

March 30, 2012

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

Subject: 2011 Periodic Review Report

Alltift Landfill Site /Ramco Steel Site

Site Nos. 9-15-054 /9-15-046B

Dear Mr. Moore:

AMEC Environment and Infrastructure, Inc. (Amec), formerly 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 proposed deed restrictions. A report titled "2011 Annual Operations, Maintenance, and Monitoring Report, Alltift Landfill Site /Ramco Steel Site" (OM&M Report), is included herein as Attachment B. The remainder of this document follows the outline presented in your September 2, 2009 letter.

#### 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 Appendix A of the attached OM&M report);
- Groundwater monitoring; and
- Restoration of ponds and wetlands.

The Alltift Landfill Site is located at 579 Tifft 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 Appendix A of the attached OM&M Report).

AMEC Environment and Infrastructure 511 Congress Street, Ste. 200 Portland, Maine 04101 USA Tel. 207-775-5401

Tel 207-775-5401 Fax 207-772-4762 The Alltift Landfill Site was a former 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 the adjacent Ramco Steel Site (NYSDEC Site No. 9-15-046B). 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 a 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.

During 2011, the following routine OM&M activities were completed in accordance with the Operations, Maintenance, and Monitoring Manual, prepared by Parson Engineers, and 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 was within the BSA permit limits.
- C. Compliance: The OM&M activities conducted in 2011 were performed in accordance with the OM&M Manual and as described in the attached OM&M Report.
- D. Recommendations: Implementation of the activities specified in the OM&M Manual will continue in 2012, as described in the attached OM&M Report and in Section VI E of this letter.

#### II. Site Overview

A. Site Location: The site plan is illustrated on the figures included in Appendix A of the attached OM&M Report. 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 trenches 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 were collected from the lift station on a semi-annual basis and analyzed for compliance with the parameter limits listed in the permit through 2012.

B. Chronology: Remediation of the site began in November 2003 and was 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 are conducted that include monitoring of landfill vegetation, ground inspections, and visual checks for evidence of erosion or subsidence. The results from the inspections indicate that the integrity of the cap appears sound (see the quarterly inspection reports included as Appendix G in the attached OM&M Report).
  - Ensuring that groundwater is being routed to the groundwater collection trench: The integrity of the drainage and of the groundwater collection systems are 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 (see monthly and quarterly water level measurements, included as Appendix C and D, respectively, in the attached OM&M Report). The quarterly groundwater elevations are then used to plot quarterly groundwater contour maps. These contour maps indicate that groundwater at the site is being routed to the groundwater collection trench as designed (see quarterly groundwater contour maps from 2011 included as Appendix E in the attached OM&M Report).
  - Ensuring that the wetlands area is successfully functioning as designed:
     The results of the 2011 inspection indicated that the mitigation wetland,

which includes 11.4 acres of emergent marsh and open water habitat, is providing wetland functions and values based on observations of wetland hydrology, hydric soils, wetland vegetation, and wildlife. However, the inspection identified two conditions included in the permit that were not met, specifically invasive plant species control and survivorship of planted woody species. The inspection report was submitted to the U.S. Army Corps of Engineers (COE) and the NYSDEC on July 1, 2011. A plan to mitigate the items identified during the annual site inspection was developed in coordination with the COE and NYSDEC. The Corrective Actions Work Plan was submitted to the COE and NYSDEC on December 22, 2011. The COE submitted comments on the work plan on February 13, 2012. Honeywell agreed to the requested work plan modifications, as indicated in Amec's letter (dated March 8, 2012) submitted to the COE on behalf of Honeywell. Implementation of the required corrective actions was initiated in the fall of 2011, with additional actions scheduled for completion in 2012.

- IV. IC/EC Plan Compliance Report A separate IC/EC Plan has not been prepared. The status of site engineering controls is discussed in the attached OM&M Report. Honeywell and its legal counsel have been communicating with NYSDEC regarding institutional controls, specifically the implementation of environmental covenants, for the various properties involved. As of the date of this letter, Honeywell and NYSDEC have been unable to locate persons with the authority to encumber the railroad property (106 Abby Street) and the Ramco Steel Site (193 Abby Street).
- 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 drainage and groundwater collection systems).
  - B. Summary of OM&M Completed During 2011: BSA discharge monitoring, groundwater monitoring, quarterly site inspections, and other OM&M activities were completed in 2011 in accordance with the OM&M Manual. The following summarizes the activities completed:

- BSA discharge monitoring was conducted on a semi-annual basis in 2011 in accordance with the current BPDES Permit (Permit #09-10-BU098). Collected samples were submitted to TestAmerica Laboratories of Amherst, New York for analyses of the required parameters. Honeywell's OM&M Contractor CH2M Hill-OMI 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. The next BSA discharge monitoring event is scheduled for April 2012.
- Groundwater levels for site piezometers, wells and groundwater collection trench sumps were recorded on a monthly basis. The annual groundwater sampling event was completed in August 2011 and included collection of aqueous samples from background monitoring well (MW-2) and from collection system sumps; the samples were analyzed for parameters as described in the OM&M Manual. The results are summarized in the attached OM&M Report, and the analytical results are included in Appendix F thereto.
- Quarterly site inspections were conducted as outlined in the OM&M Manual.
- Routine and non-routine maintenance activities completed in 2011 included the following:
  - o Periodic inspection and cleaning of the lift station flow meter
  - Plowing of snow from the entrance road, as necessary
  - o Replacement of the flow meter (3/26/11)
  - o Annual landfill cap mowing (9/16/11)
  - Removal of lift station pump to clean and replaced flexible pipe (5/13/11)
  - Clearing of debris from the wetland area overflow weir and downstream culvert (7/26/11)
  - Lubrication of gas vents (8/9/11 and 10/7/11)
  - Removal of sediment from lift station (8/2/11)
  - Clearing of brush around wells (8/15/11)
  - Conducted mowing as part of invasive plant species (Phragmites) control (10/121/11)
  - Conducted placement of coarse woody debris in support of habitat enhancement (10/13/11)
  - Conducted herbicide application by hand wicking (hand application) to phragmites in areas that were not mowed due to being too wet for mowing (10/31/11)
- C. Evaluation of Remedial Systems: During 2011, 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).
- E. Conclusions and Recommendations: The following conclusions were developed based on the data collected during the 2011 OM&M period:

- Based on the results of the quarterly inspection reports, which verify that
  the integrity of the cap is adequate and vegetation is established, the
  remedy remains protective 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 preventing impacted groundwater from discharging into the adjacent wetlands.
- Based on the results of the 2011 wetlands mitigation monitoring report and visual inspections, the wetlands mitigation area is providing wetland functions and values based on observations of wetland hydrology, wetland vegetation, and wildlife, and appears to be functioning as designed. Several work items, including mitigation of invasive plant species, have been identified, and are being implemented as discussed below.
- Based on the analytical results from BSA discharge monitoring, compounds in the discharge are within the BSA permit limits.

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

- Concentrations of PCBs and pesticides have not been detected in groundwater samples collected at the site since monitoring activities began in 2006. Therefore, it is recommended to remove these analytes from future annual groundwater monitoring events.
- BSA Discharge Monitoring In accordance with the revised BSA permit, discharge monitoring will be conducted on a semi-annual basis during the months of April and October 2012, with reports issued to BSA and copied to the NYSDEC.
- Wetlands Mitigation Monitoring Honeywell is in the process of implementing wetlands mitigation area corrective actions agreed to during discussions with the COE. A summary of the action items related to that report can be found in Section 2.6 of the OM&M Report.
- Groundwater Monitoring –Annual groundwater monitoring will be completed in 2012 from the same monitoring points (background well MW-2 and the collection sumps) used for prior monitoring events. Groundwater monitoring results will be reported in the next annual PRR submittal.
- Water Level Measurements The frequency of water level measurements from site monitoring wells, piezometers, and sumps will be reduced from monthly to quarterly, which is consistent with the requirements presented in Table 2.2 of the OM&M Manual (Parsons, 2006). Collection of water level measurements will be conducted in conjunction with site inspections.
- Landfill Gas Monitoring in conjunction with the site inspections, measurements of the lower explosive limit and of the percentage of methane gas will continue to be collected on a quarterly basis from gas

Mr. Maurice Moore March 30, 2012 Page 7 of 7

- vents GV-1, GV-2, GV-3, from four sump locations, and from four ground surface locations at the landfill perimeter.
- Surface Water Level Measurements –in conjunction with the site inspections, surface water level measurements will continue to be collected on a quarterly basis 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 during 2012.
- Routine OM&M activities will continue on a monthly basis, or more frequently as needed, during 2012.
- The next PRR submittal, to include the annual OM&M report, should be completed and submitted to NYSDEC by the end of the 1<sup>st</sup> guarter 2013.

#### VII. Overall PRR Conclusions

- A. Compliance: Activities were completed during 2011 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 the 1<sup>st</sup> quarter 2013.

#### Closing

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

Respectfully,

**AMEC** 

Environment & Infrastructure, Inc.

Ryan Belcher Senior Engineer Mark Stelmack Principal Engineer

Attachments

CC:

R. Galloway (Honeywell)

J. Mojka (Honeywell)

D. Sutton (City of Buffalo)

#### ATTACHMENT A

## PRR NOTICE IC/EC CONTROLS CERTIFICATION FORM



# Enclosure 1 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form



Site No. 9-15-054 /9-15	Site Details 5-046B		Box 1		
Site Name Alltift Landfill Site Address: 579 Tifft S City/Town: Buffalo County: Erie Current Use: Landfill Intended Use: Restricted		Zip Code: 14202			
	Verification of Site	- Details	Box 2		
	vermoation of old	o Details	YES	NO	N/A
<ol> <li>Are the Site Details above, If NO, are changes handwritten</li> </ol>	correct? above or included on a separate	sheet?			
	property been sold, subdivided, n	nerged, or undergone a tax		$\boxtimes$	
map amendment since the If YES, is documentation or evidential included with this certification	dence that documentation has be	en previously submitted			
	d/or local permits (e.g., building,	discharge) been issued for or		$\boxtimes$	
at the property since the ini If YES, is documentation or evid included with this certification	dence that documentation has be	en previously submitted			
	red since the initial/last certification dence that documentation has be on?				
has any new information re	rownfield Cleanup Program Sites		,		
	amination are no longer valid? r evidence that new information hon?	nas been previously submitte	d 🗌		
	rownfield Cleanup Program Sites Qualitative Exposure Assessmer		,		$\boxtimes$
	sment included with this certifica	tion?			

SITE NO. 9-15-054 /9-15-046B				Box 3
Description of Institutional Controls	Cont	rol Cer	tificatio	on
		Yes	No	
Operations, Monitoring, and Maintenance	_	$\boxtimes$		
*PROPOSED DEED RESTRICTIONS, including: Monitoring and Maintenance of Engineering Control Systems Excavation Protocol Land Use Restrictions Groundwater Use Restrictions				
				Box 4
Description of Engineering Controls	Cont	rol Cer	tificatio	on
		Yes	No	
Cover System, Landfill cap, 6 NYCRR, Part 360 Fencing/Access Control Groundwater Control and Recovery System	-			

#### **Control Certification Statement**

For each Institutional or Engineering control listed above, I certify by checking "Yes" that all of the following statements are true:

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

\*Note: Honeywell is currently working with NYSDEC to locate responsible persons for several of the properties involved so that deed restrictions can be implemented.

## IC/EC CERTIFICATIONS SITE NO.

Box 5

Certification

#### **Enclosure 2**

### **Certification of Institutional Controls/ Engineering Controls (ICs/ECs) Step-by-Step Instructions, Certification Requirements and Definitions**

The Owner, or Remedial Party, and when necessary, a Professional Engineer (P.E.), or the Qualified Environmental Professional (QEP), must review and complete the IC/EC Certification Form, sign the IC/EC Certifications Signature Page, and return it, along with the Periodic Review Report (PRR), within 45 days of the date of this notice.

Please use the following instructions to complete the IC/EC Certification.

#### **I. Verification of Site Details** (Box 1 and Box 2):

Answer the six questions in the Verification of Site Details Section. Questions 5 and 6 refer to only sites in the Brownfield Cleanup Program. ECL Section 27-1415-7(c) is included in **IV. IC/EC Certification Requirements**. The Owner and/or your P.E. or QEP may include handwritten changes and/or other supporting documentation, as necessary.

#### **II.** Verification of Institutional / Engineering Controls (Box 3 and Box 4)

Review the listed Institutional / Engineering Controls, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party is to petition the Department requesting approval to remove the control.

2. Select "YES" or "NO" for **Control Certification** for each IC/EC, based on Sections (a)-(e) of the **Control Certification Statement**.

If the Department concurs with the explanation, the corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Project Manager. If the Department has any questions or concerns regarding the completion of the certification, the Project Manager will contact you.

3. If you cannot certify "Yes" for each Control, please continue to complete the remainder of this Control Certification form. Attach supporting documentation that explains why the Control Certification cannot be rendered, as well as a statement of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this Control Certification form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is conducted.

If the Department concurs with the explanation, the corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Project Manager. Once the corrective measures are complete a new Periodic Review Report (with IC/EC Certification) is to be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

#### **III. IC/EC Certification by Signature** (Box 5 and Box 6):

1. If you certified "Yes" for each Control, please complete and sign the IC/EC Certifications page. To determine WHO signs the **IC/EC Certification**, please use Table 1. Signature Requirements for the IC/EC Certification, which follows.

Table 1. Signature Requirements for Control Certification Page			
Type of Control	Example of IC/EC	Required Signatures	
IC only	Environmental Easement Deed Restriction.	A site or property owner or remedial party.	
IC with an EC which does not include a treatment system or engineered caps.	Fence, Clean Soil Cover, Individual House Water Treatment System, Vapor Mitigation System	A site or property owner or remedial party, and a QEP. (P.E. license not required)	
IC with an EC that includes treatment system or an engineered cap.	Pump & Treat System providing hydraulic control of a plume, Part 360 Cap.	A site or property owner or remedial party, and a QEP with a P.E. license.	

#### **IV.** IC/EC Certification Requirements:

Division of Environmental Remediation Program Policy requires periodic certification of IC(s) and EC(s) as follows:

<u>For Environmental Restoration Projects</u>: N.Y. Envtl Conserv.Law Section 56-0503 (Environmental restoration projects; state assistance)

<u>For State Superfund Projects</u>: Envtl Conserv.Law Section 27-1318. (Institutional and engineering controls)

<u>For Brownfields Cleanup Program Projects</u>: Envtl Conserv.Law Section 27-1415. (Remedial program requirements)

Envtl Conserv.Law Section 27-1415-7(c) states:

(c) At non-significant threat sites where contaminants in groundwater at the site boundary contravene drinking water standards, such certification shall also certify that no new information has come to the owner's attention, including groundwater monitoring data from wells located at the site boundary, if any, to indicate that the assumptions made in the qualitative exposure assessment of offsite contamination are no longer valid. Every five years the owner at such sites shall certify that the assumptions made in the qualitative exposure assessment remain valid. The requirement to provide such certifications may be terminated by a written determination by the Commissioner in consultation with the Commissioner of Health, after notice to the parties on the brownfield site contact list and a public comment period of thirty days.

Voluntary Cleanup Program: Applicable program guidance.

<u>Petroleum Remediation Program</u>: Applicable program guidance.

Federal Brownfields: Applicable program guidance.

<u>Manufactured Gas Plant Projects</u>: Applicable program guidance (including non-registry listed MGPs).

WHERE to mail the signed Certification Form by Thursday, May 24, 2007 (45 days of the date of the notice):

New York State Department of Environmental Conservation Division of Environmental Remediation

Attn:, Project Manager

Please note that extra postage may be required.

#### V. Definitions

"Engineering Control" (EC), means any physical barrier or method employed to actively or passively contain, stabilize, or monitor contamination, restrict the movement of contamination to ensure the long-term effectiveness of a remedial program, or eliminate potential exposure pathways to contamination. Engineering controls include, but are not limited to, pavement, caps, covers, subsurface barriers, vapor barriers, slurry walls, building ventilation systems, fences, access controls, provision of alternative water supplies via connection to an existing public water supply, adding treatment technologies to such water supplies, and installing filtration devices on private water supplies.

"Institutional Control" (IC), means any non-physical means of enforcing a restriction on the use of real property that limits human and environmental exposure, restricts the use of groundwater, provides notice to potential owners, operators, or members of the public, or prevents actions that would interfere with the effectiveness of a remedial program or with the effectiveness and/or integrity of operation, maintenance, or monitoring activities at or pertaining to a remedial site.

**"Professional Engineer"** (P.E.) means an individual or firm licensed or otherwise authorized under article 145 of the Education Law of the State of New York to practice engineering.

**"Property Owner"** means, for purposes of an IC/EC certification, the actual owner of a property. If the site has multiple properties with different owners, the Department requires that the owners be represented by a single representative to sign the certification.

"Oversight Document" means any document the Department issues pursuant to each Remedial Program (see below) to define the role of a person participating in the investigation and/or remediation of a site or area(s) of concern. Examples for the various programs are as follows:

**BCP** (after approval of the BCP application by DEC) - Brownfield Site Cleanup Agreement.

**ERP** (after approval of the ERP application by DEC) - State Assistance Contract.

**Federal Superfund Sites** - Federal Consent Decrees, Administrative Orders on Consent or Unilateral Orders issued pursuant to CERCLA.

**Oil Spill Program** - Order on Consent, or Stipulation pursuant to Article 12 of the Navigation Law (and the New York Environmental Conservation Law).

State Superfund Program - Administrative Consent Order, Record of Decision.

VCP (after approval of the VCP application by DEC) - Voluntary Cleanup Agreement.

**RCRA Corrective Action Sites**- Federal Consent Decrees, Administrative Orders on Consent or permit conditions issued pursuant to RCRA.

- "Qualified Environmental Professional" (QEP), means a person who possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding the presence of releases or threatened releases to the surface or subsurface of a property or off-site areas, sufficient to meet the objectives and performance factors for the areas of practice identified by this Part. Such a person must:
- (1) hold a current professional engineer's or a professional geologist's license or registration issued by the State or another state, and have the equivalent of three years of full-time relevant experience in site investigation and remediation of the type detailed in this Part; or
- (2) be a site remediation professional licensed or certified by the federal government, a state or a recognized accrediting agency, to perform investigation or remediation tasks consistent with Department guidance, and have the equivalent of three years of full-time relevant experience.
- "Qualitative Exposure Assessment" means a qualitative assessment to determine the route, intensity, frequency, and duration of actual or potential exposures of humans and/or fish and wildlife to contaminants.
- **"Remedial Party"** means a person implementing a remedial program at a remedial site pursuant to an order, agreement or State assistance contract with the Department.
- "Site Management" (SM) means the activities undertaken as the last phase of the remedial program at a site, which continue after a Certificate of Completion is issued. Site management is conducted in accordance with a site management plan, which identifies and implements the institutional and engineering controls required for a site, as well as any necessary monitoring and/or operation and maintenance of the remedy.
- "Site Management Plan" (SMP) means a document which details the steps necessary to assure that the institutional and engineering controls required for a site are in-place, and any physical components of the remedy are operated, maintained and monitored to assure their continued effectiveness, developed pursuant to Section 6 (DER10 Technical Guide).
- "Site Owner" means the actual owner of a site. If the site has multiple owners of multiple properties with ICs and/or ECs, the Department requires that the owners designate a single representative for IC/EC Certification activities.

#### ATTACHMENT B

#### 2011 ANNUAL OPERATIONS, MAINTENANCE, AND MONITORING REPORT

## 2011 ANNUAL OPERATIONS, MAINTENANCE, AND MONITORING REPORT

#### ALLTIFT LANDFILL SITE /RAMCO STEEL SITE

Buffalo, Erie County, New York (NYSDEC Site Nos. 9-15-054 /9-15-046B)





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

Submitted By:



Morristown, NJ 07962

Prepared By:



**AMEC Environment & Infrastructure, Inc.** 

511 Congress Street Portland, Maine 04101

March 2012

#### 2011 ANNUAL OPERATIONS, MAINTENANCE, AND MONITORING REPORT

#### ALLTIFT LANDFILL SITE /RAMCO STEEL SITE

Buffalo, Erie County, New York (NYSDEC Site Nos. 9-15-054 /9-15-046B)

#### Submitted To:

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

Submitted By:

Honeywell

101 Columbia Road Morristown, NJ 07962

Prepared By:



AMEC Environment & Infrastructure, Inc. 511 Congress Street Portland, Maine 04101

March 2012

Ryan Belcher Senior Engineer

Mark Stelmack
Principal Engineer

AMEC Project Number: 3612122224

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#### **APPENDICES**

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APPENDIX G: SITE INSPECTION FORMS



Project No.: 3612122224 March 30, 2012

#### **ACRONYMS AND ABBREVIATIONS**

Amec AMEC Environmental & Infrastructure, Inc.

BSA Buffalo Sewer Authority

BPDES Buffalo Pollutant Discharge Elimination System

EPA Environmental Protection Agency

LEL Lower Explosive Limit

Mactec Engineering and Consulting, P.C.

MS Matrix Spike

MSD Matrix Spike Duplicate mg/L milligrams per liter

μg/L micrograms per liter

NYSDEC New York State Department of Environmental Conservation

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OM&M Operations and maintenance Manual

OMI CH2M Hill OMI

PCB polychlorinated biphenyls
PRR Periodic Review Report

SVOC Semivolatile Organic Compound

USACE United States Army Corps of Engineers

VOC Volatile Organic Compound



Project No.: 3612122224

March 30, 2012

#### 1.0 INTRODUCTION

In accordance with the New York State Department of Environmental Conservation (NYSDEC) Order on Consent (Index No. B9-0194-87-07), Honeywell (formerly Allied-Signal, Inc.) has performed a remedial action at the Alltift Landfill and the Ramco Steel sites, and is performing long-term operations, maintenance, and monitoring (OM&M) at the sites. AMEC Environment and Infrastructure, Inc. (Amec), formerly MACTEC Engineering and Consulting, Inc., (Mactec), has prepared this report on behalf of Honeywell to document the results of the OM&M activities performed. The activities described in this report were completed in accordance with the Operations, Maintenance, and Monitoring Manual (Parsons, 2006).

The primary remedial objectives at the Alltift Landfill 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 Buffalo River. The key remedial actions for the site included the consolidation and capping of landfill waste and impacted soils and sediments; construction of groundwater collection and relief trenches for groundwater control; groundwater monitoring; and restoration of ponds and wetlands. Remedial construction began in November 2003 and was completed in November 2005.

This annual report has been prepared to summarize the OM&M activities completed at the sites from January 1, 2011 through December 31, 2011. Figures showing the site location and current conditions Site Plan are included as Appendix A. It is anticipated that the next annual OM&M report will be submitted by the end of the 1<sup>st</sup> quarter 2013.

#### 1.1 Project Background and Site Description

The Alltift Landfill site is located at 579 Tifft Street in the southern portion of the City of Buffalo, Erie County, New York. Figures that show the site location and current conditions site plan are provided in Appendix A. 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.

The Ramco Steel site is adjacent to the southeastern tip of the Alltift Landfill, and is approximately 8.5 acres in size and generally square in shape. The site is bounded on the north by the Alltift Landfill and Skyway Auto Parts, Inc.; on the east by Niagara Cold Drawn; on the west by a railroad right-of-way and tracks; and on the south by Republic

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Steel or LTV (NYSDEC Site No. 9-15-047) and an abandoned facility formerly housing Sloan Auto Parts. The Ramco Steel site encompasses the body of water known as the Ramco Pond.

The Alltift Landfill site was a former landfill/waste disposal area that was remediated between November 2003 and November 2005 under an Order on Consent between AlliedSignal (now Honeywell) and the NYSDEC (NYSDEC, 1997). Remediation activities included those conducted on the adjacent Ramco Steel site (NYSDEC Site No. 9-15-046B). The remediation involved consolidation of the wastes present on the Alltift Landfill and Ramco Steel sites into a capped landfill on the Alltift 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 a Buffalo Pollutant Discharge Elimination System Permit (BSA 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 property (see Site Plan in Appendix A).

#### 1.2 2011 OM&M Activities

OM&M activities conducted at the site in 2011 included BSA discharge monitoring, groundwater monitoring, quarterly site inspections, and routine and non-routine maintenance activities. These activities are described in detail in Section 2.0 of this report.



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#### 2.0 SUMMARY OF 2011 OM&M ACTIVITIES

Since September 2007, Honeywell has contracted with CH2M HILL-OMI (OMI) to perform the OM&M activities at the site. In 2011, the annual groundwater sampling activities were also conducted by OMI. The following sections summarize the OM&M activities completed in 2011.

#### 2.1 BSA Discharge Monitoring

As part of the Remedial Action, a groundwater collection trench was installed along the western and southern perimeter of the landfill cap to intercept shallow groundwater, and a groundwater relief trench was installed along the western toe of the landfill to control leachate. The groundwater collection trench contains four vertical pumping points, identified as Sumps 1 through 4, which are constructed similar to extractions wells. Pumps in Sumps 1 and 2 operate continually in order to transfer the groundwater from the collection and relief trenches to a lift station at the southeastern corner of the site. The lift station then transfers the water through a force main to a manhole located on Hopkins Street, under a permit with the BSA.

In accordance with the BSA permit, samples from the lift station were collected and analyzed semi-annually in April and September 2011. The results of the sampling are discussed in Section 3.1.

#### 2.2 Groundwater Monitoring

The 2011 groundwater monitoring activities included the collection of monthly water level measurements and annual groundwater sampling. These activities are summarized in the following subsections. The results of the activities are discussed in Section 3.2.

#### 2.2.1 Monthly Water Level Measurements

Water level measurements were collected on a monthly basis from monitoring well MW-2, piezometers PZ-1 through PZ-13, piezometer PZ-15, and sumps 1 through 4 to monitor groundwater elevations upgradient, within, and downgradient of the groundwater collection trench. Three monitoring points specified in the OM&M Manual could not be included in the monitoring program: background monitoring well MW-1 has apparently been destroyed or paved over by the adjacent property owner, and landfill piezometers

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PZ-14 and PZ-16 have damaged well casing which does not allow passage of a water level meter or sampling equipment.

#### 2.2.2 Groundwater Sampling

On August 8 and 9, 2011 OMI collected groundwater samples from background monitoring well MW-2 and the groundwater collection trench sumps. The samples were collected and analyzed in accordance with the OM&M Manual (Parsons, 2006). During the sampling event, the depth to water and total well depth were gauged and recorded at monitoring well MW-2 prior to purging activities. Well MW-2 was purged and sampled using low-flow techniques, which includes monitoring field measurements such as pH, temperature, conductivity, and dissolved oxygen for stabilization prior to sampling. Field measurements of these parameters were also recorded at all of the sumps prior to sampling. A peristaltic pump with dedicated tubing was used to collect each sample. Grab samples were collected from each sump, and one composite sample was collected from the four sumps during the sampling event. Due to slow recharge in MW-2, a Matrix Spike (MS), Matrix Spike Duplicate (MSD), and duplicate sample were collected from Sump 4. Immediately upon completion of sample collection, the groundwater samples were packed with ice in laboratory coolers, and delivered to the laboratory. Chain-of-Custody procedures were followed per the OM&M Manual (Parsons, 2006).

The 2011 groundwater samples were analyzed as follows:

Parameter	Analytical Method	Where Collected
Volatile Organic Compounds (VOCs)  Benzene, chlorobenzene, ethylbenzene, xylenes, 1,2-dichlorobenzene, 1,4- dichlorobenzene	EPA 8260	MW-2 Sumps 1 through 4 <sup>(1)</sup> Sump 4 (Duplicate, MS, MSD)
Semivolatile Organic Compounds (SVOCs) naphthalene, 4-chloroaniline	EPA 8270	MW-2 Sump 4 Sump Composite <sup>(2)</sup> Sump 4 (Duplicate, MS, MSD)
Pesticides/ polychlorinated biphenyls(PCBs) 4.4-DDD, 4.4-DDE PCB Aroclors	EPA 8081 EPA 608	MW-2 Sump 4 Sump Composite <sup>(2)</sup> Sump 4 (Duplicate, MS, MSD)
Total Metals antimony, arsenic, cadmium, chromium, iron, lead, manganese, mercury	EPA 6020/6010 /7470	MW-2 Sump 4 Sump Composite <sup>(2)</sup> Sump 4 (Duplicate, MS, MSD)

#### Notes:

(1) Individual samples were collected for VOC analysis to minimize potential volatilization of compounds

(2) Composite of Sump 1 through Sump 4



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#### 2.3 Landfill Gas Monitoring

Landfill gas monitoring was completed by OMI at the three gas vents during all four quarters of 2010. Landfill gas monitoring data was also collected from the four corners of the landfill and from each of the sumps during the second, third and fourth quarters. The results of the monitoring are described in Section 3.4.

#### 2.4 Site Inspections

Quarterly inspections were completed by OMI on March 28, June 23, September 23, and November 30, 2011. The inspections were conducted in accordance with the OM&M Manual (Parsons, 2006). The cap, collection systems, monitoring points, and gas vents were visually inspected during each event. The results of the inspections are discussed in Section 3.5.

#### 2.5 Maintenance Activities

Maintenance activities were performed routinely by OMI for the site on a monthly basis or as needed throughout the year. The following is a summary of the routine and additional maintenance activities completed at the site during the 2011 calendar year:

- · Periodic inspection and cleaning of the lift station flow meter
- Plowing of snow from the entrance road as necessary
- Replacement of the flow meter (3/26/11)
- Annual landfill cap mowing (9/16/11)
- Removal of the lift station pump to clean and replaced flexible pipe (5/13/11)
- Clearing of debris from the wetland area overflow weir and downstream culvert (7/26/11)
- Lubrication of gas vents (8/9/11 and 10/7/11)
- Removal of sediment from lift station (8/2/11)
- Clearing of brush around wells (8/15/11)
- Conducted mowing as part of invasive plant species (Phragmites) control (10/12/11)
- Conducted placement of coarse woody debris in support of habitat enhancement (10/13/11)



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> Conducted herbicide application by hand wicking (hand application) to phragmites in areas that were not mowed due to being too wet for mowing (10/31/11)

#### 2.6 Wetland Monitoring

In 2005, wetlands were constructed on the site to restore and enhance the wetlands impacted during the capping of the landfill located at the site. Wetland mitigation was undertaken in accordance with a letter issued by the United States Army Corps of Engineers (USACE) regarding Permit Application No. 98-976-0162(0). In accordance with the OM&M Manual (Parsons, 2006) and the USACE Nationwide Permit No. 38 (USACE, 2004), annual wetlands inspections were conducted and wetlands mitigation monitoring reports were produced for the first three years following construction of the mitigation wetland (calendar years 2006, 2007, and 2008). A fourth year Monitoring Report was not completed for the site.

On February 25, 2011, the USACE Buffalo District Regulatory Branch contacted Honeywell regarding Permit Application No. 98-976-0162(0), their review comments on previous monitoring reports submitted pursuant to the permit, and the status of the report for Year 5 (2010 monitoring season). Honeywell and Amec followed up on the inquiry and participated on a conference call with the USACE Buffalo District Regulatory Branch on March 29, 2011. On April 1, 2011, the USACE requested, via email, that the Year 5 wetland mitigation monitoring data be collected after May 15, 2011 and that a monitoring report be submitted to the USACE Buffalo District Regulatory Branch by July 1, 2011. The Year 5 wetland monitoring was completed from June 13, 2011 to June 16, 2011, and the Year 5 report was prepared and submitted to the USACE on July 1, 2011 (Mactec. 2011). The results of the inspection indicated that the mitigation wetland, which includes 11.4 acres of emergent marsh and open water habitat, is providing wetland functions and values based on observations of wetland hydrology, hydric soils, wetland vegetation, and wildlife. However, the inspection identified two conditions included in the permit that were not met, specifically invasive plant species control and survivorship of planted woody species.

On August 23, 2011, a site walk was conducted by individuals representing the USACE, NYSDEC, Mactec, and Honeywell as a follow up to the Year 5 report submittal to evaluate the mitigation wetland and determine the need for additional mitigation work or monitoring. To discuss the findings of the site walk and the plan and schedule for implementation of the identified corrective actions necessary to close the Permit, a conference call was conducted between the USACE, NYSDEC, Amec, and Honeywell on September 29, 2011. During the conference call, the USACE and NYSDEC indicated that the mitigation wetland had replaced lost wetland functions and values and were in general concurrence with the Year 5 Report. However, two conditions of the permit were not met and required



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corrective action, specifically invasive plant species control and woody buffer plantings. In addition, during the site walk it was observed that coarse woody debris placed on site was providing habitat for amphibians and reptiles. In summary, the corrective actions agreed upon as necessary to close the Permit are as follows:

- 1. Invasive Species Control
- 2. Habitat Enhancement-Coarse Woody Debris
- 3. Woody Buffer Restoration

A work plan was prepared detailing the proposed corrective actions and submitted to the USACE on December 22, 2011 (Amec, 2011). Prior to the submittal of the work plan, Honeywell proceeded in October 2011 with implementation of invasive species control and habitat enhancement, which consisted of the placement of additional coarse woody debris within the mitigation wetland. Due to the time of year, the planting of the woody buffer was scheduled for completion in the spring of 2012. The work plan included a summary of the corrective actions completed in 2011, which are summarized in the following paragraphs.

Common reed (*Phragmites australis*) is the invasive species of concern at the site. Methods implemented at the site to control this invasive species included mechanical control (i.e., mowing) as well as application of herbicides. The mowing was completed on October 12, 2011. A brush hog mounted on a tracked skid-steer was used to complete the mowing. This piece of equipment was used because of its low track pressures and maneuverability. Coarse woody debris was placed in six pre-determined locations within the mitigation wetland on October 13, 2011. The coarse woody debris consisted of individual stacks of three 8- to 10-foot logs. The mowing and placement of coarse woody debris was accomplished by Arrow Contracting Incorporated under contract to OMI.

The herbicide application was done by OP-TECH of Amherst, New York under contract to OMI. The targeted phragmites areas that could not be mowed, due to being too wet for the mowing equipment, were treated with herbicide on October 31, 2011. The herbicide consisted of RODEO ® (Environmental Protection Agency [EPA] # 62719-324), applied at a 5% concentration and was applied to the phragmites by hand-wicking.

Honeywell received comments from the USACE on the corrective actions work plan on February 13, 2012. In summary, the USACE requested that the work plan be revised to:

- Include the planting of only native trees and shrubs in the wetland mitigation area
- Provide a tree and shrub planting arrangement with a random, natural layout, which mimics nature.



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• Require 85% survivorship of each planted vegetative layer (i.e., 85% shrub survival and 85% tree survival) with a survey to be conducted in September 2012

Honeywell accepted the additional conditions requested by the USACE as indicated in Amec's letter submitted to the USACE on behalf of Honeywell on March 8, 2012. The additional corrective action proposed for the spring of 2012 includes planting trees and shrubs to fulfill the requirement of establishing a woody buffer on the site, a second herbicide application event proposed for the late July or early August of 2012, and a mitigation wetland survey in September 2012. Once these activities have been completed a report will be prepared and submitted to the USACE to document the performance of the corrective actions at the site. Acceptance of the corrective actions by the USACE would result in closure the USACE Permit Application No. 98-976-0162(0).



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#### 3.0 RESULTS OF 2011 OM&M ACTIVITIES

As discussed previously, OMI completed the 2011 OM&M activities at the site and the annual groundwater sampling. The following sections summarize the results of OMI's activities.

#### 3.1 BSA Discharge Monitoring

As required under the BSA discharge permit, samples of the system effluent were collected from the lift station by OMI on a semi-annual basis in April and September of 2011. Samples collected were submitted to TestAmerica Laboratories of Amherst, New York for analyses of the required parameters. OMI prepared and submitted semi-annual discharge monitoring reports that documented the results of the monitoring of discharge water to the BSA. All sampling results were within the BSA permit limits. These reports were sent to the BSA and NYSDEC on a semi-annual basis (Appendix B).

Semi-annual sampling will continue in 2012 as required under the BSA discharge permit, with the semi-annual sampling events scheduled to be conducted during the months of April and October 2012.

#### 3.2 Groundwater Monitoring

The 2011 groundwater monitoring activities included the collection of monthly water level measurements and annual groundwater sampling. The results of these activities are described in the following subsections.

#### 3.2.1 Monthly Water Level Measurements

Groundwater levels in site piezometers, wells and groundwater collection trench sumps were recorded on a monthly basis. Copies of the tables that show the monthly water level measurements for 2011 are included in Appendix C. Copies of tables that summarize the quarterly groundwater elevations for 2011 are included in Appendix D. The groundwater elevations were used to prepare the quarterly groundwater contour maps for 2011, which are presented in Appendix E. Based on the groundwater elevation data, it is concluded that groundwater flowing toward the toe of the Alltift landfill is being collected by the groundwater capture trench system, as intended by the system's design.

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#### 3.2.2 Groundwater Sampling

Groundwater sampling was conducted at the site in August 2011 in accordance with the OM&M Manual (Parsons, 2006). The analytical laboratory report for the August 2011 groundwater sampling event is provided as Appendix F.

The analytical results for the groundwater sampling event in August 2011 are summarized on Table 1. The analytical results for the discharge samples collected from the low-lift station were within the BSA permit limits (see subsection 3.1). During the August 2011 sampling event, concentrations of chlorobenzene above the NYSDEC Class GA (groundwater) standard of 5 micrograms per liter (µg/L) were detected in grab samples from Sump 2 (140 µg/L) and Sump 4 (21 µg/L); detected concentrations in the Sump 4 and the Sumps 1 through 4 composite samples of iron (1.3, 15.9 milligrams per liter [mg/L], respectively), manganese (6.3 and 3.8 mg/L, respectively), and antimony (0.0111 and 0.0041 mg/L, respectively) exceed the NYSDEC Class GA standards. manganese, and antimony standards are 0.3, 0.3, and 0.003 mg/L, respectively. Based on a comparison of detections in the sump samples to detections in the background well (MW-2), it does not appear that contaminants of concern are migrating onto the site. Both iron and manganese exceed NYSDEC Class GA standards in MW-2. Neither PCBs nor pesticides were detected in the samples collected from this event or from previous events. The 2011 groundwater monitoring results are consistent with the results from prior groundwater monitoring events.

#### 3.3 Surface Water Measurements

A surface water level measurement was collected in 2011 from a weir structure located at the north end (i.e. outlet end) of Pond A. The top of the concrete weir has an elevation measurement point of 580.26 feet. In May 2011, the water level was measured as 10.75-inches below the top of the concrete weir, which is an elevation of 579.36 feet.

#### 3.4 Landfill gas monitoring

Landfill gas monitoring was conducted on a quarterly basis in 2011. During the first quarter the gas vents (GV-1, GV-2 and GV-3) and four ground monitoring locations were monitored. The four ground monitoring locations were:

Ground 1 - Northwest corner of landfill



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- Ground 2 West side of landfill
- Ground 3 Southeast corner of landfill
- Ground 4 Northeast corner of landfill

The gas vents were monitored for percent of the Lower Explosive Limit (LEL) of Methane, Methane, Oxygen, and Carbon Dioxide (See Table 2). During the second through fourth quarters, the four sumps locations (Sump 1 through Sump 4) were also monitored.

During 2011, a percentage of the LEL of methane gas was detected in the monitoring gas vents GV-1, GV-2, and GV-3.

#### 3.5 Site Inspections

Quarterly site inspections were performed by OMI on March 28, June 23, September 23, and November 30, 2011. The inspections were conducted in accordance with the OM&M Manual (Parsons, 2006). The wetlands, groundwater monitoring wells, drainage system, gas vents, and landfill cap were visually inspected. Copies of the completed inspection checklists are provided in Appendix G.

A representative of the NYSDEC participated in the second, third and fourth quarter inspections. These inspections indicated that the site has a substantial vegetative cover and that the surface drainage system is in good condition. The lack of sediment buildup, ponded water, uncontrolled runoff, or slope instability indicates that the drainage system is adequate and operational. The access road is in good condition. The condition of the perimeter fence, gates, locks, and signs are sufficient to restrict access. The integrity of the groundwater monitoring wells, piezometers, and sumps, with the exception of monitoring points MW-1, PZ-14 and PZ-16, as noted above, were verified during the inspections. More specific information regarding the quarterly inspections are provided in the subsections below.

#### 3.5.1 March 28, 2011 Inspection

The integrity of the cap was acceptable during the inspection. The condition the fence, gates, locks, and access roads were acceptable and there was no evidence of trespassers or vandalism. The gas venting system, groundwater collection system, monitoring well, and sumps were in acceptable condition. Because of snow on the ground covering the entire site, the vegetative cover could not be inspected; the cover was inspected during subsequent inspections.

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#### 3.5.2 June 23, 2011 Inspection

The integrity of the cap and vegetative cover were acceptable during the inspection. The condition of the fence, gates, locks, and access roads were acceptable and there was no evidence of trespassers or vandalism. The gas venting system, groundwater collection system, monitoring well, and sumps were observed to be in acceptable condition. A weir was identified as requiring clearing (see the September 23 quarterly inspection, Section 3.5.3). Japanese knotweed was found along the front fence. During the inspection "No Trespassing" signs were installed.

#### 3.5.3 September 23, 2011 Inspection

The integrity of the cap and vegetative cover were acceptable during the inspection. The condition of the fence, gates, locks, and access roads were acceptable and there was no evidence of trespassers or vandalism. The gas venting system, groundwater collection system, monitoring well, and sumps were observed to be in acceptable condition. The weir clearing was performed during the inspection. An animal control trapper was onsite to remove an unspecified burrowing animal.

#### **3.5.4** November **30**, **2011** Inspection

The integrity of the cap and vegetative cover were acceptable during the inspection. The condition of the fence, gates, locks, and access roads were acceptable and there was no evidence of trespassers or vandalism. The gas venting system, groundwater collection system, monitoring well, and sumps were observed to be in acceptable condition.



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#### 4.0 CONCLUSIONS AND RECOMMENDATIONS

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

- Based on the results of the quarterly inspection reports, which verify that the
  integrity of the cap is adequate and vegetation is established, the remedy remains
  protective 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 preventing impacted groundwater from
  discharging into the adjacent wetlands.
- Based on the results of the 2011 wetlands mitigation monitoring report and 2011 visual inspections, the wetlands mitigation area is providing wetland functions and values based on observations of wetland hydrology, wetland vegetation, and wildlife, and appears to be functioning as designed. Several work items, including mitigation of invasive plant species, have been identified, and are being implemented as discussed below.
- Based on the analytical results from BSA discharge monitoring, compounds in the discharge are within the BSA permit limits.

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

- Concentrations of PCBs and pesticides have not been detected in groundwater samples collected at the site since monitoring activities began in 2006. Therefore, it is recommended that the sampling and analysis plan be revised to remove these analytes from the annual groundwater monitoring requirements.
- BSA Discharge Monitoring in accordance with the current BSA permit, discharge monitoring will be conducted on a semi-annual basis during the months of April and October in 2012, with reports issued to BSA and copied to the NYSDEC.
- Wetlands Mitigation Monitoring Honeywell is in the process of completing corrective actions agreed to by the USACE and the NYSDEC during a conference call held on September 29, 2011. Completion of the corrective actions is being implemented in accordance with a corrective actions work plan submitted to the USACE on December 22, 2011 (Amec, 2011), as modified in response to comments received from the USACE on February 13, 2012, and will be reported in the next annual Periodic Review Report (PRR) submittal.
- Groundwater Monitoring –Annual groundwater monitoring will be completed in 2012 from the same monitoring points (background well MW-2 and the collection



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sumps) used during prior monitoring events. Groundwater monitoring results will be reported in the next annual PRR submittal.

- Water Level Measurements The frequency of water level measurements collected from site monitoring wells, piezometers, and sumps will be reduced from monthly to quarterly, which is consistent with the requirements presented in Table 2.2 of the OM&M Manual (Parsons, 2006). Collection of water level measurements will be conducted in conjunction with site inspections.
- Landfill Gas Monitoring in conjunction with the site inspections, measurements of the lower explosive limit and of the percentage of methane gas will continue to be collected on a quarterly basis from gas vents GV-1, GV-2, GV-3, from four sump locations, and from four ground surface locations at the landfill perimeter.
- Surface Water Level Measurements –in conjunction with the site inspections, surface water levels will continue to be collected on a quarterly basis, 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 during 2012.
- Routine OM&M activities will continue on a monthly basis, or more frequently as needed, during 2012.
- The next PRR submittal, to include the annual OM&M report, will be completed and submitted to NYSDEC by the end of the 1<sup>st</sup> guarter 2013.



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#### 5.0 REFERENCES

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- Mactec, 2011b. July 1, 2011, Annual Wetland Mitigation Report "Year 5 of 5" for Alltift Landfill, Buffalo, New York, signed by Charles H. Lyman and John M. Scrabis.
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TABLE 1
Summary of Groundwater Analytical Results - 2010 and 2011
2011 Annual OM&M Report
Alltift Landfill /Ramco Steel Site

Parameter Name	Units	NYSDEC Class GA	MW-2-080811	MW-2-080911	Sump 1-080811	Sump 2-080811	Sump 3-080811	Sump 4-080811	FDUP-080811 (Sump 4)	Sump 1-4 Comp- 080811
		Standards	8/8/2011	8/9/2011	8/8/2011	8/8/2011	8/8/2011	8/8/2011	8/8/2011	8/8/2011
Metals (Dissolved)										
ANTIMONY	mg/L	0.003	0.00025 J					0.0111	0.0045	0.0041
ARSENIC	mg/L	0.025	0.0032					0.0078	0.0086	0.0159
CADMIUM	mg/L	0.005	0.000072 J					0.00023 J	0.0005 U	0.0005 U
CHROMIUM	mg/L	0.05	0.0049					0.0051	0.0039 J	0.0084
IRON	mg/L	0.3	2.3					1.3	1.8	15.9
LEAD	mg/L	0.025	0.0048 J					0.005 U	0.005 U	0.005 U
MANGANESE	mg/L	0.3	0.56					6.3	6.3	3.8
MERCURY	mg/L	0.0007	0.0002 U					0.0002 U	0.0002 U	0.0002 U
Pesticides										
4,4'-DDE	ug/L	0.2	0.054 U					0.015 J	0.047 U	0.049 U
4,4'-DDD	ug/L	0.3	0.054 U					0.048 U	0.047 U	0.049 U
PCBs										
AROCLOR-1016	ug/L		0.059 U					0.057 U	0.057 U	0.057 U
AROCLOR-1221	ug/L		0.059 U					0.057 U	0.057 U	0.057 U
AROCLOR-1232	ug/L		0.059 U					0.057 U	0.057 U	0.057 U
AROCLOR-1242	ug/L		0.059 U					0.057 U	0.057 U	0.057 U
AROCLOR-1248	ug/L		0.059 U					0.057 U	0.057 U	0.057 U
AROCLOR-1254	ug/L		0.059 U					0.057 U	0.057 U	0.057 U
AROCLOR-1260	ug/L		0.059 U					0.057 U	0.057 U	0.057 U
VOCs										
BENZENE	ug/L	1	1 U		1 U	7.2	0.65 J	0.68 J	1.1	
CHLOROBENZENE	ug/L	5	1 U		3.7	140 DIL	1 U	21	24	
ETHYLBENZENE	ug/L	5	1 U		1 U	1 U	1 U	1 U	1 U	
XYLENES, TOTAL	ug/L	5	2 U		2 U	2 U	2 U	2 U	2 U	
1,2-DICHLOROBENZENE	ug/L	3	1 U		1 U	1 U	1 U	1 U	1 U	
1,4-DICHLOROBENZENE	ug/L	3	1 U		1 U	1.4	1 U	1 U	1 U	
SVOCs										
4-CHLOROANILINE	ug/L	5		4.7 U				4.7 U	4.7 U	1.3 J
NAPHTHALENE	ug/L	10		4.7 U				4.7 U	4.7 U	4.7 U

#### Note:

Bold - Detected during Laboratory Analysis

J - Analyte Detected Below Reporting Limit

U - Analyte not detected

DIL - Dilution Required for Analysis

E - Analyzed using E624/E625 Method

Shading indicates exceedance of NYSDEC Class GA Standard

TABLE 2
Quarterly Landfill Gas Monitoring Data - 2011
2011 Annual OM Report
Alltift Landfill/Ramco Steel Site

			First Qu	arter			Se	cond Q	uarter			Т	ำhird Qเ	ıarter			F	ourth Q	uarter	
	LEL	CH <sub>4</sub>	<b>O</b> <sub>2</sub>	LEL CH <sub>4</sub>	CO <sub>2</sub>	LEL	CH₄	O <sub>2</sub>	LEL CH <sub>4</sub>	CO <sub>2</sub>	LEL	CH <sub>4</sub>	O <sub>2</sub>	LEL CH <sub>4</sub>	CO <sub>2</sub>	LEL	CH <sub>4</sub>	<b>O</b> <sub>2</sub>	LEL CH <sub>4</sub>	CO <sub>2</sub>
GV-1	NA	0.0%	21.4%	0.0%	0.0%	NA	0.6%	19.0%	11.0%	0.5%	NA	0.0%	20.4%	0.0%	0.0%	NA	0.0%	21.6%	0.00%	0.0%
GV-2	NA	0.0%	20.8%	0.0%	0.0%	NA	30.0%	1.7%	OR	1.7%	NA	1.6%	18.5%	31.0%	0.7%	NA	0.0%	20.9%	0.02%	3.0%
GV-3	NA	0.0%	21.4%	0.0%	0.0%	NA	0.0%	20.0%	0	0	NA	0.2%	20.0%	0.0%	0.0%	NA	0.0%	21.5%	0.00%	0.0%
Ground 1	NA	0.0%	21.4%	0.0%	0.0%	NA	0.0%	20.4%	0	0	NA	0.0%	20.4%	0.0%	0.0%	NA	0.0%	21.3%	0.00%	0.0%
Ground 2	NA	0.0%	21.4%	0.0%	0.0%	NA	0.0%	20.4%	0	0	NA	0.0%	20.4%	0.0%	0.0%	NA	0.0%	21.4%	0.00%	0.0%
Ground 3	NA	0.0%	20.7%	0.0%	0.0%	NA	0.0%	20.3%	0	0	NA	0.0%	20.4%	0.0%	0.0%	NA	0.0%	21.4%	0.00%	0.0%
Ground 4	NA	0.0%	21.4%	0.0%	0.0%	NA	0.0%	20.4%	0	0	NA	0.0%	20.4%	0.0%	0.0%	NA	0.0%	20.5%	0.00%	0.0%
Sump 1	NA	NA	NA	NA	NA	NA	0.0%	20.4%	0	0	NA	0.0%	0.0%	0.0%	0.0%	NA	0.0%	21.3%	0.00%	0.0%
Sump 2	NA	NA	NA	NA	NA	NA	0.0%	20.6%	0	0	NA	0.2%	19.8%	0.0%	0.3%	NA	0.0%	21.4%	0.00%	0.0%
Sump 3	NA	NA	NA	NA	NA	NA	0.0%	20.5%	0	0	NA	0.0%	20.3%	0.0%	0.0%	NA	0.0%	21.4%	0.00%	0.0%
Sump 4	NA	NA	NA	NA	NA	NA	0.0%	20.5%	0	0	NA	0.0%	20.3%	0.0%	0.0%	NA	0.0%	21.4%	0.00%	0.0%

All numbers are in percent (%)

NA - This parameter Not Analyzed during Site Visit

OR - Out of Range of Instrument

Ground 1 - Monitoring location in the Northwest corner of Landfill

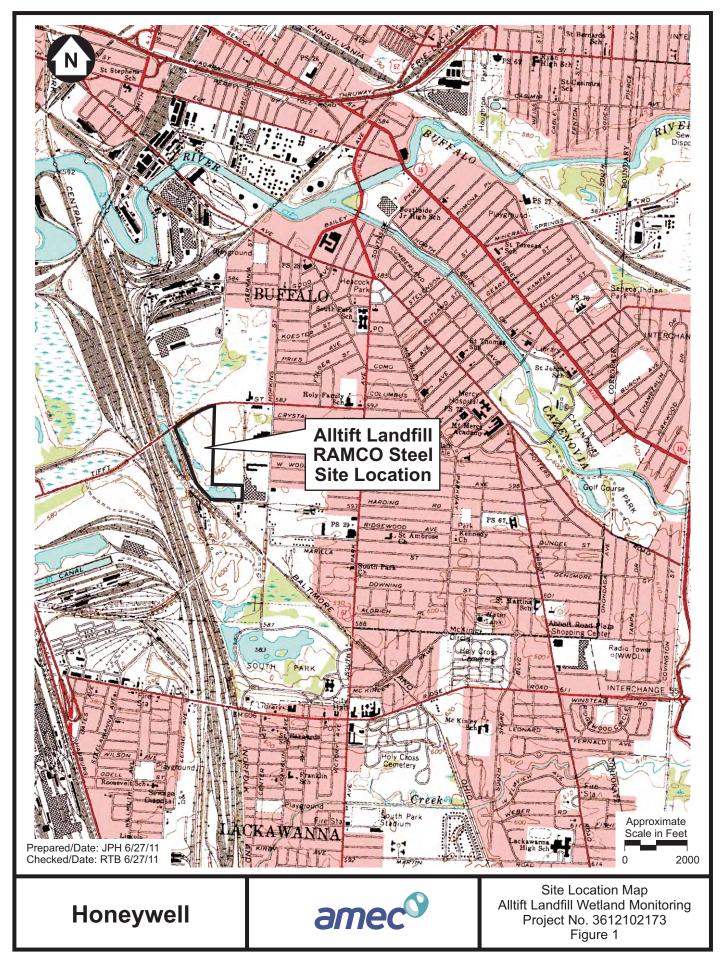
Ground 2 - Monitoring location on the West side of Landfill

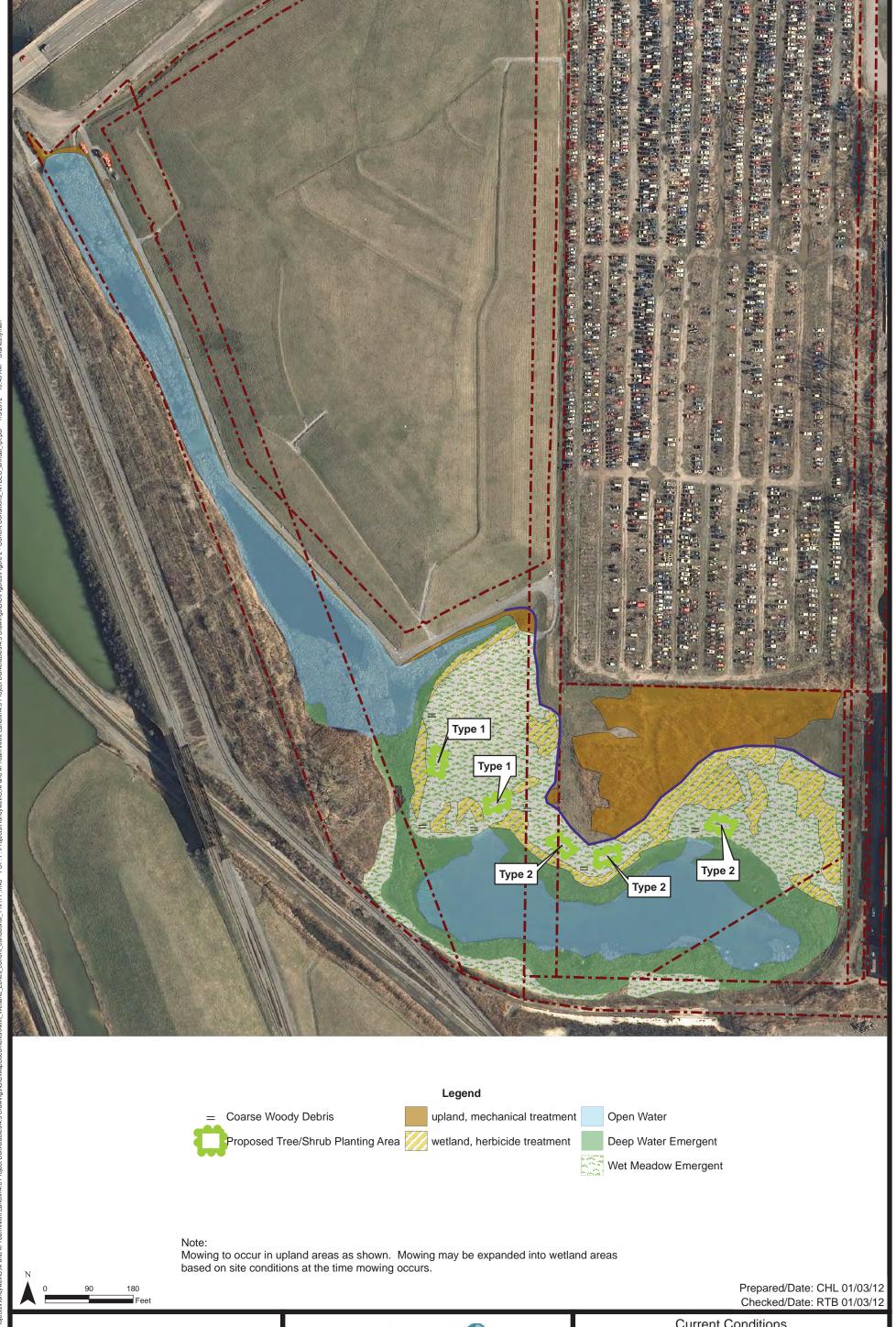
Ground 3 - Monitoring location in the Southeast corner of Landfill

Ground 4 - Monitoring location in the Northeast corner of Landfill

#### **APPENDIX A**

SITE LOCATION AND CURRENT CONDITIONS SITE PLAN FIGURES





**HONEYWELL** 

**Current Conditions** 

#### **APPENDIX B**

**DISCHARGE MONITORING REPORTS – MAY AND NOVEMBER 2011** 



Syracuse Honeywell 1563 Willis Avenue Syracuse, NY 13204 Tel 315.468.1663 Fax 315.468.1664

May 21, 2011

Mr. James Overholt Buffalo Sewer Authority 90 West Ferry Street Buffalo, New York 14213-1799

Subject: Alltift Landfill/Ramco Steel Site

Discharge Monitoring Report 2011 First Semi-Annual Report Permit Number 09-11-BU098

Dear Mr. Overholt:

Enclosed please find the 2011 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 2,985,000 gallons. The flow was measured from a totalizing meter within the lift station at the Alltift Site from October 26, 2010 through April 29, 2011 for a total of 185 days.

A time composite discharge sample was collected from within the pump station on April 29, 2011. Four samples were collected over an evenly-spaced work day period for VOCs and SVOCs, composited in the laboratory. The sample for TSS and pH were collected as one sample over an evenly-spaced work day period and composited in the field. A summary of the analytical results, compared to permit limits, is provided in Table 1. All parameters were in compliance with the BSA permit limits.

If you have any questions or require additional information, please contact me at (315) 468-1663.

Sincerely,

CH2M HILL OMI, INC.

John W. Formoza Project Manager

QC Review By: Ryan Belcher

cc.: Mr. Rich Galloway (Honeywell)

Mr. Maurice Moore (NYSDEC) Mr. Dennis Sutton (City of Buffalo)

Table 1
Alltift Landfill/Ramco Steel Site
First Semi-annual Report for 2011
Discharge Monitoring Report

BSA Permit No. 09-11-BU98

Sample Date: April 29, 2011

Sample Location: Onsite Pump Station to BSA

BSA Permit Parameter	Ana	Input llytical Results		Converte Analytical Re	BSA Da Discharg	Permit		
BSA Fermit Farameter	Quantity	Quantity Reporting Un		Quantity	Unit	Quantity	Unit	Compliance
pH	7.60	NA	SU	7.60	SU	5.0 - 12.0	SU	Yes
Benzene	ND	100	ug/L	ND	lbs/day	0.068	lbs/day	Yes
Chlorobenzene	67	100	ug/L	0.0090	lbs/day	0.148	lbs/day	Yes
4-Chloroaniline	16	4.9	ug/L	0.0022	lbs/day	0.048	lbs/day	Yes
Naphthalene	ND	4.9	ug/L	ND	lbs/day	0.048	lbs/day	Yes
Total Suspended Solids	22.8	4.0	mg/L	22.8	mg/L	250	mg/L	Yes
Total Flow (average)	11.20		gpm	16,135	gpd	57,600	gpd	Yes

Flow Calculations (see note1)	Old Meter	New Meter		
Initial Reading (pump station)	3019000	0	7/1/	10/26/2010
Final Reading (pump station)	5609200	394800		4/29/2011
Total Days in Period			185	
Total Flow for Period	2,590,200	394,800	2,985,000	gallons
Average Flow for Period			11.20	gpm

Note1: A new flow meter was installed on March 25, 2011, at which time the flow totalizing meter reading was 5609200.



Syracuse Honeywell 1563 Willis Avenue Syracuse, NY 13204 Tel 315.468.1663 Fax 315.468.1664

October 6, 2011

Mr. James Overholt Buffalo Sewer Authority 90 West Ferry Street Buffalo, New York 14213-1799

Subject:

Alltift Landfill/Ramco Steel Site Discharge Monitoring Report 2011 Second Semi-Annual Report Permit Number 09-11-BU098

Dear Mr. Overholt:

Enclosed please find the 2011 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 1,274,300 gallons. The flow was measured from a totalizing meter within the lift station at the Alltift Site from April 29, 2011 through September 14, 2011 for a total of 138 days.

A time composite discharge sample was collected from within the pump station on September 14, 2011. Four samples were collected over an evenly-spaced work day period for VOCs and SVOCs, composited in the laboratory. The sample for TSS and pH were collected as one sample over an evenly-spaced work day period and composited in the field. A summary of the analytical results, compared to permit limits, is provided in Table 1. All parameters were in compliance with the BSA permit limits.

If you have any questions or require additional information, please contact me at (315) 468-1663.

Sincerely,

CH2M HILL OMI, INC.

John W. Formoza Project Manager

QC Review By: Ryan Belcher

cc.:

Mr. Rich Galloway (Honeywell)

Mr. Maurice Moore (NYSDEC)

Mr. Dennis Sutton (City of Buffalo)

Table 1 Alltift Landfill/Ramco Steel Site Second Semi-annual Report for 2011 **Discharge Monitoring Report** 

BSA Permit No. 09-11-BU98

Sample Date: Sample Location:

September 14, 2011 Onsite Pump Station to BSA

BSA Permit Parameter	Ana	Input llytical Results		Converte Analytical R	BSA Da Discharg	Permit		
BOA Permit Parameter	Quantity	Reporting Limit	Unit	Quantity	Unit	Quantity	Unit	Compliance
pH	7.49	NA	SU	7.49	SU	5.0 - 12.0	SU	Yes
Benzene	ND	100	ug/L	ND	lbs/day	0.068	lbs/day	Yes
Chlorobenzene	85	100	ug/L	0.0065	lbs/day	0.148	lbs/day	Yes
4-Chloroaniline	4	4.9	ug/L	0.0003	lbs/day	0.048	lbs/day	Yes
Naphthalene	ND	4.9	ug/L	ND	lbs/day	0.048	lbs/day	Yes
Total Suspended Solids	51.6	4.0	mg/L	51.6	mg/L	250	mg/L	Yes
Total Flow (average)	6.41		gpm	9,234	gpd	57,600	gpd	Yes

Flow Calculations	Meter		
Initial Reading (pump station)	394800	4/29/2011	
Final Reading (pump station)	1669100	9/14/2011	1
Total Days in Period		138	
Total Flow for Period	1,274,300		gallons
Average Flow for Period	1,274,300	6.41	gpm

## **APPENDIX C**

## **MONTHLY WATER LEVEL MEASUREMENTS –2011**

#### Alltift Landfill Buffalo, New York

#### Monthly Procedure :

- 1) Read water levels at all below indicated monitoring points.
- 2) Read Electric Meter and note reading below.
- 3) All samples taken at low lift station as follows:
  - A) One gallon glass jug filled in 1/4 increments every two hours with composite distributed to 5 various bottles for metals/pH testing.
  - B) (8) liter amber glass jars to be sampled directly at Lift Station, filled two at a time with 1 gal composite.
  - C) (8) small vials to be sampled directly from Lift Station, filled two at a time with 1 gal composite.
- 4) Overall site inspection with focus on cap erosion, maintenance items, security, animal burrowing, etc. Report any maintenance issues found.
- 5) Sump inspection and level sensor inspection/cleaning.

	12-Jan-11	28-Feb-11	31-Mar-11	29-Apr-11	25-May-11	#######	27-Jul-11	17-Aug-11	14-Sep-11	27-Oct-11	22-Nov-11
PZ-1	8.10	6.10	7.96	8.11	6.08	6.10	7.09	6.15	6.14		6.21
PZ-2	9.27	8.57	9.19	9.27	7.96	8.09	8.63	8.35	8.38		5.54
PZ-3	10.63	12.95	11.95	11.93	10.21	10.23	10.95	11.27	11.17		6.42
PZ-4	7.51	5.44	6.78	6.94	5.73	5.85	6.94	6.23	6.3		6.00
PZ-5	7.49	7.55	7.45	7.50	6.99	7.13	7.55	7.36	7.39		5.13
PZ-6	9.95	11.47	10.19	11.19	9.01	9.21	9.91	10.19	10.06		6.35
PZ-7	8.77	9.05	8.98	9.11	7.43	7.71	8.69	8.85	8.87		6.50
PZ-8	7.34	7.34	7.29	7.63	5.81	5.97	6.33	7.26	7.32		6.17
PZ-9	7.96	6.52	7.15	7.89							6.58
PZ-10	10.23	7.45	8.84	9.59	7.78	7.79	8.74	10.81	10.48		8.21
PZ-11	9.40	8.78	9.29	9.62	6.97	6.97	9.23	8.72	9.28		8.00
PZ-12	10.58	10.12	10.36	10.66	7.54	7.63	9.98	9.87	10.36		8.46
PZ-13	8.14	5.11	8.15	8.21	5.14	7.59	7.57	7.95	8.67		5.79
PZ-14	10.29(1)	10.29(1)	10.29(1)	10.29(1)	10.29(1)	10.29	10.29(1)	10.29	10.29		
PZ-15	8.73	8.07	8.81	8.95	7.42	7.55	8.10	7.4	7.86		7.67
PZ-16	32.50(2)	32.50(2)	32.50(2)	32.50(2)	32.50(2)	32.50(2)	32.50(2)	32.5	32.5		

#### **Groundwater Collection Trench Sumps**

GWCT-1	10.73	6.70	9.45	10.69	7.65	9.73	10.11	7.2	7.26	6.42
GWCT-2	18.48	22.30	19.01	19.86	13.10	14.11	15.79	13.84	14.42	7.17
GWCT-3	9.71	10.63	10.48	10.55	8.58	9.14	9.81	9.83	9.81	6.71
GWCT-4	7.98	7.51	7.97	8.09	6.50	7.47	7.54	8.13	8.15	6.17

#### **Relief Trench Sumps**

GWR-1	8.38	8.21	8.37	8.37	8.37	8.37	8.39	8.39	8.35	8.25
GWR-2	8.36	5.85	8.35	8.36	8.35	8.38	8.35	8.37	8.34	8.17

#### Lift Station

-iii otatioii										
Lift	11.85	11.91	11.87	11.86	11.76	11.86	11.91	11.56	11.98	12.00
Offsite Background Wells										
MW-1	n/a(2)									
MW-2	10.1	9.98	9.79	10.23	4.36	5.26	6.12	6.24	6.29	

#### Lift Station Totalizer Reading

Total Flow	4477300	5335900	58300	394800.00	729000.00	1071000	1167100	1468900	1669100	2050300	2262800
Delta							96100	301800	200200	381200	212500

#### **Electric Meter**

Current	50932	1223	2153	3040.00	3566.00	4024	4614	5327	5866	5866	
Delta											

#### Comments:

- \*1 : PZ-14 : Unable to obtain reading at well. Seems as if well casement has collapsed. Tape stops at 10.29 ft.
- (2): MW 1: Removed and paved over.
- (3): PZ-16: Tape stops at 32.5 feet and well indicates dry at this level.

# **Alltift Quarterly Methane Gas Readings**

Date: 4th Quarter 2011 - November 22, 2011

Location	CH₄	CO <sub>2</sub>	O <sub>2</sub>	Balance O <sub>2</sub>	CH₄ LEL
Sump #1	0.0%	0.0%	21.3%	78.7%	0.00%
Ground #1	0.0%	0.0%	21.3%	78.7%	0.00%
Sump #2	0.0%	0.0%	21.4%	78.6%	0.00%
Sump #3	0.0%	0.0%	21.4%	78.6%	0.00%
Ground #2	0.0%	0.0%	21.4%	78.6%	0.00%
Sump #4	0.0%	0.0%	21.4%	78.6%	0.00%
Ground #3	0.0%	0.0%	21.4%	78.6%	0.00%
Ground #4	0.0%	0.0%	20.5%	79.4%	0.00%
GV1	0.0%	0.0%	21.6%	78.3%	0.00%
GV2	0.0%	3.0%	20.9%	77.7%	0.02%
GV3	0.0%	0.0%	21.5%	78.4%	0.00%

Wier Elevation Reading: \_\_\_\_\_\_10" above water level

#### **APPENDIX D**

# **QUARTERLY GROUNDWATER ELEVATIONS –2011**

# SUMMARY OF 2011 QUARTERLY GROUNDWATER ELEVATIONS ALLTIFT LANDFILL SITE BUFFALO, NEW YORK

			3/31/2011		6/30	/2011	9/14	/2011	11/22/2011		
MONITORING POINT	TOTAL DEPTH (FT.)	TOP OF CASING ELEVATION	DEPTH TO WATER	GROUND WATER ELEVATION	DEPTH TO WATER	GROUND WATER ELEVATION	DEPTH TO WATER ELEVATION		DEPTH TO WATER	GROUND WATER ELEVATION	
PIEZOMETERS											
PZ-1	16.8	585.01	7.96	577.05	6.10	578.91	6.14	578.87	6.21	578.80	
PZ-2	16.9	584.96	9.19	575.77	8.09	576.87	8.38	576.58	5.54	579.42	
PZ-3	16.9	585.05	11.95	573.10	10.23	574.82	11.17	573.88	6.42	578.63	
PZ-4	16.6	585.79	6.78	579.01	5.85	579.94	6.30	579.49	6	579.79	
PZ-5	16.9	584.52	7.45	577.07	7.13	577.39	7.39	577.13	5.13	579.39	
PZ-6	17.8	584.74	10.19	574.55	9.21	575.53	10.06	574.68	6.35	578.39	
PZ-7	20.0	584.99	8.98	576.01	7.71	577.28	8.87	576.12	6.50	578.49	
PZ-8	20.7	584.48	7.29	577.19	5.97	578.51	7.32	577.16	6.17	578.31	
PZ-9	15.1	586.86	7.15	579.71	NM		NM		6.58	580.28	
PZ-10	11.5	589.41	8.84	580.57	7.79	581.62	10.48	578.93	8.21	581.20	
PZ-11	19.5	594.72	9.29	585.43	6.97	587.75	9.28	585.44	8.00	586.72	
PZ-12	21.8	592.78	10.36	582.42	7.63	585.15	10.36	582.42	8.46	584.32	
PZ-13	22.5	589.04	8.15	580.89	7.59	581.45	8.67	580.37	5.79	583.25	
PZ-14	55.0	619.11	*	*	*	*	10.29	*	*	*	
PZ-15	17.0	588.79	8.81	579.98	7.55	581.24	7.86	580.93	7.67	581.12	
PZ-16	66.5	629.30	***	**	***	**	***	**	***	**	
<b>BACKGROUND WELL</b>	S										
MW-1	20.4	585.22	***	***	***	***	***	***	***	***	
MW-2	17.0	586.67	9.79	576.88	5.26	581.41	6.29	580.38	NM	NM	
<b>GROUNDWATER COL</b>	LECTION TRENCH	1 SUMPS									
S-1	17.2	585.19	9.45	575.74	9.73	575.46	7.26	577.93	6.42	578.77	
S-2	24.8	585.45	19.01	566.44	14.11	571.34	14.42	571.03	7.17	578.28	
S-3	17.3	585.25	10.48	574.77	9.14	576.11	9.81	575.44	6.71	578.54	
S-4	17.8	585.00	7.97	577.03	7.47	577.53	8.15	576.85	6.17	578.83	

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

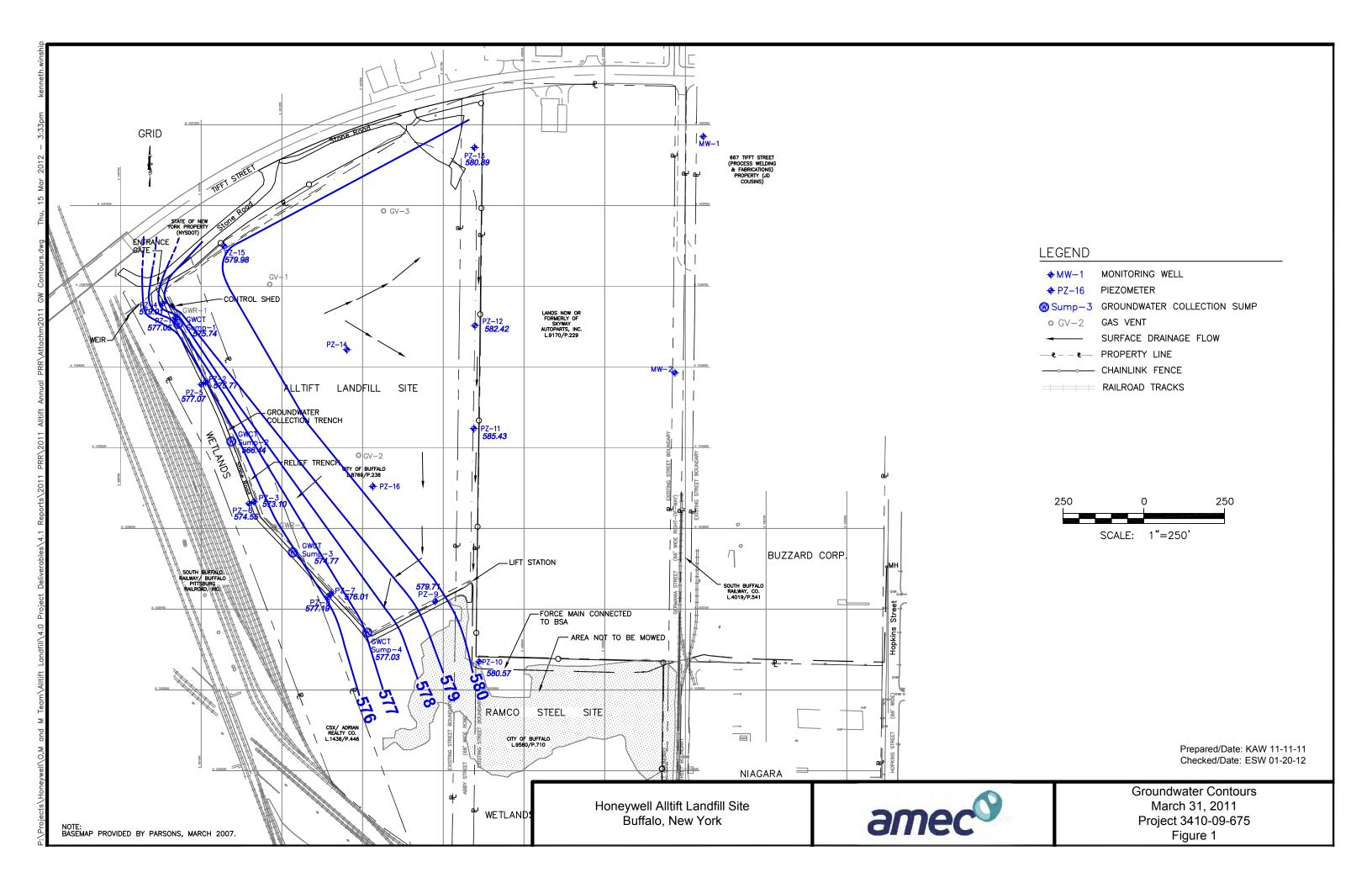
NM - Not measured

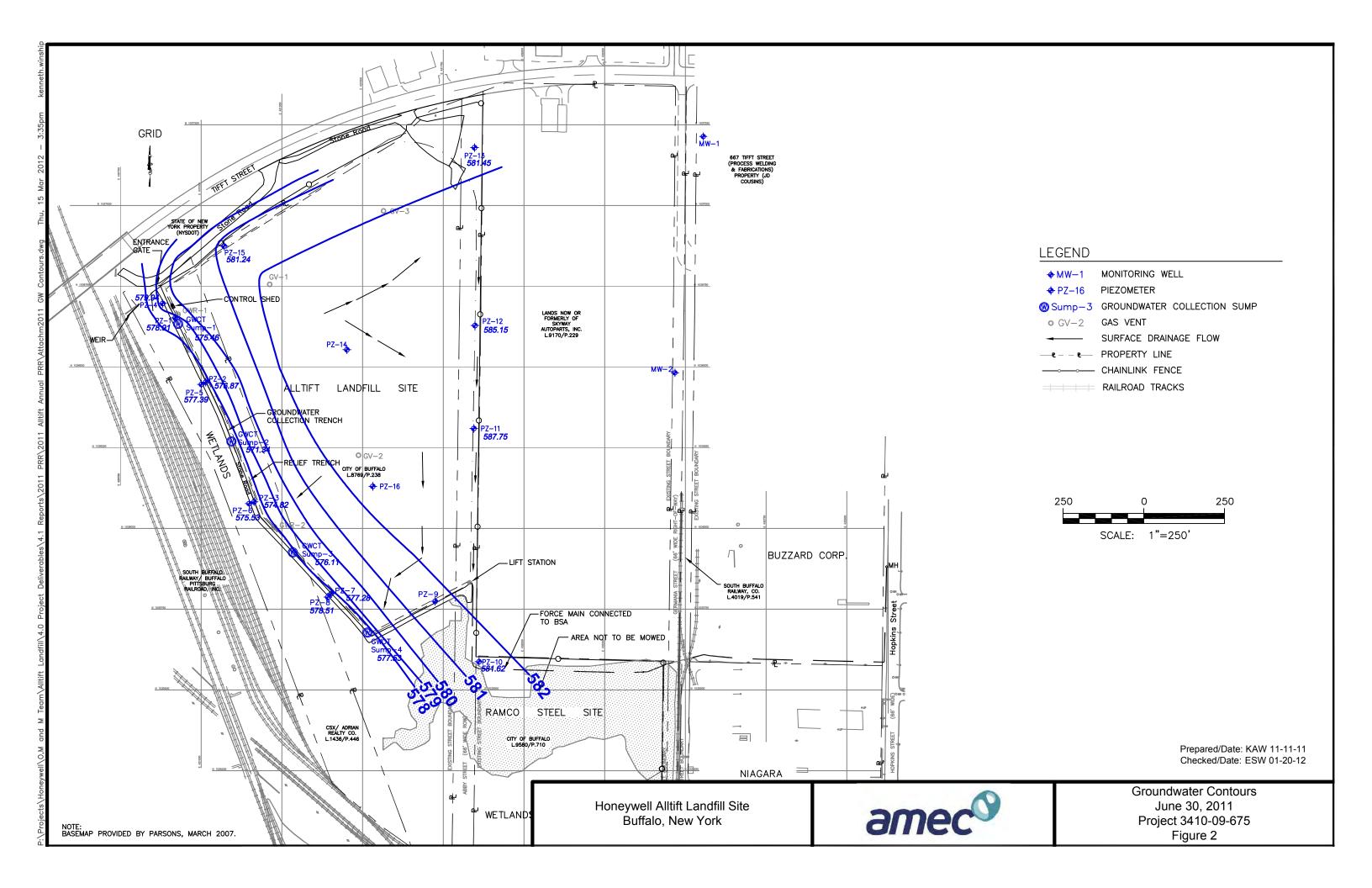
<sup>\*\*</sup>PZ-16: Tape stops at 32.50 feet below top of casing; indicates that the well is dry at this level.

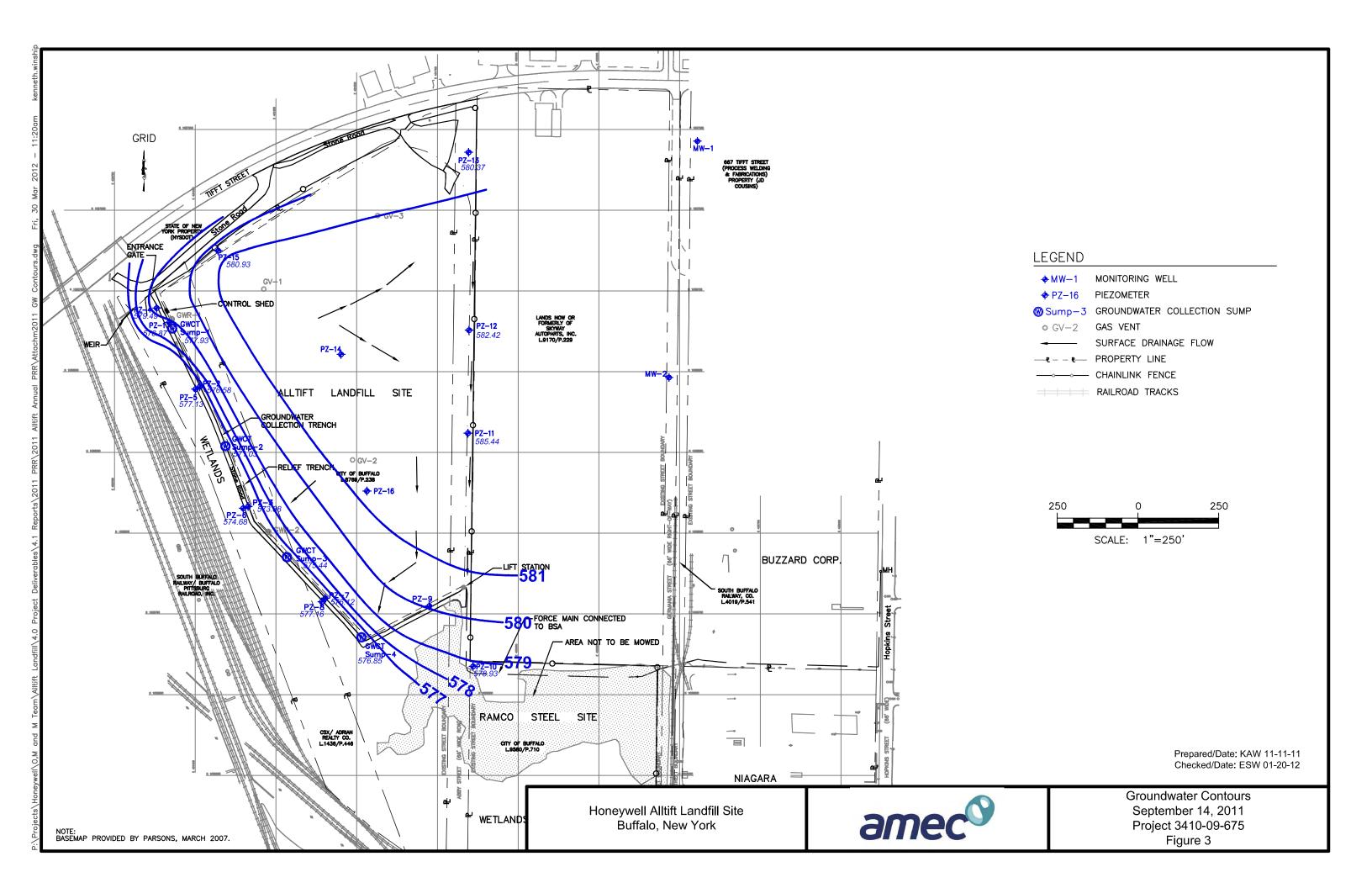
<sup>\*\*\*</sup>Background well MW-1 removed or paved over by property owner sometime after July 2006 site visit.

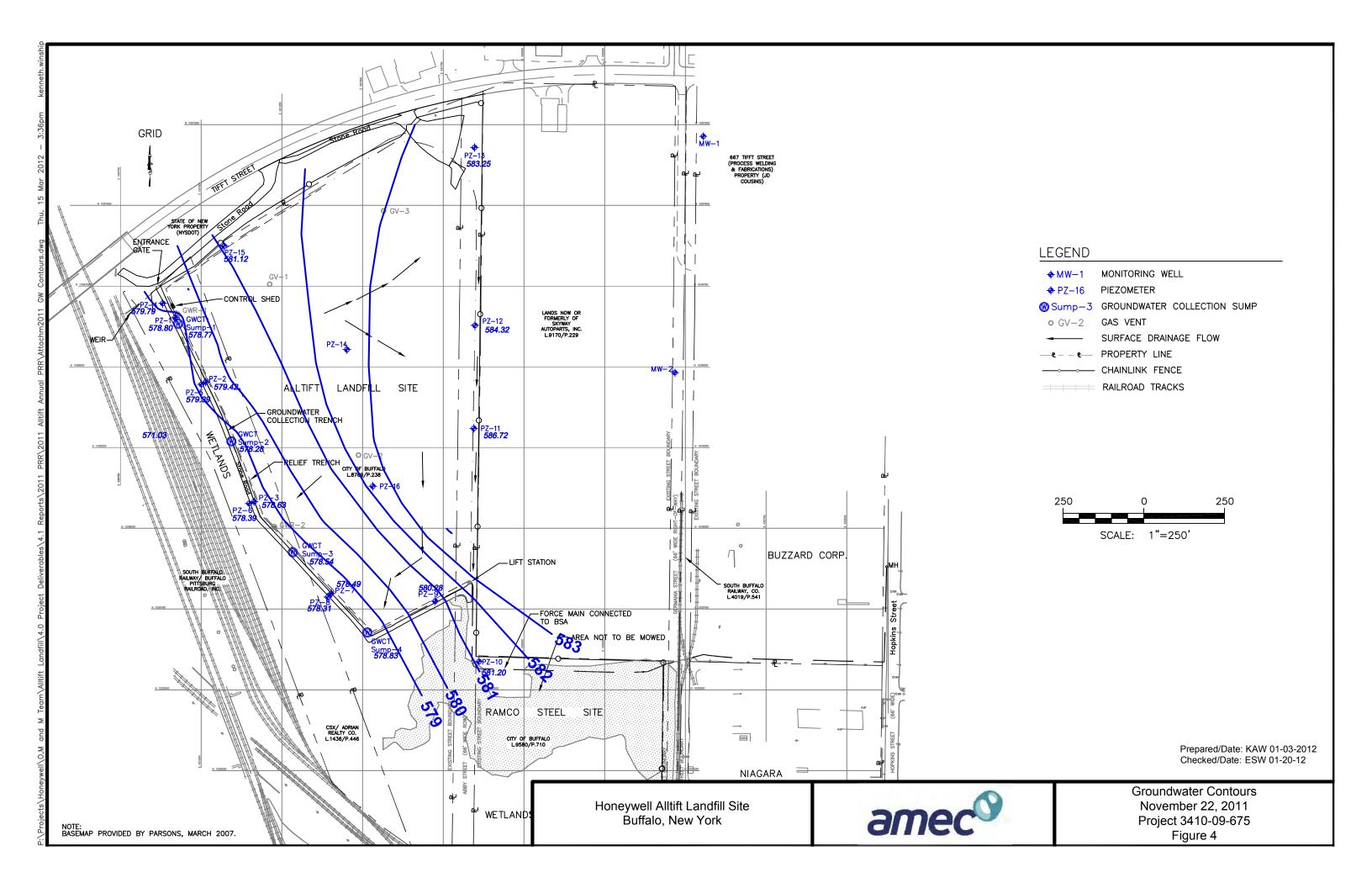
#### APPENDIX E

**QUARTERLY GROUNDWATER CONTOUR MAPS – 2011** 









#### APPENDIX F

**GROUNDWATER ANALYTICAL RESULTS – AUGUST 2011** 



Visit us at:

www.testamericainc.com

# <u>TestAmerica</u>

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: 480-8252-1

Client Project/Site: 30130 - Honeywell- Alltift LF Sampling Event: Honeywell Alltift GW Monitoring

For:

Ontario Specialty Contracting, Inc. 333 Ganson St. Buffalo, New York 14203

Attn: Andrew Madden

Authorized for release by: 08/22/2011 02:00:12 PM

Fise Shope-

Lisa Shaffer

**Project Administrator** 

lisa.shaffer@testamericainc.com

Designee for

John Schove

Department Manager I

john.schove@testamericainc.com

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

Page 1 of 34 08/22/2011

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1/

1

# **Definitions/Glossary**

Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

TestAmerica Job ID: 480-8252-1

#### **Qualifiers**

#### **GC/MS VOA**

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits

#### **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.

#### **GC Semi VOA**

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

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not
	applicable.
F	MS or MSD exceeds the control limits

#### **Glossary**

RL

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						
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample						
EDL	Estimated Detection Limit (Dioxin)						
EPA	United States Environmental Protection Agency						
MDL	Method Detection Limit						
ML	Minimum Level (Dioxin)						
ND	Not detected at the reporting limit (or method detection limit if shown)						
POI	Practical Quantitation Limit						

Reporting Limit

#### **Case Narrative**

Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

TestAmerica Job ID: 480-8252-1

Job ID: 480-8252-1

**Laboratory: TestAmerica Buffalo** 

Narrative

Job Narrative 480-8252-1

#### Comments

No additional comments.

#### Receipt

All samples were received in good condition within temperature requirements.

#### GC/MS VOA

Method(s) 8260B: The following samples were diluted due to the abundance of target analytes: Sump 2-080811 (480-8252-2). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 26944 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

#### GC/MS Semi VOA

No analytical or quality issues were noted.

#### GC Semi VOA

No analytical or quality issues were noted.

#### Metals

Method(s) 6020: The Serial Dilution (480-8252-4 SD) in batch 26896, exhibited results outside the quality control limits for total arsenic. However, the Post Digestion Spike was compliant so no corrective action was necessary

Method(s) 6020: The Matrix Spike/ Matrix Spike Duplicate (MS/MSD) recoveries for total arsenic in batch 26896 were outside control limits. The associated Laboratory Control Sample (LCS) recovery met acceptance criteria, therefore no corrective action was necessary.

No other analytical or quality issues were noted.

#### **Organic Prep**

No analytical or quality issues were noted.

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TestAmerica Job ID: 480-8252-1

Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

Client Sample ID: Sump 1-080811

Lab Sample ID: 480-8252-1

Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	3.7	1.0	0.75	ug/L	1		8260B	 Total/NA

Client Sample ID: Sump 2-080811

Lab Sample	ID: 480-8252-2
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Analyte 1,4-Dichlorobenzene	Result 0	Qualifier	1.0	MDL 0.84	ug/L	Dil Fac	<u>D</u>	Method 8260B	Prep Type Total/NA
Benzene Chlorobenzene	7.2 140 E		1.0	0.41	ug/L	1		8260B 8260B	Total/NA Total/NA
Benzene - DL Chlorobenzene - DL	7.4 140		2.0 2.0	0.82 1.5	ug/L ug/L	2		8260B 8260B	Total/NA Total/NA

**7** 8

Client Sample ID: Sump 3-080811

Lab Sample ID: 480-8252-3

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method	Prep Type
Benzene	0.65 J	1.0	0.41 ug/L		8260B	Total/NA

11

Client Sample ID: Sump 4-080811

Lab Sample ID: 480-8252-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.68	J	1.0	0.41	ug/L		_	8260B	Total/NA
Chlorobenzene	21		1.0	0.75	ug/L	1		8260B	Total/NA
4,4'-DDE	0.015	J	0.048	0.011	ug/L	1		8081A	Total/NA
Chromium	0.0051		0.0040	0.00087	mg/L	1		6010B	Total/NA
Iron	1.3		0.050	0.019	mg/L	1		6010B	Total/NA
Manganese	6.3		0.0030	0.00030	mg/L	1		6010B	Total/NA
Antimony	11.1		1.0	0.15	ug/L	1		6020	Total/NA
Arsenic	7.3		1.0	0.078	ug/L	1		6020	Total/NA
Cadmium	0.23	J	0.50	0.018	ug/L	1		6020	Total/NA

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Client Sample ID: Sump Comp-080811

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Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D I	Method	Prep Type
4-Chloroaniline	1.3	J	4.7	0.56	ug/L	1	_ {	3270C	Total/NA
Chromium	0.0084		0.0040	0.00087	mg/L	1	6	6010B	Total/NA
Iron	15.9		0.050	0.019	mg/L	1	6	6010B	Total/NA
Manganese	3.8		0.0030	0.00030	mg/L	1	6	6010B	Total/NA
Antimony	4.1		1.0	0.15	ug/L	1	6	6020	Total/NA
Arsenic	15.9		1.0	0.078	ug/L	1	6	6020	Total/NA

# **Client Sample ID: TRIP BLANK**

Lab Sample ID: 480-8252-6

No Detections

Client Sample ID: FDUP-Sump 4-080811

Lab Sample II	): 480-8252 <b>-</b> 7
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Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.1		1.0	0.41	ug/L	1		8260B	Total/NA
Chlorobenzene	24		1.0	0.75	ug/L	1		8260B	Total/NA
Chromium	0.0039	J	0.0040	0.00087	mg/L	1		6010B	Total/NA
Iron	1.8		0.050	0.019	mg/L	1		6010B	Total/NA
Manganese	6.3		0.0030	0.00030	mg/L	1		6010B	Total/NA
Antimony	4.5		1.0	0.15	ug/L	1		6020	Total/NA
Arsenic	8.6		1.0	0.078	ug/L	1		6020	Total/NA

# **Detection Summary**

Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

TestAmerica Job ID: 480-8252-1

2

Client Sample ID: MW-2-080811

Client Sample ID: MW-2-080911

Lab Sample ID: 480-8252-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0049		0.0040	0.00087	mg/L		_	6010B	Total/NA
Lead	0.0048	J	0.0050	0.0030	mg/L	1		6010B	Total/NA
Iron	2.3		0.050	0.019	mg/L	1		6010B	Total/NA
Manganese	0.56		0.0030	0.00030	mg/L	1		6010B	Total/NA
Antimony	0.25	J	1.0	0.15	ug/L	1		6020	Total/NA
Arsenic	3.2		1.0	0.078	ug/L	1		6020	Total/NA
Cadmium	0.072	J	0.50	0.018	ug/L	1		6020	Total/NA

Lab Sample ID: 480-8252-9

No Detections

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Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

TestAmerica Job ID: 480-8252-1

Lab Sample ID: 480-8252-1

Matrix: Water

Matrix: Water

Client Sample ID: Sump 1-080811

Date Collected: 08/08/11 10:38 Date Received: 08/08/11 17:55

Method: 8260B - Volatile Organ	nic Compounds ((	GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			08/10/11 15:20	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			08/10/11 15:20	1
Benzene	ND		1.0	0.41	ug/L			08/10/11 15:20	1
Chlorobenzene	3.7		1.0	0.75	ug/L			08/10/11 15:20	1
Ethylbenzene	ND		1.0	0.74	ug/L			08/10/11 15:20	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/10/11 15:20	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		66 - 137			_		08/10/11 15:20	1
Toluene-d8 (Surr)	120		71 - 126					08/10/11 15:20	1
4-Bromofluorobenzene (Surr)	106		73 - 120					08/10/11 15:20	1

Client Sample ID: Sump 2-080811 Lab Sample ID: 480-8252-2

Date Collected: 08/08/11 11:10

Date Received: 08/08/11 17:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			08/10/11 15:43	1
1,4-Dichlorobenzene	1.4		1.0	0.84	ug/L			08/10/11 15:43	1
Benzene	7.2		1.0	0.41	ug/L			08/10/11 15:43	1
Chlorobenzene	140	E	1.0	0.75	ug/L			08/10/11 15:43	1
Ethylbenzene	ND		1.0	0.74	ug/L			08/10/11 15:43	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/10/11 15:43	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		66 - 137			_		08/10/11 15:43	1
Toluene-d8 (Surr)	118		71 - 126					08/10/11 15:43	1
4-Bromofluorobenzene (Surr)	108		73 - 120					08/10/11 15:43	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			08/11/11 11:44	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			08/11/11 11:44	2
Benzene	7.4		2.0	0.82	ug/L			08/11/11 11:44	2
Chlorobenzene	140		2.0	1.5	ug/L			08/11/11 11:44	2
Ethylbenzene	ND		2.0	1.5	ug/L			08/11/11 11:44	2
Xylenes, Total	ND		4.0	1.3	ug/L			08/11/11 11:44	2
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		66 - 137			-		08/11/11 11:44	2
Toluene-d8 (Surr)	116		71 - 126					08/11/11 11:44	2
4-Bromofluorobenzene (Surr)	102		73 - 120					08/11/11 11:44	2

Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

TestAmerica Job ID: 480-8252-1

Lab Sample ID: 480-8252-3

Matrix: Water

Matrix: Water

08/10/11 16:28

08/10/11 16:28

Client Sample ID: Sump 3-080811

Date Collected: 08/08/11 11:38 Date Received: 08/08/11 17:55

Method: 8260B - Volatile Orga	nic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND	-	1.0	0.79	ug/L			08/10/11 16:05	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			08/10/11 16:05	1
Benzene	0.65	J	1.0	0.41	ug/L			08/10/11 16:05	1
Chlorobenzene	ND		1.0	0.75	ug/L			08/10/11 16:05	1
Ethylbenzene	ND		1.0	0.74	ug/L			08/10/11 16:05	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/10/11 16:05	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		66 - 137			-		08/10/11 16:05	1
Toluene-d8 (Surr)	118		71 - 126					08/10/11 16:05	1
4-Bromofluorobenzene (Surr)	105		73 - 120					08/10/11 16:05	1

Client Sample ID: Sump 4-080811 Lab Sample ID: 480-8252-4

Date Collected: 08/08/11 12:08

Toluene-d8 (Surr)

4-Bromofluorobenzene (Surr)

Date Received: 08/08/11 17:55

118

106

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			08/10/11 16:28	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			08/10/11 16:28	1
Benzene	0.68	J	1.0	0.41	ug/L			08/10/11 16:28	1
Chlorobenzene	21		1.0	0.75	ug/L			08/10/11 16:28	1
Ethylbenzene	ND		1.0	0.74	ug/L			08/10/11 16:28	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/10/11 16:28	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	115		66 - 137			-		08/10/11 16:28	

71 - 126

73 - 120

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloroaniline	ND		4.7	0.56	ug/L		08/10/11 16:08	08/11/11 16:39	1
Naphthalene	ND		4.7	0.72	ug/L		08/10/11 16:08	08/11/11 16:39	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	80		46 - 120				08/10/11 16:08	08/11/11 16:39	1
2-Fluorobiphenyl	96		48 - 120				08/10/11 16:08	08/11/11 16:39	1
p-Terphenyl-d14	76		24 - 136				08/10/11 16:08	08/11/11 16:39	1

Analyte	Result	Qualifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND	0.057	0.036	ug/L		08/10/11 18:58	08/11/11 13:43	1
PCB-1221	ND	0.057	0.036	ug/L		08/10/11 18:58	08/11/11 13:43	1
PCB-1232	ND	0.057	0.036	ug/L		08/10/11 18:58	08/11/11 13:43	1
PCB-1242	ND	0.057	0.036	ug/L		08/10/11 18:58	08/11/11 13:43	1
PCB-1248	ND	0.057	0.036	ug/L		08/10/11 18:58	08/11/11 13:43	1
PCB-1254	ND	0.057	0.029	ug/L		08/10/11 18:58	08/11/11 13:43	1
PCB-1260	ND	0.057	0.029	ug/L		08/10/11 18:58	08/11/11 13:43	1

TestAmerica Job ID: 480-8252-1

Client: Ontario Specialty Contracting, Inc.

Project/Site: 30130 - Honeywell- Alltift LF

Lab Sample ID: 480-8252-4 Client Sample ID: Sump 4-080811

Date Collected: 08/08/11 12:08 Matrix: Water

Date Received: 08/08/11 17:55

PCB-1232

PCB-1242

PCB-1248

PCB-1254

Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
DCB Decachlorobiphenyl	53		26 - 145				08/10/11 18:58	08/11/11 13:43	-
Tetrachloro-m-xylene	80		25 - 152				08/10/11 18:58	08/11/11 13:43	
Method: 8081A - Organochlorine P	esticides (G	C)							
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
4,4'-DDD	ND		0.048	0.0088	ug/L		08/10/11 18:21	08/13/11 01:02	
4,4'-DDE	0.015	J	0.048	0.011	ug/L		08/10/11 18:21	08/13/11 01:02	
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
DCB Decachlorobiphenyl	63		15 - 139				08/10/11 18:21	08/13/11 01:02	
Tetrachloro-m-xylene	61		30 - 139				08/10/11 18:21	08/13/11 01:02	
Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Chromium	0.0051		0.0040	0.00087	mg/L		08/10/11 08:10	08/10/11 15:55	
Lead	ND		0.0050	0.0030	mg/L		08/10/11 08:10	08/10/11 15:55	
Iron	1.3		0.050	0.019	mg/L		08/10/11 08:10	08/10/11 15:55	
Manganese	6.3		0.0030	0.00030	mg/L		08/10/11 08:10	08/10/11 15:55	
Method: 6020 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Antimony	11.1		1.0	0.15	ug/L		08/10/11 08:30	08/11/11 11:01	-
Arsenic	7.3		1.0	0.078	ug/L		08/10/11 08:30	08/11/11 11:01	
Cadmium	0.23	J	0.50	0.018	ug/L		08/10/11 08:30	08/11/11 11:01	
Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Mercury	ND		0.00020	0.00012	ma/l		08/10/11 10:10	08/10/11 13:56	

Client Sample ID: Sump Comp-080811 Lab Sample ID: 480-8252-5

Date Collected: 08/08/11 12:59 Matrix: Water

Date Received: 08/08/11 17:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloroaniline	1.3	J	4.7	0.56	ug/L		08/10/11 16:08	08/11/11 17:02	1
Naphthalene	ND		4.7	0.72	ug/L		08/10/11 16:08	08/11/11 17:02	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	87		46 - 120				08/10/11 16:08	08/11/11 17:02	1
2-Fluorobiphenyl	101		48 - 120				08/10/11 16:08	08/11/11 17:02	1
p-Terphenyl-d14	70		24 - 136				08/10/11 16:08	08/11/11 17:02	1
- Method: 608 - Polychlori	nated Biphenyls (PCB	s) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.057	0.036	ug/L		08/10/11 18:58	08/11/11 14:31	1
PCB-1221	ND		0.057	0.036	ua/L		08/10/11 18:58	08/11/11 14:31	1

08/11/11 14:31

08/11/11 14:31

08/11/11 14:31

08/11/11 14:31

08/10/11 18:58

08/10/11 18:58

08/10/11 18:58

08/10/11 18:58

0.057

0.057

0.057

0.057

0.036 ug/L

0.036 ug/L

0.036 ug/L

0.030 ug/L

ND

ND

ND

ND

Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF TestAmerica Job ID: 480-8252-1

Lab Sample ID: 480-8252-5

**Matrix: Water** 

### Client Sample ID: Sump Comp-080811

Date Collected: 08/08/11 12:59 Date Received: 08/08/11 17:55

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC) (Continued) Analyte Qualifier RL MDL Unit Result Dil Fac D Prepared Analyzed PCB-1260 ND 0.057 0.030 ug/L 08/10/11 18:58 08/11/11 14:31 Surrogate Qualifier % Recovery Limits Prepared Analyzed Dil Fac DCB Decachlorobiphenyl 26 - 145 08/10/11 18:58 08/11/11 14:31 43 Tetrachloro-m-xylene 80 08/10/11 18:58 08/11/11 14:31 25 - 152 Method: 8081A - Organochlorine Pesticides (GC) RL MDL Analyte Unit Result Qualifier D Prepared Analyzed Dil Fac 4,4'-DDD ND 0.049 0.0090 ug/L 08/10/11 18:21 08/13/11 01:38 4,4'-DDE ND 0.049 0.011 ug/L 08/10/11 18:21 08/13/11 01:38

Surrogate Qualifier Dil Fac % Recovery Limits Prepared Analyzed 08/10/11 18:21 DCB Decachlorobiphenyl 63 15 - 139 08/13/11 01:38 Tetrachloro-m-xylene 60 30 - 139 08/10/11 18:21 08/13/11 01:38

Method: 6010B - Metals (ICP) Analyte RL MDL Unit Result Qualifier Dil Fac D Prepared Analyzed Chromium 0.0040 0.00087 mg/L 0.0084 08/10/11 08:10 08/10/11 16:06 Lead ND 0.0050 0.0030 mg/L 08/10/11 08:10 08/10/11 16:06 0.050 0.019 mg/L 08/10/11 08:10 08/10/11 16:06 Iron 15.9 0.0030 0.00030 mg/L 08/10/11 08:10 08/10/11 16:06 Manganese 3.8

Method: 6020 - Metals (ICP/MS) MDL Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac **Antimony** 4.1 1.0 0.15 ug/L 08/10/11 08:30 08/11/11 11:50 1.0 ug/L 08/10/11 08:30 08/11/11 11:50 0.078 **Arsenic** 15.9 0.50 08/10/11 08:30 Cadmium ND 0.018 ug/L 08/11/11 11:50

Method: 7470A - Mercury (CVAA) Analyte RL MDL Unit Dil Fac Result Qualifier D Prepared Analyzed Mercury ND 0.00020 0.00012 mg/L 08/10/11 10:10 08/10/11 14:06

Client Sample ID: TRIP BLANK Lab Sample ID: 480-8252-6

Date Collected: 08/08/11 14:00 Date Received: 08/08/11 17:55

Method: 8260B - Volatile Organic Compounds (GC/MS) Analyte RL MDL Unit Result Qualifier D Prepared Analyzed Dil Fac 1.0 1,2-Dichlorobenzene ND 0.79 ug/L 08/10/11 17:35 1,4-Dichlorobenzene ND 1.0 0.84 ug/L 08/10/11 17:35 Benzene ND 1.0 0.41 ug/L 08/10/11 17:35 Chlorobenzene ND 1.0 0.75 ug/L 08/10/11 17:35 ND Ethylbenzene 1.0 0.74 ug/L 08/10/11 17:35 Xylenes, Total ND 2.0 0.66 ug/L 08/10/11 17:35 Surrogate % Recovery Qualifier Limits Prepared Analyzed Dil Fac 1,2-Dichloroethane-d4 (Surr) 117 66 - 137 08/10/11 17:35 08/10/11 17:35 Toluene-d8 (Surr) 115 71 - 126 4-Bromofluorobenzene (Surr) 73 - 120 08/10/11 17:35 102

Matrix: Water

Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

TestAmerica Job ID: 480-8252-1

Client Sample ID: FDUP-Sump 4-080811

Method: 8260B - Volatile Organic Compounds (GC/MS)

Date Collected: 08/08/11 12:23 Date Received: 08/08/11 17:55

Lab Sample ID: 480-8252-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			08/10/11 17:58	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			08/10/11 17:58	1
Benzene	1.1		1.0	0.41	ug/L			08/10/11 17:58	1
Chlorobenzene	24		1.0	0.75	ug/L			08/10/11 17:58	1
Ethylbenzene	ND		1.0	0.74	ug/L			08/10/11 17:58	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/10/11 17:58	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		66 - 137					08/10/11 17:58	1
Toluene-d8 (Surr)	118		71 - 126					08/10/11 17:58	1
4-Bromofluorobenzene (Surr)	105		73 - 120					08/10/11 17:58	1
Method: 8270C - Semivolatile	•	•	•						
Analyte		Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
4-Chloroaniline	ND		4.7	0.56			08/10/11 16:08	08/11/11 17:25	1
Naphthalene	ND		4.7	0.72	ug/L		08/10/11 16:08	08/11/11 17:25	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	80		46 - 120				08/10/11 16:08	08/11/11 17:25	1
2-Fluorobiphenyl	95		48 - 120				08/10/11 16:08	08/11/11 17:25	1
p-Terphenyl-d14	55		24 - 136				08/10/11 16:08	08/11/11 17:25	1
Method: 608 - Polychlorinate	d Biphenyls (PCB:	s) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.057	0.036	ug/L		08/10/11 18:58	08/11/11 14:47	1
PCB-1221	ND		0.057	0.036	ug/L		08/10/11 18:58	08/11/11 14:47	1
PCB-1232	ND		0.057	0.036	ug/L		08/10/11 18:58	08/11/11 14:47	1
PCB-1242	ND		0.057	0.036	ug/L		08/10/11 18:58	08/11/11 14:47	1
PCB-1248	ND		0.057	0.036	ug/L		08/10/11 18:58	08/11/11 14:47	1
PCB-1254	ND		0.057	0.029	ug/L		08/10/11 18:58	08/11/11 14:47	1
PCB-1260	ND		0.057	0.029	ug/L		08/10/11 18:58	08/11/11 14:47	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

wethod: 8081A - Organochiorine F	Pesticides (GC)
Analyte	Result Qualifier

81

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.047	0.0087	ug/L		08/10/11 18:21	08/13/11 02:14	1
4,4'-DDE	ND		0.047	0.011	ug/L		08/10/11 18:21	08/13/11 02:14	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	65		15 - 139				08/10/11 18:21	08/13/11 02:14	1
Tetrachloro-m-xylene	61		30 - 139				08/10/11 18:21	08/13/11 02:14	1

25 - 152

Method: 6010B - Metals (ICP	l	Method	6010B -	Metals	(ICP
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Tetrachloro-m-xylene

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.0039	J	0.0040	0.00087	mg/L		08/10/11 08:10	08/10/11 16:13	1
Lead	ND		0.0050	0.0030	mg/L		08/10/11 08:10	08/10/11 16:13	1
Iron	1.8		0.050	0.019	mg/L		08/10/11 08:10	08/10/11 16:13	1
Manganese	6.3		0.0030	0.00030	mg/L		08/10/11 08:10	08/10/11 16:13	1

08/10/11 18:58

08/11/11 14:47

Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

TestAmerica Job ID: 480-8252-1

Client Sample ID: FDUP-Sump 4-080811

Date Collected: 08/08/11 12:23 Date Received: 08/08/11 17:55 Lab Sample ID: 480-8252-7

Matrix: Water

Method: 6020 - Metals (ICP/MS) Analyte Result Qualifier RL MDL Unit Dil Fac D Analyzed Prepared 4.5 1.0 0.15 ug/L 08/10/11 08:30 08/11/11 11:56 **Antimony Arsenic** 8.6 1.0 0.078 ug/L 08/10/11 08:30 08/11/11 11:56 ND Cadmium 0.50 0.018 ug/L 08/10/11 08:30 08/11/11 11:56 Method: 7470A - Mercury (CVAA) RL MDL Unit Analyte Result Qualifier D Prepared Analyzed Dil Fac Mercury ND 0.00020 0.00012 mg/L 08/10/11 10:10 08/10/11 14:08

Client Sample ID: MW-2-080811 Lab Sample ID: 480-8252-8

Date Collected: 08/08/11 14:14

Date Received: 08/08/11 17:55

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) Analyte RL MDL Result Qualifier Unit D Prepared Analyzed Dil Fac 1,2-Dichlorobenzene 1.0 ND 0.79 ug/L 08/10/11 18:20 1,4-Dichlorobenzene ND 1.0 0.84 ug/L 08/10/11 18:20 Benzene ND 1.0 0.41 ug/L 08/10/11 18:20 Chlorobenzene ND 1.0 0.75 ug/L 08/10/11 18:20 Ethylbenzene ND 1.0 0.74 ug/L 08/10/11 18:20 Xylenes, Total ND 2.0 08/10/11 18:20 0.66 ug/L

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		66 - 137		08/10/11 18:20	1
Toluene-d8 (Surr)	122		71 - 126		08/10/11 18:20	1
4-Bromofluorobenzene (Surr)	106		73 - 120		08/10/11 18:20	1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC) Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac PCB-1016 ND 0.059 0.038 ug/L 08/10/11 18:58 08/11/11 15:03 PCB-1221 ND 0.038 ug/L 0.059 08/10/11 18:58 08/11/11 15:03 PCB-1232 ND 0.059 0.038 ug/L 08/10/11 18:58 08/11/11 15:03 PCB-1242 ND 0.059 0.038 ug/L 08/10/11 18:58 08/11/11 15:03 PCB-1248 ND 0.059 0.038 ug/L 08/10/11 18:58 08/11/11 15:03 PCB-1254 ND 0.059 0.031 ug/L 08/10/11 18:58 08/11/11 15:03 PCB-1260 ND 0.059 0.031 ug/L 08/10/11 18:58 08/11/11 15:03

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	51		26 - 145	08/10/11 18:58	08/11/11 15:03	1
Tetrachloro-m-xylene	77		25 - 152	08/10/11 18:58	08/11/11 15:03	1

du do more in nyione	• •		20 - 702				00, 10, 11, 10,00	00, 1, 1, 1, 1, 0, 00	•
Method: 8081A - Organochlo	rine Pesticides (G	C)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.054	0.0099	ug/L		08/10/11 18:21	08/13/11 02:50	1
4,4'-DDE	ND		0.054	0.012	ug/L		08/10/11 18:21	08/13/11 02:50	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	71		15 - 139				08/10/11 18:21	08/13/11 02:50	1
Tetrachloro-m-xylene	82		30 - 139				08/10/11 18:21	08/13/11 02:50	1

Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

TestAmerica Job ID: 480-8252-1

Lab Sample ID: 480-8252-8

Matrix: Water

Client Sample ID: MW-2-080811 Date Collected: 08/08/11 14:14

Date Received: 08/08/11 17:55

Method: 6010B - Metals (ICP Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.0049	0.0040	0.00087	mg/L		08/10/11 08:10	08/10/11 16:15	1
Lead	0.0048 J	0.0050	0.0030	mg/L		08/10/11 08:10	08/10/11 16:15	1
Iron	2.3	0.050	0.019	mg/L		08/10/11 08:10	08/10/11 16:15	1
Manganese	0.56	0.0030	0.00030	mg/L		08/10/11 08:10	08/10/11 16:15	1

Method: 6020 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.25	J	1.0	0.15	ug/L		08/10/11 08:30	08/11/11 12:01	1
Arsenic	3.2		1.0	0.078	ug/L		08/10/11 08:30	08/11/11 12:01	1
Cadmium	0.072	J	0.50	0.018	ug/L		08/10/11 08:30	08/11/11 12:01	1
_									
Method: 7470A - Mercury (CVAA)									

Method: 7470A - Mercury (CVAA)								
Analyte	Result Qua	alifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND	0.00020	0.00012	mg/L		08/10/11 10:10	08/10/11 14:09	1

Client Sample ID: MW-2-080911 Lab Sample ID: 480-8252-9

Date Collected: 08/09/11 08:47 Matrix: Water

Date Received: 08/08/11 17:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloroaniline	ND		4.7	0.56	ug/L		08/10/11 16:08	08/11/11 17:47	1
Naphthalene	ND		4.7	0.72	ug/L		08/10/11 16:08	08/11/11 17:47	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	72		46 - 120				08/10/11 16:08	08/11/11 17:47	1
2-Fluorobiphenyl	83		48 - 120				08/10/11 16:08	08/11/11 17:47	1
p-Terphenyl-d14	57		24 - 136				08/10/11 16:08	08/11/11 17:47	1

Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

				Percent Su
		12DCE	TOL	BFB
Lab Sample ID	Client Sample ID	(66-137)	(71-126)	(73-120)
480-8252-1	Sump 1-080811	117	120	106
480-8252-2	Sump 2-080811	117	118	108
480-8252-2 - DL	Sump 2-080811	117	116	102
480-8252-3	Sump 3-080811	114	118	105
480-8252-4	Sump 4-080811	115	118	106
480-8252-4 MS	Sump 4-080811	116	119	108
480-8252-4 MSD	Sump 4-080811	116	120	109
480-8252-6	TRIP BLANK	117	115	102
480-8252-7	FDUP-Sump 4-080811	116	118	105
480-8252-8	MW-2-080811	118	122	106
LCS 480-26944/4	Lab Control Sample	112	120	112
LCS 480-27113/4	Lab Control Sample	117	118	112
MB 480-26944/5	Method Blank	116	120	108
MB 480-27113/5	Method Blank	121	118	105

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

### Method: 8270C - 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)	(24-136)			
480-8252-4	Sump 4-080811	80	96	76			
480-8252-4 MS	Sump 4-080811	87	99	89			
480-8252-4 MSD	Sump 4-080811	97	108	92			
480-8252-5	Sump Comp-080811	87	101	70			
480-8252-7	FDUP-Sump 4-080811	80	95	55			
480-8252-9	MW-2-080911	72	83	57			
LCS 480-27009/2-A	Lab Control Sample	87	96	116			
MB 480-27009/1-A	Method Blank	72	79	106			

#### **Surrogate Legend**

NBZ = Nitrobenzene-d5

FBP = 2-Fluorobiphenyl

TPH = p-Terphenyl-d14

#### Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water Prep Type: Total/NA

		DCB2	TCX2
Lab Sample ID	Client Sample ID	(26-145)	(25-152)
480-8252-4	Sump 4-080811	53	80
480-8252-4 MS	Sump 4-080811	50	82
480-8252-4 MSD	Sump 4-080811	51	84
480-8252-5	Sump Comp-080811	43	80
480-8252-7	FDUP-Sump 4-080811	58	81

TestAmerica Buffalo 08/22/2011

Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Matrix: Water Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		DCB2	TCX2	
Lab Sample ID	Client Sample ID	(26-145)	(25-152)	
480-8252-8	MW-2-080811	51	77	
LCS 480-27041/2-A	Lab Control Sample	49	81	
MB 480-27041/1-A	Method Blank	45	76	

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Water Prep Type: Total/NA

		DCB1	TCX1	
Lab Sample ID	Client Sample ID	(15-139)	(30-139)	
480-8252-4	Sump 4-080811	63	61	
480-8252-4 MS	Sump 4-080811	63	57	
480-8252-4 MSD	Sump 4-080811	84	60	
480-8252-5	Sump Comp-080811	63	60	
480-8252-7	FDUP-Sump 4-080811	65	61	
480-8252-8	MW-2-080811	71	82	
LCS 480-27040/2-A	Lab Control Sample	54	63	
MB 480-27040/1-A	Method Blank	62	49	

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

2

3

4

5

7

11

14

4 1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-26944/5

**Matrix: Water** 

Analysis Batch: 26944

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	Result Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND ND	1.0	0.79 ug/L		08/10/11 14:52	1
1,4-Dichlorobenzene	ND	1.0	0.84 ug/L		08/10/11 14:52	1
Benzene	ND	1.0	0.41 ug/L		08/10/11 14:52	1
Chlorobenzene	ND	1.0	0.75 ug/L		08/10/11 14:52	1
Ethylbenzene	ND	1.0	0.74 ug/L		08/10/11 14:52	1
Xylenes, Total	ND	2.0	0.66 ug/L		08/10/11 14:52	1

MB MB

MR MR

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		66 - 137		08/10/11 14:52	1
Toluene-d8 (Surr)	120		71 - 126		08/10/11 14:52	1
4-Bromofluorobenzene (Surr)	108		73 - 120		08/10/11 14:52	1

Lab Sample ID: LCS 480-26944/4

**Matrix: Water** 

Analysis Batch: 26944

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

ı		<b>Бріке</b>	LUS	LUS			% Rec.	
	Analyte	Added	Result	Qualifier	Unit D	% Rec	Limits	
	1,2-Dichlorobenzene	25.0	21.9		ug/L	88	77 - 120	
	Benzene	25.0	19.7	1	ug/L	79	71 - 124	
	Chlorobenzene	25.0	21.7	į	ug/L	87	72 - 120	
ı	Ethylbenzene	25.0	21.6		ug/L	86	77 - 123	
	Xylenes, Total	75.0	66.6		ug/L	89	76 - 122	

Cnika

100 100

LCS LCS

Surrogate	% Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	112		66 - 137
Toluene-d8 (Surr)	120		71 - 126
4-Bromofluorobenzene (Surr)	112		73 - 120

Lab Sample ID: 480-8252-4 MS

**Matrix: Water** 

Analysis Batch: 26944

Client Sample ID: Sump 4-080811 Prep Type: Total/NA

-	Sample	Sample	Spike	MS	MS				% Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits
1,2-Dichlorobenzene	ND		25.0	27.7		ug/L		111	77 - 120
Benzene	0.68	J	25.0	27.8		ug/L		108	71 - 124
Chlorobenzene	21		25.0	56.4	F	ug/L		144	72 - 120
Ethylbenzene	ND		25.0	28.6		ug/L		114	77 - 123
Xylenes, Total	ND		75.0	86.3		ug/L		115	76 - 122

MS MS

Surrogate	% Recovery Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	116	66 - 137
Toluene-d8 (Surr)	119	71 - 126
4-Bromofluorobenzene (Surr)	108	73 - 120

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

Lab Sample ID: 480-8252-4 MSD

**Matrix: Water** 

Analysis Batch: 26944

Client Sample ID: Sump 4-080811 Prep Type: Total/NA

MSD MSD RPD Sample Sample Spike % Rec. Analyte Result Qualifier Result Qualifier Limits RPD Limit Added Unit % Rec 1,2-Dichlorobenzene ND 25.0 26.8 ug/L 107 77 - 120 3 20 0.68 25.0 26.6 71 - 124 Benzene ug/L 104 13 25.0 57.1 F 146 72 \_ 120 Chlorobenzene 21 ug/L 25 Ethylbenzene ND 25.0 109 77 - 123 15 27.2 ug/L 5 Xylenes, Total ND 75.0 81.9 ug/L 109 76 - 122

MSD MSD

Surrogate	% Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	116		66 - 137
Toluene-d8 (Surr)	120		71 - 126
4-Bromofluorobenzene (Surr)	109		73 - 120

Lab Sample ID: MB 480-27113/5

Client Sample ID: Method Blank

Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 27113

MB MB

Analyte	Result Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND -	1.0	0.79 ug/L		08/11/11 11:08	1
1,4-Dichlorobenzene	ND	1.0	0.84 ug/L		08/11/11 11:08	1
Benzene	ND	1.0	0.41 ug/L		08/11/11 11:08	1
Chlorobenzene	ND	1.0	0.75 ug/L		08/11/11 11:08	1
Ethylbenzene	ND	1.0	0.74 ug/L		08/11/11 11:08	1
Xylenes, Total	ND	2.0	0.66 ug/L		08/11/11 11:08	1

мв мв

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	121		66 - 137		08/11/11 11:08	1
Toluene-d8 (Surr)	118		71 - 126		08/11/11 11:08	1
4-Bromofluorobenzene (Surr)	105		73 - 120		08/11/11 11:08	1

Spike

Added

25.0

25.0

25.0

25.0

75.0

LCS LCS

23.2

22.0

23.8

24.0

72.9

Result Qualifier

ug/L

Lab Sample ID: LCS 480-27113/4

**Matrix: Water** 

1,2-Dichlorobenzene

Analyte

Benzene

Chlorobenzene

Ethylbenzene

Xylenes, Total

Analysis Batch: 27113

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

% Rec. Unit Limits % Rec 77 - 120 93 ug/L ug/L 88 71 - 124 72 - 120 ug/L 95 96 77 - 123 ug/L

76 - 122

LCS LCS

Surrogate	% Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	117		66 - 137
Toluene-d8 (Surr)	118		71 - 126
4-Bromofluorobenzene (Surr)	112		73 - 120

TestAmerica Job ID: 480-8252-1

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

Lab Sample ID: MB 480-27009/1-A

**Matrix: Water** 

**Analysis Batch: 27082** 

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

Prep Batch: 27009

мв мв RL Analyte MDL Unit Result Qualifier Dil Fac Prepared Analyzed 4-Chloroaniline 5.0 ND 0.59 ug/L 08/10/11 16:08 08/11/11 10:55 Naphthalene ND 5.0 08/10/11 16:08 08/11/11 10:55 0.76 ug/L

MB MB

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	72		46 - 120	08/10/11 16:08	08/11/11 10:55	1
2-Fluorobiphenyl	79		48 - 120	08/10/11 16:08	08/11/11 10:55	1
p-Terphenyl-d14	106		24 - 136	08/10/11 16:08	08/11/11 10:55	1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 27009

Lab Sample ID: LCS 480-27009/2-A

**Matrix: Water** 

Analysis Batch: 27082

LCS LCS

Surrogate	% Recovery Qualifier	Limits
Nitrobenzene-d5	87	46 - 120
2-Fluorobiphenyl	96	48 - 120
p-Terphenyl-d14	116	24 - 136

Lab Sample ID: 480-8252-4 MS Client Sample ID: Sump 4-080811

**Matrix: Water** 

Analysis Batch: 27082

Prep Type: Total/NA

Prep Batch: 27009

Surrogate % Recovery Qualifier Limits Nitrobenzene-d5 46 - 120 87 2-Fluorobiphenyl 99 48 - 120 p-Terphenyl-d14 89 24 - 136

Lab Sample ID: 480-8252-4 MSD

**Matrix: Water** 

**Analysis Batch: 27082** 

Client Sample ID: Sump 4-080811

Prep Type: Total/NA Prep Batch: 27009

MSD MSD

MS MS

Surrogate	% Recovery	Qualifier	Limits
Nitrobenzene-d5	97		46 - 120
2-Fluorobiphenyl	108		48 - 120
p-Terphenyl-d14	92		24 - 136

#### Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 480-27041/1-A

**Matrix: Water** 

**Analysis Batch: 27110** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27041

MB	

ı										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	PCB-1016	ND		0.060	0.038	ug/L		08/10/11 18:58	08/11/11 12:56	1
	PCB-1221	ND		0.060	0.038	ug/L		08/10/11 18:58	08/11/11 12:56	1
	PCB-1232	ND		0.060	0.038	ug/L		08/10/11 18:58	08/11/11 12:56	1
	PCB-1242	ND		0.060	0.038	ug/L		08/10/11 18:58	08/11/11 12:56	1
	PCB-1248	ND		0.060	0.038	ug/L		08/10/11 18:58	08/11/11 12:56	1
	PCB-1254	ND		0.060	0.031	ug/L		08/10/11 18:58	08/11/11 12:56	1

Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: MB 480-27041/1-A

**Matrix: Water** 

Analyte

PCB-1260

**Analysis Batch: 27110** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27041

RL MDL Unit Result Qualifier D Prepared Analyzed Dil Fac 0.060 08/10/11 18:58 08/11/11 12:56 0.031 ug/L ND

мв мв

MB MB

Surrogate	% Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	45	26 - 145	08/10/11 18:58	08/11/11 12:56	1
Tetrachloro-m-xylene	76	25 - 152	08/10/11 18:58	08/11/11 12:56	1

Lab Sample ID: LCS 480-27041/2-A **Client Sample ID: Lab Control Sample** 

**Matrix: Water** 

**Analysis Batch: 27110** 

Prep Type: Total/NA

Prep Batch: 27041

LCS LCS Spike % Rec. Analyte Added Result Qualifier Unit % Rec Limits PCB-1016 1.00 1.03 ug/L 103 58 - 141 PCB-1260 1.00 0.724 ug/L 72 56 - 144

LCS LCS

Surrogate	% Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	49		26 - 145
Tetrachloro-m-xylene	81		25 - 152

Lab Sample ID: 480-8252-4 MS Client Sample ID: Sump 4-080811

**Matrix: Water** 

**Analysis Batch: 27110** 

Prep Type: Total/NA

Prep Batch: 27041

Sample Sample Spike MS MS % Rec. Analyte Result Qualifier Added Limits Result Qualifier Unit % Rec PCB-1016 0.943 ND 102 58 - 141 0.964 ug/L PCB-1260 ND 0.943 0.643 ug/L 68 56 - 144

MS MS

Surrogate	% Recovery Qualifier	Limits
DCB Decachlorobiphenyl	50	26 - 145
Tetrachloro-m-xylene	82	25 - 152

Lab Sample ID: 480-8252-4 MSD

**Matrix: Water** 

**Analysis Batch: 27110** 

Client Sample ID: Sump 4-080811

Prep Type: Total/NA

Prep Batch: 27041

	Sample	Sample	Spike	MSD	MSD				% Rec.		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit	
PCB-1016	ND		0.943	0.986		ug/L		105	58 - 141	2	30	
PCB-1260	ND		0.943	0.665		ug/L		70	56 <sub>-</sub> 144	3	30	

MSD MSD

Surrogate	% Recovery Qualifier	Limits
DCB Decachlorobiphenyl	51	26 - 145
Tetrachloro-m-xylene	84	25 - 152

TestAmerica Job ID: 480-8252-1

### Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-27040/1-A

**Matrix: Water** 

Analysis Batch: 27392

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27040

мв мв

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0092	ug/L		08/10/11 18:21	08/12/11 21:57	1
4,4'-DDE	ND		0.050	0.012	ug/L		08/10/11 18:21	08/12/11 21:57	1

MB MB

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	62		15 - 139	08/10/11 18:21	08/12/11 21:57	1
Tetrachloro-m-xylene	49		30 - 139	08/10/11 18:21	08/12/11 21:57	1

Lab Sample ID: LCS 480-27040/2-A Client Sample ID: Lab Control Sample

**Matrix: Water** 

Analysis Batch: 27392

Prep Type: Total/NA

Prep Batch: 27040

LCS LCS Spike Analyte Added Result Qualifier Limits Unit D % Rec 4,4'-DDD 0.500 0.414 ug/L 25 - 139 83 4,4'-DDE 0.500 0.372 ug/L 74 49 - 127

LCS LCS

Surrogate	% Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	54		15 - 139
Tetrachloro-m-xylene	63		30 - 139

Lab Sample ID: 480-8252-4 MS Client Sample ID: Sump 4-080811

**Matrix: Water** 

Analysis Batch: 27392

Prep Type: Total/NA

Prep Batch: 27040

	Sample	Sample	Spike	IVIS	MS				% Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	
4,4'-DDD	ND		0.472	0.367		ug/L		78	25 - 139	 _
4,4'-DDE	0.015	J	0.472	0.336		ug/L		71	49 - 127	

MS MS

Surrogate	% Recovery Qualifie	r Limits
DCB Decachlorobiphenyl	63	15 - 139
Tetrachloro-m-xvlene	57	30 - 139

Lab Sample ID: 480-8252-4 MSD

**Matrix: Water** 

**Analysis Batch: 27392** 

Client Sample ID: Sump 4-080811

Prep Type: Total/NA

Prep Batch: 27040

MSD MSD

Surrogate	% Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	84		15 - 139
Tetrachloro-m-xylene	60		30 - 139

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 480-26836/1-A

**Matrix: Water** 

**Analysis Batch: 27099** 

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

Prep Batch: 26836

MB MB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.0040	0.00087	mg/L		08/10/11 08:10	08/10/11 15:51	1
Lead	ND		0.0050	0.0030	mg/L		08/10/11 08:10	08/10/11 15:51	1

Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

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

Lab Sample ID: MB 480-26836/1-A

**Matrix: Water** 

**Analysis Batch: 27099** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26836

MB MB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.050	0.019	mg/L		08/10/11 08:10	08/10/11 15:51	1
Manganese	ND		0.0030	0.00030	mg/L		08/10/11 08:10	08/10/11 15:51	1

Lab Sample ID: LCS 480-26836/2-A **Client Sample ID: Lab Control Sample** 

**Matrix: Water** 

**Analysis Batch: 27099** 

Prep Type: Total/NA

Prep Batch: 26836

	Spike	LCS	LCS				% Rec.	
Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Chromium	0.200	0.206		mg/L		103	80 - 120	
Lead	0.200	0.208		mg/L		104	80 - 120	
Iron	10.0	10.13		mg/L		101	80 - 120	
Manganese	0.200	0.204		mg/L		102	80 - 120	

Lab Sample ID: 480-8252-4 MS Client Sample ID: Sump 4-080811

**Matrix: Water** 

**Analysis Batch: 27099** 

Prep Type: Total/NA

Prep Batch: 26836

_	Sample	Sample	Spike	MS	MS				% Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Chromium	0.0051		0.200	0.211		mg/L		103	75 - 125	
Lead	ND		0.200	0.219		mg/L		110	75 - 125	
Iron	1.3		10.0	12.36		mg/L		111	75 <sub>-</sub> 125	
Manganese	6.3		0.200	6.22	4	mg/L		-38	75 - 125	

Lab Sample ID: 480-8252-4 MSD Client Sample ID: Sump 4-080811

**Matrix: Water** 

Analysis Batch: 27099

Prep Type: Total/NA

Prep Batch: 26836

Alialysis Dalcii. 21033									Fieh	Dalcii.	20030
	Sample	Sample	Spike	MSD	MSD				% Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Chromium	0.0051		0.200	0.211		mg/L		103	75 - 125	0	20
Lead	ND		0.200	0.217		mg/L		108	75 - 125	1	20
Iron	1.3		10.0	12.54		mg/L		113	75 - 125	1	20
Manganese	6.3		0.200	6.14	4	mg/L		-79	75 - 125	1	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 480-26896/1-A

**Matrix: Water** 

**Analysis Batch: 27171** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26896

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.0	0.15	ug/L		08/10/11 08:30	08/11/11 10:29	1
Arsenic	ND		1.0	0.078	ug/L		08/10/11 08:30	08/11/11 10:29	1
Cadmium	ND		0.50	0.018	ug/L		08/10/11 08:30	08/11/11 10:29	1

Lab Sample ID: LCS 480-26896/2-A **Client Sample ID: Lab Control Sample** 

**Matrix: Water** 

Analysis Batch: 27171

Prep Type: Total/NA

Prep Batch: 26896

	Spike	LCS	LCS				% Rec.	
Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Antimony	 20.0	20.53		ug/L	_	103	80 - 120	
Arsenic	20.0	19.75		ug/L		99	80 - 120	

Prep Type: Total/NA

Prep Batch: 26896

Prep Batch: 26916

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

Lab Sample ID: LCS 480-26896/2-A Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA Prep Batch: 26896 **Analysis Batch: 27171** LCS LCS Spike

Analyte Added Result Qualifier Unit D % Rec Limits Cadmium 20.0 20.96 105 80 - 120 ug/L

Lab Sample ID: 480-8252-4 MS Client Sample ID: Sump 4-080811 Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 27171									Prep B	atch: 26896
	Sample	Sample	Spike	MS	MS				% Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Antimony	11.1		20.0	22.48	F	ug/L		57	75 - 125	
Arsenic	7.3		20.0	27.92		ug/L		103	75 - 125	
Cadmium	0.23	J	20.0	19.63		ug/L		97	75 <sub>-</sub> 125	

Client Sample ID: Sump 4-080811 Lab Sample ID: 480-8252-4 MSD

**Matrix: Water** 

**Analysis Batch: 27171** 

	Sample	Sample	Spike	MSD	MSD				% Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Antimony	11.1		20.0	22.22	F	ug/L		55	75 - 125	1	20
Arsenic	7.3		20.0	27.96		ug/L		103	75 - 125	0	20
Cadmium	0.23	J	20.0	19.37		ug/L		96	75 - 125	1	20
_											

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

Lab Sample ID: MB 480-26916/1-A Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA Prep Batch: 26916

**Analysis Batch: 27190** 

	111.0	1410							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		08/10/11 10:10	08/10/11 13:50	1

Lab Sample ID: LCS 480-26916/2-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 27190

	Spike	LCS	LCS			% Rec.	
Analyte	Added	Result	Qualifier U	nit D	% Rec	Limits	
Mercury	0.00667	0.00640	m	ng/L	96	80 - 120	

Lab Sample ID: 480-8252-4 MS Client Sample ID: Sump 4-080811 **Matrix: Water** Prep Type: Total/NA

Mercury

Analysis Batch: 27190									Prep	Batch: 26916
	Sample	Sample	Spike	MS	MS				% Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Moreury	ND		0.00667	0.00607		ma/l	_	01	75 125	

Lab Sample ID: 480-8252-4 MSD Client Sample ID: Sump 4-080811 **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 27190** Prep Batch: 26916 MSD MSD Spike % Rec. RPD Sample Sample Analyte Result Qualifier Added Result Qualifier Unit % Rec Limits **RPD** Limit

0.00610

mg/L

0.00667

ND

75 - 125

Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

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#### **GC/MS VOA**

### Analysis Batch: 26944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-26944/4	Lab Control Sample	Total/NA	Water	8260B	
MB 480-26944/5	Method Blank	Total/NA	Water	8260B	
480-8252-1	Sump 1-080811	Total/NA	Water	8260B	
480-8252-2	Sump 2-080811	Total/NA	Water	8260B	
480-8252-3	Sump 3-080811	Total/NA	Water	8260B	
480-8252-4	Sump 4-080811	Total/NA	Water	8260B	
480-8252-4 MS	Sump 4-080811	Total/NA	Water	8260B	
480-8252-4 MSD	Sump 4-080811	Total/NA	Water	8260B	
480-8252-6	TRIP BLANK	Total/NA	Water	8260B	
480-8252-7	FDUP-Sump 4-080811	Total/NA	Water	8260B	
480-8252-8	MW-2-080811	Total/NA	Water	8260B	

#### Analysis Batch: 27113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-27113/4	Lab Control Sample	Total/NA	Water	8260B	
MB 480-27113/5	Method Blank	Total/NA	Water	8260B	
480-8252-2 - DL	Sump 2-080811	Total/NA	Water	8260B	

#### **GC/MS Semi VOA**

#### Prep Batch: 27009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-27009/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-27009/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-8252-4 MS	Sump 4-080811	Total/NA	Water	3510C	
480-8252-4 MSD	Sump 4-080811	Total/NA	Water	3510C	
480-8252-4	Sump 4-080811	Total/NA	Water	3510C	
480-8252-5	Sump Comp-080811	Total/NA	Water	3510C	
480-8252-7	FDUP-Sump 4-080811	Total/NA	Water	3510C	
480-8252-9	MW-2-080911	Total/NA	Water	3510C	

#### Analysis Batch: 27082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-27009/1-A	Method Blank	Total/NA	Water	8270C	27009
LCS 480-27009/2-A	Lab Control Sample	Total/NA	Water	8270C	27009
480-8252-4 MS	Sump 4-080811	Total/NA	Water	8270C	27009
480-8252-4 MSD	Sump 4-080811	Total/NA	Water	8270C	27009
480-8252-4	Sump 4-080811	Total/NA	Water	8270C	27009
480-8252-5	Sump Comp-080811	Total/NA	Water	8270C	27009
480-8252-7	FDUP-Sump 4-080811	Total/NA	Water	8270C	27009
480-8252-9	MW-2-080911	Total/NA	Water	8270C	27009

#### **GC Semi VOA**

#### Prep Batch: 27040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-27040/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-27040/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-8252-4 MS	Sump 4-080811	Total/NA	Water	3510C	
480-8252-4 MSD	Sump 4-080811	Total/NA	Water	3510C	
480-8252-4	Sump 4-080811	Total/NA	Water	3510C	
480-8252-5	Sump Comp-080811	Total/NA	Water	3510C	

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tAmerica Buffalo 08/22/2011

# **QC Association Summary**

Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

TestAmerica Job ID: 480-8252-1

### GC Semi VOA (Continued)

#### Prep Batch: 27040 (Continued)

l	Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
	480-8252-7	FDUP-Sump 4-080811	Total/NA	Water	3510C	
١	480-8252-8	MW-2-080811	Total/NA	Water	3510C	

#### Prep Batch: 27041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-27041/1-A	Method Blank	Total/NA	Water	3510C	_
LCS 480-27041/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-8252-4 MS	Sump 4-080811	Total/NA	Water	3510C	
480-8252-4 MSD	Sump 4-080811	Total/NA	Water	3510C	
480-8252-4	Sump 4-080811	Total/NA	Water	3510C	
480-8252-5	Sump Comp-080811	Total/NA	Water	3510C	
480-8252-7	FDUP-Sump 4-080811	Total/NA	Water	3510C	
480-8252-8	MW-2-080811	Total/NA	Water	3510C	

#### **Analysis Batch: 27110**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-27041/1-A	Method Blank	Total/NA	Water	608	27041
LCS 480-27041/2-A	Lab Control Sample	Total/NA	Water	608	27041
480-8252-4	Sump 4-080811	Total/NA	Water	608	27041
480-8252-4 MS	Sump 4-080811	Total/NA	Water	608	27041
480-8252-4 MSD	Sump 4-080811	Total/NA	Water	608	27041
480-8252-5	Sump Comp-080811	Total/NA	Water	608	27041
480-8252-7	FDUP-Sump 4-080811	Total/NA	Water	608	27041
480-8252-8	MW-2-080811	Total/NA	Water	608	27041

#### Analysis Batch: 27392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-27040/1-A	Method Blank	Total/NA	Water	8081A	27040
LCS 480-27040/2-A	Lab Control Sample	Total/NA	Water	8081A	27040
480-8252-4 MS	Sump 4-080811	Total/NA	Water	8081A	27040
480-8252-4 MSD	Sump 4-080811	Total/NA	Water	8081A	27040
480-8252-4	Sump 4-080811	Total/NA	Water	8081A	27040
480-8252-5	Sump Comp-080811	Total/NA	Water	8081A	27040
480-8252-7	FDUP-Sump 4-080811	Total/NA	Water	8081A	27040
480-8252-8	MW-2-080811	Total/NA	Water	8081A	27040

## Metals

#### Prep Batch: 26836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
MB 480-26836/1-A	Method Blank	Total/NA	Water	3005A	_
LCS 480-26836/2-A	Lab Control Sample	Total/NA	Water	3005A	
480-8252-4	Sump 4-080811	Total/NA	Water	3005A	
480-8252-4 MS	Sump 4-080811	Total/NA	Water	3005A	
480-8252-4 MSD	Sump 4-080811	Total/NA	Water	3005A	
480-8252-5	Sump Comp-080811	Total/NA	Water	3005A	
480-8252-7	FDUP-Sump 4-080811	Total/NA	Water	3005A	
480-8252-8	MW-2-080811	Total/NA	Water	3005A	

#### Prep Batch: 26896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-26896/1-A	Method Blank	Total/NA	Water	3020A	

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# **QC Association Summary**

Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

TestAmerica Job ID: 480-8252-1

### **Metals (Continued)**

## Prep Batch: 26896 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-26896/2-A	Lab Control Sample	Total/NA	Water	3020A	
480-8252-4	Sump 4-080811	Total/NA	Water	3020A	
480-8252-4 MS	Sump 4-080811	Total/NA	Water	3020A	
480-8252-4 MSD	Sump 4-080811	Total/NA	Water	3020A	
480-8252-5	Sump Comp-080811	Total/NA	Water	3020A	
480-8252-7	FDUP-Sump 4-080811	Total/NA	Water	3020A	
480-8252-8	MW-2-080811	Total/NA	Water	3020A	

#### Prep Batch: 26916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
MB 480-26916/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-26916/2-A	Lab Control Sample	Total/NA	Water	7470A	
480-8252-4	Sump 4-080811	Total/NA	Water	7470A	
480-8252-4 MS	Sump 4-080811	Total/NA	Water	7470A	
480-8252-4 MSD	Sump 4-080811	Total/NA	Water	7470A	
480-8252-5	Sump Comp-080811	Total/NA	Water	7470A	
480-8252-7	FDUP-Sump 4-080811	Total/NA	Water	7470A	
480-8252-8	MW-2-080811	Total/NA	Water	7470A	

#### **Analysis Batch: 27099**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-26836/1-A	Method Blank	Total/NA	Water	6010B	26836
LCS 480-26836/2-A	Lab Control Sample	Total/NA	Water	6010B	26836
480-8252-4	Sump 4-080811	Total/NA	Water	6010B	26836
480-8252-4 MS	Sump 4-080811	Total/NA	Water	6010B	26836
480-8252-4 MSD	Sump 4-080811	Total/NA	Water	6010B	26836
480-8252-5	Sump Comp-080811	Total/NA	Water	6010B	26836
480-8252-7	FDUP-Sump 4-080811	Total/NA	Water	6010B	26836
480-8252-8	MW-2-080811	Total/NA	Water	6010B	26836

#### **Analysis Batch: 27171**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-26896/1-A	Method Blank	Total/NA	Water	6020	26896
LCS 480-26896/2-A	Lab Control Sample	Total/NA	Water	6020	26896
480-8252-4	Sump 4-080811	Total/NA	Water	6020	26896
480-8252-4 MS	Sump 4-080811	Total/NA	Water	6020	26896
480-8252-4 MSD	Sump 4-080811	Total/NA	Water	6020	26896
480-8252-5	Sump Comp-080811	Total/NA	Water	6020	26896
480-8252-7	FDUP-Sump 4-080811	Total/NA	Water	6020	26896
480-8252-8	MW-2-080811	Total/NA	Water	6020	26896

#### **Analysis Batch: 27190**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-26916/1-A	Method Blank	Total/NA	Water	7470A	26916
LCS 480-26916/2-A	Lab Control Sample	Total/NA	Water	7470A	26916
480-8252-4	Sump 4-080811	Total/NA	Water	7470A	26916
480-8252-4 MS	Sump 4-080811	Total/NA	Water	7470A	26916
480-8252-4 MSD	Sump 4-080811	Total/NA	Water	7470A	26916
480-8252-5	Sump Comp-080811	Total/NA	Water	7470A	26916
480-8252-7	FDUP-Sump 4-080811	Total/NA	Water	7470A	26916
480-8252-8	MW-2-080811	Total/NA	Water	7470A	26916

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Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

Client Sample ID: Sump 1-080811

Lab Sample ID: 480-8252-1

**Matrix: Water** 

Date Collected: 08/08/11 10:38

Date Received: 08/08/11 17:55

Batch Batch Dilution Batch Prepared Method Or Analyzed Prep Type Type Run Factor Number Analyst Lab Total/NA Analysis 8260B 26944 08/10/11 15:20 DC TAL BUF

Client Sample ID: Sump 2-080811

Date Collected: 08/08/11 11:10 Date Received: 08/08/11 17:55

Lab Sample ID: 480-8252-2

Matrix: Water

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Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number Or Analyzed Analyst Lab Total/NA 8260B 26944 08/10/11 15:43 DC TAL BUF Analysis 8260B DL 2 27113 08/11/11 11:44 ND TAL BUF Total/NA Analysis

Client Sample ID: Sump 3-080811 Lab Sample ID: 480-8252-3

Date Collected: 08/08/11 11:38

Date Received: 08/08/11 17:55

**Matrix: Water** 

Batch Batch Dilution Batch Prepared Method Or Analyzed Туре Run Factor Number Prep Type Analyst Lab 26944 08/10/11 16:05 Total/NA 8260B DC TAL BUF Analysis

Client Sample ID: Sump 4-080811 Lab Sample ID: 480-8252-4

Date Collected: 08/08/11 12:08

Date Received: 08/08/11 17:55

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B			26944	08/10/11 16:28	DC	TAL BUF
Total/NA	Prep	3510C			27009	08/10/11 16:08	LT	TAL BUF
Total/NA	Analysis	8270C		1	27082	08/11/11 16:39	MP	TAL BUF
Total/NA	Prep	3510C			27041	08/10/11 18:58	LT	TAL BUF
Total/NA	Analysis	608		1	27110	08/11/11 13:43	JM	TAL BUF
Total/NA	Prep	3510C			27040	08/10/11 18:21	LT	TAL BUF
Γotal/NA	Analysis	8081A		1	27392	08/13/11 01:02	DB	TAL BUF
Total/NA	Prep	3005A			26836	08/10/11 08:10	JM	TAL BUF
Total/NA	Analysis	6010B		1	27099	08/10/11 15:55	AH	TAL BUF
Total/NA	Prep	3020A			26896	08/10/11 08:30	JM	TAL BUF
Total/NA	Analysis	6020		1	27171	08/11/11 11:01	JRK	TAL BUF
Total/NA	Prep	7470A			26916	08/10/11 10:10	MM	TAL BUF
Total/NA	Analysis	7470A		1	27190	08/10/11 13:56	MM	TAL BUF

Client Sample ID: Sump Comp-080811 Lab Sample ID: 480-8252-5

Date Collected: 08/08/11 12:59

Date Received: 08/08/11 17:55

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			27009	08/10/11 16:08	LT	TAL BUF
Total/NA	Analysis	8270C		1	27082	08/11/11 17:02	MP	TAL BUF
Total/NA	Prep	3510C			27041	08/10/11 18:58	LT	TAL BUF

**Matrix: Water** 

Client: Ontario Specialty Contracting, Inc.

Project/Site: 30130 - Honeywell- Alltift LF

Client Sample ID: Sump Comp-080811 Lab Sample ID: 480-8252-5

Date Collected: 08/08/11 12:59 Matrix: Water

Date Received: 08/08/11 17:55

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total/NA	Analysis	608		1	27110	08/11/11 14:31	JM	TAL BUF
Total/NA	Prep	3510C			27040	08/10/11 18:21	LT	TAL BUF
Total/NA	Analysis	8081A		1	27392	08/13/11 01:38	DB	TAL BUF
Total/NA	Prep	3005A			26836	08/10/11 08:10	JM	TAL BUF
Total/NA	Analysis	6010B		1	27099	08/10/11 16:06	AH	TAL BUF
Total/NA	Prep	3020A			26896	08/10/11 08:30	JM	TAL BUF
Total/NA	Analysis	6020		1	27171	08/11/11 11:50	JRK	TAL BUF
Total/NA	Prep	7470A			26916	08/10/11 10:10	MM	TAL BUF
Total/NA	Analysis	7470A		1	27190	08/10/11 14:06	MM	TAL BUF

Lab Sample ID: 480-8252-6 **Client Sample ID: TRIP BLANK** 

Date Collected: 08/08/11 14:00 Matrix: Water Date Received: 08/08/11 17:55

Batch Batch Dilution Batch Prepared

Prep Type Type Method Run Factor Number Or Analyzed Analyst Lab Total/NA Analysis 8260B 26944 08/10/11 17:35 DC TAL BUF

Client Sample ID: FDUP-Sump 4-080811 Lab Sample ID: 480-8252-7

Date Collected: 08/08/11 12:23 Matrix: Water Date Received: 08/08/11 17:55

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B			26944	08/10/11 17:58	DC	TAL BUF
Total/NA	Prep	3510C			27009	08/10/11 16:08	LT	TAL BUF
Total/NA	Analysis	8270C		1	27082	08/11/11 17:25	MP	TAL BUF
Total/NA	Prep	3510C			27041	08/10/11 18:58	LT	TAL BUF
Total/NA	Analysis	608		1	27110	08/11/11 14:47	JM	TAL BUF
Total/NA	Prep	3510C			27040	08/10/11 18:21	LT	TAL BUF
Total/NA	Analysis	8081A		1	27392	08/13/11 02:14	DB	TAL BUF
Total/NA	Prep	3005A			26836	08/10/11 08:10	JM	TAL BUF
Γotal/NA	Analysis	6010B		1	27099	08/10/11 16:13	AH	TAL BUF
Total/NA	Prep	3020A			26896	08/10/11 08:30	JM	TAL BUF
Total/NA	Analysis	6020		1	27171	08/11/11 11:56	JRK	TAL BUF
Total/NA	Prep	7470A			26916	08/10/11 10:10	MM	TAL BUF
Total/NA	Analysis	7470A		1	27190	08/10/11 14:08	MM	TAL BUF

Client Sample ID: MW-2-080811 Lab Sample ID: 480-8252-8

Date Collected: 08/08/11 14:14 Matrix: Water Date Received: 08/08/11 17:55

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	26944	08/10/11 18:20	DC	TAL BUF
Total/NA	Prep	3510C			27041	08/10/11 18:58	LT	TAL BUF
Total/NA	Analysis	608		1	27110	08/11/11 15:03	JM	TAL BUF

#### **Lab Chronicle**

Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

Client Sample ID: MW-2-080811

TestAmerica Job ID: 480-8252-1

Lab Sample ID: 480-8252-8

Matrix: Water

Date Collected: 08/08/11 14:14 Date Received: 08/08/11 17:55

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			27040	08/10/11 18:21	LT	TAL BUF
Total/NA	Analysis	8081A		1	27392	08/13/11 02:50	DB	TAL BUF
Total/NA	Prep	3005A			26836	08/10/11 08:10	JM	TAL BUF
Total/NA	Analysis	6010B		1	27099	08/10/11 16:15	AH	TAL BUF
Total/NA	Prep	3020A			26896	08/10/11 08:30	JM	TAL BUF
Total/NA	Analysis	6020		1	27171	08/11/11 12:01	JRK	TAL BUF
Total/NA	Prep	7470A			26916	08/10/11 10:10	MM	TAL BUF
Total/NA	Analysis	7470A		1	27190	08/10/11 14:09	MM	TAL BUF

Client Sample ID: MW-2-080911 Lab Sample ID: 480-8252-9

Date Collected: 08/09/11 08:47 Matrix: Water

Date Received: 08/08/11 17:55

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			27009	08/10/11 16:08	LT	TAL BUF
Total/NA	Analysis	8270C		1	27082	08/11/11 17:47	MP	TAL BUF

Laboratory References:

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

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# **Certification Summary**

Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

TestAmerica Job ID: 480-8252-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Buffalo	Arkansas	State Program	6	88-0686
TestAmerica Buffalo	California	NELAC	9	1169CA
TestAmerica Buffalo	Connecticut	State Program	1	PH-0568
TestAmerica Buffalo	Florida	NELAC	4	E87672
TestAmerica Buffalo	Georgia	Georgia EPD	4	N/A
TestAmerica Buffalo	Georgia	State Program	4	956
TestAmerica Buffalo	Illinois	NELAC	5	100325 / 200003
TestAmerica Buffalo	Iowa	State Program	7	374
estAmerica Buffalo	Kansas	NELAC	7	E-10187
estAmerica Buffalo	Kentucky	Kentucky UST	4	30
TestAmerica Buffalo	Kentucky	State Program	4	90029
estAmerica Buffalo	Louisiana	NELAC	6	02031
TestAmerica Buffalo	Maine	State Program	1	NY0044
estAmerica Buffalo	Maryland	State Program	3	294
estAmerica Buffalo	Massachusetts	State Program	1	M-NY044
TestAmerica Buffalo	Michigan	State Program	5	9937
estAmerica Buffalo	Minnesota	NELAC	5	036-999-337
estAmerica Buffalo	New Hampshire	NELAC	1	68-00281
estAmerica Buffalo	New Hampshire	NELAC	1	2337
estAmerica Buffalo	New Jersey	NELAC	2	NY455
estAmerica Buffalo	New York	NELAC	2	10026
TestAmerica Buffalo	North Dakota	State Program	8	R-176
TestAmerica Buffalo	Oklahoma	State Program	6	9421
estAmerica Buffalo	Oregon	NELAC	10	NY200003
estAmerica Buffalo	Pennsylvania	NELAC	3	68-00281
estAmerica Buffalo	Tennessee	State Program	4	TN02970
estAmerica Buffalo	Texas	NELAC	6	T104704412-08-TX
estAmerica Buffalo	USDA	USDA		P330-08-00242
estAmerica Buffalo	Virginia	State Program	3	278
estAmerica Buffalo	Washington	State Program	10	C1677
estAmerica Buffalo	West Virginia	West Virginia DEP	3	252
TestAmerica Buffalo	Wisconsin	State Program	5	998310390

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

stAmerica Buffalo 08/22/2011

# **Method Summary**

Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

TestAmerica Job ID: 480-8252-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL BUF
8081A	Organochlorine Pesticides (GC)	SW846	TAL BUF
6010B	Metals (ICP)	SW846	TAL BUF
6020	Metals (ICP/MS)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	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.

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

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# **Sample Summary**

Client: Ontario Specialty Contracting, Inc. Project/Site: 30130 - Honeywell- Alltift LF

TestAmerica Job ID: 480-8252-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-8252-1	Sump 1-080811	Water	08/08/11 10:38	08/08/11 17:55
480-8252-2	Sump 2-080811	Water	08/08/11 11:10	08/08/11 17:55
480-8252-3	Sump 3-080811	Water	08/08/11 11:38	08/08/11 17:55
480-8252-4	Sump 4-080811	Water	08/08/11 12:08	08/08/11 17:55
480-8252-5	Sump Comp-080811	Water	08/08/11 12:59	08/08/11 17:55
480-8252-6	TRIP BLANK	Water	08/08/11 14:00	08/08/11 17:55
480-8252-7	FDUP-Sump 4-080811	Water	08/08/11 12:23	08/08/11 17:55
480-8252-8	MW-2-080811	Water	08/08/11 14:14	08/08/11 17:55
480-8252-9	MW-2-080911	Water	08/09/11 08:47	08/08/11 17:55

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Client Information	Sampler		Lab Pik. Bogolin, Anmony	n An	yuor				<u></u>	Canter Tracking No(s)	g No(s)		COC No 480-15491-3542.1	42.1
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Chain of Custody Record

## **Login Sample Receipt Checklist**

Client: Ontario Specialty Contracting, Inc.

Job Number: 480-8252-1

Login Number: 8252 List Source: TestAmerica Buffalo

List Number: 1 Creator: Janish, Carl

Creator: Janish, Cari		
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.	False	No: No sample date and/or time on COC, logged in per container labels.
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	CH2M HILL OMI
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

 TestAmerica Buffalo
 Page 34 of 34
 08/22/2011

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### **APPENDIX G**

## **SITE INSPECTION FORMS**



Projec	ame: Alli t Numbe 3/28/11	er: <u>30130</u>	Weather: <u>Sunny 35 degrees</u> Assessment by: <u>Scott Sayles</u>	
Yes		N/A	A. Security  1. Does fence exist?  2. Is there a breach in fence?  3. Locks on gate?  4. Posted signs?  5. Signs of trespassers/vandalism?  6. Other	
			B. General Site Conditions  1. Vegetation stress?  2. Mowing required?  3. Access road drivable?  4. Odors?  5. Other	
			C. Cap Inspection  1. Exposed waste?  2. Side slope stable?  3. Erosion?  4. Leachate seeps (discolored vegetation)?  5. Synthetic liner exposed?  6. Bare spots?  7. Presence of burrowing animals?  8. Deep rooted vegetation?  9. Cracking?  10. Ponding water?  11. Evidence of methane seeps?  12. Other	
			D. Surface Water  1. Obstruction of flow ditches?  2. Erosion of ditches?  3. Silt & erosion control?  4. Culverts in good condition?  5. Evidence of overflow or uncontrolled flow?  6. Outfalls in good condition?  7. Sedimentation basin/ponds secure?  8. Other	
			E. Methane Gas Control  1. Does one exist?	



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



Voc	No	N/A	H. Treatment Plant
Yes	No	$\boxtimes$	Building in good condition? (Doors, windows, wells, roof)
H	H		2. Visual tank inspection performed?
Н	H	$\boxtimes$	3. Visual inspection of pipes, valves, fittings etc.?
H	Н	$\boxtimes$	4. Pump operation/inspection performed?
H		$\boxtimes$	5. Instruments operation/calibration?
H		$\boxtimes$	6. Mixer operation/inspection?
H	Н	$\boxtimes$	7. Proper personal protection equipment?
H			8. Air compressor system functioning properly?
H	Н	$\boxtimes$	9. Filter press inspected?
H		$\boxtimes$	10. Emergency generator functioning properly?
		$\boxtimes$	10. Emergency generator functioning property:
			I. Polymeric Marine Mattress (PMM)
		$\boxtimes$	1. Damage due to burrowing animals?
		$\boxtimes$	2. Damage due ice and/or ice flowages?
Ē		$\boxtimes$	3. Impacts or damage due to the periodic dredging of the Buffalo River?
		$\boxtimes$	4. Impacts or damage due to navigation activities in the Buffalo River?
		$\boxtimes$	5. Establishment of woody plant growth causing displacement or stress on the
			system?
		$\boxtimes$	Areas of settlement or displacement of the system?
		$\boxtimes$	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?
		$\boxtimes$	<ol><li>Damage to the stone infill within the marine mattresses?</li></ol>
		$\boxtimes$	10. Damage to the general integrity of the system (Look for splits, cuts and gaps)?

J. General Comments

**DEC UNABLE TO ATTEND INSPECTION** 



Site Name: Alltift Project Number: 30130 Date: 6/23/11	Weather: Sunny 71 degrees Assessment by: Scott Sayles
Yes № N/A	A. Security  1. Does fence exist?  2. Is there a breach in fence?  3. Locks on gate?  4. Posted signs?  5. Signs of trespassers/vandalism?  6. Other
	B. General Site Conditions  1. Vegetation stress?  2. Mowing required?  3. Access road drivable?  4. Odors?  5. Other
	C. Cap Inspection  1. Exposed waste?  2. Side slope stable?  3. Erosion?  4. Leachate seeps (discolored vegetation)?  5. Synthetic liner exposed?  6. Bare spots?  7. Presence of burrowing animals?  8. Deep rooted vegetation?  9. Cracking?  10. Ponding water?  11. Evidence of methane seeps?  12. Other
	D. Surface Water  1. Obstruction of flow ditches?  2. Erosion of ditches?  3. Silt & erosion control?  4. Culverts in good condition?  5. Evidence of overflow or uncontrolled flow?  6. Outfalls in good condition?  7. Sedimentation basin/ponds secure?  8. Other
	E. Methane Gas Control  1. Does one exist?



Yes	No	N/A	
	E		2. Is system active or passive? active
$\overline{\Box}$	5		3. Permanent methane gas probes?
Ī		X	4. Locks on monitoring wells?
ZBUBO		n	5. Vents in working order?
П	П	X	6. Well seals in place?
M	П	Ħ	7. Methane levels within LEL limits?
N	П		8. Monitoring reports current?
			O. Other
			Ground water Collection  F. Loachate Collection System
$\boxtimes$			1. Does one exist?
			2. Collection method:
$\boxtimes$			a. Sump? <u>2</u>
Ē		$\boxtimes$	b. Well point?
Ī		$\boxtimes$	c. Earthen basin/pond?
Ē		$\boxtimes$	d. Structure secured?
_			e. Other
			3. Pumping system:
$\boxtimes$			a. Automatic?
X			b. Manual?
Ø			c. Mechanically operable?
f	X		d. Leaks/failures?
			4. Disposals:
	$\boxtimes$		a. Onsite pretreatment/treatment?
	X		b. Surface discharge? (NPDES/SPDES)
X			c. POTW – hardpiped?
ñ		$\boxtimes$	d. Quick disconnect caps in place?
			5. Transportation (if any):
		$\boxtimes$	a. Chemicals?
		$\boxtimes$	b. Filter cake?
×		Ē	<ol><li>Ancillary equipment in good condition? (Pipes, valves, pumps, vaults, instruments and etc.)</li></ol>
			7. Monitoring reports current?
			8. Other
The State of		العا	G. Groundwater Monitoring & Recovery Wells (if any)
X			1. Locks on wells?
MXMXX			2. Wells in good condition?
X			3. Well seals in good condition?
X			4. Access to wells?
X			5. Monitoring reports current?
			6. Other



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

### J. General Comments

Curret to weir may be blocked 8"water & top of weir Presence of Japanese Knot weed along front fence needs to be eraticated. "Put up" NC TRESS PASS 519115.



Projec	ame: <u>Allt</u> t Numbe <u>09/23/1</u> 2	r: <u>30130</u>	Weather: Cloudy 71 degrees Assessment by: Scott Sayles	
Yes		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? Trapper on site  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? Wier outfall needs to be cleared. Done  7. Sedimentation basin/ponds secure?  8. Other	
			E. Methane Gas Control  1. Does one exist?	



Yes		×	2. Is system active or passive? <a href="mailto:passive">passive</a> 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
$\boxtimes$	П	П	Leachate Collection System     Does one exist?
			2. Collection method:
$\boxtimes$			a. Sump? <u>2</u>
		$\boxtimes$	b. Well point?
			c. Earthen basin/pond?
		$\boxtimes$	d. Structure secured?
			e. Other
_			3. Pumping system:
$\boxtimes$			a. Automatic?
	H	님	b. Manual?
	$\boxtimes$	H	c. Mechanically operable?
		Ш	d. Leaks/failures? 4. Disposals:
			a. Onsite pretreatment/treatment?
Н	$\boxtimes$	H	b. Surface discharge? (NPDES/SPDES)
		Ħ	c. POTW – hardpiped?
ī	ō	$\boxtimes$	d. Quick disconnect caps in place?
	_		5. Transportation (if any):
		$\boxtimes$	a. Chemicals?
		$\boxtimes$	b. Filter cake?
			<ol><li>Ancillary equipment in good condition? (Pipes, valves, pumps, vaults, instruments and etc.)</li></ol>
$\boxtimes$			7. Monitoring reports current?
			8. Other
			G. Groundwater Monitoring & Recovery Wells (if any)
$\boxtimes$			1. Locks on wells?
			2. Wells in good condition?
$\boxtimes$			3. Well seals in good condition?
$\boxtimes$			4. Access to wells?
$\boxtimes$			5. Monitoring reports current?
			6. Other



Yes	No	N/A	H. Treatment Plant
		$\boxtimes$	1. Building in good condition? (Doors, windows, wells, roof)
		$\boxtimes$	2. Visual tank inspection performed?
			3. Visual inspection of pipes, valves, fittings etc.?
		$\boxtimes$	4. Pump operation/inspection performed?
		$\boxtimes$	5. Instruments operation/calibration?
		$\boxtimes$	6. Mixer operation/inspection?
		-	7. Proper personal protection equipment?
		$\boxtimes$	8. Air compressor system functioning properly?
		$\boxtimes$	9. Filter press inspected?
		$\boxtimes$	10. Emergency generator functioning properly?
			I. Polymeric Marine Mattress (PMM)
		$\boxtimes$	Damage due to burrowing animals?
		$\boxtimes$	2. Damage due ice and/or ice flowages?
		$\boxtimes$	3. Impacts or damage due to the periodic dredging of the Buffalo River?
		$\boxtimes$	4. Impacts or damage due to navigation activities in the Buffalo River?
		$\boxtimes$	<ol><li>Establishment of woody plant growth causing displacement or stress on the system?</li></ol>
П		$\boxtimes$	6. Areas of settlement or displacement of the system?
$\Box$	H	$\boxtimes$	7. Erosion at the upstream and downstream limits of the system?
П	H	$\boxtimes$	8. Damage to the stone infill adjacent to Outfall #006 and the concrete wall/sheet pile
	_		along the upstream limit of the system?
П		$\boxtimes$	Damage to the stone infill within the marine mattresses?
П	П	$\boxtimes$	10. Damage to the general integrity of the system (Look for splits, cuts and gaps)?
-			
			J. General Comments
			None
			Acatt Hayles 9/25/11
			/



Proje	Name: <u>A</u> ect Numb : <u>11/30/</u>	er: <u>30130</u>	Weather: Cloudy/Windy 37 degrees Assessment by: John W. Formoza
Yes		N/A	A. Security  1. Does fence exist?  2. Is there a breach in fence?  3. Locks on gate?  4. Posted signs?  5. Signs of trespassers/vandalism?  6. Other
			B. General Site Conditions  1. Vegetation stress?  2. Mowing required?  3. Access road drivable?  4. Odors?  5. Other
			C. Cap Inspection  1. Exposed waste?  2. Side slope stable?  3. Erosion?  4. Leachate seeps (discolored vegetation)?  5. Synthetic liner exposed?  6. Bare spots?  7. Presence of burrowing animals?  8. Deep rooted vegetation?  9. Cracking?  10. Ponding water?  11. Evidence of methane seeps?  12. Other
			D. Surface Water  1. Obstruction of flow ditches?  2. Erosion of ditches?  3. Silt & erosion control?  4. Culverts in good condition?  5. Evidence of overflow or uncontrolled flow?  6. Outfalls in good condition?  7. Sedimentation basin/ponds secure?  8. Other
			E. Methane Gas Control  1. Does one exist?



Yes	No	N/A	one inspection form
			2. Is system active or passive? <u>passive</u> 3. Permanent methane gas probes?  4. Locks on monitoring wells?
			5. Vents in working order?
			6. Well seals in place?
			<ul><li>7. Methane levels within LEL limits? Readings taken November 22, 2011</li><li>8. Monitoring reports current?</li><li>9. Other</li></ul>
			F. Leachate Collection System
$\boxtimes$			1. Does one exist?
			2. Collection method:
$\boxtimes$			a. Sump? <u>2</u>
Ц		$\boxtimes$	b. Well point?
		$\boxtimes$	c. Earthen basin/pond?
		$\bowtie$	d. Structure secured?
			e. Other
		_	3. Pumping system:
$\boxtimes$			a. Automatic?
	$\boxtimes$		b. Manual?
$\boxtimes$			c. Mechanically operable?
	$\boxtimes$		d. Leaks/failures?
			4. Disposals:
		$\boxtimes$	a. Onsite pretreatment/treatment?
Н		$\boxtimes$	b. Surface discharge? (NPDES/SPDES)
H	$\vdash$		c. POTW – hardpiped?
		$\boxtimes$	d. Quick disconnect caps in place?
			5. Transportation (if any):
Н		$\boxtimes$	a. Chemicals?
		×	b. Filter cake?
$\boxtimes$			6. Ancillary equipment in good condition? (Pipes, valves, pumps, vaults,
			instruments and etc.)
$\boxtimes$			7. Monitoring reports current?
			8. Other
			G. Groundwater Monitoring & Recovery Wells (if any)
$\boxtimes$			1. Locks on wells? Replaced 2 locks
			2. Wells in good condition?
			3. Well seals in good condition?
$\boxtimes$			4. Access to wells?
$\boxtimes$			5. Monitoring reports current?
			6. Other



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

#### J. General Comments

John W. Formoza met Mr. Dave Syrmanske from the NYSDEC at Alltift on November 30, 2011 at 10:30 am. We walked the site and he took numerous pictures of the most recent phragmitie control effort. Mr Syrmanske expressed interest in coming to the site during the next mowing of the phragmities. The only comment that he had was to remove some woody plants along the fence on the north side of the landfill. The quaterly inspection took approximately 1 hour.

John W Facs