4* |
| *Dibromofluoromethane (Surr)* | *109* | | *75 - 123* | | *09/27/16 00:25* | *4* |

## Client Sample ID: Sump 4-092116

**Date Collected: 09/21/16 08:30**
**Date Received: 09/21/16 14:35**

## Lab Sample ID: 480-106314-5

**Matrix: Water**

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | ND | | 4.0 | 3.2 | ug/L | | | 09/27/16 00:49 | 4 |
| 1,4-Dichlorobenzene | ND | | 4.0 | 3.4 | ug/L | | | 09/27/16 00:49 | 4 |
| Benzene | ND | | 4.0 | 1.6 | ug/L | | | 09/27/16 00:49 | 4 |
| **Chlorobenzene** | **12** | | 4.0 | 3.0 | ug/L | | | 09/27/16 00:49 | 4 |
| Ethylbenzene | ND | | 4.0 | 3.0 | ug/L | | | 09/27/16 00:49 | 4 |
| Xylenes, Total | ND | | 8.0 | 2.6 | ug/L | | | 09/27/16 00:49 | 4 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *104* | | *77 - 120* | | *09/27/16 00:49* | *4* |
| *4-Bromofluorobenzene (Surr)* | *98* | | *73 - 120* | | *09/27/16 00:49* | *4* |
| *Toluene-d8 (Surr)* | *97* | | *80 - 120* | | *09/27/16 00:49* | *4* |
| *Dibromofluoromethane (Surr)* | *107* | | *75 - 123* | | *09/27/16 00:49* | *4* |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chloroaniline | ND | F1 | 5.0 | 0.59 | ug/L | | 09/22/16 06:53 | 09/23/16 15:24 | 1 |
| Naphthalene | ND | | 5.0 | 0.76 | ug/L | | 09/22/16 06:53 | 09/23/16 15:24 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Nitrobenzene-d5* | *79* | | *46 - 120* | *09/22/16 06:53* | *09/23/16 15:24* | *1* |
| *2-Fluorobiphenyl* | *87* | | *48 - 120* | *09/22/16 06:53* | *09/23/16 15:24* | *1* |
| *p-Terphenyl-d14* | *81* | | *67 - 150* | *09/22/16 06:53* | *09/23/16 15:24* | *1* |

### Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **0.0016** | **J** | 0.0040 | 0.0010 | mg/L | | 09/22/16 08:55 | 09/22/16 20:50 | 1 |
| **Iron** | **30.5** | | 0.050 | 0.019 | mg/L | | 09/22/16 08:55 | 09/22/16 20:50 | 1 |
| Lead | ND | | 0.0050 | 0.0030 | mg/L | | 09/22/16 08:55 | 09/22/16 20:50 | 1 |
| **Manganese** | **1.4** | | 0.0030 | 0.00040 | mg/L | | 09/22/16 08:55 | 09/22/16 20:50 | 1 |

### Method: 6020A - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Antimony** | **2.3** | | 1.0 | 0.35 | ug/L | | 09/22/16 08:45 | 09/23/16 08:15 | 1 |
| **Arsenic** | **12.7** | | 1.0 | 0.27 | ug/L | | 09/22/16 08:45 | 09/23/16 08:15 | 1 |
| Cadmium | ND | | 0.50 | 0.071 | ug/L | | 09/22/16 08:45 | 09/23/16 08:15 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00012 | mg/L | | 09/22/16 10:10 | 09/22/16 13:54 | 1 |

## Client Sample ID: MW-2-092116

**Date Collected: 09/21/16 13:00**
**Date Received: 09/21/16 14:35**

## Lab Sample ID: 480-106314-6

**Matrix: Water**

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | ND | | 1.0 | 0.79 | ug/L | | | 09/27/16 01:14 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | 0.84 | ug/L | | | 09/27/16 01:14 | 1 |
| Benzene | ND | | 1.0 | 0.41 | ug/L | | | 09/27/16 01:14 | 1 |
| Chlorobenzene | ND | | 1.0 | 0.75 | ug/L | | | 09/27/16 01:14 | 1 |
| Ethylbenzene | ND | | 1.0 | 0.74 | ug/L | | | 09/27/16 01:14 | 1 |
| Xylenes, Total | ND | | 2.0 | 0.66 | ug/L | | | 09/27/16 01:14 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *109* | | *77 - 120* | | *09/27/16 01:14* | *1* |
| *4-Bromofluorobenzene (Surr)* | *94* | | *73 - 120* | | *09/27/16 01:14* | *1* |
| *Toluene-d8 (Surr)* | *95* | | *80 - 120* | | *09/27/16 01:14* | *1* |
| *Dibromofluoromethane (Surr)* | *108* | | *75 - 123* | | *09/27/16 01:14* | *1* |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chloroaniline | ND | | 4.6 | 0.54 | ug/L | | 09/22/16 06:53 | 09/23/16 15:53 | 1 |
| Naphthalene | ND | | 4.6 | 0.70 | ug/L | | 09/22/16 06:53 | 09/23/16 15:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Nitrobenzene-d5* | *63* | | *46 - 120* | *09/22/16 06:53* | *09/23/16 15:53* | *1* |
| *2-Fluorobiphenyl* | *73* | | *48 - 120* | *09/22/16 06:53* | *09/23/16 15:53* | *1* |
| *p-Terphenyl-d14* | *74* | | *67 - 150* | *09/22/16 06:53* | *09/23/16 15:53* | *1* |

### Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **0.0014** | **J** | 0.0040 | 0.0010 | mg/L | | 09/22/16 08:55 | 09/22/16 21:11 | 1 |
| **Iron** | **0.047** | **J** | 0.050 | 0.019 | mg/L | | 09/22/16 08:55 | 09/22/16 21:11 | 1 |
| Lead | ND | | 0.0050 | 0.0030 | mg/L | | 09/22/16 08:55 | 09/22/16 21:11 | 1 |
| **Manganese** | **0.010** | | 0.0030 | 0.00040 | mg/L | | 09/22/16 08:55 | 09/22/16 21:11 | 1 |

### Method: 6020A - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Antimony** | **1.1** | | 1.0 | 0.35 | ug/L | | 09/22/16 08:45 | 09/23/16 09:03 | 1 |
| **Arsenic** | **2.0** | | 1.0 | 0.27 | ug/L | | 09/22/16 08:45 | 09/23/16 09:03 | 1 |
| Cadmium | ND | | 0.50 | 0.071 | ug/L | | 09/22/16 08:45 | 09/23/16 09:03 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00012 | mg/L | | 09/22/16 10:10 | 09/22/16 14:01 | 1 |

## Client Sample ID: FDUP-SUMP 4 092116

**Date Collected: 09/21/16 08:45**
**Date Received: 09/21/16 14:35**

## Lab Sample ID: 480-106314-7

**Matrix: Water**

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | ND | | 4.0 | 3.2 | ug/L | | | 09/27/16 01:38 | 4 |
| 1,4-Dichlorobenzene | ND | | 4.0 | 3.4 | ug/L | | | 09/27/16 01:38 | 4 |
| Benzene | ND | | 4.0 | 1.6 | ug/L | | | 09/27/16 01:38 | 4 |
| **Chlorobenzene** | **16** | | 4.0 | 3.0 | ug/L | | | 09/27/16 01:38 | 4 |
| Ethylbenzene | ND | | 4.0 | 3.0 | ug/L | | | 09/27/16 01:38 | 4 |
| Xylenes, Total | ND | | 8.0 | 2.6 | ug/L | | | 09/27/16 01:38 | 4 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *103* | | *77 - 120* | | *09/27/16 01:38* | *4* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *73 - 120* | | *09/27/16 01:38* | *4* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* | | *09/27/16 01:38* | *4* |
| *Dibromofluoromethane (Surr)* | *107* | | *75 - 123* | | *09/27/16 01:38* | *4* |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chloroaniline | ND | | 5.0 | 0.59 | ug/L | | 09/22/16 06:53 | 09/23/16 16:22 | 1 |
| Naphthalene | ND | | 5.0 | 0.76 | ug/L | | 09/22/16 06:53 | 09/23/16 16:22 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Nitrobenzene-d5* | *75* | | *46 - 120* | *09/22/16 06:53* | *09/23/16 16:22* | *1* |
| *2-Fluorobiphenyl* | *84* | | *48 - 120* | *09/22/16 06:53* | *09/23/16 16:22* | *1* |
| *p-Terphenyl-d14* | *77* | | *67 - 150* | *09/22/16 06:53* | *09/23/16 16:22* | *1* |

### Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **0.0013** | **J** | 0.0040 | 0.0010 | mg/L | | 09/22/16 08:55 | 09/22/16 21:14 | 1 |
| **Iron** | **26.9** | | 0.050 | 0.019 | mg/L | | 09/22/16 08:55 | 09/22/16 21:14 | 1 |
| Lead | ND | | 0.0050 | 0.0030 | mg/L | | 09/22/16 08:55 | 09/22/16 21:14 | 1 |
| **Manganese** | **1.4** | | 0.0030 | 0.00040 | mg/L | | 09/22/16 08:55 | 09/22/16 21:14 | 1 |

### Method: 6020A - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Antimony** | **1.6** | | 1.0 | 0.35 | ug/L | | 09/22/16 08:45 | 09/23/16 09:09 | 1 |
| **Arsenic** | **11.5** | | 1.0 | 0.27 | ug/L | | 09/22/16 08:45 | 09/23/16 09:09 | 1 |
| Cadmium | ND | | 0.50 | 0.071 | ug/L | | 09/22/16 08:45 | 09/23/16 09:09 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00012 | mg/L | | 09/22/16 10:10 | 09/22/16 14:02 | 1 |

Client: Honeywell International Inc
Project/Site: 30130 - Alltift GW Monitoring

TestAmerica Job ID: 480-106314-1

**Client Sample ID: TRIP BLANK**
**Date Collected: 09/21/16 00:00**
**Date Received: 09/21/16 14:35**

**Lab Sample ID: 480-106314-8**
**Matrix: Water**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | ND | | 1.0 | 0.79 | ug/L | | | 09/27/16 16:46 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | 0.84 | ug/L | | | 09/27/16 16:46 | 1 |
| Benzene | ND | | 1.0 | 0.41 | ug/L | | | 09/27/16 16:46 | 1 |
| Chlorobenzene | ND | | 1.0 | 0.75 | ug/L | | | 09/27/16 16:46 | 1 |
| Ethylbenzene | ND | | 1.0 | 0.74 | ug/L | | | 09/27/16 16:46 | 1 |
| Xylenes, Total | ND | | 2.0 | 0.66 | ug/L | | | 09/27/16 16:46 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *104* | | *77 - 120* | | *09/27/16 16:46* | *1* |
| *4-Bromofluorobenzene (Surr)* | *100* | | *73 - 120* | | *09/27/16 16:46* | *1* |
| *Toluene-d8 (Surr)* | *96* | | *80 - 120* | | *09/27/16 16:46* | *1* |
| *Dibromofluoromethane (Surr)* | *110* | | *75 - 123* | | *09/27/16 16:46* | *1* |

# Surrogate Summary

Client: Honeywell International Inc
Project/Site: 30130 - Alltift GW Monitoring

TestAmerica Job ID: 480-106314-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

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

| | | Percent Surrogate Recovery (Acceptance Limits) | | | |
|---|---|---|---|---|---|
| | | 12DCE | BFB | TOL | DBFM |
| Lab Sample ID | Client Sample ID | (77-120) | (73-120) | (80-120) | (75-123) |
| 480-106314-2 | Sump 1-092116 | 102 | 97 | 94 | 105 |
| 480-106314-3 | Sump 2-092116 | 101 | 98 | 95 | 104 |
| 480-106314-4 | Sump 3-092116 | 104 | 96 | 96 | 109 |
| 480-106314-5 | Sump 4-092116 | 104 | 98 | 97 | 107 |
| 480-106314-5 MS | Sump 4-092116 MS | 100 | 104 | 96 | 108 |
| 480-106314-5 MSD | Sump 4-092116 MSD | 99 | 101 | 99 | 104 |
| 480-106314-6 | MW-2-092116 | 109 | 94 | 95 | 108 |
| 480-106314-7 | FDUP-SUMP 4 092116 | 103 | 99 | 98 | 107 |
| 480-106314-8 | TRIP BLANK | 104 | 100 | 96 | 110 |
| LCS 480-322455/5 | Lab Control Sample | 97 | 98 | 96 | 103 |
| LCS 480-322567/4 | Lab Control Sample | 98 | 101 | 98 | 103 |
| LCSD 480-322455/6 | Lab Control Sample Dup | 94 | 98 | 97 | 103 |
| MB 480-322455/8 | Method Blank | 99 | 100 | 98 | 102 |
| MB 480-322567/6 | Method Blank | 100 | 94 | 94 | 106 |

**Surrogate Legend**

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

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

| | | Percent Surrogate Recovery (Acceptance Limits) | | |
|---|---|---|---|---|
| | | NBZ | FBP | TPH |
| Lab Sample ID | Client Sample ID | (46-120) | (48-120) | (67-150) |
| 480-106314-1 | Sump Comp-092116 | 80 | 89 | 81 |
| 480-106314-5 | Sump 4-092116 | 79 | 87 | 81 |
| 480-106314-5 MS | Sump 4-092116 MS | 79 | 88 | 63 X |
| 480-106314-5 MSD | Sump 4-092116 MSD | 83 | 90 | 63 X |
| 480-106314-6 | MW-2-092116 | 63 | 73 | 74 |
| 480-106314-7 | FDUP-SUMP 4 092116 | 75 | 84 | 77 |
| LCS 480-321648/2-A | Lab Control Sample | 80 | 86 | 94 |
| MB 480-321648/1-A | Method Blank | 69 | 79 | 92 |

**Surrogate Legend**

NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TPH = p-Terphenyl-d14

## Method: 8260C - Volatile Organic Compounds by GC/MS

### Lab Sample ID: MB 480-322455/8
**Matrix: Water**
**Analysis Batch: 322455**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | ND | | 1.0 | 0.79 | ug/L | | | 09/26/16 22:55 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | 0.84 | ug/L | | | 09/26/16 22:55 | 1 |
| Benzene | ND | | 1.0 | 0.41 | ug/L | | | 09/26/16 22:55 | 1 |
| Chlorobenzene | ND | | 1.0 | 0.75 | ug/L | | | 09/26/16 22:55 | 1 |
| Ethylbenzene | ND | | 1.0 | 0.74 | ug/L | | | 09/26/16 22:55 | 1 |
| Xylenes, Total | ND | | 2.0 | 0.66 | ug/L | | | 09/26/16 22:55 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *99* | | *77 - 120* | | *09/26/16 22:55* | *1* |
| *4-Bromofluorobenzene (Surr)* | *100* | | *73 - 120* | | *09/26/16 22:55* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* | | *09/26/16 22:55* | *1* |
| *Dibromofluoromethane (Surr)* | *102* | | *75 - 123* | | *09/26/16 22:55* | *1* |

### Lab Sample ID: LCS 480-322455/5
**Matrix: Water**
**Analysis Batch: 322455**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | | | 25.0 | 22.2 | | ug/L | | 89 | 80 - 124 | | |
| 1,4-Dichlorobenzene | | | 25.0 | 22.6 | | ug/L | | 91 | 80 - 120 | | |
| Benzene | | | 25.0 | 22.1 | | ug/L | | 88 | 71 - 124 | | |
| Chlorobenzene | | | 25.0 | 21.7 | | ug/L | | 87 | 80 - 120 | | |
| Ethylbenzene | | | 25.0 | 21.1 | | ug/L | | 84 | 77 - 123 | | |
| Xylenes, Total | | | 50.0 | 42.8 | | ug/L | | 86 | 76 - 122 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *97* | | *77 - 120* |
| *4-Bromofluorobenzene (Surr)* | *98* | | *73 - 120* |
| *Toluene-d8 (Surr)* | *96* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *103* | | *75 - 123* |

### Lab Sample ID: LCSD 480-322455/6
**Matrix: Water**
**Analysis Batch: 322455**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | | | 25.0 | 22.3 | | ug/L | | 89 | 80 - 124 | 1 | 20 |
| 1,4-Dichlorobenzene | | | 25.0 | 22.1 | | ug/L | | 89 | 80 - 120 | 2 | 20 |
| Benzene | | | 25.0 | 21.8 | | ug/L | | 87 | 71 - 124 | 1 | 13 |
| Chlorobenzene | | | 25.0 | 22.3 | | ug/L | | 89 | 80 - 120 | 3 | 25 |
| Ethylbenzene | | | 25.0 | 22.2 | | ug/L | | 89 | 77 - 123 | 5 | 15 |
| Xylenes, Total | | | 50.0 | 44.5 | | ug/L | | 89 | 76 - 122 | 4 | 16 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *94* | | *77 - 120* |
| *4-Bromofluorobenzene (Surr)* | *98* | | *73 - 120* |
| *Toluene-d8 (Surr)* | *97* | | *80 - 120* |

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCSD 480-322455/6**
**Matrix: Water**
**Analysis Batch: 322455**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *103* | | *75 - 123* |

**Lab Sample ID: 480-106314-5 MS**
**Matrix: Water**
**Analysis Batch: 322455**

**Client Sample ID: Sump 4-092116 MS**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | ND | | 100 | 94.8 | | ug/L | | 95 | 80 - 124 |
| 1,4-Dichlorobenzene | ND | | 100 | 93.8 | | ug/L | | 94 | 78 - 124 |
| Benzene | ND | | 100 | 94.7 | | ug/L | | 95 | 71 - 124 |
| Chlorobenzene | 12 | | 100 | 105 | | ug/L | | 93 | 80 - 120 |
| Ethylbenzene | ND | | 100 | 91.0 | | ug/L | | 91 | 77 - 123 |
| Xylenes, Total | ND | | 200 | 184 | | ug/L | | 92 | 76 - 122 |

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *100* | | *77 - 120* |
| *4-Bromofluorobenzene (Surr)* | *104* | | *73 - 120* |
| *Toluene-d8 (Surr)* | *96* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *108* | | *75 - 123* |

**Lab Sample ID: 480-106314-5 MSD**
**Matrix: Water**
**Analysis Batch: 322455**

**Client Sample ID: Sump 4-092116 MSD**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | ND | | 100 | 90.1 | | ug/L | | 90 | 80 - 124 | 5 | 20 |
| 1,4-Dichlorobenzene | ND | | 100 | 92.6 | | ug/L | | 93 | 78 - 124 | 1 | 20 |
| Benzene | ND | | 100 | 92.8 | | ug/L | | 93 | 71 - 124 | 2 | 13 |
| Chlorobenzene | 12 | | 100 | 106 | | ug/L | | 94 | 80 - 120 | 1 | 25 |
| Ethylbenzene | ND | | 100 | 91.8 | | ug/L | | 92 | 77 - 123 | 1 | 15 |
| Xylenes, Total | ND | | 200 | 187 | | ug/L | | 94 | 76 - 122 | 2 | 16 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *99* | | *77 - 120* |
| *4-Bromofluorobenzene (Surr)* | *101* | | *73 - 120* |
| *Toluene-d8 (Surr)* | *99* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *104* | | *75 - 123* |

**Lab Sample ID: MB 480-322567/6**
**Matrix: Water**
**Analysis Batch: 322567**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | ND | | 1.0 | 0.79 | ug/L | | | 09/27/16 11:14 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | 0.84 | ug/L | | | 09/27/16 11:14 | 1 |
| Benzene | ND | | 1.0 | 0.41 | ug/L | | | 09/27/16 11:14 | 1 |
| Chlorobenzene | ND | | 1.0 | 0.75 | ug/L | | | 09/27/16 11:14 | 1 |

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: MB 480-322567/6**
**Matrix: Water**
**Analysis Batch: 322567**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | ND | | 1.0 | 0.74 | ug/L | | | 09/27/16 11:14 | 1 |
| Xylenes, Total | ND | | 2.0 | 0.66 | ug/L | | | 09/27/16 11:14 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *100* | | *77 - 120* | | *09/27/16 11:14* | *1* |
| *4-Bromofluorobenzene (Surr)* | *94* | | *73 - 120* | | *09/27/16 11:14* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *80 - 120* | | *09/27/16 11:14* | *1* |
| *Dibromofluoromethane (Surr)* | *106* | | *75 - 123* | | *09/27/16 11:14* | *1* |

**Lab Sample ID: LCS 480-322567/4**
**Matrix: Water**
**Analysis Batch: 322567**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | 25.0 | 23.8 | | ug/L | | 95 | 80 - 124 |
| 1,4-Dichlorobenzene | 25.0 | 23.6 | | ug/L | | 94 | 80 - 120 |
| Benzene | 25.0 | 25.2 | | ug/L | | 101 | 71 - 124 |
| Chlorobenzene | 25.0 | 24.7 | | ug/L | | 99 | 80 - 120 |
| Ethylbenzene | 25.0 | 24.5 | | ug/L | | 98 | 77 - 123 |
| Xylenes, Total | 50.0 | 49.7 | | ug/L | | 99 | 76 - 122 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *98* | | *77 - 120* |
| *4-Bromofluorobenzene (Surr)* | *101* | | *73 - 120* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *103* | | *75 - 123* |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 480-321648/1-A**
**Matrix: Water**
**Analysis Batch: 321926**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321648**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chloroaniline | ND | | 5.0 | 0.59 | ug/L | | 09/22/16 06:53 | 09/23/16 10:04 | 1 |
| Naphthalene | ND | | 5.0 | 0.76 | ug/L | | 09/22/16 06:53 | 09/23/16 10:04 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Nitrobenzene-d5* | *69* | | *46 - 120* | *09/22/16 06:53* | *09/23/16 10:04* | *1* |
| *2-Fluorobiphenyl* | *79* | | *48 - 120* | *09/22/16 06:53* | *09/23/16 10:04* | *1* |
| *p-Terphenyl-d14* | *92* | | *67 - 150* | *09/22/16 06:53* | *09/23/16 10:04* | *1* |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 480-321648/2-A**
**Matrix: Water**
**Analysis Batch: 321926**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321648**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 4-Chloroaniline | 16.0 | 12.2 | | ug/L | | 76 | 10 - 130 |
| Naphthalene | 16.0 | 13.6 | | ug/L | | 85 | 35 - 130 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Nitrobenzene-d5* | *80* | | *46 - 120* |
| *2-Fluorobiphenyl* | *86* | | *48 - 120* |
| *p-Terphenyl-d14* | *94* | | *67 - 150* |

**Lab Sample ID: 480-106314-5 MS**
**Matrix: Water**
**Analysis Batch: 321926**

**Client Sample ID: Sump 4-092116 MS**
**Prep Type: Total/NA**
**Prep Batch: 321648**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chloroaniline | ND | F1 | 16.0 | 6.89 | F1 | ug/L | | 43 | 60 - 124 |
| Naphthalene | ND | | 16.0 | 13.2 | | ug/L | | 83 | 35 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Nitrobenzene-d5* | *79* | | *46 - 120* |
| *2-Fluorobiphenyl* | *88* | | *48 - 120* |
| *p-Terphenyl-d14* | *63* | *X* | *67 - 150* |

**Lab Sample ID: 480-106314-5 MSD**
**Matrix: Water**
**Analysis Batch: 321926**

**Client Sample ID: Sump 4-092116 MSD**
**Prep Type: Total/NA**
**Prep Batch: 321648**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4-Chloroaniline | ND | F1 | 16.0 | 6.79 | F1 | ug/L | | 42 | 60 - 124 | 1 | 22 |
| Naphthalene | ND | | 16.0 | 13.8 | | ug/L | | 86 | 35 - 130 | 4 | 29 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Nitrobenzene-d5* | *83* | | *46 - 120* |
| *2-Fluorobiphenyl* | *90* | | *48 - 120* |
| *p-Terphenyl-d14* | *63* | *X* | *67 - 150* |

## Method: 6010C - Metals (ICP)

**Lab Sample ID: MB 480-321652/1-A**
**Matrix: Water**
**Analysis Batch: 321917**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321652**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | | 0.0040 | 0.0010 | mg/L | | 09/22/16 08:15 | 09/22/16 18:03 | 1 |
| Iron | 0.0355 | J | 0.050 | 0.019 | mg/L | | 09/22/16 08:15 | 09/22/16 18:03 | 1 |
| Lead | ND | | 0.0050 | 0.0030 | mg/L | | 09/22/16 08:15 | 09/22/16 18:03 | 1 |
| Manganese | ND | | 0.0030 | 0.00040 | mg/L | | 09/22/16 08:15 | 09/22/16 18:03 | 1 |

## Method: 6010C - Metals (ICP) (Continued)

**Lab Sample ID: LCS 480-321652/2-A**
**Matrix: Water**
**Analysis Batch: 321917**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321652**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium | 0.200 | 0.192 | | mg/L | | 96 | 80 - 120 |
| Iron | 10.0 | 11.24 | | mg/L | | 112 | 80 - 120 |
| Lead | 0.200 | 0.198 | | mg/L | | 99 | 80 - 120 |
| Manganese | 0.200 | 0.201 | | mg/L | | 100 | 80 - 120 |

**Lab Sample ID: MB 480-321680/1-A**
**Matrix: Water**
**Analysis Batch: 321918**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321680**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | | 0.0040 | 0.0010 | mg/L | | 09/22/16 08:55 | 09/22/16 19:57 | 1 |
| Iron | ND | | 0.050 | 0.019 | mg/L | | 09/22/16 08:55 | 09/22/16 19:57 | 1 |
| Lead | ND | | 0.0050 | 0.0030 | mg/L | | 09/22/16 08:55 | 09/22/16 19:57 | 1 |
| Manganese | ND | | 0.0030 | 0.00040 | mg/L | | 09/22/16 08:55 | 09/22/16 19:57 | 1 |

**Lab Sample ID: LCS 480-321680/2-A**
**Matrix: Water**
**Analysis Batch: 321918**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321680**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium | 0.200 | 0.192 | | mg/L | | 96 | 80 - 120 |
| Iron | 10.0 | 11.33 | | mg/L | | 113 | 80 - 120 |
| Lead | 0.200 | 0.200 | | mg/L | | 100 | 80 - 120 |
| Manganese | 0.200 | 0.202 | | mg/L | | 101 | 80 - 120 |

**Lab Sample ID: LCSD 480-321680/22-A**
**Matrix: Water**
**Analysis Batch: 321918**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321680**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 0.200 | 0.194 | | mg/L | | 97 | 80 - 120 | 1 | 20 |
| Iron | 10.0 | 11.46 | | mg/L | | 115 | 80 - 120 | 1 | 20 |
| Lead | 0.200 | 0.198 | | mg/L | | 99 | 80 - 120 | 1 | 20 |
| Manganese | 0.200 | 0.206 | | mg/L | | 103 | 80 - 120 | 2 | 20 |

**Lab Sample ID: 480-106314-5 MS**
**Matrix: Water**
**Analysis Batch: 321918**

**Client Sample ID: Sump 4-092116 MS**
**Prep Type: Total/NA**
**Prep Batch: 321680**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 0.0016 | J | 0.200 | 0.190 | | mg/L | | 94 | 75 - 125 |
| Iron | 30.5 | | 10.0 | 39.39 | | mg/L | | 88 | 75 - 125 |
| Lead | ND | | 0.200 | 0.205 | | mg/L | | 103 | 75 - 125 |
| Manganese | 1.4 | | 0.200 | 1.59 | 4 | mg/L | | 87 | 75 - 125 |

## Method: 6010C - Metals (ICP) (Continued)

**Lab Sample ID: 480-106314-5 MSD**
**Matrix: Water**
**Analysis Batch: 321918**

**Client Sample ID: Sump 4-092116 MSD**
**Prep Type: Total/NA**
**Prep Batch: 321680**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 0.0016 | J | 0.200 | 0.188 | | mg/L | | 93 | 75 - 125 | 1 | 20 |
| Iron | 30.5 | | 10.0 | 38.03 | | mg/L | | 75 | 75 - 125 | 4 | 20 |
| Lead | ND | | 0.200 | 0.204 | | mg/L | | 102 | 75 - 125 | 1 | 20 |
| Manganese | 1.4 | | 0.200 | 1.60 | 4 | mg/L | | 90 | 75 - 125 | 0 | 20 |

## Method: 6020A - Metals (ICP/MS)

**Lab Sample ID: MB 480-321683/1-A**
**Matrix: Water**
**Analysis Batch: 322010**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321683**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 1.0 | 0.35 | ug/L | | 09/22/16 08:45 | 09/23/16 06:32 | 1 |
| Arsenic | ND | | 1.0 | 0.27 | ug/L | | 09/22/16 08:45 | 09/23/16 06:32 | 1 |
| Cadmium | ND | | 0.50 | 0.071 | ug/L | | 09/22/16 08:45 | 09/23/16 06:32 | 1 |

**Lab Sample ID: LCS 480-321683/2-A**
**Matrix: Water**
**Analysis Batch: 322010**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321683**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Antimony | 20.0 | 18.67 | | ug/L | | 93 | 80 - 120 |
| Arsenic | 20.0 | 19.11 | | ug/L | | 96 | 80 - 120 |
| Cadmium | 20.0 | 19.48 | | ug/L | | 97 | 80 - 120 |

**Lab Sample ID: 480-106314-5 MS**
**Matrix: Water**
**Analysis Batch: 322010**

**Client Sample ID: Sump 4-092116 MS**
**Prep Type: Total/NA**
**Prep Batch: 321683**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 2.3 | | 20.0 | 23.27 | | ug/L | | 105 | 75 - 125 |
| Arsenic | 12.7 | | 20.0 | 33.30 | | ug/L | | 103 | 75 - 125 |
| Cadmium | ND | | 20.0 | 19.47 | | ug/L | | 97 | 75 - 125 |

**Lab Sample ID: 480-106314-5 MSD**
**Matrix: Water**
**Analysis Batch: 322010**

**Client Sample ID: Sump 4-092116 MSD**
**Prep Type: Total/NA**
**Prep Batch: 321683**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 2.3 | | 20.0 | 22.93 | | ug/L | | 103 | 75 - 125 | 1 | 20 |
| Arsenic | 12.7 | | 20.0 | 31.41 | | ug/L | | 94 | 75 - 125 | 6 | 20 |
| Cadmium | ND | | 20.0 | 19.93 | | ug/L | | 100 | 75 - 125 | 2 | 20 |

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 480-321711/1-A**
**Matrix: Water**
**Analysis Batch: 321817**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321711**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00012 | mg/L | | 09/22/16 10:10 | 09/22/16 13:24 | 1 |

**Lab Sample ID: LCS 480-321711/2-A**
**Matrix: Water**
**Analysis Batch: 321817**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321711**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Mercury | 0.00667 | 0.00702 | | mg/L | | 105 | 80 - 120 |

**Lab Sample ID: LCSD 480-321711/21-A**
**Matrix: Water**
**Analysis Batch: 321817**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321711**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.00667 | 0.00655 | | mg/L | | 98 | 80 - 120 | 7 | 20 |

**Lab Sample ID: 480-106314-5 MS**
**Matrix: Water**
**Analysis Batch: 321817**

**Client Sample ID: Sump 4-092116 MS**
**Prep Type: Total/NA**
**Prep Batch: 321711**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00667 | 0.00603 | | mg/L | | 90 | 80 - 120 |

**Lab Sample ID: 480-106314-5 MSD**
**Matrix: Water**
**Analysis Batch: 321817**

**Client Sample ID: Sump 4-092116 MSD**
**Prep Type: Total/NA**
**Prep Batch: 321711**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00667 | 0.00613 | | mg/L | | 92 | 80 - 120 | 2 | 20 |

## GC/MS VOA

### Analysis Batch: 322455

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-106314-2 | Sump 1-092116 | Total/NA | Water | 8260C | |
| 480-106314-3 | Sump 2-092116 | Total/NA | Water | 8260C | |
| 480-106314-4 | Sump 3-092116 | Total/NA | Water | 8260C | |
| 480-106314-5 | Sump 4-092116 | Total/NA | Water | 8260C | |
| 480-106314-6 | MW-2-092116 | Total/NA | Water | 8260C | |
| 480-106314-7 | FDUP-SUMP 4 092116 | Total/NA | Water | 8260C | |
| MB 480-322455/8 | Method Blank | Total/NA | Water | 8260C | |
| LCS 480-322455/5 | Lab Control Sample | Total/NA | Water | 8260C | |
| LCSD 480-322455/6 | Lab Control Sample Dup | Total/NA | Water | 8260C | |
| 480-106314-5 MS | Sump 4-092116 MS | Total/NA | Water | 8260C | |
| 480-106314-5 MSD | Sump 4-092116 MSD | Total/NA | Water | 8260C | |

### Analysis Batch: 322567

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-106314-8 | TRIP BLANK | Total/NA | Water | 8260C | |
| MB 480-322567/6 | Method Blank | Total/NA | Water | 8260C | |
| LCS 480-322567/4 | Lab Control Sample | Total/NA | Water | 8260C | |

## GC/MS Semi VOA

### Prep Batch: 321648

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-106314-1 | Sump Comp-092116 | Total/NA | Water | 3510C | |
| 480-106314-5 | Sump 4-092116 | Total/NA | Water | 3510C | |
| 480-106314-6 | MW-2-092116 | Total/NA | Water | 3510C | |
| 480-106314-7 | FDUP-SUMP 4 092116 | Total/NA | Water | 3510C | |
| MB 480-321648/1-A | Method Blank | Total/NA | Water | 3510C | |
| LCS 480-321648/2-A | Lab Control Sample | Total/NA | Water | 3510C | |
| 480-106314-5 MS | Sump 4-092116 MS | Total/NA | Water | 3510C | |
| 480-106314-5 MSD | Sump 4-092116 MSD | Total/NA | Water | 3510C | |

### Analysis Batch: 321926

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-106314-1 | Sump Comp-092116 | Total/NA | Water | 8270D | 321648 |
| 480-106314-5 | Sump 4-092116 | Total/NA | Water | 8270D | 321648 |
| 480-106314-6 | MW-2-092116 | Total/NA | Water | 8270D | 321648 |
| 480-106314-7 | FDUP-SUMP 4 092116 | Total/NA | Water | 8270D | 321648 |
| MB 480-321648/1-A | Method Blank | Total/NA | Water | 8270D | 321648 |
| LCS 480-321648/2-A | Lab Control Sample | Total/NA | Water | 8270D | 321648 |
| 480-106314-5 MS | Sump 4-092116 MS | Total/NA | Water | 8270D | 321648 |
| 480-106314-5 MSD | Sump 4-092116 MSD | Total/NA | Water | 8270D | 321648 |

## Metals

### Prep Batch: 321652

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-106314-1 | Sump Comp-092116 | Total/NA | Water | 3005A | |
| MB 480-321652/1-A | Method Blank | Total/NA | Water | 3005A | |
| LCS 480-321652/2-A | Lab Control Sample | Total/NA | Water | 3005A | |

## Metals (Continued)

### Prep Batch: 321680

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-106314-5 | Sump 4-092116 | Total/NA | Water | 3005A | |
| 480-106314-6 | MW-2-092116 | Total/NA | Water | 3005A | |
| 480-106314-7 | FDUP-SUMP 4 092116 | Total/NA | Water | 3005A | |
| MB 480-321680/1-A | Method Blank | Total/NA | Water | 3005A | |
| LCS 480-321680/2-A | Lab Control Sample | Total/NA | Water | 3005A | |
| LCSD 480-321680/22-A | Lab Control Sample Dup | Total/NA | Water | 3005A | |
| 480-106314-5 MS | Sump 4-092116 MS | Total/NA | Water | 3005A | |
| 480-106314-5 MSD | Sump 4-092116 MSD | Total/NA | Water | 3005A | |

### Prep Batch: 321683

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-106314-1 | Sump Comp-092116 | Total/NA | Water | 3020A | |
| 480-106314-5 | Sump 4-092116 | Total/NA | Water | 3020A | |
| 480-106314-6 | MW-2-092116 | Total/NA | Water | 3020A | |
| 480-106314-7 | FDUP-SUMP 4 092116 | Total/NA | Water | 3020A | |
| MB 480-321683/1-A | Method Blank | Total/NA | Water | 3020A | |
| LCS 480-321683/2-A | Lab Control Sample | Total/NA | Water | 3020A | |
| 480-106314-5 MS | Sump 4-092116 MS | Total/NA | Water | 3020A | |
| 480-106314-5 MSD | Sump 4-092116 MSD | Total/NA | Water | 3020A | |

### Prep Batch: 321711

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-106314-1 | Sump Comp-092116 | Total/NA | Water | 7470A | |
| 480-106314-5 | Sump 4-092116 | Total/NA | Water | 7470A | |
| 480-106314-6 | MW-2-092116 | Total/NA | Water | 7470A | |
| 480-106314-7 | FDUP-SUMP 4 092116 | Total/NA | Water | 7470A | |
| MB 480-321711/1-A | Method Blank | Total/NA | Water | 7470A | |
| LCS 480-321711/2-A | Lab Control Sample | Total/NA | Water | 7470A | |
| LCSD 480-321711/21-A | Lab Control Sample Dup | Total/NA | Water | 7470A | |
| 480-106314-5 MS | Sump 4-092116 MS | Total/NA | Water | 7470A | |
| 480-106314-5 MSD | Sump 4-092116 MSD | Total/NA | Water | 7470A | |

### Analysis Batch: 321817

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-106314-1 | Sump Comp-092116 | Total/NA | Water | 7470A | 321711 |
| 480-106314-5 | Sump 4-092116 | Total/NA | Water | 7470A | 321711 |
| 480-106314-6 | MW-2-092116 | Total/NA | Water | 7470A | 321711 |
| 480-106314-7 | FDUP-SUMP 4 092116 | Total/NA | Water | 7470A | 321711 |
| MB 480-321711/1-A | Method Blank | Total/NA | Water | 7470A | 321711 |
| LCS 480-321711/2-A | Lab Control Sample | Total/NA | Water | 7470A | 321711 |
| LCSD 480-321711/21-A | Lab Control Sample Dup | Total/NA | Water | 7470A | 321711 |
| 480-106314-5 MS | Sump 4-092116 MS | Total/NA | Water | 7470A | 321711 |
| 480-106314-5 MSD | Sump 4-092116 MSD | Total/NA | Water | 7470A | 321711 |

### Analysis Batch: 321917

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-106314-1 | Sump Comp-092116 | Total/NA | Water | 6010C | 321652 |
| MB 480-321652/1-A | Method Blank | Total/NA | Water | 6010C | 321652 |
| LCS 480-321652/2-A | Lab Control Sample | Total/NA | Water | 6010C | 321652 |

## Metals (Continued)

### Analysis Batch: 321918

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-106314-5 | Sump 4-092116 | Total/NA | Water | 6010C | 321680 |
| 480-106314-6 | MW-2-092116 | Total/NA | Water | 6010C | 321680 |
| 480-106314-7 | FDUP-SUMP 4 092116 | Total/NA | Water | 6010C | 321680 |
| MB 480-321680/1-A | Method Blank | Total/NA | Water | 6010C | 321680 |
| LCS 480-321680/2-A | Lab Control Sample | Total/NA | Water | 6010C | 321680 |
| LCSD 480-321680/22-A | Lab Control Sample Dup | Total/NA | Water | 6010C | 321680 |
| 480-106314-5 MS | Sump 4-092116 MS | Total/NA | Water | 6010C | 321680 |
| 480-106314-5 MSD | Sump 4-092116 MSD | Total/NA | Water | 6010C | 321680 |

### Analysis Batch: 322010

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-106314-1 | Sump Comp-092116 | Total/NA | Water | 6020A | 321683 |
| 480-106314-5 | Sump 4-092116 | Total/NA | Water | 6020A | 321683 |
| 480-106314-6 | MW-2-092116 | Total/NA | Water | 6020A | 321683 |
| 480-106314-7 | FDUP-SUMP 4 092116 | Total/NA | Water | 6020A | 321683 |
| MB 480-321683/1-A | Method Blank | Total/NA | Water | 6020A | 321683 |
| LCS 480-321683/2-A | Lab Control Sample | Total/NA | Water | 6020A | 321683 |
| 480-106314-5 MS | Sump 4-092116 MS | Total/NA | Water | 6020A | 321683 |
| 480-106314-5 MSD | Sump 4-092116 MSD | Total/NA | Water | 6020A | 321683 |

# Lab Chronicle

Client: Honeywell International Inc
Project/Site: 30130 - Alltift GW Monitoring

TestAmerica Job ID: 480-106314-1

## Client Sample ID: Sump Comp-092116
**Lab Sample ID: 480-106314-1**
**Date Collected: 09/21/16 10:50**
**Matrix: Water**
**Date Received: 09/21/16 14:35**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3510C | | | 321648 | 09/22/16 06:53 | RJS | TAL BUF |
| Total/NA | Analysis | 8270D | | 1 | 321926 | 09/23/16 14:55 | LMW | TAL BUF |
| Total/NA | Prep | 3005A | | | 321652 | 09/22/16 08:15 | RMZ | TAL BUF |
| Total/NA | Analysis | 6010C | | 1 | 321917 | 09/22/16 19:33 | AMH | TAL BUF |
| Total/NA | Prep | 3020A | | | 321683 | 09/22/16 08:45 | RMZ | TAL BUF |
| Total/NA | Analysis | 6020A | | 1 | 322010 | 09/23/16 08:09 | MTM2 | TAL BUF |
| Total/NA | Prep | 7470A | | | 321711 | 09/22/16 10:10 | RMZ | TAL BUF |
| Total/NA | Analysis | 7470A | | 1 | 321817 | 09/22/16 13:52 | JRK | TAL BUF |

## Client Sample ID: Sump 1-092116
**Lab Sample ID: 480-106314-2**
**Date Collected: 09/21/16 10:35**
**Matrix: Water**
**Date Received: 09/21/16 14:35**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 2 | 322455 | 09/26/16 23:37 | GTG | TAL BUF |

## Client Sample ID: Sump 2-092116
**Lab Sample ID: 480-106314-3**
**Date Collected: 09/21/16 10:10**
**Matrix: Water**
**Date Received: 09/21/16 14:35**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 5 | 322455 | 09/27/16 00:01 | GTG | TAL BUF |

## Client Sample ID: Sump 3-092116
**Lab Sample ID: 480-106314-4**
**Date Collected: 09/21/16 09:50**
**Matrix: Water**
**Date Received: 09/21/16 14:35**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 4 | 322455 | 09/27/16 00:25 | GTG | TAL BUF |

## Client Sample ID: Sump 4-092116
**Lab Sample ID: 480-106314-5**
**Date Collected: 09/21/16 08:30**
**Matrix: Water**
**Date Received: 09/21/16 14:35**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 4 | 322455 | 09/27/16 00:49 | GTG | TAL BUF |
| Total/NA | Prep | 3510C | | | 321648 | 09/22/16 06:53 | RJS | TAL BUF |
| Total/NA | Analysis | 8270D | | 1 | 321926 | 09/23/16 15:24 | LMW | TAL BUF |
| Total/NA | Prep | 3005A | | | 321680 | 09/22/16 08:55 | RMZ | TAL BUF |
| Total/NA | Analysis | 6010C | | 1 | 321918 | 09/22/16 20:50 | AMH | TAL BUF |
| Total/NA | Prep | 3020A | | | 321683 | 09/22/16 08:45 | RMZ | TAL BUF |
| Total/NA | Analysis | 6020A | | 1 | 322010 | 09/23/16 08:15 | MTM2 | TAL BUF |

# Lab Chronicle

Client: Honeywell International Inc
Project/Site: 30130 - Alltift GW Monitoring

TestAmerica Job ID: 480-106314-1

## Client Sample ID: Sump 4-092116

**Lab Sample ID: 480-106314-5**
**Matrix: Water**
**Date Collected: 09/21/16 08:30**
**Date Received: 09/21/16 14:35**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 7470A | | | 321711 | 09/22/16 10:10 | RMZ | TAL BUF |
| Total/NA | Analysis | 7470A | | 1 | 321817 | 09/22/16 13:54 | JRK | TAL BUF |

## Client Sample ID: MW-2-092116

**Lab Sample ID: 480-106314-6**
**Matrix: Water**
**Date Collected: 09/21/16 13:00**
**Date Received: 09/21/16 14:35**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 1 | 322455 | 09/27/16 01:14 | GTG | TAL BUF |
| Total/NA | Prep | 3510C | | | 321648 | 09/22/16 06:53 | RJS | TAL BUF |
| Total/NA | Analysis | 8270D | | 1 | 321926 | 09/23/16 15:53 | LMW | TAL BUF |
| Total/NA | Prep | 3005A | | | 321680 | 09/22/16 08:55 | RMZ | TAL BUF |
| Total/NA | Analysis | 6010C | | 1 | 321918 | 09/22/16 21:11 | AMH | TAL BUF |
| Total/NA | Prep | 3020A | | | 321683 | 09/22/16 08:45 | RMZ | TAL BUF |
| Total/NA | Analysis | 6020A | | 1 | 322010 | 09/23/16 09:03 | MTM2 | TAL BUF |
| Total/NA | Prep | 7470A | | | 321711 | 09/22/16 10:10 | RMZ | TAL BUF |
| Total/NA | Analysis | 7470A | | 1 | 321817 | 09/22/16 14:01 | JRK | TAL BUF |

## Client Sample ID: FDUP-SUMP 4 092116

**Lab Sample ID: 480-106314-7**
**Matrix: Water**
**Date Collected: 09/21/16 08:45**
**Date Received: 09/21/16 14:35**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 4 | 322455 | 09/27/16 01:38 | GTG | TAL BUF |
| Total/NA | Prep | 3510C | | | 321648 | 09/22/16 06:53 | RJS | TAL BUF |
| Total/NA | Analysis | 8270D | | 1 | 321926 | 09/23/16 16:22 | LMW | TAL BUF |
| Total/NA | Prep | 3005A | | | 321680 | 09/22/16 08:55 | RMZ | TAL BUF |
| Total/NA | Analysis | 6010C | | 1 | 321918 | 09/22/16 21:14 | AMH | TAL BUF |
| Total/NA | Prep | 3020A | | | 321683 | 09/22/16 08:45 | RMZ | TAL BUF |
| Total/NA | Analysis | 6020A | | 1 | 322010 | 09/23/16 09:09 | MTM2 | TAL BUF |
| Total/NA | Prep | 7470A | | | 321711 | 09/22/16 10:10 | RMZ | TAL BUF |
| Total/NA | Analysis | 7470A | | 1 | 321817 | 09/22/16 14:02 | JRK | TAL BUF |

## Client Sample ID: TRIP BLANK

**Lab Sample ID: 480-106314-8**
**Matrix: Water**
**Date Collected: 09/21/16 00:00**
**Date Received: 09/21/16 14:35**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C | | 1 | 322567 | 09/27/16 16:46 | RRS | 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: 30130 - Alltift GW Monitoring

TestAmerica Job ID: 480-106314-1

## Laboratory: TestAmerica Buffalo

The certifications listed below are applicable to this report.

| Authority | Program | EPA Region | Certification ID | Expiration Date |
|---|---|---|---|---|
| New York | NELAP | 2 | 10026 | 03-31-17 |

# Method Summary

Client: Honeywell International Inc
Project/Site: 30130 - Alltift GW Monitoring

TestAmerica Job ID: 480-106314-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260C | Volatile Organic Compounds by GC/MS | SW846 | TAL BUF |
| 8270D | Semivolatile Organic Compounds (GC/MS) | SW846 | TAL BUF |
| 6010C | Metals (ICP) | SW846 | TAL BUF |
| 6020A | Metals (ICP/MS) | 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: 30130 - Alltift GW Monitoring

TestAmerica Job ID: 480-106314-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 480-106314-1 | Sump Comp-092116 | Water | 09/21/16 10:50 | 09/21/16 14:35 |
| 480-106314-2 | Sump 1-092116 | Water | 09/21/16 10:35 | 09/21/16 14:35 |
| 480-106314-3 | Sump 2-092116 | Water | 09/21/16 10:10 | 09/21/16 14:35 |
| 480-106314-4 | Sump 3-092116 | Water | 09/21/16 09:50 | 09/21/16 14:35 |
| 480-106314-5 | Sump 4-092116 | Water | 09/21/16 08:30 | 09/21/16 14:35 |
| 480-106314-6 | MW-2-092116 | Water | 09/21/16 13:00 | 09/21/16 14:35 |
| 480-106314-7 | FDUP-SUMP 4 092116 | Water | 09/21/16 08:45 | 09/21/16 14:35 |
| 480-106314-8 | TRIP BLANK | Water | 09/21/16 00:00 | 09/21/16 14:35 |

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler: Michael Stout | Lab PM: John Schove | Carrier Tracking No(s): | COC No: 480-86477-7003.1 |
|---|---|---|---|---|
| Client Contact: John Formoza | Phone: 315-468-1663 | E-Mail: john.schove@testamericainc.com | | Page: Page 1 of 1 |
| Company: Honeywell International Inc | | | | Job #: |

| Address: 1563 Willis Ave. | Due Date Requested: | Analysis Requested | Preservation Codes: |
|---|---|---|---|
| City: Syracuse | TAT Requested (days): 2 Weeks | | A - HCL M - Hexane<br>B - NaOH N - None<br>C - Zn A<br>D - Nit<br>E - Na<br>F - Me )3<br>G - An<br>H - Asi ecahydrate<br>I - Ice<br>J - DI W<br>K - ED 480-106314 COC<br>L - EDA ecify) |
| State, Zip: NY, 13204 | | | |
| Phone: 315-468-1663 | PO #: 4400032722 | | |
| Email: john.formoza@ch2m.com | WO #: | | Other: |
| Project Name: Honeywell - Buffalo Alltift - 30130 Annual Sampling | Project #: 48004175 | | |
| Site: Honeywell - Buffalo Sites | SSOW#: | | |

| Location 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 - Metals ICP - As, Cd, Cr, Fe, Pb, Mn, Sb, 7470A, Mercury | 8270C - SVOCs (4-Chloroaniline and Napthalene) | 8260B - 1,2 - dichlorobenzene, 1,4 - dichlorobenzene, benzene, chlorobenzene, ethylbenzene, and total xylene | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | F | | D | N | A | | |
| Sump Comp - 092116 | 09/21/16 | 10:50 | G | W | N | N | 1 | 2 | | 3 | |
| Sump 1 - 092116 | 09/21/16 | 10:35 | G | W | N | N | | | 3 | 3 | |
| Sump 2 - 092116 | 09/21/16 | 10:10 | G | W | N | N | | | 3 | 3 | |
| Sump 3 - 092116 | 09/21/16 | 09:50 | G | W | N | N | | | 3 | 3 | |
| Sump 4- 092116 | 09/21/16 | 0830 | G | W | N | N | 1 | 2 | 3 | 6 | |
| MW2 - 092116 | 09/21/16 | 13:00 | G | W | N | N | 1 | 2 | 3 | 6 | |
| FDUP - Sump 4 092116 | 09/21/16 | 0845 | G | W | N | N | 1 | 2 | 3 | 6 | |
| Trip Blank | 09/21/16 | | G | W | N | N | | | 1 | 1 | Trip Blank |
| Sump 4 092116 MS | 09/21/16 | 0835 | G | W | N | N | 1 | 2 | 3 | 6 | |
| Sump 4 092116 MSD | 09/21/16 | 0840 | G | W | N | N | 1 | 2 | 3 | 6 | |

| Possible Hazard Identification | Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) |
|---|---|
| ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological | ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months |
| Deliverable Requested: I, II, III, IV, Other (specify) | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|
| Relinquished by: Bethany Allen | Date/Time: 9/21/16 14:35 | Company: CH2M | Received by: | Date/Time: 9/21/16 1435 | Company: TABLE. |
| 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: 4.1°C IR-1 | | |

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9/29/2016

# Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 480-106314-1

**Login Number: 106314**
**List Number: 1**
**Creator: Kolb, Chris M**

**List Source: TestAmerica Buffalo**

| 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 (Excluding tests with immediate HTs).. | 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 | CH2MHILL |
| Samples received within 48 hours of sampling. | True | |
| Samples requiring field filtration have been filtered in the field. | True | |
| Chlorine Residual checked. | N/A | |