

April 3, 2013

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: 2012 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 "2012 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).

Correspondence: AMEC Environment and Infrastructure 511 Congress Street, Ste. 200 Portland, Maine 04101 USA 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 2012, 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 2012 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 2013, 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 2013.

- 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 2012 included as Appendix E in the attached OM&M Report).
 - Ensuring that the wetlands area is successfully functioning as designed: Wetland Mitigation Area corrective actions identified in 2011 were completed in 2012. A letter report was prepared by Amec on behalf of

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Honeywell detailing the completion of the required corrective actions and submitted to the USACE on September 28, 2012 with copy to the NYSDEC (Amec, 2012). In their letter addressed to Honeywell, dated October 24, 2012, the USACE provided approval of the completion of the required corrective actions, and indicated that the terms and conditions of Permit No. 98-976-0162(0) had been met and no further actions were required.

- IV. IC/EC Plan Compliance Report An IC/EC Plan was submitted to the NYSDEC on December 13, 2012 by Amec, on behalf of Honeywell. Once the IC/EC Plan is adopted, the site will be reclassified from a Class 2 to Class 4 site. As such, it is anticipated that discussion of the status of institutional controls will be included in the 2013 PRR. The status of site engineering controls is discussed in the attached OM&M Report.
- V. Monitoring Plan Compliance Report A separate Monitoring Plan Compliance Report is not required for this site. Monitoring requirements are addressed in the 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 2012: BSA discharge monitoring, groundwater monitoring, quarterly site inspections, and other OM&M activities were completed in 2012 in accordance with the OM&M Manual. The following summarizes the activities completed:
 - BSA discharge monitoring was conducted on a semi-annual basis in 2012 in accordance with the BPDES Permit in effect (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 semiannual 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 2013, and will be conducted consist with the new permit (Permit No. 12-12-BU98).

- 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 2012 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 2012 included the following:
 - Periodic inspection and cleaning of the lift station flow meter.
 - Plowing of snow from the entrance road as necessary.
 - On January 12, 2012, a replacement sump #2 circuit board was ordered due to failure. The circuit board was replaced on January 27, 2012, and Sump #2 was put back on line. Sump #1 was operational as well as Alltift lift station during this period.
 - o Lubricated the gas vents and locks on February 28, 2012.
 - Coordinated the repair of the existing phone line on March 9, 2012 and installed an autodialer to provide remote monitoring of collection system.
 - Replaced methane gas vent GV-2 on April 5, 2012.
 - Conducted tree and shrub plantings on June 5 and 6, 2012. Conducting watering of plantings on as needed basis.
 - Replaced gas vent GV1 on June 19, 2012.
 - Conducted mowing as part of invasive plant species (Phragmites) control on July 5, 2012 and October 5, 2012.
 - Conducted herbicide application by hand wicking (hand application) to phragmites in areas that were not mowed due to being too wet for mowing on August 15, 2012.
 - Replaced motor in sump #2 on September 12, 2012.Replacement of the flow meter (3/26/11).
 - o Completed Aannual landfill cap mowing on September 18, 2012.
 - Completed repair of the autodialer phone line on December 19, 2012. (9/16/11)
- C. Evaluation of Remedial Systems: During 2012, 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 2012 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 upon the positive results of the wetland mitigation area corrective action activities presented herein, the requirements for closure of the Wetland Permit have been achieved; therefore, further mitigation, monitoring, or reporting activities in accordance with the Wetland Permit will not be conducted. Watering of the plants as may be required due to drought conditions and strengthening of the fence to protect against deer browsing as described above will be included with site operation and maintenance activities. In their letter addressed to Honeywell, dated October 24, 2012, the USACE provided approval of the completion of the required corrective actions, and indicated that the terms and conditions of Permit No. 98-976-0162(0) had been met and no further actions were required. 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 2012 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, these analytes will not be included for future annual groundwater monitoring events.
- BSA Discharge Monitoring In accordance with the new BSA permit, discharge monitoring will be conducted on a semi-annual basis during the months of April and October 2013, with reports issued to BSA and copied to the NYSDEC.
- Groundwater Monitoring –Annual groundwater monitoring will be completed in 2013 with groundwater monitoring results reported in the next annual PRR submittal.
- Water Level Measurements TCollection of water level measurements will be conducted on a quarterly basis in 2013 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 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 2013.
- Routine OM&M activities will continue on a monthly basis, or more frequently as needed, during 2013.

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> The next PRR submittal, to include the annual OM&M report, should be completed and submitted to NYSDEC by the end of the 1st guarter 2014.

VII. Overall PRR Conclusions

- A. Compliance: Activities were completed during 2012 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 1st quarter 2014.

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

Attachments

cc: R. Galloway (Honeywell) J. Mojka (Honeywell) D. Sutton (City of Buffalo)

Daniel Forlastro Principal Engineer

ATTACHMENT A

PRR NOTICE IC/EC CONTROLS CERTIFICATION FORM



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



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Site Details Site No. 9-15-054 /9-15-046B	Box 1			
Site NameAlltift Landfill Site /Ramco Steel SiteSite Address:579 Tifft StreetZip Code: 14202City/Town:BuffaloCounty:ErieCounty:ErieLandfillIntended Use:Restricted Land Use, per deed restrictions				
Verification of Site Details	Box 2	Box 2		
Verification of Otte Details		NO	N/A	
 Are the Site Details above, correct? if NO, are changes handwritten above or included on a separate sheet? 				
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax		\boxtimes		
map amendment since the initial/last certification? If YES, is documentation or evidence that documentation has been previously submitted included with this certification?				
3. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or	r 🗆	\boxtimes		
at the property since the initial/last certification? If YES, is documentation or evidence that documentation has been previously submitted included with this certification?				
4. Has a change-of-use occurred since the initial/last certification? If YES, is documentation or evidence that documentation has been previously submitted included with this certification?				
5. For non-significant-threat Brownfield Cleanup Program Sites subject to ECL 27-1415.7(c has any new information revealed that assumptions made in the Qualitative Exposure), 🔲			
Assessment for offsite contamination are no longer valid? If YES, is the new information or evidence that new information has been previously submitted included with this Certification?				
 For non-significant-threat Brownfield Cleanup Program Sites subject to ECL 27-1415.7(c are the assumptions in the Qualitative Exposure Assessment still valid (must be certified over five years) 2), 🔲			
If NO, are changes in the assessment included with this certification?				
	8			

	SITE NO. 9-15-054 /9-15-046B				Box 3
	Description of Institutional Controls	Control Certification		on	
			Yes	No	
	Operations, Monitoring, and Maintenance				
	*PROPOSED DEED RESTRICTIONS, including: Monitoring and Maintenance of Engineering Control Systems Excavation Protocol Land Use Restrictions Groundwater Use Restrictions			XXXX	
					Box 4
	Description of Engineering Controls	Contr	ol Cert	lificatio	m
			Yes	No	
	Cover System, Landfill cap, 6 NYCRR, Part 360 Fencing/Access Control Groundwater Control and Recovery System		XXX		
Control Certification Statement					
Fc ar	r each Institutional or Engineering control listed above, I certify by checking e true:	g "Yes" 1	that ail	of the f	ollowing statements
(a) Co) the Institutional Control and/or Engineering Control employed at this site i ontrol was put in-place, or was last approved by the Department;	is uncha	anged s	since the	e date that the
(b)) nothing has occurred that would impair the ability of such Control, to prote	ect publ	ic healt	h and th	he environment;
(c) Cc	nothing has occurred that would constitute a violation or failure to comply ontrol; and	with the	e Site N	lanage	ment Plan for this
(d) ev) access to the site will continue to be provided to the Department, to evalu aluate the continued maintenance of this Control.	ate the	remed	y, Inciud	ding access to

(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 SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE I certify that all information and statements in Boxes 2 & 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. at Howeywell, 101 colombia Rd Morry town NT print name print business address 07962 am certifying as <u>Remedial PART</u> (Owner or Remedial Party) for the Site named in the Site Details Section of this form. April 2, 2013 Signature of Owner or Remedial Party Rendering Certification Box 6 QUALIFIED ENVIRONMENTAL PROFESSIONAL (QEP) SIGNATURE I certify that all information and statements in Box 4 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. DANIEL FORLASTRO at 800 N. BELL AVE, SUITE 200, CARNEGIE, print name print business address PA 15106 am certifying as a Qualified Environmental Professional for the HONEYINELL INTERNATIONAL INF (Owner or Remedial Party) for the Site named in the Site Details Section of this form, Signature of Qualified Environmental Professional, for Stamp (if Required) the Owner or Remedial Party, Rendering 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/E C	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:

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

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

For Brownfields Cleanup Program Projects: 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.

Petroleum Remediation Program: Applicable program guidance.

Federal Brownfields: Applicable program guidance.

Manufactured Gas Plant Projects: 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 longterm 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

2012 ANNUAL OPERATIONS, MAINTENANCE, AND MONITORING REPORT

2012 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



Prepared By:



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

March 2013

2012 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



101 Columbia Road Morristown, NJ 07962

Prepared By:



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

March 2013

Ryan Belcher Senior Engineer

Daniel Forlastro Principal Engineer

AMEC Project Number: 3410120905

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- E: Quarterly Groundwater Contour Maps 2012
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- G: Site Inspection Forms



ACRONYMS AND ABBREVIATIONS

Amec	AMEC Environmental & Infrastructure, Inc.
BSA BPDES	Buffalo Sewer Authority Buffalo Pollutant Discharge Elimination System
CWD	coarse wood debris
EPA	Environmental Protection Agency
LEL	Lower Explosive Limit
Mactec MS MSD mg/L μg/L	Mactec Engineering and Consulting, P.C. Matrix Spike Matrix Spike Duplicate milligrams per liter micrograms per liter
NYSDEC	New York State Department of Environmental Conservation
OM&M OMI	Operations and maintenance Manual CH2M Hill OMI
PCB PRR	polychlorinated biphenyls Periodic Review Report
SVOC	Semivolatile Organic Compound
USACE	United States Army Corps of Engineers
VOC	Volatile Organic Compound

1.0 INTRODUCTION

In accordance with a New York State Department of Environmental Conservation (NYSDEC) Order on Consent (Index No. B9-0194-87-07), Honeywell (formerly Allied-Signal, Inc.) 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 in 2012. The activities described in this report were completed in accordance with the sites 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, 2012 through December 31, 2012. 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 1st quarter 2014.

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 2012 OM&M Activities

OM&M activities conducted at the site in 2012 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.



2.0 SUMMARY OF 2012 OM&M ACTIVITIES

Since September 2007, Honeywell has contracted with CH2M HILL-OMI (OMI) to perform the OM&M activities at the site. In 2012, the annual groundwater sampling activities were also conducted by OMI. The following sections summarize the OM&M activities completed in 2012.

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 October 2012. The results of the sampling are discussed in Section 3.1.

2.2 Groundwater Monitoring

The 2012 groundwater monitoring activities included the collection of quarterly 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 Quarterly Water Level Measurements

Water level measurements were collected on a quarterly basis from piezometers PZ-1 through PZ-13, piezometer PZ-15, and sumps 1 through 4, and annually from monitoring well MW-2, 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 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 September 12 and 13, 2012 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).

Parameter	Analytical Method	Where Collected
Volatile Organic Compounds (VOCs) Benzene, chlorobenzene, ethylbenzene, xylenes, 1,2-dichlorobenzene, 1,4- dichlorobenzene	Environmental Protection Agency (EPA) 8260	MW-2 Sumps 1 through 4 ⁽¹⁾ Sump 4 (Duplicate, MS, MSD)
Semivolatile Organic Compounds (SVOCs) naphthalene, 4-chloroaniline	EPA 8270	MW-2 Sump 4 Sump Composite ⁽²⁾ 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 ⁽²⁾ 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 ⁽²⁾ Sump 4 (Duplicate, MS, MSD)

The 2012 groundwater samples were analyzed as follows:



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Notes:

- (1) Individual samples were collected for VOC analysis to minimize potential volatilization of compounds
- (2) Composite of Sump 1 through Sump 4

2.3 Landfill Gas Monitoring

Landfill gas monitoring was completed on a quarterly basis by OMI at the three gas vents, the four corners of the landfill and from each of the sumps in 2012. The results of the monitoring are described in Section 3.4.

2.4 Site Inspections

Quarterly inspections were completed by OMI on February 28, June 6, September 18, and November 20, 2012. 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 2012 calendar year:

- Periodic inspection and cleaning of the lift station flow meter.
- Plowing of snow from the entrance road as necessary.
- On January 12, 2012, a replacement sump #2 circuit board was ordered due to failure. The circuit board was replaced on January 27, 2012, and Sump #2 was put back on line. Sump #1 was operational as well as the Alltift lift station during this period.
- Lubricated the gas vents and locks on February 28, 2012.
- Coordinated the repair of the existing phone line on March 9, 2012 and installed an autodialer to provide remote monitoring of the collection system.
- Replaced methane gas vent GV-2 on April 5, 2012.
- Conducted tree and shrub plantings on June 5 and 6, 2012. Conducting watering of plantings on an as needed basis.
- Replaced gas vent GV-1 on June 19, 2012.
- Conducted mowing as part of invasive plant species (Phragmites) control on July 5, 2012 and October 5, 2012.



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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 on August 15, 2012.
- Replaced motor in sump #2 pump on September 12, 2012.
- Completed annual landfill cap mowing on September 18, 2012.
- Completed repair of the autodialer phone line on December 19, 2012.

2.6 Wetland Monitoring

2.6.1 Background of Wetland Mitigation Area Monitoring Requirements

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).

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 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 were as follows:

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

2.6.2 Wetland Mitigation Area Corrective Actions

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. The work plan included a summary of the corrective actions completed in 2011. Due to the time of year, the planting of the woody buffer was postponed until the spring of 2012. 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.
- 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 following sections detail the results of the wetland mitigation area corrective actions completed in accordance with the approved work plan.



Invasive Species Control

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. Phragmites mowing events were completed on October 12, 2011 and July 5, 2012. A brush hog mounted on a tracked skid-steer was used to complete the mowing. This piece of equipment was used based on low track pressures and maneuverability.

The herbicide application was done by OP-TECH of Amherst, New York under contract with CH2M Hill - OMI. The phragmites areas that were not mowed were treated with herbicide on

October 31, 2011 and August 15 and 16, 2012; this included areas that were too wet to mow. Herbicide application was not conducted in any areas of standing water or immediately adjacent to any water bodies. The herbicide RODEO ® (EPA # 62719-324) was applied at a 5% concentration. The herbicide was applied to the phragmites by hand wicking (i.e., manual application).

Habitat Enhancement - Coarse Woody Debris Placement

Coarse wood debris (CWD) was placed in six pre-determined locations within the wetland on October 13, 2011 (refer to Figure 2 in Appendix B). The CWD placed at each of the six locations consisted of a stack of three 8 to 10-foot logs. Several of the coarse woody debris piles were investigated to document wildlife use in September 2012. The woody debris was observed to be beginning to decompose and is providing habitat for terrestrial macroinvertebrates, including spiders, insects and beetles. One small mammal was briefly observed; however, species identification was not made as it was not caught. Salamanders or snakes were not observed under the piles that were investigated. Once observations were made, the disturbed piles were replaced in their previous positions.

Woody Buffer Restoration - Tree and Shrub Plantings

The replanting of trees and shrubs fulfills the permit requirement for the establishment of a woody buffer in the mitigation wetland. The woody buffer planted when the mitigation wetland was originally constructed failed to become established; therefore, it was agreed that replacement plantings would be performed to satisfy the conditions of the Army Corps of Engineers Wetland Permit. The restoration of woody vegetation was outlined in the Work Plan, as modified and approved, and included planting trees and shrubs grouped in



six locations within the mitigation wetland. Shrubs and trees were planted in groups to provide "shrub/tree islands" within the emergent wet meadow wetland.

The trees and shrubs were purchased from New England Wetland Plants, Inc. of Amherst, Massachusetts, a reputable supplier of native wetland plants. The trees and shrubs were trucked to the site and received in good condition on June 5, 2012 showing no signs of water stress or disease. Once off loaded from the truck, the plants were counted, inspected, and grouped by planting area and type.

A total of six (6) planting areas were flagged in the mitigation wetland. The planting areas were identified and labeled as Planting Area A through Planting Area F, which were further designated as a type 1 or type 2, the difference being the species of shrubs and trees planted in a given area. The planting areas were selected based on soil conditions, hydrology, and existing plants. An area approximately 20 feet wide by 50 feet long was mowed to facilitate plantings at each of the six locations. Within each planting area, the individual trees and shrubs selected were placed by an Amec wetland scientist based on micro-topography, soils, hydrology and existing vegetation. Refer to Table 3, which lists the number and type of tree and shrub species planted in each of the six planting areas, and Figure 2 in Appendix A, which depicts the approximate locations of the six planting areas.

The trees and shrubs planting work was conducted by representatives from CH2M Hill-OMI with oversight and support from Amec's wetland scientist. All planting work was done by hand, which included hand digging holes. Holes were dug approximately two times the size of the root ball and a mixture of peat moss and native material was placed in each hole. The peat moss and native material was watered with approximately one gallon of water and thoroughly homogenized. An individual tree or shrub was then installed in the hole and backfilled with native material and tamped in place. This process was repeated for all of the shrub and tree species planted.

Once the planting was completed, fencing was installed around each of the planting areas. The fence was installed to mitigate losses due to deer browsing and protect the planted trees and shrubs from future phragmites control activities (i.e., mowing). The fence was constructed of four-foot high construction fence secured with seven-foot wooden stakes. In addition to the construction fence, two strands of bailing wire were strung above the construction fence to deter deer from entering the fenced areas. The fence will be maintained until the planted trees and shrubs become established, which is estimated to be two full growing seasons.



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Amec's wetland scientist conducted a site visit with CH2M Hill-OMI on September 18, 2012 to assess the survivorship of shrubs and trees. An inventory of each planting area (i.e., Area A through Area F) was conducted during the site visit and the dead shrub and tree species were tallied. Four (4) dead trees and fifteen (15) dead shrubs were observed. Based on the total number of trees and shrubs planted (40 and 114, respectively) the survivorship for trees is 90% and the survivorship for shrubs is 87%. The survivorship by species by Area is presented in Table 3.

The trees and shrubs were watered weekly throughout the summer, as drought like conditions prevailed in western New York. Inspections of the site corroborated the drought conditions as the water level in the ponds had never been observed at such low levels. Although the summer was very dry, the primary issue facing the newly planted shrubs and trees survival appears to be browsing by deer, which have clearly impacted several of the planting areas, primarily Area F and Area C, which had the highest number of dead tree and shrub species. The deer managed to overcome the protective measures implemented to keep them away from the newly planted shrubs and trees (i.e., construction fencing topped with wire). Deer were able to push the fence down in several areas and gain access to the newly planted shrubs and trees. Even though browsing has occurred, the majority of affected trees and shrubs have shown new leaf growth at the base of the stems and live stem and terminal buds were observed.

2.6.3 Wetland Mitigation Area Permit Closure

A letter report was prepared by Amec on behalf of Honeywell detailing the completion of the required corrective actions and submitted to the USACE on September 28, 2012 with copy to the NYSDEC (Amec, 2012). The following information was provided in the letter report:

- Photo documentation of the completion of the corrective actions including mowing and herbicide treatments of phragmites, the placement of coarse woody debris, and the tree and shrub plantings;
- Documentation of invasive plants species (i.e., phragmites) and a comparison of pre-existing conditions to those following mowing and herbicide application;
- Documentation of survivorship of tree and shrub plantings; and
- Documentation of current wetland functions and values the wetland mitigation is providing which includes observations of wildlife and wildlife use of the wetland.

The required mitigation wetland area corrective action activities have been completed and are documented in this report and supporting attachments. The corrective actions included two events of mowing and herbicide treatments of phragmites, the placement of coarse woody debris, tree and shrub planting, and a site visit to document the required survivorship of the woody buffer plantings. To achieve the restoration goal, the Corps of



Engineers required an 85% survivorship of each planted vegetative layer (i.e., 85% shrub survival and 85% tree survival). On September 18, 2012, survivorship was documented by Amec's wetland scientist to be 87% for shrubs and 90% for trees; therefore, the established wetland restoration goal of greater than 85% survivorship has been satisfied.

A visual inspection of the treatment areas that were mowed and where herbicide was applied indicated that this corrective action is having a positive effect on controlling the phragmites growing in these areas. The phragmites within the areas of either mowing or herbicide treatment have not flowered this season, are stunted as compared to untreated phragmites growing offsite, and their areal extent has been reduced. The attached photographs show areas of stressed and dying phragmites that were treated with herbicide in August 2012. Phragmites within the areas of mowing exhibit similar characteristics.

Observations made by Amec's wetland scientist during the September 2012 site visit indicated that the mitigation wetland continues to provide a high degree of wetland functions and values. Deer, including a large buck and three does, were observed in the mitigation wetland while conducting the tree and shrub survivorship survey, mallard ducks and Canada geese were observed feeding in the ponded areas of the wetland, and turtles, turtle trails, and frogs were observed in the ponds. Muskrats or muskrat dens were not observed during this site visit.

To ensure adequate survival of the shrub/tree islands, watering of the shrubs and trees will be continued should drought like conditions persist for the next growing season in 2013. Additional bracing (i.e., additional fence posts) will be installed to strengthen the fencing so that deer cannot easily push it down and gain access to the planting areas. The fence will be maintained for at least two more growing seasons or until the shrubs and trees have matured and can survive browsing by deer.

Based upon the positive results of the wetland mitigation area corrective action activities presented herein, the requirements for closure of the Wetland Permit have been achieved; therefore, further mitigation, monitoring, or reporting activities in accordance with the Wetland Permit will not be conducted. Watering of the plants as may be required due to drought conditions and strengthening of the fence to protect against deer browsing as described above will be included with site operation and maintenance activities.

In their letter addressed to Honeywell, dated October 24, 2012, the USACE provided approval of the completion of the required corrective actions, and indicated that the terms and conditions of Permit No. 98-976-0162(0) had been met and no further actions were required.



3.0 RESULTS OF 2012 OM&M ACTIVITIES

As discussed previously, OMI completed the 2012 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 October of 2012. 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 2013 as required under the new BSA discharge permit (Permit No. 12-12-BU98) issued on October 10, 2012, and effective December 1, 2012, with the semi-annual sampling events anticipated to be conducted during the months of April and September 2013.

3.2 Groundwater Monitoring

The 2012 groundwater monitoring activities included the collection of quarterly water level measurements and annual groundwater sampling. The results of these activities are described in the following subsections.

3.2.1 Quarterly Water Level Measurements

Groundwater levels in site piezometers, wells and groundwater collection trench sumps were recorded on a quarterly basis. Copies of the tables that show the quarterly water level measurements for 2012 are included in Appendix C. Copies of tables that summarize the quarterly groundwater elevations for 2012 are included in Appendix D. The groundwater elevations were used to prepare the quarterly groundwater contour maps for 2012, 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.



3.2.2 Groundwater Sampling

Groundwater sampling was conducted at the site in August 2012 in accordance with the OM&M Manual (Parsons, 2006). The analytical laboratory report for the September 2012 groundwater sampling event is provided as Appendix F.

The analytical results for the groundwater sampling event in September 2012 are summarized on Table 1. During the September 2012 sampling event, concentrations of chromium, iron, manganese, benzene, chlorobenzene, and 4-chloroaniline were detected in one or more samples of the leachate collection system.

Chromium was detected above the NYSDEC Class GA (groundwater) standard of 0.05 micrograms per liter (μ g/L) in the Sumps 1 through 4 composite sample at a concentration of 0.22 μ g/L.

Iron was detected above the groundwater standard of 0.3 milligrams per liter (mg/L) in the grab sample from Sump 4 and the Sumps 1 through 4 composite sample (2.6 and 11.3 mg/L, respectively).

Manganese was detected above the groundwater standard of 0.3 mg/L in the grab sample from Sump 4 and the Sumps 1 through 4 composite sample (5.7 and 3.8 mg/L, respectively).

Benzene was detected at a concentration of 22 μ g/L, above the groundwater standard of 1 μ g/L, in the grab sample from Sump 2.

Chlorobenzene was detected above the groundwater standard of 5 μ g/L in samples collected from Sump 1, 2, and 4 (11, 150, and 11 μ g/L, respectively).

4-chloroaniline was detected above the groundwater standard of 5 μ g/L in the Sumps 1 through 4 composite sample at a concentration of 11 μ g/L.

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. Concentrations of benzene, chlorobenzene, and 4-chloraniline were not detected in MW-2. Iron was the only analyte detected in MW-2 at a concentration exceeding groundwater standards. No PCBs or pesticides were detected in any of the



samples collected from this event or from previous events. The 2012 groundwater monitoring results are consistent with the results from prior groundwater monitoring events.

3.3 Surface Water Measurements

Surface water level measurements were collected on January 27, 2012, April 5, 2012, August 2, 2012, and October 5, 2012 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. The water level was measured as 6 inches below the top of the concrete weir on January 27, 2012, and at 12 inches below the top of the weir during the three subsequent measurements.

3.4 Landfill gas monitoring

Landfill gas monitoring was conducted on a quarterly basis in 2012. During each event the gas vents (GV-1, GV-2 and GV-3), the four sump locations (Sump 1 through Sump 4), and four ground monitoring locations were monitored. The four ground monitoring locations were:

- Ground 1 Northwest corner of landfill
- 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 landfill gas monitoring in 2012, a percentage of the LEL of methane gas was detected in all three monitoring gas vents GV-1, GV-2, and GV-3, all four ground monitoring locations, and Sump #2 during at least one quarterly monitoring event. The landfill gas monitoring data is summarized on Table 2.

3.5 Site Inspections

Quarterly site inspections were performed by OMI on February 28, June 6, September 18, and November 20, 2012. 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 first, second and third 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 were verified during the inspections. More specific information regarding the quarterly inspections are provided in the subsections below.

3.5.1 February 28, 2012 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 groundwater collection system, monitoring well, and sumps were in acceptable condition. One gas vent, GV-2, was damaged apparently due to high winds and required replacement.

3.5.2 June 6, 2012 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 groundwater collection system, monitoring well, and sumps were observed to be in acceptable condition. One gas vent, GV-1, was damaged apparently due to high winds and required replacement.

3.5.3 September 18, 2012 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.



3.5.4 November 20, 2012 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.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions were developed based on the data collected during the 2012 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.
- Wetland Mitigation Area corrective actions identified in 2011 were completed in 2012. A letter report was prepared by Amec on behalf of Honeywell detailing the completion of the required corrective actions and submitted to the USACE on September 28, 2012 with copy to the NYSDEC (Amec, 2012). In their letter addressed to Honeywell, dated October 24, 2012, the USACE provided approval of the completion of the required corrective actions, and indicated that the terms and conditions of Permit No. 98-976-0162(0) had been met and no further actions were required.
- 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 2012 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, the sampling and analysis plan will be revised to remove these analytes from the annual groundwater monitoring requirements.
- BSA Discharge Monitoring in accordance with the new BSA permit (Permit No. 12-12-BU98), discharge monitoring will be conducted on a semi-annual basis during the months of April and October in 2013, with reports issued to BSA and copied to the NYSDEC.
- No further mitigation, monitoring, or reporting activities associated with the Wetland Mitigation Area are required. However, watering of the plants associated with the woody buffer will continue on an as needed basis if required due to drought conditions and maintenance of the protective snow fence will be conducted to protect against deer browsing.
- Groundwater Monitoring Annual groundwater monitoring will be completed in 2013 from the same monitoring points (used during prior monitoring events.



Groundwater monitoring results will be reported in the next annual Periodic Review Report (PRR) submittal.

- Water Level Measurements Quarterly water level measurements will be collected in 2013 from site monitoring wells, piezometers, and sumps, 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 2013.
- Routine OM&M activities will continue on a monthly basis, or more frequently as needed, during 2013.
- The next PRR submittal, to include the annual OM&M report, will be completed and submitted to NYSDEC by the end of the 1st quarter 2013.

5.0 REFERENCES

- NYSDEC, 1997. Order on Consent between AlliedSignal, Inc. and NYSDEC, Index #B9-87-194, #B9-0358-91-2, Site Codes #9515054 and 915046B. December 1997.
- USACE, 2004. March 24, 2004, Application No. 98-976-0162(0), Nationwide Permit No. (38) as Published in the Federal Register, Volume 67, No. 10, on Tuesday, January 15, 2002, signed by Gary E. McDannell.
- Parsons, 2006. Operations, Maintenance, and Monitoring Manual for Alltift Landfill Site, NYSDEC Site No. 9-15-054 and Ramco Steel Site, NYSDEC Site No. 9-15-046B, Buffalo, New York. March 2006.
- NYSDEC, 2009. September 2, 2009, Alltift Landfill/Ramco Steel, Site Nos. 9-15-054/915046B, Buffalo (c), Erie County, signed by Maurice F. Moore.
- BSA, 2009. December 1, 2009, Buffalo Pollutant Discharge Elimination System (BPDES) Permit #09-11-BU098, Authorization to Discharge, Alltift Landfill/Ramco Steel Remediation Sites, Buffalo, New York.
- Mactec, 2011a. May 12, 2011, Work Plan for Wetland Mitigation Monitoring "Year 5" for Alltift Landfill, Buffalo, New York, signed by Charles H. Lyman and John M. Scrabis.
- 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.

Amec, 2011. December 22, 2011, Work Plan – Corrective Action Activities Mitigation Wetland Area, Permit Application No. 98-976-0162(0), Alltift Landfill and Ramco Steel Sites Buffalo, New York, signed by Ryan T. Belcher and John M. Scrabis.

Amec, 2012. September 28, 2012, Corrective Action Completion Report, Wetland Mitigation Area – Permit 1998-9760162, Alltift Landfill and Ramco Steel Sites Buffalo, New York, signed by Ryan T. Belcher and Daniel Forlastro.



TABLES

TABLE 1Summary of Groundwater Analytical Results -20122012 Annual OM&M ReportAlltift Landfill /Ramco Steel Site

								FDUP-091212	Sump 1-4 Comp-
Parameter Name	Units	NYSDEC Class GA	MW-2-091312	Sump 1-091212	Sump 2-091212	Sump 3-091212	Sump 4-091212	(Sump 4)	091212
		Standards	9/13/2012	9/12/2012	9/12/2012	9/12/2012	9/12/2012	9/12/2012	9/12/2012
Metals (Dissolved)									
ANTIMONY	mg/L	0.003	0.00040 J				0.00073 J	0.00053 J	0.00077 J
ARSENIC	mg/L	0.025	0.0026				0.0119 B	0.0141 B	0.0179 B
CADMIUM	mg/L	0.005	0.00023 JB				0.00023 JB	0.00021 JB	0.00022 JB
CHROMIUM	mg/L	0.05	0.0029 J				0.0033 J	0.0026 J	0.22
IRON	mg/L	0.3	0.73				2.6	6.2	11.3
LEAD	mg/L	0.025	0.0037 J				0.0050 U	0.0050 U	0.023
MANGANESE	mg/L	0.3	0.24				5.7	4.6	3.8
MERCURY	mg/L	0.0007	0.0002 U				0.00020 U	0.00020 U	0.00020 U
Pesticides									
4,4'-DDE	ug/L	0.2	ND				0.047 U	0.047 U	0.047 U
4,4'-DDD	ug/L	0.3	ND				0.047 U	0.047 U	0.047 U
PCBs									
AROCLOR-1016	ug/L	0.09	0.057 U				0.057 U	0.057 U	0.057 U
AROCLOR-1221	ug/L	0.09	0.057 U				0.057 U	0.057 U	0.057 U
AROCLOR-1232	ug/L	0.09	0.057 U				0.057 U	0.057 U	0.057 U
AROCLOR-1242	ug/L	0.09	0.057 U				0.057 U	0.057 U	0.057 U
AROCLOR-1248	ug/L	0.09	0.057 U				0.057 U	0.057 U	0.057 U
AROCLOR-1254	ug/L	0.09	0.057 U				0.057 U	0.057 U	0.057 U
AROCLOR-1260	ug/L	0.09	0.057 U				0.057 U	0.057 U	0.057 U
VOCs									
BENZENE	ug/L	1	1.0 U	5.0 U	22	5.0 U	5.0 U	5.0 U	
CHLOROBENZENE	ug/L	5	1.0 U	11	150	5.0 U	11	40	
ETHYLBENZENE	ug/L	5	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
XYLENES, TOTAL	ug/L	5	2.0 U	10 U	10 U	10 U	10 U	10 U	
1,2-DICHLOROBENZENE	ug/L	3	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
1,4-DICHLOROBENZENE	ug/L	3	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
SVOCs									
4-CHLOROANILINE	ug/L	5	4.8 U				4.7 U	4.7 U	11
NAPHTHALENE	ug/L	10	4.8 U				4.7 U	4.7 U	4.8 U

Note:

Bold - Detected during Laboratory Analysis

J - Analyte Detected Below Reporting Limit

B - Compound Was Found in the Blank and Sample

U - Analyte not detected

DIL - Dilution Required for Analysis

E - Analyzed using E624/E625 Method

ND - Not Detected at the Reporting Limit

Shading indicates exceedance of NYSDEC Class GA Standard

TABLE 2 Quarterly Landfill Gas Monitoring Data - 2012 2012 Annual OM Report Alltift Landfill/Ramco Steel Site

	Fi	irst Quarte	er - 1/27/2	2012	Seco	nd Quarte	er - 4/5/20	012	٦	hird Qua	rter - 8/2/2	2012	Fo	urth Quar	ter - 10/5/	2012
Location:	CH₄	CO2	O 2	LEL CH ₄	CH₄	CO2	O ₂	LEL CH₄	CH₄	CO ₂	O 2	LEL CH₄	CH₄	CO2	O 2	LEL CH₄
GV-1	0.1%	0.1%	21.3%	0.001%	0.0%	0.1%	21.3%	0.000%	0.0%	0.1%	20.6%	0.001%	0.0%	0.1%	20.8%	0.001%
GV-2	0.0%	0.1%	21.3%	0.002%	0.0%	0.1%	21.3%	0.000%	0.0%	0.1%	20.5%	0.001%	3.2%	1.0%	18.8%	0.053%
GV-3	0.0%	0.1%	21.3%	0.000%	0.0%	0.1%	21.3%	0.000%	0.0%	0.1%	20.4%	0.000%	0.0%	0.1%	20.8%	0.001%
Ground #1	0.1%	0.1%	20.1%	0.002%	0.0%	0.2%	20.6%	0.000%	0.0%	0.0%	20.6%	0.000%	0.0%	0.0%	20.7%	0.000%
Ground #2	0.0%	0.1%	20.9%	0.001%	0.0%	0.2%	20.5%	0.000%	0.0%	0.0%	20.5%	0.000%	0.0%	0.0%	20.7%	0.000%
Ground #3	0.0%	0.1%	20.8%	0.002%	0.0%	0.1%	20.4%	0.000%	0.0%	0.0%	20.6%	0.000%	0.0%	0.0%	20.8%	0.000%
Ground #4	0.1%	0.1%	20.3%	0.001%	0.1%	0.1%	20.2%	0.000%	0.0%	0.0%	20.5%	0.000%	0.0%	0.0%	20.8%	0.001%
Sump #1	0.0%	0.1%	20.7%	0.000%	0.0%	0.2%	20.8%	0.000%	0.0%	0.1%	20.6%	0.000%	0.0%	0.0%	20.7%	0.000%
Sump #2	0.0%	0.1%	20.8%	0.000%	0.0%	0.3%	20.5%	0.000%	0.0%	0.5%	20.0%	0.002%	0.0%	0.0%	20.7%	0.000%
Sump #3	0.0%	0.1%	20.9%	0.000%	0.0%	0.2%	20.5%	0.000%	0.0%	0.0%	20.5%	0.000%	0.0%	0.0%	20.7%	0.000%
Sump #4	0.0%	0.1%	21.0%	0.000%	0.0%	0.2%	20.2%	0.000%	0.0%	0.1%	20.5%	0.000%	0.0%	0.0%	20.7%	0.000%

Notes:

10/5/2012 LEL CH 4 reading for location GV-2 is as recorded in field data logs but may be incorrect based upon corresponding CH 4 value (LEL for CH 4 is 5%).

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

LEL - Lower Explosive Limit

CH4 - Methane

CO2 - Carbon Dioxide

O2 - Oxygen

Table 3: Tree/Shrub Planting Areas - Species Lists Alltift Landfill and Ramco Steel Sites NYSDEC Site Nos. 9-15-054 /9-15-046B Buffalo, New York

Tree/Shrub Number	Number	
Planted [a]	Species	Surviving [b]
	Shrubs	
5	Elderberry (Sambucus canadensis)	4
5	Alder (Alnus rugosa)	5
4	Red-osier Dogwood (Cornus stolonifera)	4
4	Blueberry (Vaccinium corymbosum)	4
	Trees	
2	Boxelder (Acer nugundo)	2
2	Swamp White Oak (Quercus alba)	2
2	Paper Birch (Betula papyrifera)	2
2	White Pine (Pinus strobus)	2
26	total number of trees/shrubs	25

Tree/Shrub Number	Planting Area: Area B-Type 2	Number
Planted [a]	Species	Surviving [b]
	Shrubs	
5	Elderberry (Sambucus canadensis)	5
5	Alder (Alnus rugosa)	5
5	Red-osier Dogwood (Cornus stolonifera)	5
4	Blueberry (Vaccinium corymbosum)	4
	Trees	
2	Boxelder (Acer nugundo)	2
2	Swamp White Oak (Quercus alba)	2
2	Paper Birch (Betula papyrifera)	2
1	Larch (Larix laricina)	1
26	total number of trees/shrubs	26

Tree/Shrub Number	Planting Area: Area D-Type 1	Number
Planted [a]	Species	Surviving [b]
	Shrubs	
5	Alder (Alnus rugosa)	5
5	Elderberry (Sambucus canadensis)	5
5	Red-osier Dogwood (Cornus stolonifera)	4
4	Blueberry (Vaccinium corymbosum)	4
	Trees	
2	Larch (Larix laricina)	2
2	Red Maple (Acer rubrum)	2
2	Black Willow (Salix nigra)	2
25	total number of trees/shrubs	24

e/Shrub nber	Planting Area: Area E-Type 1	Number
nted [a]	Species	Surviving [b]
	Shrubs	
6	Alder (Alnus rugosa)	6
5	Red-osier Dogwood (Cornus stolonifera)	5
5	Elderberry (Sambucus canadensis)	5
4	Blueberry (Vaccinium corymbosum)	4
	Trees	
2	Larch (Larix laricina)	0
2	Red Maple (Acer rubrum)	2
2	Black Willow (Salix nigra)	2
26	total number of trees/shrubs	24

Tree/Shrub Number	Number	
Planted [a]	Species	Surviving [b]
	Shrubs	
6	Red-osier Dogwood (Cornus stolonifera)	6
5	Elderberry (Sambucus canadensis)	0
4	Blueberry (Vaccinium corymbosum)	4
4	Alder (Alnus rugosa)	4
	Trees	
2	Boxelder (Acer nugundo)	2
2	Swamp White Oak (Quercus alba)	1
2	Paper Birch (Betula papyrifera)	2
1	White Pine (Pinus strobus)	1
26	total number of trees/shrubs	20

Tree/Shrub Number	Number			
Planted [a]	Species	Surviving [b]		
	Shrubs			
5	Alder (Alnus rugosa)	3		
5	Red-osier Dogwood (Cornus stolonifera)	4		
5	Elderberry (Sambucus canadensis)	3		
4	Blueberry (Vaccinium corymbosum)	1		
	Trees			
2	Larch (Larix laricina)	2		
2	Red Maple (Acer rubrum)	1		
2	Black Willow (Salix nigra)	2		
25	total number of trees/shrubs	16		

Notes:

[a] Trees and shrubs planted in June, 2012.[b] Surviving trees and shrubs tallied in September, 2012.

= shading indicates dead shrubs/trees.

Summary Table:

Area	Trees	Shrubs
Area A - Type 2	8	18
Area B - Type 2	7	19
Area C - Type 2	7	19
Area D - Type 1	6	19
Area E - Type 1	6	20
Area F - Type 1	6	19
То	tal 40	114
Dead Trees/Shru	bs 4	15
Total Trees/Shru	bs 40	114
Percent De	ad 10%	13%
Percent Survivi	ng 90%	87%

APPENDIX A

SITE LOCATION AND CURRENT CONDITIONS SITE PLAN FIGURES



PORT2011018a.cdr



APPENDIX B

2012 SEMI-ANNUAL DISCHARGE MONITORING REPORTS

CH2M HILL OMI Syracuse Honeywell 1563 Willis Avenue Syracuse, NY 13204 Tel 315.468.1663 Fax 315.468.1664



May 4, 2012

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

Subject: Alltift Landfill/Ramco Steel Site Discharge Monitoring Report 2012 First Semi-Annual Report Permit Number 09-11-BU098

Dear Mr. Overholt:

Enclosed please find the 2012 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 2,249,100 gallons. The flow was measured from a totalizing meter within the lift station at the Alltift Site from September 14, 2011 through April 16, 2012 for a total of 215 days.

A time composite discharge sample was collected from within the pump station on April 16, 2012. 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 2012 Discharge Monitoring Report

BSA Permit No. 09-11-BU98	
Sample Date:	April 16, 2012
Sample Location:	Onsite Pump Station to BSA

BSA Permit Parameter	Input Analytical Results			Converte Analytical R	BSA Daily Max Discharge Limit		Permit	
BOA Fernik Farameter	Quantity	Reporting Limit	Unit	Quantity	Unit	Quantity	Unit	Compliance
pH	7.42	NA	SU	7.42	SU	5.0 - 12.0	SU	Yes
Benzene	ND	50	ug/L	ND	lbs/day	0.068	lbs/day	Yes
Chlorobenzene	48	50	ug/L	0.0042	lbs/day	0.148	lbs/day	Yes
4-Chloroaniline	7.7	25	ug/L	0.0007	lbs/day	0.048	lbs/day	Yes
Naphthalene	ND	25	ug/L	ND	lbs/day	0.048	lbs/day	Yes
Total Suspended Solids	61.6	4.0	mg/L	61.6	mg/L	250	mg/L	Yes
Total Flow (average)	7.26		gpm	10,461	gpd	57,600	gpd	Yes

Flow Calculations	Meter		4
Initial Reading (pump station)	1669100	9/14/2011	
Final Reading (pump station)	3918200	4/16/2012	1
Total Days in Period		215	1
Total Flow for Period	2 249 100		gallons
Average Flow for Period	2,249,100	7.26	anm

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CH2M HILL OMI Syracuse Honeywell 1563 Willis Avenue Syracuse, NY 13204 Tel 315.468.1663 Fax 315.468.1664



October 30, 2012

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

Subject: Alltift Landfill/Ramco Steel Site Discharge Monitoring Report 2012 Second Semi-Annual Report Permit Number 09-11-BU098

Dear Mr. Overholt:

Enclosed please find the 2012 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 2,828,200 gallons. The flow was measured from a totalizing meter within the lift station at the Alltift Site from April 16, 2012 through October 5, 2012 for a total of 172 days.

A time composite discharge sample was collected from within the pump station on October 5, 2012. Four samples were collected over an evenly-spaced work day period for VOCs and SVOCs, and 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 (Amec Environment & Infrastructure)

cc.: Mr. Rich Galloway (Honeywell) Mr. Maurice Moore (NYSDEC) Mr. Dennis Sutton (City of Buffalo) Mr. Dan Forlastro (Amec Environment & Infrastructure)

Table 1 Alltift Landfill/Ramco Steel Site Second Semi-annual Report for 2012 Discharge Monitoring Report

BSA Permit No. 09-11-BU98	
Sample Date:	October 5, 2012
Sample Location:	Onsite Pump Station to BSA

PSA Pormit Parameter	Ana	Input lytical Results		Converte Analytical Re	ed esults	BSA Da Dischar	ily Max ge Limit	Permit
BSA Ferning Farameter	Quantity	Reporting Limit	Unit	Quantity	Unit	Quantity	Unit	Compliance
pH	7.74	0.100	SU	7.74	SU	5.0 - 12.0	SU	Yes
Benzene	ND	40	ug/L	ND	lbs/day	0.068	lbs/day	Yes
Chlorobenzene	63	40	ug/L	0.0086	lbs/day	0.148	lbs/day	Yes
4-Chloroaniline	4.2	5.0	ug/L	0.0006	lbs/day	0.048	lbs/day	Yes
Naphthalene	ND	5.0	ug/L	ND	lbs/day	0.048	lbs/day	Yes
Total Suspended Solids	44	4.0	mg/L	44.0	mg/L	250	mg/L	Yes
Total Flow (average)	11.42		gpm	16,443	gpd	57,600	gpd	Yes

Flow Calculations	Meter		
Initial Reading (pump station)	3918200	4/16/2012	
Final Reading (pump station)	6746400	10/5/2012	1
Total Days in Period		172	
Total Flow for Period	2,828,200		gallons
Average Flow for Period		11.42	gpm

.

APPENDIX C

MONTHLY WATER LEVEL MEASUREMENTS –2012

Alltift Landfill Buffalo, New York

Piezometer Readings

	12-Jan-12	27-Jan-12	6-Feb-12	28-Feb-12	8-Mar-12	9-Mar-12	5-Apr-12	16-Apr-12	23-Apr-12	27-Apr-12	5-Jun-12	19-Jun-12	27-Jun-12	5-Jul-12	10-Jul-12	26-Jul-12	2-Aug-12	23-Aug-12	13-Sep-12	5-Oct-12	22-Oct-12	31-Oct-12	19-Dec-12
PZ-1		6.20					7.59										6.83			6.95			
PZ-2		4.90					7.97										8.31			8.40			
PZ-3		4.90					10.05										10.53			10.45			
PZ-4		4.43					6.31										6.92			6.95			
PZ-5		4.15					6.67										7.42			7.55			
PZ-6		4.00					6.85										9.73			9.03			
PZ-7		4.30					7.7										8.69			8.80			
PZ-8		3.10					6.18										7.27			7.60			
PZ-9		5.50					6.78										8.85			9.00			
PZ-10		7.27					8.03										dry			11.45			
PZ-11		7.00					7.65										9.00			9.65			
PZ-12		7.05					8.3										10.30			10.90			
PZ-13		4.95					5.99										8.31			8.45			
PZ-14		dry					dry										dry			dry			
PZ-15		7.43					7.63										8.20			8.50			
PZ-16		dry					dry										dry			dry			
Groundwater	Collection Trop	ah Sumna																					
GWCT-1	Collection Tref	6.30					6.28										7.70			7.25			
GWCT-2		4.60					6.2										13.30			12.90			
GWCT-3		4.50					8.65										9.42			9.90			
GWCT-4		4.20					6.88										8.00			8.30			
								1		1			L	1		1					1		11
Relief Trench	Sumps		1				1	I.	1	I.	1	1		1		1	1		1	1			
GWR-1		7.90					8										8.35			8.35			
GWR-2		8.00					8.2										8.29			8.30			
Lift Station																							
Lift		11.65					11.42										11.38			10.45	5		
Offeite Back	around Wollo																						
MW-1	n/a (2)	n/a (2)	n/a (2)	n/a (2)	n/a (2)	n/a (2)	n/a (2)	n/a (2)	n/a (2)	n/a (2)			n/a (2)	n/a (2)	n/a (2)	n/a (2)	n/a (2)	n/a (2)		n/a (2)			
MW-2																							
1111-2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		I]
Lift Station T	otalizer Reading	9	1				1	I.	1	I.	1	1		1		1	1		1	1			
Total Flow	2616600	2747000	2894500	3138600	3202800	3213600	3773600	3918200	4093600	4148000	5427300	5643200	5696800	5763500	5804700	6006500	6074200	6314900	6497300	6746400	6842700	6927300	7594600
Delta	1	130400	147500	244100	64200	10800	560000	1		1			269500	120300	107900	243000	269500	308400		672200	1		
Electric Mete	r																						
Current				523 KWH			1565 KWH		2311 KWH		3743 KWH				4507 KWH	5066 KWH	5209 KWH	5671 KWH		6452 KWH	6918 KWH		
Delta				1.29 kw			5.8 kw		2.52 kw					1									

Comments :

Alltift Landfill Buffalo, New York

Piezometer Readings

	12-Jan-12	27-Jan-12	6-Feb-12	28-Feb-12	8-Mar-12	9-Mar-12	5-Apr-12	16-Apr-12	23-Apr-12	27-Apr-12	5-Jun-12	19-Jun-12	27-Jun-12	5-Jul-12	10-Jul-12	26-Jul-12	2-Aug-12	23-Aug-12	13-Sep-12	5-Oct-12	22-Oct-12 31-Oct-	2 19-Dec-12
PZ-1		6.20					7.59										6.83			6.95		
PZ-2		4.90					7.97										8.31			8.40		
PZ-3		4.90					10.05										10.53			10.45		
PZ-4		4.43					6.31										6.92			6.95		
PZ-5		4.15					6.67										7.42			7.55		
PZ-6		4.00					6.85										9.73			9.03		
PZ-7		4.30					7.7										8.69			8.80		
PZ-8		3.10					6.18										7.27			7.60		
PZ-9		5.50					6.78										8.85			9.00		
PZ-10		7.27					8.03										dry			11.45		
PZ-11		7.00					7.65										9.00			9.65		
PZ-12		7.05					8.3										10.30			10.90		
PZ-13		4.95					5.99										8.31			8.45		
PZ-14		dry					dry										dry			dry		
PZ-15		7.43					7.63										8.20			8.50		
PZ-16		dry					dry										dry			dry		
Groundwater	Collection Trer	nch Sumps																				
GWCT-1		6.30					6.28										7.70			7.25		
GWCT-2		4.60					6.2										13.30			12.90		
GWCT-3		4.50					8.65										9.42			9.90		
GWCT-4		4.20					6.88										8.00			8.30		
Relief Trench	Sumps																					
GWR-1		7.90					8										8.35			8.35		
GWR-2		8.00					8.2										8.29			8.30		
Lift Station			1					1		1												
Lift		11.65					11.42										11.38			10.45		
Offsite Backg	round Wells																					
MW-1	n/a (2)	n/a (2)	n/a (2)	n/a (2)	n/a (2)	n/a (2)	n/a (2)	n/a (2)	n/a (2)	n/a (2)			n/a (2)	n/a (2)	n/a (2)	n/a (2)	n/a (2)	n/a (2)		n/a (2)		
MW-2																						
Lift Station To	otalizer Reading	9					1															
Total Flow	2616600	2747000	2894500	3138600	3202800	3213600	3773600	3918200	4093600	4148000	5427300	5643200	5696800	5763500	5804700	6006500	6074200	6314900	6497300	6746400	6842700 692730	7594600
Delta		130400	147500	244100	64200	10800	560000						269500	120300	107900	243000	269500	308400		672200		
Electric Meter	• •		•							•												
Current				523 KWH			1565 KWH		2311 KWH		3743 KWH				4507 KWH	5066 KWH	5209 KWH	5671 KWH		6452 KWH	6918 KWH	
Delta				1.29 kw			5.8 kw		2.52 kw													

Comments :

APPENDIX D

QUARTERLY GROUNDWATER ELEVATIONS –2012

SUMMARY OF 2012 QUARTERLY GROUNDWATER ELEVATIONS ALLTIFT LANDFILL SITE **BUFFALO, NEW YORK**

			1/27/	/2012	4/5/	2012	8/2/:	2012	10/5/	2012
MONITORING POINT	TOTAL DEPTH (FT.)	TOP OF CASING ELEVATION	DEPTH TO WATER	GROUND WATER ELEVATION						
PIEZOMETERS										
PZ-1	16.8	585.01	6.20	578.81	7.59	577.42	6.83	578.18	6.95	578.06
PZ-2	16.9	584.96	4.90	580.06	7.97	576.99	8.31	576.65	8.40	576.56
PZ-3	16.9	585.05	4.90	580.15	10.05	575.00	10.53	574.52	10.45	574.60
PZ-4	16.6	585.79	4.43	581.36	6.31	579.48	6.92	578.87	6.95	578.84
PZ-5	16.9	584.52	4.15	580.37	6.67	577.85	7.42	577.10	7.55	576.97
PZ-6	17.8	584.74	4.00	580.74	6.85	577.89	9.73	575.01	9.03	575.71
PZ-7	20.0	584.99	4.30	580.69	7.7	577.29	8.69	576.30	8.80	576.19
PZ-8	20.7	584.48	3.10	581.38	6.18	578.30	7.27	577.21	7.60	576.88
PZ-9	15.1	586.86	5.50	581.36	6.78	580.08	8.85	578.01	9.00	577.86
PZ-10	11.5	589.41	7.27	582.14	8.03	581.38	dry	<589.41	11.45	577.96
PZ-11	19.5	594.72	7.00	587.72	7.65	587.07	9.00	585.72	9.65	585.07
PZ-12	21.8	592.78	7.05	585.73	8.3	584.48	10.30	582.48	10.90	581.88
PZ-13	22.5	589.04	4.95	584.09	5.99	583.05	8.31	580.73	8.45	580.59
PZ-14	55.0	619.11	dry	*	dry	*	dry	*	dry	*
PZ-15	17.0	588.79	7.43	581.36	7.63	581.16	8.20	580.59	8.50	580.29
PZ-16	66.5	629.30	dry	**	dry	**	dry	**	dry	**
BACKGROUND WELLS										
MW-1	20.4	585.22	NM	***	NM	***	NM	***	NM	***
MW-2	17.0	586.67	NM	NM	NM	NM	NM	NM	NM	NM
GROUNDWATER COLL	ECTION TRENCH S	SUMPS								
S-1	17.2	585.19	6.30	578.89	6.28	578.91	7.70	577.49	7.25	577.94
S-2	24.8	585.45	4.60	580.85	6.2	579.25	13.30	572.15	12.90	572.55
S-3	17.3	585.25	4.50	580.75	8.65	576.60	9.42	575.83	9.90	575.35
S-4	17.8	585.00	4.20	580.80	6.88	578.12	8.00	577.00	8.30	576.70

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

PZ-16: Tape stops at 32.50 feet below top of casing; indicates that the well is dry at this level. *Background well MW-1 removed or paved over by property owner sometime after July 2006 site visit.

NM - Not measured

APPENDIX E

QUARTERLY GROUNDWATER CONTOUR MAPS – 2012



Document: P-IProjectsHoneywell/O,M and M Team/Altith Landfill/4.0 Project Deliverables/4.3 Drawings/GISMapDocuments/Altith_Groundwater_11x17P.mxd PDF: P-IProjectsHoneywell/O,M and M Team/Altith Landfill/4.0 Project Deliverables/4.1 Reports/2012 PRRAppendix E - 2012 Contour MapsFigure 1 January 2012 GW Contour.pdf 3/12/2013 3:11 PM michael washburger



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APPENDIX F

GROUNDWATER ANALYTICAL RESULTS – AUGUST 2012

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Samplan	Lisein	A	Lat	PM: golin, A	nthor	TY					c	amer 1	rackir	ng Na((5):			COC No: 480-15491-3542.	2	
Client Contact	Phone CUIL	\$ 16	22	E-M	hail:	lin@te	estan	nerica	ainc	com									Page: Page 1 of 1		
Company.	1 210 16	a ivi	10		T	100			4	nalu	ele C	leau	oeto	d	-			1	Job #:		
Honeywell International Inc Address:	Due Date Request	ted:			E	1	1	-	T	Taly	515	tequ	leste	T	T	T	Т	108	Preservation Code	is:	-
Remediation & Evaluation Services, Mey-3	TAT Requested (d	lays):			-														A - HCL B - NaOH C - Zo Acetate	M - Hexane N - None O - AsNeO2	
Mornstown State, Zip:																			D - Nitric Acid E - NaHSO4	P - Na2045 Q - Na2503	
NJ, 07962 Phone:	PO#	Requested			-													P	F - MeOH G - Amchior H - Ascorbic Add	R - Na2S2SO3 S - H2SO4 T - TSP Dodecahyd	Irate
Email John Formoza@CH2M.com	WO#	Troqueotos	-		or No	Int	PCBs											2	I - Ice J - DI Water	U - Acetone V - MCAA	
Project Name: Honeywell - Buffalo Sites/ Event Desc: Honeywell Alltift GW Mo	Project #: 48003159				le (Yes	5	lutart	lides	rolatiles	1								Intaine	L-EDA	Z - other (specify)	
Site: New York	SSOW#:				Samp	VOUS	ority Po	Pestic	Semi-	Volati								r of co	Other:		
		Sample	Sample Type (C=comp,	Matrix (www.	ald Filtered	108, 6020, 7	8_PCB - Pric	81A - (MOD)	70C - (MOD)	(DOM) - 809								otal Numbe			
Sample identification	Sample Date	Time	G=grab)	BT-Tissue, A-A			8	8	N N	82	- Salara	1753	219	1	6 24	18 18	1	X	Special In	tructions/Note:	19115
161/2 001912	0/12/12	DODE	G	Water	- AY	NI	2	12	1	2		PERCE	-	14.5	10 000	00000	2 2 2 2 3 2	8			
																			and longer than 1	monthi	
Possible Hazard Identification					-		le Dis	spos	all	A fee	may	be as	sess	ed If	sam	pres	are	Aret	ned longer trian 1	Months	
Deliverable Requested: I, II, III, IV, Other (specify)	Son B Unkr	Nown /	(adiological		5	Specia	al Inst	tructio	ons/	QC R	equire	ement	spose ts:	I Dy	Lau			Aru		monoro	
Empty Kit Relinquished by:	1	Date:			Tim	e:	-		-	-	-	-	M	lethod	of Sh	ipmen	t				
active C. Stegnins	Date/Time	2012	14100	Company		Re	ceived	lec	y	A	8	Ula	in	~	D		13 13	15	2 1400	Company TA GUP Company	AL
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Eveningenering of	Contraction of the local data															-	_	-			
A Yes A No				-		Co	olerTe	emper	ature((s) °C a	and Oth	her Rei	marks:								-

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Job Number Field Team	SINS TAIK	e STOU	T 3/ecze	Sampling Event Dale Page	Allitift GW Annu Saptember of	al Manitoring / Si ef 12 ⁴⁴ 2	ep. 2012 012
Well/Sample Number	MW	-2	Start	Time 08:32	Finish Time	e	
nitial Depth to Water 10	,80	1	Measure Point:	Steel Casing	Olher:		
urge Melhod:		Sample I	D		Sample Time		
Seopump Ded. Pump	Other Sump	Duplicate	Sample ID		Dupl. Time		
iample Method: ParaST	DIC	Split Sam	ple ID		Split. Time		
Depth to Botton (from meas.	ot): 17.0 Mir	n, Purge Volume (pal)/(L)	Purge Rate (g	ipm)/(mLpm)		
Vater Quality Parameter Med	asument Technique	flow-lhru c	in-situ	open container		00000	
Time Vol. Purgeo galions / liter	d pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen	Temp. °C	Eh / ORP mv	DTW ft
	(+/-0.1)	(+/-3%)	(+/-10% if >10NTU)	(+/-10%)	(+/-3%)	+/-10 miV	
8:41	IN HIG	1 Dep	W 26 W	AFET			10,80
8:46	STATS P	Rgins W	RIL	20.1-1	1		
9:06 P	used we	n pan	1 DRY	KK VISIT	LATES	100ay.	
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AMPLE COLLECTION INFORMATI	ON		Field	7.5			
Parameter	Type of Bottle	Volume	Filtered (y/n) Pre	servative pH	No	otes	1
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bbb Number Tat Htas has Dote D	oject Name	Honeywell - Alltift				Sampling Event	Alltiff GW Annua	Monitoring / Se	ep. 2012
Inel recort Trail Heigh Charlow The class of the	Job Number	2-11				Date	, Septem	War 3ther	1012
la Contantes <u>LAREA CLEATORES, SCANA</u> <u>107</u> rela Sample Number <u>NN-2</u> some cons <u>Des Fine</u> <u>Other Scane</u> <u>Sample ID</u> <u>Deplectes Sample ID</u> <u>Deplectes Sample ID</u> <u>Spill Samp</u>	Field Team	Yat Higs I	1S	2	2201	Page	/ of		
MW-2 Sort Time DB:D4 Fish Time Initial Daptin to Water Construction Nearce Point Precision Ower arge Method: Somple ID Duplicate Sample ID Signitize Signitize Signitize arge Method: MMA-2 Signitize Signitize Signitize Signitize Signitize arge Method: MMA-2 MMA-2 Signitize Signitize Signitize Signitize Signitize arge Method: MMA-2 MMA-2 MMA-2 Precision Signitize	d Conditions	WARM CL	earours,	SUMMY.	104	A			
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rige Method: Sample ID Sample ID Duplicate Sa	itial Depth to V	Water 120)	1	Measure Point PVC	Steel Casing	Other:	1000	
Dupt Furme Other Schult Purchash Complex Sample ID Spill Sample Spill Sam	urge Method:		12.1	Sample I	D MI	12-09131	Zample Time_0	8:25	
Imple Method: MPARA Stoll Schull Spill Sample ID Spill Time epth to Botton (from meas. pt): ////////////////////////////////////	eopump [Ded. Pump Other	Simp	Duplicate	e Sample ID		Dupl. Time		
Apple Dept Min. Purge Volume (gold//l) Purge Rate (gpm)/(mLpm) Time Vol Purged pH Conductivity open construe Time Vol Purged pH Conductivity open construe Temp En row DIW 0BE 19 15 TATL Cr2D 13:1 41:27 20:101 64:4 12:12 0BE 19 15 TATL Cr2D 13:1 41:27 20:101 64:4 12:12 0BE 19 15 TATL Cr2D 13:1 41:27 20:101 64:4 12:12 0AAAP Dept 14 12 at 17:14:051 at 12:12 12:12 0AAP 20:001 12:12 13:1 41:27 20:101 64:4 12:12 0AAP 20:001 12:00 13:1 41:27 20:001 12:12 0AAAP 20:001 12:00 12:00 12:00 12:00 12:00 0AAP 20:001 12:00 12:00 12:00	mple Method:	parastolic	permy	Split Sam	ple ID		Split, Time		
inter Quality Parameter Measument Technique: Control India and Con	epth to Botton	(from meas. pt):	17.3 Min	. Purge Volume (gal)/(L)	Purge Rate (g	ipm)/(mLpm)		
Time Vol. Purged galary iter pH Conductivity mismon (+/.0%) Turbidity NU Diss. Oxygen (+/.10%) Temp. (+/.3%) Div Oright (+/.3%) Div (+/.10%) OB 19 15 7/.4/2 0/20 /3:7 4/27 20.bl 0.4 /20 SAM CE Dept 14 12 at 177.4001 at 5.5 0.4 /20 12.0 SAM CE Dept 14 12 at 177.4001 at 5.5 0.4 12.0 SAM CE Dept 14 12 at 177.4001 at 5.5 0.4 12.0 SAM CE Dept 14 12 at 177.4001 at 12.0 1	ater Quality Pa	arameter Measurn	nent Technique:	flow-thru de	in-situ	open container			
(+/-0.1) (+/-35) (+/-105,10,1101) <td< td=""><td>Time</td><td>Vol. Purged</td><td>рН</td><td>Conductivity mS/cm</td><td>Turbidity</td><td>Diss. Oxygen</td><td>Temp.</td><td>Eh / ORP</td><td>DTW</td></td<>	Time	Vol. Purged	рН	Conductivity mS/cm	Turbidity	Diss. Oxygen	Temp.	Eh / ORP	DTW
OB 19 IS THZ IZO IST HZT ZOBI IH IZO SANCIE Dept K IS at 174601 at 300000 SANCIE Dept K IS at 174601 at 300000 Image: Dept K IS at 174601 at 300000 Image: Dept K IS at 174601 at 300000 Image: Dept K IS at 174601 at 300000 120000 Image: Dept K IS at 174601 at 3000000 1200000 1200000 Image: Dept K IS Image: Dept K		0	(+/-0.1)	(+/-3%)	(+/-10% if >10NTU)	(+/-10%)	(+/-3%)	+/-10 mV	
SAMPLE COLLECTION INFORMATION Processes NMPLE NMPL	DRIG	15	747	1.70	13:1	427	2061	64	120
MARE COLLECTION INFORMATION Field Field Preservative pH Notes		~	11/10	Vier	101		, Cara	~	
	SAMP	e Dept	# 12	ait	174001	at Sor	MOM		
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Chain of Custody Record



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John Formoza	Phone is	41.8-	11.1.5	2 E.	Mait				-		-					480-15491-3542.1		480-15491-3542.1
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Address	10.000									A	nah	vsis R	leaue	sted				Job #:
Remediation & Evaluation Services, Mey-3	Due Date Reque	sted:						T	T	T	T	TT			-		10	Preservation Codes
ay: Aorristown	TAT Requested	(days):			-													A-HCL M-Havana
tate, Zip:	-																1	B-NaOH N-None
IJ, 07962																		D - Nitric Acid P - Na2O4S
Me	PO#																	E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2SOS
mait	WO#:	er Requester	d	14/	- 2													G - Amchior S - H2SO4
olect Name	12				or	P		CB										I- ice U - Aceone
oneywell - Buffalo Sites/ Event Desc: Honeywell Alitift GW Mo	Project #: 48003150				- S	ort		ant		tiles							2	J-DIWater V-MCAA K-EDTA W-rb 4.5
e. ew York	SSOWW:				- 8	Les .		행	cide	vola	ie.						tain	L - EDA Z - other (specify)
ew for	1.00				Sam	SD	10	d Au	Dest	Ē	/olat						COL	Other:
amole Identification		Sample	Sample Type (C=comp	Matrix (www.er, s=solid,	d Filtered	form MSIM	B. 6020, 74	PCB - Prior	A - (MOD)	C - (MOD) S	(aow) - 8						Number of	
	Sample Date	Time	G=grab	BT=TIssue, A-Air	1	Perl	8010	808	8081	8270	8260						otal	
Sumo Como 001010		\geq	Preserv	vation Code:	X	X	D	N	N	N	A	12 5	1319	1000	CR STAR	0.815	N	Special Instructions/Note:
Sump Comp-0a1212	9/12/11	1207	C	Water	N	N	1	2	2	2			-		-	-	C	
Sump 1-091212	9/12/11	1201	G	Water	N	N					3	-	+	-	++			
Sump 2-091212	9/12/11	11:39	G	Water	N	N			-	-	2		-			-	3	
Sump 3-091212	9/12/11	1119	G	Water	N	N		-	-	-	2	-	-	-	++		3	
Sump 4-091212	9/12/11	09:59	G	Water	N	-	-	-	-	-	3	-		-	++	-	3	
FDUP-Sump 4-091212	9/12/11	10:37	G	Water		N	-	-	-	2	3	-	-	-	++	-	10	
Sump 4-091212_MS	9/12/11	Dill	G	Water	1	M	-	2	2	2	3	-		-			10	
Sump 4-091212_SD	9/12/11	12:22		Water	1	1	1	2	2	2	3	-		_			10	
TRIP BLANK	9/12/11	0120	0	vvalor	N	Y	1	2	2	2	3	-					10	
-WW 2-031212-	Gugius	0,45	G	Water	N	N	_	_	-		1						1	
	-WIEFT		0	Water	-14	H											0	
sible Hazard Identification		-		Water														
Non Hazard Clammable Cisin Jenses	-	-				Sam	ple L	Dispo	sal	Ale	e mi	ay be a	120221	ed if s	amplos	200 000		d to many the set
verable Requested: I, II, III, IV, Other (specify)	B Unknow	wn Ra	diological			-	Ret	um 7	o CI	lient			lisposi	ByL	ab		rohiu	Forger trian 1 month)
V Kit Relinquished hus					S	spec	cial In	struc	tions	/QC	Req	ulreme	nts:				Craw	Months
history on resinguished by:		Date:			Time	e:	-	-	-		-		In	athod a	Chinese			
aluel Aerino P	atertime (12/2	1.17 15	05	Company	-	R	leceive	6	1	-	-		-	iounice o	Incoment	1	_	
quished by:	ate/Time:	PILIJ	00	Company	-			U	4	G					g	12	17	- ITOT COMPANY
guished by				Company		R	eceive	d by:	-	1					Date/Tm	0.		Company
D	ate/Time:		0	Company		R	eceive	d by:		V	-		_		Date			
															L'ABIRA I IM	U		Company

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-		and the second second				٠	States Street

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Project Name Job Number	Honeywell - Alltiff				Sampling Event	Alltift GW Annuc	Monitoring / Ser	0.2012 012
Field Team Field Conditions	SUMY S	ties clean	, SIGHTR	SREER 750	Page	of		
Well/Sample	Number	Scene	Compost	e Start Measure Point: PVC	Time /2:05	Finish Time	12:1	4
Purge Method: Geopump Sample Method: Depth to Bottor	Ded. Pump Oth SUGMEN n (from meas. pt):	subc	Sample I Duplicate Split Sam n. Purge Volume (r	D e Sample ID ple ID	Purge Rate (Dupl. Time Split. Time	12:07	
Water Quality P	arameter Measu	ment Technique	e: tiow-thru de	e in-situ	open container			
Time	Vol. Purged gallons / liters	рН (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
	Charbe	ruy -	6 Amba	ers				
		1	1-HNC	5 Plast	C 250 M	41		
				-				
								_
SAMPLE COLLECT		Type of Bottle	Volume	Field Filtered (v/n) Pres	evative of	Not	200	
		type or bonne	Volome					
-								
Remarks:	-							

0	CH2MHILL

oject Name H	ioneywell - Alltift				Sampling Event	Alltift GW Annua	al Monitoring (5	p. 2012
Job Number Field Team	Dat High	ins mil	le stat		Date	platen	voer 1214	2012
Id Conditions	MEACSK	es Sunn	Nach	v 750F	1030	_ ~ _	-	
Vell/Sample N	lumber	SUMP	1 1	Start	Time 11:44	2 Finish Time		
itial Depth to W	vater 7,3	0	N	leasure Point: PVC	Steel Casing)	Other:	-	
rge Method:			Sample ID	5U	mp1-0912		17:01	
eopump D	ed. Pump Oth	er Scump	Duplicate	Sample ID		Dupl. Time	111	
ample Method:	Submerss	ible	Split Samp	ble ID		Split. Time		
epth to Botton	(from meas, pt);	17.2 M	n. Purge Volume (g	al}/(L)	Purge Rate (gpm)/(mLpm)		
(ater Quality Pa	arameter Measur	ment Technique	: flow-thru cél) in-silu	open container		1	
Time	Vol. Purged gattons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. °C	Eh / ORP	DTW
		(+/-0.1)	(+/-3%)	(+/-10% H>10N(U)	(+/-10%)	(+/-3%)	+/-10 mV	
11:56		START	Pursin	swell		,		12.0
11:00	6	714	107	126	61	10.20	-05	
11:57	12	1/1	1100	10.0	,01	11150	a	
12:01	colle	T Serry	le sur	p1-09	1212			
<u></u>			1.12		10 A.			
						13-00-0		
							4	
							-	1
						-		
							-	
				/				
			- 11					
MPLE COLLECTIO				Field				
Parame	eter	Type of Bottle	Volume	Filtered (y/n) Pres	ervative pH	No	tes	
		loa		N H	CL			
		-						-
_								
	planie	1.000	Valley	in cal	1511	va ada	Desi	
Remarks:	ALC 13	Tingla	renow	In Color	With 1	10 carr	s prese	M
-		t n	colla-	1111	A 4			

0	CH2MHILL
1000	

Project Name	Honeywell - Alltift				Sampling Event	Alitift GW Annue	Monitoring / Se	p. 2012
Job Number	Out this	Mula			Date	Septem	Der/2mm 2	SD
ield Conditions	Sund Migsino	MA SNIP	SLOUT R.	2070 7.8F	Page		-	
Well/Sample		Sump	2	Start	Time 11:25	Finish Time		
Initial Depth to	Water (0.5		A	Aeasure Point: PVC	Sleel Cosino	Othert	1.00	
Purge Method:		0 . 0	Sample I	o Su	mp2 0912	Comple time	1.39	
Geopump	Ded. Pump Other	JUMP	Duplicate	Sample ID		Dupl. Time		
sample Method:	UNUMERS:	the pur	spin sam	pie ib		spiir. nme		
Depth to Bottor	n (from meas. pt):	18,60 M	in. Purge Volume (s	al)/(L)	Purge Rate (g	gpm)/(mLpm)		
Water Quality P	arameter Measurm	ent Technique	a: Clow-Utu ce	in-silu	open container			-
Time	Vol. Purged	рН	Conductivity	Turbidity NTU	Diss. Oxygen mo/L	Temp.	Eh / ORP	DTW #
		(+/-0.1)	(+/-3%)	(+/-10% if >10NTU)	(+/-10%)	(+/-3%)	+/-10 mV	
11:35	ST	ANT DO	25108 149	AIA	(1,1,4,4)	1.1.0.07		12.ST.
1.000	0.1	F	and in			19.53		
11:37	5	6,8	4.54	243	, OB	19.46	-110	
1100	Dellard	6	10 C.M.	17 00/	717			
11.59	Conea	Derent	e any	6071	16			
				-				
		_						
							-	
SAMPLE COLLECT Paran	ION INFORMATION	pe of Bottle	Volume	Field Filtered (v/n) Pres	servative pH	No	tes	
		IDA-		NA	CL			
1								
						-		
			1	N				
Remarks: Ú	adder 15.	timed	vellow in	Color No	o disting	Tador	Present	
n.10.	· · Dom	V - 0	20 0112	MIL II CA	and a		1	
Longh hu	ent year	wee p	a CHILI	MAN S	maunas)		

CH2MHILL

Project Name H	Honeywell - Alltift			S	ampling Event	Alltift GW Annua	Monitoring / Se	ap. 2012
Job Number	an				Date	Septemb	2011212	510
Field Team	Han Higgu	15	10.000	01	Page	of		
Held Conditions	any ale	Arsiges V	orthan 13	op	11.			
Well/Sample M	Number	Sump - C	73 N	Start T	time 11:08	Finish Time		
			C	5.	102 0g1	0.17.		
Purge Method:	of Rime Other	Sun	Sample IL	Sample ID	my gorn	Dupl Time		_
Sample Method:	Supporsi	de Dank	C Split Same	ple ID		Split. Ilme		
	Userraj in	100						
Depth to Botton	(from meas. pt):	11,5 MI	I. Purge volume (g		Purge kate (3bw)/(mrbm)		
Time	Vol. Purged	pH	Conductivity	Turbidity	Diss Oxygen	Temp	Eh / ORP	DTW
	gallons / iters		mS/cm	NTU	mg/L	C	mv	ft
		(*/-0.1)	(+/-3%)	(+/-10% It >10N1U)	(+/-10%)	(+/-3%)	+/-10 mV	
11.11		START	Pursin	s well			-	12.0
11:17	· 5 gal	6.45	3.04	20,2	115	19.80	-24	
11.10	20.01	0	-7 001	212				
11.17	SAMPI	e sum	03-041	CIC				
-								
								-
1								
1								1
SAMPLE COLLECTI	ON INFORMATION			Field				
Param	eter T	vpe of Bottle	Volume	Filteredy (y/n) Prese	ervative pH	Not	es	
		VOR		10 /3	4			
-								
Remarks:	later 15 C	lever 10	HH NO VI	sible orth	- Preso	T		
May inna	2 decon	10,0 025	CH2M	Hill Stan	darde	V/ I		
Juppin	Cassard	www.	Cur off	and Charles	- 05			
C	H	2	Π	н	1	LL		
---	---	---	-------	---	---	----	--	
-		_	 -					

Project Name	Honeywell - Allfift				Sampling Even	f Alltift GW Annu	al Monitoring / S	ep. 2012
Job Number	480	03159			Date	· septen	160r 12+4	2012
Field Team	rat Higg	ns Mill	e staut		Pag	e of	-	
eld Conditions	CLEARSKIE	'S NICE	DAY 757	- SLISHETS	ICCR		-	_
Well/Sample	Number	Sump	- 04	S	lart Time 09:38	Finish Tim	e	
Initial Depth to	water 0,2	0	N	Aeasure Point:	PVC Steel Casing	Other:		
Purge Method:			Sample II	D 5	un004-04	7/Zn/plaime_		
Geopump	Ded, Pump Othe	Sump	Duplicate	e Sample ID	,	Dupl. Time		
Sample Method:	Monsoon 7	DWMP	Split Sam	ple ID		Split. Time		
Depth to Bottor	(from meas. pt):	17.8	lin. Purge Volume (g	gal)/(L)	Purge Rate	(gpm)/(mLpm)		
Water Quality P	arameter Measur	ment Techniqu	e: tiow-thru cel	D in-situ	open container			
Time	Vol. Purged	рH	Conductivity	Turbidity	Diss. Oxygen	Temp.	Eh / ORP	DTW
	gallons / liters	14/011	(+ (397)	Ver 107 I STONT	11 (+1.1081)	14/ 201	t (10 m)	11
09.40		ANT 6	(+1-3,0)		(+)-10%)	(+7-376)	+/=IUII)v	-
19.54	15	6.28	2. Ol	0.0	1.67	18.59	-17	17.5
09:56	COMP	DSHE	,25 Of	CHOF 6	al.	1000		
09:59	SAMPLE	SUM	P04		1	1		
10/11	ans c	0.00	8.0.0-1	hel	-			-
IS II	111-2 31	MAR	Sump-c	1				
10:23	MSD SP	mple	Sump-ol	1				
10:37	FDURS	Ande	Junp-0	/				
10:45	TRIP BI	ANK						
		-			-	-		
						-		
						-		
			1			-		
SAMPLE COLLECT	ION INFORMATION	Duna of Pottla	ivel des	Field	Brance and the set			
Valat	iles	VAA	Voiume	N	HEAP DH	N	ales	1
PCA	3.	AMBER	11ter	N	nep.			1
peri	sides	Amber	11ther	N				
Semi Vo	laties	AMBER	1 liter	N	110			
60100, 602	9 19704	PRISTIC	with	/	1103			
								1
Republic	15 clear,	no palas	-s present	[Jaun	OMENT Del	onwate	r per	
nAA.	A ILA in	ANTOANO	0				A.	-
CH UM	HI J	work	2					



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: 480-18659-1

Client Project/Site: Honeywell - Buffalo (Alltift) - 30130 Revision: 1

For:

Honeywell International Inc 101 Columbia Road Morristown, New Jersey 07962

Attn: Mr. John Mojka

Authorized for release by: 10/17/2012 6:15:55 PM

John Schove Project Manager I john.schove@testamericainc.com

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

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

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



Visit us at: www.testamericainc.com

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Client: Honeywell International Inc Project/Site: Honeywell - Buffalo (Alltift) - 30130

3

Qualifiers

quanners		
GC/MS VOA		Λ
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.	5
GC/MS Semi	VOA	0
Qualifier	Qualifier Description	6
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
*	LCS or LCSD exceeds the control limits	
General Chen	nistry	
Qualifier	Qualifier Description	8
HF	Field parameter with a holding time of 15 minutes	
		9
Glossary		1
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	11
%R	Percent Recovery	
CNF	Contains no Free Liquid	
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
EDL	Estimated Detection Limit	
EPA	United States Environmental Protection Agency	
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	
ND	Not detected at the reporting limit (or MDL or EDL if shown)	
PQL	Practical Quantitation Limit	
QC	Quality Control	
RL	Reporting Limit	
RPD	Relative Percent Difference, a measure of the relative difference between two points	

TEF Toxicity Equivalent Factor (Dioxin)

TEQ Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-18659-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-18659-1

Revision

This report has been revised to include the Priority Pollutant list of compounds for methods 624 and 625.

Comments

No additional comments.

Receipt

The samples were received on 4/16/2012 3:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.1° C.

GC/MS VOA

Method(s) 624: The following sample was composited by the laboratory on 4/18/12 as requested on the chain-of-custody: COMP 041612 (480-18659-5).

Method(s) 624: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: COMP 041612 (480-18659-5). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

GC/MS Semi VOA

Method(s) 625: The continuing calibration verification (CCV) for Benzidine associated with batch 61211 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 625: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for batch 60131 exceeded control limits for the following analytes: Diethyl phthalate and Di-n-butyl phthalate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 625: The following sample was diluted due to the nature of the sample matrix: COMP 041612 (480-18659-5). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

General Chemistry

Method(s) SM 2540D: The results reported for the following sample do not concur with results previously reported for this site: COMP 041612 (480-18659-5). Reanalysis was performed, and the result confirmed.

Method(s) SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample(s) has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: COMP 041612 (480-18659-5)

No other analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Detection Summary

Client: Honeywell International Inc Project/Site: Honeywell - Buffalo (Alltift) - 30130

TestAmerica Job ID: 480-18659-1

Lab Sample ID: 480-18659-5

Lab Sample ID: 480-18659-6

Client Sample ID: COMP 041612

Analyto	Popult	Qualifier	ы	мпі	Unit	Dil Eac	D Mothod	Bron Tuno
Analyte	Result	Quaimer	NL.	WIDL	Unit	Dirac	D Wethou	Fieb lybe
Chlorobenzene	48	J	50	4.8	ug/L	10	624	Total/NA
4-Chloroaniline	7.7	J	25	3.5	ug/L	5	625	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D Method	Prep Type
Total Suspended Solids	61.6		4.0	4.0	mg/L	1	SM 2540D	Total/NA
pН	7.42	HF	0.100	0.100	SU	1	SM 4500 H+ B	Total/NA

Client Sample ID: 041612-TB

No Detections

Client Sample ID: COMP 041612

Date Collected: 04/16/12 15:00 Date Received: 04/16/12 15:45

Method: 624 - Volatile Organic Analyte	c Compounds (GC Result	C/MS) Qualifier	RL	MDL	Unit	D	Prepared	Analvzed	Dil Fac
1.1.1-Trichloroethane	ND		50	3.9	ua/L			04/18/12 13:11	10
1,1,2,2-Tetrachloroethane	ND		50	2.6	ug/L			04/18/12 13:11	10
1,1,2-Trichloroethane	ND		50	4.8	ug/L			04/18/12 13:11	10
1,1-Dichloroethane	ND		50	5.9	ug/L			04/18/12 13:11	10
1,1-Dichloroethene	ND		50	8.5	ug/L			04/18/12 13:11	10
1,2-Dichlorobenzene	ND		50	4.4	ug/L			04/18/12 13:11	10
1,2-Dichloroethane	ND		50	6.0	ug/L			04/18/12 13:11	10
1,2-Dichloroethene, Total	ND		100	32	ug/L			04/18/12 13:11	10
1,2-Dichloropropane	ND		50	6.1	ug/L			04/18/12 13:11	10
1,3-Dichlorobenzene	ND		50	5.4	ug/L			04/18/12 13:11	10
1,4-Dichlorobenzene	ND		50	5.1	ug/L			04/18/12 13:11	10
2-Chloroethyl vinyl ether	ND		250	19	ug/L			04/18/12 13:11	10
Acrolein	ND		1000	170	ug/L			04/18/12 13:11	10
Acrylonitrile	ND		250	19	ug/L			04/18/12 13:11	10
Benzene	ND		50	6.0	ug/L			04/18/12 13:11	10
Bromoform	ND		50	4.7	ug/L			04/18/12 13:11	10
Bromomethane	ND		50	12	ug/L			04/18/12 13:11	10
Carbon tetrachloride	ND		50	5.1	ug/L			04/18/12 13:11	10
Chlorobenzene	48	J	50	4.8	ug/L			04/18/12 13:11	10
Chlorodibromomethane	ND		50	4.1	ug/L			04/18/12 13:11	10
Chloroethane	ND		50	8.7	ug/L			04/18/12 13:11	10
Chloroform	ND		50	5.4	ug/L			04/18/12 13:11	10
Chloromethane	ND		50	6.4	ug/L			04/18/12 13:11	10
cis-1,3-Dichloropropene	ND		50	3.3	ug/L			04/18/12 13:11	10
Dichlorobromomethane	ND		50	5.4	ug/L			04/18/12 13:11	10
Ethylbenzene	ND		50	4.6	ug/L			04/18/12 13:11	10
Methylene Chloride	ND		50	8.1	ug/L			04/18/12 13:11	10
Tetrachloroethene	ND		50	3.4	ug/L			04/18/12 13:11	10
Toluene	ND		50	4.5	ug/L			04/18/12 13:11	10
trans-1,2-Dichloroethene	ND		50	5.9	ug/L			04/18/12 13:11	10
trans-1,3-Dichloropropene	ND		50	4.4	ug/L			04/18/12 13:11	10
Trichloroethene	ND		50	6.0	ug/L			04/18/12 13:11	10
Vinyl chloride	ND		50	7.5	ug/L			04/18/12 13:11	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		72 - 130					04/18/12 13:11	10
4-Bromofluorobenzene (Surr)	97		69 - 121					04/18/12 13:11	10
Toluene-d8 (Surr)	97		70 - 123					04/18/12 13:11	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		50	2.5	ug/L		04/18/12 06:58	04/24/12 21:28	5
1,2-Dichlorobenzene	ND		50	0.73	ug/L		04/18/12 06:58	04/24/12 21:28	5
1,2-Diphenylhydrazine	ND		50	0.32	ug/L		04/18/12 06:58	04/24/12 21:28	5
1,3-Dichlorobenzene	ND		50	0.34	ug/L		04/18/12 06:58	04/24/12 21:28	5
1,4-Dichlorobenzene	ND		50	0.45	ug/L		04/18/12 06:58	04/24/12 21:28	5
2,4,6-Trichlorophenol	ND		25	1.2	ug/L		04/18/12 06:58	04/24/12 21:28	5
2,4-Dichlorophenol	ND		25	1.5	ug/L		04/18/12 06:58	04/24/12 21:28	5
2,4-Dimethylphenol	ND		25	0.67	ug/L		04/18/12 06:58	04/24/12 21:28	5
2,4-Dinitrophenol	ND		50	4.2	ug/L		04/18/12 06:58	04/24/12 21:28	5
2,4-Dinitrotoluene	ND		25	1.3	ug/L		04/18/12 06:58	04/24/12 21:28	5



Lab Sample ID: 480-18659-5

RL

25

25

25

MDL Unit

3.6 ug/L

0.34 ug/L

0.78 ug/L

D

Prepared

04/18/12 06:58

04/18/12 06:58

04/18/12 06:58

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

Result Qualifier

ND

ND

ND

Client Sample ID: COMP 041612 Date Collected: 04/16/12 15:00 Date Received: 04/16/12 15:45

Analyte

2,6-Dinitrotoluene

2-Chlorophenol

2-Chloronaphthalene

TestAmerica Job ID: 480-18659-1

Lab Sample ID: 480-18659-5 Matrix: Water

Analyzed

04/24/12 21:28

04/24/12 21:28

04/24/12 21:28

6

Dil Fac

5

5

5

2-Nitrophenol	ND		25	0.72	ug/L	04/18/12 06:58	04/24/12 21:28	5
3,3'-Dichlorobenzidine	ND		25	4.1	ug/L	04/18/12 06:58	04/24/12 21:28	5
4,6-Dinitro-2-methylphenol	ND		50	3.8	ug/L	04/18/12 06:58	04/24/12 21:28	5
4-Bromophenyl phenyl ether	ND		25	0.57	ug/L	04/18/12 06:58	04/24/12 21:28	5
4-Chloro-3-methylphenol	ND		25	2.8	ug/L	04/18/12 06:58	04/24/12 21:28	5
4-Chloroaniline	7.7	J	25	3.5	ug/L	04/18/12 06:58	04/24/12 21:28	5
4-Chlorophenyl phenyl ether	ND		25	1.0	ug/L	04/18/12 06:58	04/24/12 21:28	5
4-Nitrophenol	ND		50	6.7	ug/L	04/18/12 06:58	04/24/12 21:28	5
Acenaphthene	ND		25	0.30	ug/L	04/18/12 06:58	04/24/12 21:28	5
Acenaphthylene	ND		25	0.17	ug/L	04/18/12 06:58	04/24/12 21:28	5
Anthracene	ND		25	0.26	ug/L	04/18/12 06:58	04/24/12 21:28	5
Benzidine	ND		400	13	ug/L	04/18/12 06:58	04/24/12 21:28	5
Benzo[a]anthracene	ND		25	0.22	ug/L	04/18/12 06:58	04/24/12 21:28	5
Benzo[a]pyrene	ND		25	0.29	ug/L	04/18/12 06:58	04/24/12 21:28	5
Benzo[b]fluoranthene	ND		25	0.31	ug/L	04/18/12 06:58	04/24/12 21:28	5
Benzo[g,h,i]perylene	ND		25	0.50	ug/L	04/18/12 06:58	04/24/12 21:28	5
Benzo[k]fluoranthene	ND		25	0.21	ug/L	04/18/12 06:58	04/24/12 21:28	5
bis (2-chloroisopropyl) ether	ND		25	0.43	ug/L	04/18/12 06:58	04/24/12 21:28	5
Bis(2-chloroethoxy)methane	ND		25	0.42	ug/L	04/18/12 06:58	04/24/12 21:28	5
Bis(2-chloroethyl)ether	ND		25	5.5	ug/L	04/18/12 06:58	04/24/12 21:28	5
Bis(2-ethylhexyl) phthalate	ND		50	4.3	ug/L	04/18/12 06:58	04/24/12 21:28	5
Butyl benzyl phthalate	ND		25	6.5	ug/L	04/18/12 06:58	04/24/12 21:28	5
Chrysene	ND		25	0.18	ug/L	04/18/12 06:58	04/24/12 21:28	5
Dibenz(a,h)anthracene	ND		25	0.28	ug/L	04/18/12 06:58	04/24/12 21:28	5
Diethyl phthalate	ND	*	25	0.87	ug/L	04/18/12 06:58	04/24/12 21:28	5
Dimethyl phthalate	ND		25	0.83	ug/L	04/18/12 06:58	04/24/12 21:28	5
Di-n-butyl phthalate	ND	*	25	4.7	ug/L	04/18/12 06:58	04/24/12 21:28	5
Di-n-octyl phthalate	ND		25	22	ug/L	04/18/12 06:58	04/24/12 21:28	5
Fluoranthene	ND		25	0.55	ug/L	04/18/12 06:58	04/24/12 21:28	5
Fluorene	ND		25	0.21	ug/L	04/18/12 06:58	04/24/12 21:28	5
Hexachlorobenzene	ND		25	1.4	ug/L	04/18/12 06:58	04/24/12 21:28	5
Hexachlorobutadiene	ND		25	3.1	ug/L	04/18/12 06:58	04/24/12 21:28	5
Hexachlorocyclopentadiene	ND		25	2.3	ug/L	04/18/12 06:58	04/24/12 21:28	5
Hexachloroethane	ND		25	2.4	ug/L	04/18/12 06:58	04/24/12 21:28	5
Indeno[1,2,3-cd]pyrene	ND		25	0.93	ug/L	04/18/12 06:58	04/24/12 21:28	5
Isophorone	ND		25	0.79	ug/L	04/18/12 06:58	04/24/12 21:28	5
Naphthalene	ND		25	0.40	ug/L	04/18/12 06:58	04/24/12 21:28	5
Nitrobenzene	ND		25	0.55	ug/L	04/18/12 06:58	04/24/12 21:28	5
N-Nitrosodimethylamine	ND		50	4.8	ug/L	04/18/12 06:58	04/24/12 21:28	5
N-Nitrosodi-n-propylamine	ND		25	1.2	ug/L	04/18/12 06:58	04/24/12 21:28	5
N-Nitrosodiphenylamine	ND		25	2.0	ug/L	04/18/12 06:58	04/24/12 21:28	5
Pentachlorophenol	ND		50	2.1	ug/L	04/18/12 06:58	04/24/12 21:28	5
Phenanthrene	ND		25	0.36	ug/L	04/18/12 06:58	04/24/12 21:28	5
Phenol	ND		25	0.61	ug/L	04/18/12 06:58	04/24/12 21:28	5
Pyrene	ND		25	0.20	ug/L	04/18/12 06:58	04/24/12 21:28	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	86		52 - 151			04/18/12 06:58	04/24/12 21:28	5

Client Sample ID: COMP 041612 Date Collected: 04/16/12 15:00 Date Received: 04/16/12 15:45

TestAmerica Job ID: 480-18659-1

Lab Sample ID: 480-18659-5 Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	84		44 - 120				04/18/12 06:58	04/24/12 21:28	5
2-Fluorophenol	44		17 - 120				04/18/12 06:58	04/24/12 21:28	5
Nitrobenzene-d5	85		42 - 120				04/18/12 06:58	04/24/12 21:28	5
Phenol-d5	27		10 - 120				04/18/12 06:58	04/24/12 21:28	5
p-Terphenyl-d14	56		22 _ 125				04/18/12 06:58	04/24/12 21:28	5
General Chemistry		o 117	-			_			
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	61.6		4.0	4.0	mg/L			04/17/12 22:50	1
рН	7.42	HF	0.100	0.100	SU			04/16/12 21:50	1

Client Sample ID: 041612-TB

Date Collected: 04/16/12 15:00 Date Received: 04/16/12 15:45

Method: 624 - Volatile Organic	c Compounds (GC	C/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			04/18/12 13:34	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			04/18/12 13:34	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			04/18/12 13:34	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			04/18/12 13:34	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			04/18/12 13:34	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			04/18/12 13:34	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			04/18/12 13:34	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			04/18/12 13:34	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			04/18/12 13:34	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			04/18/12 13:34	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			04/18/12 13:34	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			04/18/12 13:34	1
Acrolein	ND		100	17	ug/L			04/18/12 13:34	1
Acrylonitrile	ND		25	1.9	ug/L			04/18/12 13:34	1
Benzene	ND		5.0	0.60	ug/L			04/18/12 13:34	1
Bromoform	ND		5.0	0.47	ug/L			04/18/12 13:34	1
Bromomethane	ND		5.0	1.2	ug/L			04/18/12 13:34	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			04/18/12 13:34	1
Chlorobenzene	ND		5.0	0.48	ug/L			04/18/12 13:34	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			04/18/12 13:34	1
Chloroethane	ND		5.0	0.87	ug/L			04/18/12 13:34	1
Chloroform	ND		5.0	0.54	ug/L			04/18/12 13:34	1
Chloromethane	ND		5.0	0.64	ug/L			04/18/12 13:34	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			04/18/12 13:34	1
Dichlorobromomethane	ND		5.0	0.54	ug/L			04/18/12 13:34	1
Ethylbenzene	ND		5.0	0.46	ug/L			04/18/12 13:34	1
Methylene Chloride	ND		5.0	0.81	ug/L			04/18/12 13:34	1
Tetrachloroethene	ND		5.0	0.34	ug/L			04/18/12 13:34	1
Toluene	ND		5.0	0.45	ug/L			04/18/12 13:34	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			04/18/12 13:34	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			04/18/12 13:34	1
Trichloroethene	ND		5.0	0.60	ug/L			04/18/12 13:34	1
Vinyl chloride	ND		5.0	0.75	ug/L			04/18/12 13:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		72 - 130					04/18/12 13:34	1
4-Bromofluorobenzene (Surr)	98		69 - 121					04/18/12 13:34	1
Toluene-d8 (Surr)	98		70 - 123					04/18/12 13:34	1

Lab Sample ID: 480-18659-6

Matrix: Water

5 6 7

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

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Prep	Type:	Tota	I/NA
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				Percent Surroga	te Recovery (
		12DCE	BFB	TOL	
Lab Sample ID	Client Sample ID	(72-130)	(69-121)	(70-123)	
480-18659-5	COMP 041612	96	97	97	
480-18659-6	041612-TB	100	98	98	
LCS 480-60196/4	Lab Control Sample	96	100	98	
MB 480-60196/5	Method Blank	95	98	99	
Surrogate Legend					
12DCE = 1,2-Dichloroet	hane-d4 (Surr)				
	(0,)				

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

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

Matrix: Water								Prep Type: Total/NA
		Percent Surrogate Recovery (Acceptance Limits)						;)
		ТВР	FBP	2FP	NBZ	PHL	TPH	
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(42-120)	(10-120)	(22-125)	
480-18659-5	COMP 041612	86	84	44	85	27	56	
LCS 480-60131/2-A	Lab Control Sample	104	96	48	94	36	95	
LCSD 480-60131/3-A	Lab Control Sample Dup	106	97	51	95	36	102	
MB 480-60131/1-A	Method Blank	93	84	40	81	29	91	

TBP = 2,4,6-Tribromophenol

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol

NBZ = Nitrobenzene-d5

PHL = Phenol-d5

TPH = p-Terphenyl-d14

Lab Sample ID: MB 480-60196/5

Client Sample ID: Method Blank

Method: 624 .	Volatile	Organic	Compounds	(GC/MS)
	volatile	Organic	Compounds	

Matrix: Water								Prep Type: 1	fotal/NA
Analysis Batch: 60196									
-	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			04/18/12 11:35	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			04/18/12 11:35	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			04/18/12 11:35	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			04/18/12 11:35	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			04/18/12 11:35	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			04/18/12 11:35	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			04/18/12 11:35	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			04/18/12 11:35	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			04/18/12 11:35	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			04/18/12 11:35	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			04/18/12 11:35	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			04/18/12 11:35	1
Acrolein	ND		100	17	ug/L			04/18/12 11:35	1
Acrylonitrile	ND		25	1.9	ug/L			04/18/12 11:35	1
Benzene	ND		5.0	0.60	ug/L			04/18/12 11:35	1
Bromoform	ND		5.0	0.47	ug/L			04/18/12 11:35	1
Bromomethane	ND		5.0	1.2	ug/L			04/18/12 11:35	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			04/18/12 11:35	1
Chlorobenzene	ND		5.0	0.48	ug/L			04/18/12 11:35	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			04/18/12 11:35	1
Chloroethane	ND		5.0	0.87	ug/L			04/18/12 11:35	1
Chloroform	ND		5.0	0.54	ug/L			04/18/12 11:35	1
Chloromethane	ND		5.0	0.64	ug/L			04/18/12 11:35	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			04/18/12 11:35	1
Dichlorobromomethane	ND		5.0	0.54	ug/L			04/18/12 11:35	1
Ethylbenzene	ND		5.0	0.46	ug/L			04/18/12 11:35	1
Methylene Chloride	ND		5.0	0.81	ug/L			04/18/12 11:35	1
Tetrachloroethene	ND		5.0	0.34	ug/L			04/18/12 11:35	1
Toluene	ND		5.0	0.45	ug/L			04/18/12 11:35	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			04/18/12 11:35	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			04/18/12 11:35	1
Trichloroethene	ND		5.0	0.60	ug/L			04/18/12 11:35	1
Vinyl chloride	ND		5.0	0.75	ug/L			04/18/12 11:35	1
	MB	МВ							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		72 - 130
4-Bromofluorobenzene (Surr)	98		69 - 121
Toluene-d8 (Surr)	99		70 - 123

04/18/12 11:35 1 04/18/12 11:35 1 Client Sample ID: Lab Control Sample

04/18/12 11:35

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Lab Sample ID: LCS 480-60196/4 Matrix: Water Analysis Batch: 60196

-	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,1,1-Trichloroethane	20.0	20.0		ug/L		100	75 - 125	
1,1,2,2-Tetrachloroethane	20.0	20.8		ug/L		104	61 _ 140	
1,1,2-Trichloroethane	20.0	20.0		ug/L		100	71 - 129	
1,1-Dichloroethane	20.0	18.8		ug/L		94	73 - 128	
1,1-Dichloroethene	20.0	16.0		ug/L		80	51 - 150	

Prep Type: Total/NA

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

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

Lab Sample ID: LCS 480-60196/4

Matri	x: v	later	
Analy	vsis	Batch:	60196

Analysis Datch. 00190										5
			Spike	LCS	LCS				%Rec.	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,2-Dichlorobenzene			20.0	19.8		ug/L		99	63 - 137	<u> </u>
1,2-Dichloroethane			20.0	20.2		ug/L		101	68 - 132	
1,2-Dichloropropane			20.0	19.4		ug/L		97	34 - 166	
1,3-Dichlorobenzene			20.0	19.3		ug/L		97	73 - 127	_
1,4-Dichlorobenzene			20.0	19.4		ug/L		97	63 - 137	8
2-Chloroethyl vinyl ether			100	97.9		ug/L		98	1 - 224	
Benzene			20.0	19.5		ug/L		98	64 _ 136	9
Bromoform			20.0	19.1		ug/L		96	71 _ 129	
Bromomethane			20.0	18.4		ug/L		92	14 - 186	
Carbon tetrachloride			20.0	19.7		ug/L		99	73 _ 127	
Chlorobenzene			20.0	19.5		ug/L		98	66 - 134	
Chlorodibromomethane			20.0	20.9		ug/L		105	68 - 133	
Chloroethane			20.0	16.9		ug/L		85	38 - 162	
Chloroform			20.0	20.2		ug/L		101	68 - 133	
Chloromethane			20.0	14.8		ug/L		74	1 _ 204	4.0
cis-1,3-Dichloropropene			20.0	19.8		ug/L		99	24 - 176	13
Dichlorobromomethane			20.0	20.2		ug/L		101	66 - 135	
Ethylbenzene			20.0	19.3		ug/L		97	59 _ 141	
Methylene Chloride			20.0	19.4		ug/L		97	61 - 140	
Tetrachloroethene			20.0	18.5		ug/L		93	74 _ 127	
Toluene			20.0	19.1		ug/L		96	75 - 126	
trans-1,2-Dichloroethene			20.0	19.3		ug/L		97	72 _ 133	
trans-1,3-Dichloropropene			20.0	18.9		ug/L		95	50 _ 150	
Trichloroethene			20.0	20.1		ug/L		101	67 _ 134	
Vinyl chloride			20.0	15.3		ug/L		77	4 - 196	
	LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits							

200	200	
%Recovery	Qualifier	Limits
96		72 - 130
100		69 - 121
98		70 - 123
	- %Recovery 96 100 98	- <u>%Recovery</u> <u>Qualifier</u> 96 100 98

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

Lab Sample ID: MB 480-60131/1-A	
Matrix: Water	
Analysis Batch: 61211	

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.49	ug/L		04/18/12 06:58	04/24/12 19:27	1
1,2-Dichlorobenzene	ND		10	0.15	ug/L		04/18/12 06:58	04/24/12 19:27	1
1,2-Diphenylhydrazine	ND		10	0.063	ug/L		04/18/12 06:58	04/24/12 19:27	1
1,3-Dichlorobenzene	ND		10	0.069	ug/L		04/18/12 06:58	04/24/12 19:27	1
1,4-Dichlorobenzene	ND		10	0.090	ug/L		04/18/12 06:58	04/24/12 19:27	1
2,4,6-Trichlorophenol	ND		5.0	0.23	ug/L		04/18/12 06:58	04/24/12 19:27	1
2,4-Dichlorophenol	ND		5.0	0.30	ug/L		04/18/12 06:58	04/24/12 19:27	1
2,4-Dimethylphenol	ND		5.0	0.13	ug/L		04/18/12 06:58	04/24/12 19:27	1
2,4-Dinitrophenol	ND		10	0.84	ug/L		04/18/12 06:58	04/24/12 19:27	1
2,4-Dinitrotoluene	ND		5.0	0.26	ug/L		04/18/12 06:58	04/24/12 19:27	1
2.6-Dinitrotoluene	ND		5.0	0.72	ua/L		04/18/12 06:58	04/24/12 19:27	1

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 60131 Lab Sample ID: MB 480-60131/1-A

Matrix: Water

Analyte

Pyrene

Analysis Batch: 61211

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

MB MB

ND

Result Qualifier

RL

MDL Unit

D

Prepared

Client Sample ID: Method Blank

Analyzed

Prep Type: Total/NA

Prep Batch: 60131

Dil Fac

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2-Chloronaphthalene	ND	5.0	0.068	ug/L	04/18/12 06:58	04/24/12 19:27	1
2-Chlorophenol	ND	5.0	0.16	ug/L	04/18/12 06:58	04/24/12 19:27	1
2-Nitrophenol	ND	5.0	0.14	ug/L	04/18/12 06:58	04/24/12 19:27	1
3,3'-Dichlorobenzidine	ND	5.0	0.82	ug/L	04/18/12 06:58	04/24/12 19:27	1
4,6-Dinitro-2-methylphenol	ND	10	0.76	ug/L	04/18/12 06:58	04/24/12 19:27	1
4-Bromophenyl phenyl ether	ND	5.0	0.11	ug/L	04/18/12 06:58	04/24/12 19:27	1
4-Chloro-3-methylphenol	ND	5.0	0.56	ug/L	04/18/12 06:58	04/24/12 19:27	1
4-Chloroaniline	ND	5.0	0.69	ug/L	04/18/12 06:58	04/24/12 19:27	1
4-Chlorophenyl phenyl ether	ND	5.0	0.21	ug/L	04/18/12 06:58	04/24/12 19:27	1
4-Nitrophenol	ND	10	1.3	ug/L	04/18/12 06:58	04/24/12 19:27	1
Acenaphthene	ND	5.0	0.060	ug/L	04/18/12 06:58	04/24/12 19:27	1
Acenaphthylene	ND	5.0	0.034	ug/L	04/18/12 06:58	04/24/12 19:27	1
Anthracene	ND	5.0	0.052	ug/L	04/18/12 06:58	04/24/12 19:27	1
Benzidine	ND	80	2.5	ug/L	04/18/12 06:58	04/24/12 19:27	1
Benzo[a]anthracene	ND	5.0	0.043	ug/L	04/18/12 06:58	04/24/12 19:27	1
Benzo[a]pyrene	ND	5.0	0.058	ug/L	04/18/12 06:58	04/24/12 19:27	1
Benzo[b]fluoranthene	ND	5.0	0.062	ug/L	04/18/12 06:58	04/24/12 19:27	1
Benzo[g,h,i]perylene	ND	5.0	0.10	ug/L	04/18/12 06:58	04/24/12 19:27	1
Benzo[k]fluoranthene	ND	5.0	0.042	ug/L	04/18/12 06:58	04/24/12 19:27	1
bis (2-chloroisopropyl) ether	ND	5.0	0.086	ug/L	04/18/12 06:58	04/24/12 19:27	⁻ 1
Bis(2-chloroethoxy)methane	ND	5.0	0.085	ug/L	04/18/12 06:58	04/24/12 19:27	1
Bis(2-chloroethyl)ether	ND	5.0	1.1	ug/L	04/18/12 06:58	04/24/12 19:27	1
Bis(2-ethylhexyl) phthalate	ND	10	0.86	ug/L	04/18/12 06:58	04/24/12 19:27	1
Butyl benzyl phthalate	ND	5.0	1.3	ug/L	04/18/12 06:58	04/24/12 19:27	1
Chrysene	ND	5.0	0.036	ug/L	04/18/12 06:58	04/24/12 19:27	1
Dibenz(a,h)anthracene	ND	5.0	0.055	ug/L	04/18/12 06:58	04/24/12 19:27	1
Diethyl phthalate	ND	5.0	0.17	ug/L	04/18/12 06:58	04/24/12 19:27	1
Dimethyl phthalate	ND	5.0	0.17	ug/L	04/18/12 06:58	04/24/12 19:27	1
Di-n-butyl phthalate	ND	5.0	0.94	ug/L	04/18/12 06:58	04/24/12 19:27	1
Di-n-octyl phthalate	ND	5.0	4.5	ug/L	04/18/12 06:58	04/24/12 19:27	1
Fluoranthene	ND	5.0	0.11	ug/L	04/18/12 06:58	04/24/12 19:27	1
Fluorene	ND	5.0	0.043	ug/L	04/18/12 06:58	04/24/12 19:27	1
Hexachlorobenzene	ND	5.0	0.28	ug/L	04/18/12 06:58	04/24/12 19:27	1
Hexachlorobutadiene	ND	5.0	0.62	ug/L	04/18/12 06:58	04/24/12 19:27	1
Hexachlorocyclopentadiene	ND	5.0	0.45	ug/L	04/18/12 06:58	04/24/12 19:27	1
Hexachloroethane	ND	5.0	0.48	ug/L	04/18/12 06:58	04/24/12 19:27	1
Indeno[1,2,3-cd]pyrene	ND	5.0	0.19	ug/L	04/18/12 06:58	04/24/12 19:27	1
Isophorone	ND	5.0	0.16	ug/L	04/18/12 06:58	04/24/12 19:27	1
Naphthalene	ND	5.0	0.080	ug/L	04/18/12 06:58	04/24/12 19:27	1
Nitrobenzene	ND	5.0	0.11	ug/L	04/18/12 06:58	04/24/12 19:27	1
N-Nitrosodimethylamine	ND	10	0.96	ug/L	04/18/12 06:58	04/24/12 19:27	1
N-Nitrosodi-n-propylamine	ND	5.0	0.23	ug/L	04/18/12 06:58	04/24/12 19:27	1
N-Nitrosodiphenylamine	ND	5.0	0.40	ug/L	04/18/12 06:58	04/24/12 19:27	1
Pentachlorophenol	ND	10	0.41	ug/L	04/18/12 06:58	04/24/12 19:27	1
Phenanthrene	ND	5.0	0.071	ug/L	04/18/12 06:58	04/24/12 19:27	1
Phenol	ND	5.0	0.12	ug/L	04/18/12 06:58	04/24/12 19:27	1

0.041 ug/L

5.0

1

04/24/12 19:27

04/18/12 06:58

Limits

52 - 151

44 - 120

17 - 120

42 - 120

10 - 120

22 - 125

Lab Sample ID: MB 480-60131/1-A

Matrix: Water

2,4,6-Tribromophenol

2-Fluorobiphenyl

2-Fluorophenol

Nitrobenzene-d5

p-Terphenyl-d14

Surrogate

Phenol-d5

Analysis Batch: 61211

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

MB MB %Recovery Qualifier

93

84

40

81

29

91

Client Sample ID: Method Blank

Analyzed

04/24/12 19:27

04/24/12 19:27

04/24/12 19:27

04/24/12 19:27

04/24/12 19:27

04/24/12 19:27

Prepared

04/18/12 06:58

04/18/12 06:58

04/18/12 06:58

04/18/12 06:58

04/18/12 06:58

04/18/12 06:58

Prep Type: Total/NA

Prep Batch: 60131

Dil Fac

1

1

1 1 8 1 1 Prep Batch: 60131

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

Matrix: Water Analysis Batch: 61211

Lab Sample ID: LCS 480-60131/2-A

-	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,2,4-Trichlorobenzene	100	76.4		ug/L		76	44 - 142	
1,2-Dichlorobenzene	100	69.9		ug/L		70	32 - 129	
1,3-Dichlorobenzene	100	66.9		ug/L		67	1 ₋ 172	
1,4-Dichlorobenzene	100	67.6		ug/L		68	20 ₋ 124	
2,4,6-Trichlorophenol	100	89.7		ug/L		90	37 - 144	
2,4-Dichlorophenol	100	84.1		ug/L		84	39 - 135	
2,4-Dimethylphenol	100	86.4		ug/L		86	32 ₋ 119	
2,4-Dinitrophenol	100	98.2		ug/L		98	1 _ 191	
2,4-Dinitrotoluene	100	106		ug/L		106	39 _ 139	
2,6-Dinitrotoluene	100	107		ug/L		107	50 ₋ 158	
2-Chloronaphthalene	100	91.7		ug/L		92	60 - 118	
2-Chlorophenol	100	70.9		ug/L		71	23 - 134	
2-Nitrophenol	100	86.8		ug/L		87	29 - 182	
3,3'-Dichlorobenzidine	100	96.5		ug/L		97	1 _ 262	
4,6-Dinitro-2-methylphenol	100	104		ug/L		104	1 _ 181	
4-Bromophenyl phenyl ether	100	99.8		ug/L		100	53 - 127	
4-Chloro-3-methylphenol	100	87.9		ug/L		88	22 - 147	
4-Chlorophenyl phenyl ether	100	100		ug/L		100	25 ₋ 158	
4-Nitrophenol	100	49.1		ug/L		49	1 _ 132	
Acenaphthene	100	95.4		ug/L		95	47 _ 145	
Acenaphthylene	100	98.5		ug/L		99	33 - 145	
Anthracene	100	99.5		ug/L		100	27 ₋ 133	
Benzo[a]anthracene	100	100		ug/L		100	33 - 143	
Benzo[a]pyrene	100	92.3		ug/L		92	17 ₋ 163	
Benzo[b]fluoranthene	100	81.4		ug/L		81	24 ₋ 159	
Benzo[g,h,i]perylene	100	110		ug/L		110	1 - 219	
Benzo[k]fluoranthene	100	75.7		ug/L		76	11 ₋ 162	
bis (2-chloroisopropyl) ether	100	79.5		ug/L		80	36 - 166	
Bis(2-chloroethoxy)methane	100	88.9		ug/L		89	33 - 184	
Bis(2-chloroethyl)ether	100	81.8		ug/L		82	12 ₋ 158	
Bis(2-ethylhexyl) phthalate	100	118		ug/L		118	8 - 158	
Butyl benzyl phthalate	100	119		ug/L		119	1 - 152	
Chrysene	100	94.1		ug/L		94	17 _ 168	
Dibenz(a,h)anthracene	100	101		ug/L		101	1 _ 227	
Diethyl phthalate	100	116	*	ug/L		116	1 ₋ 114	
Dimethyl phthalate	100	102		ug/L		102	1 - 112	
Di-n-butyl phthalate	100	121	*	ug/L		121	1 _ 118	

8

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

Lab Sample ID: LCS 480-6013 Matrix: Water	31/2-A						Client	t Sample	ID: Lab Control Sam Prep Type: Total/
Analysis Batch: 61211									Prep Batch: 601
			Spike	LCS	LCS				%Rec.
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits
Di-n-octyl phthalate	·		100	125		ug/L		125	4 - 146
Fluoranthene			100	98.9		ug/L		99	26 - 137
Fluorene			100	100		ug/L		100	59 ₋ 121
Hexachlorobenzene			100	99.2		ug/L		99	1 - 152
Hexachlorocyclopentadiene			100	78.8		ug/L		79	5 - 120
Hexachloroethane			100	65.4		ug/L		65	40 - 113
Indeno[1,2,3-cd]pyrene			100	104		ug/L		104	1 ₋ 171
Isophorone			100	99.3		ug/L		99	21 - 196
Naphthalene			100	85.2		ug/L		85	21 - 133
Nitrobenzene			100	88.8		ug/L		89	35 - 180
N-Nitrosodi-n-propylamine			100	98.7		ug/L		99	1 _ 230
N-Nitrosodiphenylamine			100	105		ug/L		105	54 ₋ 125
Pentachlorophenol			100	102		ug/L		102	14 ₋ 176
Phenanthrene			100	97.6		ug/L		98	54 - 120
Phenol			100	35.6		ug/L		36	5 ₋ 112
Pyrene			100	96.2		ug/L		96	52 - 115
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
2,4,6-Tribromophenol	104		52 _ 151						
2-Fluorobiphenyl	96		44 - 120						
2-Fluorophenol	48		17 - 120						

2,4,6-Tribromophenol	104	52 - 151
2-Fluorobiphenyl	96	44 - 120
2-Fluorophenol	48	17 - 120
Nitrobenzene-d5	94	42 - 120
Phenol-d5	36	10 - 120
p-Terphenyl-d14	95	22 - 125

Lab Sample ID: LCSD 480-60131/3-A Matrix: Water Analysis Batch: 61211

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

Pron Batch: 60131

Analysis Batch: 61211							Prep	Batch:	60131
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,2,4-Trichlorobenzene		76.2		ug/L		76	44 _ 142	0	34
1,2-Dichlorobenzene	100	68.5		ug/L		69	32 _ 129	2	38
1,3-Dichlorobenzene	100	66.6		ug/L		67	1 - 172	0	37
1,4-Dichlorobenzene	100	67.4		ug/L		67	20 - 124	0	40
2,4,6-Trichlorophenol	100	94.0		ug/L		94	37 _ 144	5	20
2,4-Dichlorophenol	100	87.4		ug/L		87	39 - 135	4	23
2,4-Dimethylphenol	100	88.4		ug/L		88	32 _ 119	2	18
2,4-Dinitrophenol	100	103		ug/L		103	1 - 191	5	29
2,4-Dinitrotoluene	100	107		ug/L		107	39 _ 139	1	20
2,6-Dinitrotoluene	100	105		ug/L		105	50 _ 158	2	17
2-Chloronaphthalene	100	90.6		ug/L		91	60 - 118	1	30
2-Chlorophenol	100	72.8		ug/L		73	23 - 134	3	26
2-Nitrophenol	100	87.2		ug/L		87	29 - 182	0	28
3,3'-Dichlorobenzidine	100	92.9		ug/L		93	1 _ 262	4	31
4,6-Dinitro-2-methylphenol	100	105		ug/L		105	1 _ 181	1	30
4-Bromophenyl phenyl ether	100	97.0		ug/L		97	53 - 127	3	16
4-Chloro-3-methylphenol	100	91.9		ug/L		92	22 _ 147	4	16
4-Chlorophenyl phenyl ether	100	97.8		ug/L		98	25 - 158	2	15
4-Nitrophenol	100	49.3		ug/L		49	1 _ 132	0	24

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

Lab Sample ID: LCSD 480-60131/3-A				Clie	ent San	nple ID:	Lab Contro	ol Sampl	e Dup
Matrix: Water							Prep 1	Type: Tot	tal/NA
Analysis Batch: 61211							Prep	Batch:	60131
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	100	94.2		ug/L		94	47 _ 145	1	25
Acenaphthylene	100	99.6		ug/L		100	33 - 145	1	22
Anthracene	100	102		ug/L		102	27 _ 133	2	15
Benzo[a]anthracene	100	102		ug/L		102	33 - 143	1	15
Benzo[a]pyrene	100	93.0		ug/L		93	17 _ 163	1	15
Benzo[b]fluoranthene	100	85.1		ug/L		85	24 - 159	4	17
Benzo[g,h,i]perylene	100	109		ug/L		109	1 _ 219	0	19
Benzo[k]fluoranthene	100	75.5		ug/L		76	11 _ 162	0	19
bis (2-chloroisopropyl) ether	100	79.0		ug/L		79	36 - 166	1	36
Bis(2-chloroethoxy)methane	100	88.7		ug/L		89	33 - 184	0	23
Bis(2-chloroethyl)ether	100	81.7		ug/L		82	12 _ 158	0	33
Bis(2-ethylhexyl) phthalate	100	117		ug/L		117	8 _ 158	1	15
Butyl benzyl phthalate	100	117		ug/L		117	1 _ 152	2	15
Chrysene	100	93.8		ug/L		94	17 - 168	0	15
Dibenz(a,h)anthracene	100	101		ug/L		101	1 _ 227	1	18
Diethyl phthalate	100	116	*	ug/L		116	1 - 114	0	15
Dimethyl phthalate	100	104		ug/L		104	1 _ 112	2	15
Di-n-butyl phthalate	100	122	*	ug/L		122	1 _ 118	1	15
Di-n-octyl phthalate	100	126		ug/L		126	4 - 146	1	15
Fluoranthene	100	101		ug/L		101	26 - 137	2	15
Fluorene	100	101		ug/L		101	59 - 121	1	18
Hexachlorobenzene	100	97.1		ug/L		97	1 _ 152	2	15
Hexachlorocyclopentadiene	100	79.2		ug/L		79	5 _ 120	1	50
Hexachloroethane	100	63.9		ug/L		64	40 _ 113	2	43
Indeno[1,2,3-cd]pyrene	100	103		ug/L		103	1 _ 171	1	17
Isophorone	100	101		ug/L		101	21 - 196	1	21
Naphthalene	100	85.2		ug/L		85	21 - 133	0	31
Nitrobenzene	100	90.1		ug/L		90	35 _ 180	1	27
N-Nitrosodi-n-propylamine	100	98.5		ug/L		99	1 - 230	0	23
N-Nitrosodiphenylamine	100	102		ug/L		102	54 _ 125	3	15
Pentachlorophenol	100	101		ug/L		101	14 - 176	1	21
Phenanthrene	100	98.7		ug/L		99	54 - 120	1	16
Phenol	100	35.3		ug/L		35	5 _ 112	1	36
Pyrene	100	98.4		ug/L		98	52 - 115	2	15
ICSD ICSD									

LOOD	LOOD	
%Recovery	Qualifier	Limits
106		52 - 151
97		44 - 120
51		17 - 120
95		42 - 120
36		10 - 120
102		22 - 125
	2000 %Recovery 106 97 51 95 36 102	%Recovery Qualifier 106 97 51 95 36 102

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

Lab Sample ID: MB 480-60080/1 Matrix: Water												Client S	Sample ID: Prep	Method Type: To	l Blank otal/NA
Analysis Batch: 60080															
		MB	MB												
Analyte	R	esult	Qualifier		RL		RL	Unit		D	P	repared	Analy	zed	Dil Fac
Total Suspended Solids		ND			4.0		4.0	mg/L					04/17/12	22:22	1
Lab Sample ID: LCS 480-60080/2										Cli	ent	Sample	e ID: Lab C	ontrol S	Sample
Matrix: Water													Prep	Type: To	otal/NA
Analysis Batch: 60080															
				Spike		LCS	LCS						%Rec.		
Analyte				Added		Result	Qua	lifier	Unit		D	%Rec	Limits		
Total Suspended Solids				217		211.6			mg/L		_	97	88 - 110		
Lab Sample ID: 480-18659-5 DU												Client S	Sample ID:	COMP	041612
Matrix: Water													Prep	Type: To	otal/NA
Analysis Batch: 60080														.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
· · · · · · · · · · · · · · · · · · ·	Sample	Sam	ple			DU	DU								RPD
Analyte	Result	Qua	lifier			Result	Qua	lifier	Unit		D			RPD	Limit
Total Suspended Solids	61.6					71.20			mg/L					14.0	15
Method: SM 4500 H+ B - pH															
Lab Sample ID: LCS 480-59933/1										Cli	ent	Sample	e ID: Lab C	ontrol S	Sample
Matrix: Water													Prep	Type: To	otal/NA
Analysis Batch: 59933															
• • • • • • • • • • • • • • • • • • • •				Spike		LCS	LCS						%Rec.		
Analyte				Added		Result	Qua	lifier	Unit		D	%Rec	Limits		
рН				7.00		7.040			SU		_	101	99 _ 101		

QC Association Summary

Client: Honeywell International Inc Project/Site: Honeywell - Buffalo (Alltift) - 30130

TestAmerica Job ID: 480-18659-1

GC/MS VOA

Anal	ysis	Batch:	60196	
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Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method Prep Batch
480-18659-5	COMP 041612	Total/NA	Water	624
480-18659-6	041612-TB	Total/NA	Water	624
LCS 480-60196/4	Lab Control Sample	Total/NA	Water	624
MB 480-60196/5	Method Blank	Total/NA	Water	624

GC/MS Semi VOA

Prep Batch: 60131

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
480-18659-5	COMP 041612	Total/NA	Water	625	
LCS 480-60131/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-60131/3-A	Lab Control Sample Dup	Total/NA	Water	625	
MB 480-60131/1-A	Method Blank	Total/NA	Water	625	

Analysis Batch: 61211

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
480-18659-5	COMP 041612	Total/NA	Water	625	60131
LCS 480-60131/2-A	Lab Control Sample	Total/NA	Water	625	60131
LCSD 480-60131/3-A	Lab Control Sample Dup	Total/NA	Water	625	60131
MB 480-60131/1-A	Method Blank	Total/NA	Water	625	60131

General Chemistry

Analysis Batch: 59933

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
480-18659-5	COMP 041612	Total/NA	Water	SM 4500 H+ B	
LCS 480-59933/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 60080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-18659-5	COMP 041612	Total/NA	Water	SM 2540D	
480-18659-5 DU	COMP 041612	Total/NA	Water	SM 2540D	
LCS 480-60080/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 480-60080/1	Method Blank	Total/NA	Water	SM 2540D	

Client Samp	le ID: COMF	P 041612				L	ab Sample	ID: 480-18659-5
Date Collected	I: 04/16/12 15:0	00			Matrix: Water			
Date Received	: 04/16/12 15:4	15						
	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	624		10	60196	04/18/12 13:11	TRB	TAL BUF
Total/NA	Prep	625			60131	04/18/12 06:58	TR	TAL BUF
Total/NA	Analysis	625		5	61211	04/24/12 21:28	AM	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	59933	04/16/12 21:50	KJ	TAL BUF
Total/NA	Analysis	SM 2540D		1	60080	04/17/12 22:50	KS	TAL BUF
Client Samp	ole ID: 04161	2-TB				L	ab Sample	ID: 480-18659-6

Client Sample ID: 041612-TB

Date Collected: 04/16/12 15:00 Date Received: 04/16/12 15:45

	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	60196	04/18/12 13:34	TRB	TAL BUF

Laboratory References:

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

Certification Summary

Client: Honeywell International Inc Project/Site: Honeywell - Buffalo (Alltift) - 30130

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-13
California	NELAC	9	1169CA	09-30-12
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAC	4	E87672	06-30-13
Georgia	State Program	4	N/A	03-31-13
Georgia	State Program	4	956	06-30-13
Georgia	State Program	4	956	03-31-12
Illinois	NELAC	5	200003	09-30-12
lowa	State Program	7	374	03-01-13
Kansas	NELAC	7	E-10187	01-31-13
Kentucky	State Program	4	90029	12-31-12
Kentucky (UST)	State Program	4	30	04-01-13
Louisiana	NELAC	6	02031	06-30-13
Maine	State Program	1	NY00044	12-04-12
Maryland	State Program	3	294	03-31-13
Massachusetts	State Program	1	M-NY044	06-30-13
Michigan	State Program	5	9937	04-01-13
Minnesota	NELAC	5	036-999-337	12-31-12
New Hampshire	NELAC	1	2973	09-11-13
New Hampshire	NELAC	1	2337	11-17-12
New Jersey	NELAC	2	NY455	06-30-13
New York	NELAC	2	10026	03-31-13
North Dakota	State Program	8	R-176	03-31-13
Oklahoma	State Program	6	9421	08-31-13
Oregon	NELAC	10	NY200003	06-09-13
Pennsylvania	NELAC	3	68-00281	07-31-13
Tennessee	State Program	4	TN02970	04-01-13
Texas	NELAC	6	T104704412-11-2	07-31-13
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAC	3	460185	09-14-13
Washington	State Program	10	C784	02-10-13
West Virginia DEP	State Program	3	252	09-30-13
Wisconsin	State Program	5	998310390	08-31-13

Client: Honeywell International Inc Project/Site: Honeywell - Buffalo (Alltift) - 30130

	5
	8
	9
1	2
1	3

Method	Method Description	Protocol	Laboratory
624	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
SM 4500 H+ B	рН	SM	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

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

Client: Honeywell International Inc Project/Site: Honeywell - Buffalo (Alltift) - 30130 TestAmerica Job ID: 480-18659-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-18659-5	COMP 041612	Water	04/16/12 15:00	04/16/12 15:45
480-18659-6	041612-TB	Water	04/16/12 15:00	04/16/12 15:45
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Chain of Custody Record

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	480-51381-505811			:(s):0N 5	UDVDBU							θ۸	cho	uų				Patrick Higgins		Client Information

Client: Honeywell International Inc

Login Number: 18659

List Number: 1 Creator: Janish, Carl

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

Job Number: 480-18659-1

List Source: TestAmerica Buffalo



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: 480-25019-1

Client Project/Site: Honeywell - Alltift GW Monitoring Sampling Event: Honeywell - Alltift GW Monitoring (10)

For:

Honeywell International Inc 101 Columbia Road Morristown, New Jersey 07962

Attn: Mr. John Mojka

41

Authorized for release by: 9/21/2012 3:17:52 PM Robert Wienke Project Administrator robert.wienke@testamericainc.com

Designee for

John Schove Project Manager I john.schove@testamericainc.com



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

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

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

Table of Contents

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

Qualifiers

Qualifiers		- 3
		-
GC/MS VOA		
Qualifier	Qualifier Description	_
U	Indicates the analyte was analyzed for but not detected.	5
F	MS or MSD exceeds the control limits	
GC/MS Semi	VOA	
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	7
х	Surrogate is outside control limits	
GC Semi VO	Α	8
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	- 9
Х	Surrogate is outside control limits	
Metals		
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	- 11
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
В	Compound was found in the blank and sample.	
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.	13
Glossary		14
Abbreviation	These commonly used abbreviations may or may not be present in this report.	

i nese commonly used appreviations 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
Percent Recovery
Contains no Free Liquid
Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
Estimated Detection Limit
United States Environmental Protection Agency
Method Detection Limit
Minimum Level (Dioxin)
Not detected at the reporting limit (or MDL or EDL if shown)
Practical Quantitation Limit
Quality Control
Reporting Limit
Relative Percent Difference, a measure of the relative difference between two points
Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-25019-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-25019-1

Comments

No additional comments.

Receipt

The samples were received on 9/12/2012 3:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.6° C, 2.9° C, 3.0° C and 3.2° C.

GC/MS VOA

Method(s) 8260B: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: FDUP-Sump 4-091212 (480-25019-6), Sump 1-091212 (480-25019-2), Sump 2-091212 (480-25019-3), Sump 3-091212 (480-25019-4), Sump 4-091212 (480-25019-5), Sump 4-091212 MS (480-25019-5 MS), Sump 4-091212 SD (480-25019-5 MSD). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The following compound was outside control limits in the continuing calibration verification (CCV) associated with batch 80570: Acetone. This compound is not classified as Calibration Check Compound (CCC) in the reference method, and the laboratory defaults to in-house and/or project-specific criteria for evaluation. Due to the large number of analytes contained in the CCV, the laboratory's SOP allows for six analytes to be outside limits; therefore, the data have been reported.

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 80570 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

Method(s) 8270C: The following samples contained one acid and/ or one base surrogate outside acceptance limits: FDUP-Sump 4-091212 (480-25019-6), Sump 4-091212 (480-25019-1). The laboratory's SOP allows one acid and/ or one base surrogate to be outside acceptance limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

No analytical or quality issues were noted.

GC Semi VOA

Method(s) 608: The continuing calibration verification (CCV) for Aroclor 1260 associated with batch 80433 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 608: All primary data is reported from the ZB-5 column.

Method(s) 608: For the method 608, the initial calibration criteria is based upon the total Aroclor value. The %RSD in some of the individual biphenyl peaks may exceed 10%, though the total Aroclor amount is still within method quality control criteria.

Method(s) 608: The percent difference in a multi-component continuing calibration verification is assessed on the basis of the total amount, individual peak calculations are only listed for completeness.

Method(s) 608: The surrogate percent difference in the associated continuing calibration verification (CCV 480-80433/47) for Decachlorobiphenyl exceeded 15% on the ZB-5 column, indicating a high bias.

Method(s) 8081A: All primary data is reported from the RTX-CLPI column.

Method(s) 8081A: One surrogate recovery for the following sample was outside control limits: Sump 4-091212 (480-25019-5). The second surrogate recovery is within acceptance limits.

No other analytical or quality issues were noted.

Job ID: 480-25019-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Metals

Method(s) 6020: The Method Blank for batch 480-80451 contained total arsenic and cadmium above the method detection limits. These target analyte concentrations were less than the reporting limits (RLs); therefore, re-extraction and/or re-analysis of samples FDUP-Sump 4-091212 (480-25019-6), Sump 4-091212 (480-25019-5), Sump Comp-091212 (480-25019-1) was not performed.

No other analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Detection Summary

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

Lab Sample ID: 480-25019-1

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Client Sample ID: Sump Co	mp-091212					La	ab	Sample II): 480-25019
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4-Chloroaniline	11		4.8	0.56	ug/L	1	_	8270C	Total/NA
Chromium	0.22		0.0040	0.0010	mg/L	1		6010B	Total/NA
Lead	0.023		0.0050	0.0030	mg/L	1		6010B	Total/NA
Iron	11.3		0.050	0.019	mg/L	1		6010B	Total/NA
Manganese	3.8		0.0030	0.00040	mg/L	1		6010B	Total/NA
Antimony	0.77	J	1.0	0.15	ug/L	1		6020	Total/NA
Arsenic	17.9	В	1.0	0.078	ug/L	1		6020	Total/NA
Cadmium	0.22	JB	0.50	0.018	ug/L	1		6020	Total/NA
lient Sample ID: Sump 1-0	91212					La	ab	Sample II): 480-25019
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	11		5.0	3.8	ug/L	5	_	8260B	Total/NA
Client Sample ID: Sump 2-0	91212					La	ab	Sample IE): 480-25019
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	22		5.0	2.1	ug/L	5	_	8260B	Total/NA
Chlorobenzene	150		5.0	3.8	ug/L	5		8260B	Total/NA
lient Sample ID: Sump 3-0	91212					La	ab	Sample I): 480-25019
No Detections									
Client Sample ID: Sump 4-0	91212					La	ab	Sample II): 480-25019
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	11		5.0	3.8	ug/L	5	_	8260B	Total/NA
Chromium	0.0033	J	0.0040	0.0010	mg/L	1		6010B	Total/NA
Iron	2.6		0.050	0.019	mg/L	1		6010B	Total/NA
Manganese	5.7		0.0030	0.00040	mg/L	1		6010B	Total/NA
	0.73	J	1.0	0.15	ug/L	1		6020	Total/NA
Antimony	0.70				0				
Antimony Arsenic	11.9	В	1.0	0.078	ug/L	1		6020	Total/NA

Lab Sample ID: 480-25019-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	40		5.0	3.8	ug/L	5	_	8260B	Total/NA
Chromium	0.0026	J	0.0040	0.0010	mg/L	1		6010B	Total/NA
Iron	6.2		0.050	0.019	mg/L	1		6010B	Total/NA
Manganese	4.6		0.0030	0.00040	mg/L	1		6010B	Total/NA
Antimony	0.53	J	1.0	0.15	ug/L	1		6020	Total/NA
Arsenic	14.1	В	1.0	0.078	ug/L	1		6020	Total/NA
Cadmium	0.21	JB	0.50	0.018	ug/L	1		6020	Total/NA

Client Sample ID: TRIP BLANK

Client Sample ID: FDUP-Sump 4-091212

Lab Sample ID: 480-25019-7

No Detections

Client Sample ID: Sump Comp-091212

Date Collected: 09/12/12 12:07

Date Received: 09/12/12 15:05

Lab Sample ID: 480-25019-1 Matrix: Water 5 6

Method: 8270C - Semivolatile Orga	anic Compou	inds (GC/MS	5)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloroaniline	11		4.8	0.56	ug/L		09/13/12 14:58	09/14/12 19:28	1
Naphthalene	4.8	U	4.8	0.72	ug/L		09/13/12 14:58	09/14/12 19:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	80		46 - 120				09/13/12 14:58	09/14/12 19:28	1
2-Fluorobiphenyl	87		48 - 120				09/13/12 14:58	09/14/12 19:28	1
p-Terphenyl-d14	58	X	67 - 150				09/13/12 14:58	09/14/12 19:28	1
Method: 608 - Polychlorinated Bip	henyls (PCB	s) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.057	U	0.057	0.036	ug/L		09/13/12 15:20	09/15/12 08:59	1
PCB-1221	0.057	U	0.057	0.036	ug/L		09/13/12 15:20	09/15/12 08:59	1
PCB-1232	0.057	U	0.057	0.036	ug/L		09/13/12 15:20	09/15/12 08:59	1
PCB-1242	0.057	U	0.057	0.036	ug/L		09/13/12 15:20	09/15/12 08:59	1
PCB-1248	0.057	U	0.057	0.036	ug/L		09/13/12 15:20	09/15/12 08:59	1
PCB-1254	0.057	U	0.057	0.029	ug/L		09/13/12 15:20	09/15/12 08:59	1
PCB-1260	0.057	U	0.057	0.029	ug/L		09/13/12 15:20	09/15/12 08:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	37		10 - 158				09/13/12 15:20	09/15/12 08:59	1
Tetrachloro-m-xylene	80		18 - 146				09/13/12 15:20	09/15/12 08:59	1
Method: 8081A - Organochlorine F	Pesticides (G	C)	BI	MDI	Unit		Bronorod	Applyzed	Dil Eco
			0.047	0.0087			00/13/12 15:12	00/15/12 10:52	1
4,4-000	0.047	0	0.047	0.0007	ug/L		09/13/12 15:12	09/15/12 10:52	1
4,4-DDE	0.047	0	0.047	0.011	ug/L		09/13/12 13.12	09/15/12 10.52	I
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	27		16 - 120				09/13/12 15:12	09/15/12 10:52	1
Tetrachloro-m-xylene	47		35 - 120				09/13/12 15:12	09/15/12 10:52	1
Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.22		0.0040	0.0010	mg/L		09/13/12 08:45	09/13/12 16:34	1
Lead	0.023		0.0050	0.0030	mg/L		09/13/12 08:45	09/13/12 16:34	1
Iron	11.3		0.050	0.019	mg/L		09/13/12 08:45	09/13/12 16:34	1
Manganese	3.8		0.0030	0.00040	mg/L		09/13/12 08:45	09/13/12 16:34	1
Method: 6020 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.77	J	1.0	0.15	ug/L		09/14/12 07:20	09/15/12 03:58	1
	47.0	R	10	0.078	ua/L		09/14/12 07:20	09/15/12 03:58	1
Arsenic	17.9		1.0		. 5				
Arsenic Cadmium	17.9 0.22	ЈВ	0.50	0.018	ug/L		09/14/12 07:20	09/15/12 03:58	1
Arsenic Cadmium Method: 7470A - Mercury (CVAA)	0.22	JB	0.50	0.018	ug/L		09/14/12 07:20	09/15/12 03:58	1
Arsenic Cadmium Method: 7470A - Mercury (CVAA) Analyte	17.9 0.22 Result	J B Qualifier	0.50 RL	0.018	ug/L Unit	D	09/14/12 07:20 Prepared	09/15/12 03:58	1 Dil Fac

Date Collected: 09/12/12 12:01 Date Received: 09/12/12 15:05

_ Method: 8260B - Volatile Orga	nic Compounds ((GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	5.0	U	5.0	4.0	ug/L			09/14/12 15:01	5
1,4-Dichlorobenzene	5.0	U	5.0	4.2	ug/L			09/14/12 15:01	5
Benzene	5.0	U	5.0	2.1	ug/L			09/14/12 15:01	5
Chlorobenzene	11		5.0	3.8	ug/L			09/14/12 15:01	5
Ethylbenzene	5.0	U	5.0	3.7	ug/L			09/14/12 15:01	5
Xylenes, Total	10	U	10	3.3	ug/L			09/14/12 15:01	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	115		66 - 137			-		09/14/12 15:01	5
Toluene-d8 (Surr)	105		71 - 126					09/14/12 15:01	5
4-Bromofluorobenzene (Surr)	107		73 - 120					09/14/12 15:01	5

Lab Sample ID: 480-25019-2

Client Sample ID: Sump 2-091212

Date Collected: 09/12/12 11:39 Date Received: 09/12/12 15:05

Method: 8260B - Volatile Orga	nic Compounds ((GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	5.0	U	5.0	4.0	ug/L			09/14/12 15:24	5
1,4-Dichlorobenzene	5.0	U	5.0	4.2	ug/L			09/14/12 15:24	5
Benzene	22		5.0	2.1	ug/L			09/14/12 15:24	5
Chlorobenzene	150		5.0	3.8	ug/L			09/14/12 15:24	5
Ethylbenzene	5.0	U	5.0	3.7	ug/L			09/14/12 15:24	5
Xylenes, Total	10	U	10	3.3	ug/L			09/14/12 15:24	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		66 - 137			-		09/14/12 15:24	5
Toluene-d8 (Surr)	106		71 - 126					09/14/12 15:24	5
4-Bromofluorobenzene (Surr)	108		73 - 120					09/14/12 15:24	5

Lab Sample ID: 480-25019-3

Client Sample ID: Sump 3-091212

Date Collected: 09/12/12 11:19 Date Received: 09/12/12 15:05

Method: 8260B - Volatile Orga	nic Compounds ((GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	5.0	U	5.0	4.0	ug/L			09/14/12 15:48	5
1,4-Dichlorobenzene	5.0	U	5.0	4.2	ug/L			09/14/12 15:48	5
Benzene	5.0	U	5.0	2.1	ug/L			09/14/12 15:48	5
Chlorobenzene	5.0	U	5.0	3.8	ug/L			09/14/12 15:48	5
Ethylbenzene	5.0	U	5.0	3.7	ug/L			09/14/12 15:48	5
Xylenes, Total	10	U	10	3.3	ug/L			09/14/12 15:48	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		66 - 137			-		09/14/12 15:48	5
Toluene-d8 (Surr)	105		71 - 126					09/14/12 15:48	5
4-Bromofluorobenzene (Surr)	111		73 - 120					09/14/12 15:48	5

Lab Sample ID: 480-25019-4

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

Client Sample ID: Sump 4-091212

Date Collected: 09/12/12 09:59

Date Received: 09/12/12 15:05

Prepared Analyzed Dil Fac 0 09/14/12 16:11 5 6 7

3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	5.0	U	5.0	4.0	ug/L			09/14/12 16:11	5
1,4-Dichlorobenzene	5.0	U	5.0	4.2	ug/L			09/14/12 16:11	5
Benzene	5.0	U	5.0	2.1	ug/L			09/14/12 16:11	5
Chlorobenzene	11		5.0	3.8	ug/L			09/14/12 16:11	5
Ethylbenzene	5.0	U	5.0	3.7	ug/L			09/14/12 16:11	5
Xylenes, Total	10	U	10	3.3	ug/L			09/14/12 16:11	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		66 - 137					09/14/12 16:11	5
Toluene-d8 (Surr)	103		71 - 126					09/14/12 16:11	5
4-Bromofluorobenzene (Surr) —	103		73 - 120					09/14/12 16:11	5
- Method: 8270C - Semivolatile Or	manic Compou	nds (GC/M	S)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analvzed	Dil Fac
4-Chloroaniline	4.7	U	4.7	0.56	ua/L		09/13/12 14:58	09/14/12 19:52	1
Naphthalene	4.7	U	4.7	0.72	ug/L		09/13/12 14:58	09/14/12 19:52	1
					-				
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	78		46 - 120				09/13/12 14:58	09/14/12 19:52	1
2-Fluorobiphenyl	85		48 - 120				09/13/12 14:58	09/14/12 19:52	1
p-Terphenyl-d14	59	X	67 - 150				09/13/12 14:58	09/14/12 19:52	1
 Nothed: 609 Delyableringted P	linhanula (DCR								
Analyte	Result	S) (GC) Qualifier	RI	мы	Unit	п	Prepared	Analyzed	Dil Fac
PCB-1016	0.057		0.057	0.036			09/13/12 15:20	09/15/12 09:15	1
PCB-1221	0.057	U	0.057	0.036	ug/l		09/13/12 15:20	09/15/12 09:15	1
PCB-1232	0.057	U	0.057	0.036	ug/L		09/13/12 15:20	09/15/12 09:15	1
PCB-1242	0.057		0.057	0.036	ug/L		09/13/12 15:20	09/15/12 09:15	1
PCB-1248	0.057	U	0.057	0.036	ug/L		09/13/12 15:20	09/15/12 09:15	1
PCB-1254	0.057	U	0.057	0.029	ug/L		09/13/12 15:20	09/15/12 09:15	1
PCB-1260	0.057	U	0.057	0.029	ug/L		09/13/12 15:20	09/15/12 09:15	
					9				
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	48		10 - 158				09/13/12 15:20	09/15/12 09:15	1
Tetrachloro-m-xylene	80		18 - 146				09/13/12 15:20	09/15/12 09:15	1
- Nothod: 2021A Organophlaring	Bestisidas (C	C)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4 4'-DDD	0.047		0.047	0.0087			09/13/12 15:12	09/15/12 11:33	1
4 4'-DDF	0.047	U	0.047	0.011	ug/l		09/13/12 15:12	09/15/12 11:33	1
.,	0.011		0.0.1	0.011				00,10,12,1100	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl		X	16 - 120				09/13/12 15:12	09/15/12 11:33	1
Tetrachloro-m-xylene	61		35 - 120				09/13/12 15:12	09/15/12 11:33	1
Mothod: 6010B Motole (ICB)									
Analyte	Result	Qualifier	RI	мо	Unit	п	Prepared	Analyzed	Dil Fac
Chromium			0 0040	0.0010	ma/l		09/13/12 08:45	09/13/12 16:36	1
Lead	0.0050	U	0.0050	0.0030	ma/l		09/13/12 08:45	09/13/12 16:36	1
Iron	2.6	-	0.050	0.010	ma/l		09/13/12 08:45	09/13/12 16:36	1
Manganese	£.0 £7		0.0030	0 00040	ma/l		09/13/12 08:45	09/13/12 16:36	' 1
manganese	3.7		5.0000	0.00070	····9/ ⊏		00.70	20, 10, 12, 10.00	1
TestAmerica Job ID: 480-25019-1

Client Sample ID: Sump 4-091212							Lab Sample ID: 480-25019-5					
Date Collected: 09/12/12 09:59			Matrix	c: Water								
Date Received: 09/12/12 15:05												
Method: 6020 - Metals (ICP/MS)												
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
Antimony	0.73	J	1.0	0.15	ug/L		09/14/12 07:20	09/15/12 04:04	1			
Arsenic	11.9	В	1.0	0.078	ug/L		09/14/12 07:20	09/15/12 04:04	1			
Cadmium	0.23	JB	0.50	0.018	ug/L		09/14/12 07:20	09/15/12 04:04	1			
Method: 7470A - Mercury (CVAA)												
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
Mercury	0.00020	U	0.00020	0.00012	mg/L		09/13/12 08:20	09/13/12 12:51	1			

Client Sample ID: FDUP-Sump 4-091212

TestAmerica Job ID: 480-25019-1

Lab Sample ID: 480-25019-6
Matrix: Water

Date	Collected:	09/12/12 10:37
Date	Received:	09/12/12 15:05

Manganese

		Matrix:

Method: 8260B - Volatile Organ	nic Compounds	(GC/MS)	Ы	MDI	11		Duonouod	Analyzad	
		Qualifier	RL		Unit	D	Prepared		DII Fac
1,2-Dichlorobenzene	5.0	U	5.0	4.0	ug/L			09/14/12 17:22	5
1,4-Dichlorobenzene	5.0	U	5.0	4.2	ug/L			09/14/12 17:22	5
Benzene	5.0	U	5.0	2.1	ug/L			09/14/12 17:22	5
Chlorobenzene	40		5.0	3.8	ug/L			09/14/12 17:22	5
Ethylbenzene	5.0	U	5.0	3.7	ug/L			09/14/12 17:22	5
Xylenes, Total	10	U	10	3.3	ug/L			09/14/12 17:22	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		66 - 137					09/14/12 17:22	5
Toluene-d8 (Surr)	102		71 - 126					09/14/12 17:22	5
4-Bromofluorobenzene (Surr)	103		73 - 120					09/14/12 17:22	5
- Method: 8270C - Semivolatile (Organic Compou	inds (GC/M	S)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloroaniline	4.7	U	4.7	0.56	ug/L		09/13/12 14:58	09/14/12 20:16	1
Naphthalene	4.7	U	4.7	0.72	ug/L		09/13/12 14:58	09/14/12 20:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5		-	46 - 120				09/13/12 14:58	09/14/12 20:16	1
2-Fluorobiphenvl	94		48 - 120				09/13/12 14:58	09/14/12 20:16	1
p-Terphenyl-d14	49	x	67 - 150				09/13/12 14:58	09/14/12 20:16	1
Method: CO2 Deluchleringted	Dishervia (DCD								
Analyte	Biprierryis (PCB	S) (GC) Qualifier	PI	мы	Unit	п	Propared	Analyzod	Dil Eac
PCB-1016	0.057		0.057	0.036			09/13/12 15:20	09/15/12 09:31	1
PCB-1221	0.057		0.057	0.000	ug/L		09/13/12 15:20	09/15/12 09:31	1
PCB-1232	0.057	U U	0.057	0.000	ug/L		09/13/12 15:20	09/15/12 09:31	1
PCB-1242	0.057		0.057	0.000	ug/L		09/13/12 15:20	09/15/12 09:31	1
DCB 1248	0.057		0.057	0.036	ug/L		09/13/12 15:20	00/15/12 00:31	1
PCB-1240	0.057	0	0.057	0.030	ug/L		09/13/12 15:20	09/15/12 09:51	1
FCB-1234	0.057		0.057	0.029	uy/L		09/13/12 15.20	09/15/12 09.31	
PCB-1200	0.057	U	0.057	0.029	ug/L		09/13/12 15.20	09/15/12 09.31	I
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	37		10 - 158				09/13/12 15:20	09/15/12 09:31	1
Tetrachloro-m-xylene _	74		18 - 146				09/13/12 15:20	09/15/12 09:31	1
Method: 8081A - Organochlorii	ne Pesticides (G	C)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.047	U	0.047	0.0087	ug/L		09/13/12 15:12	09/15/12 12:14	1
4,4'-DDE	0.047	U	0.047	0.011	ug/L		09/13/12 15:12	09/15/12 12:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	20		16 - 120				09/13/12 15:12	09/15/12 12:14	1
Tetrachloro-m-xylene	56		35 - 120				09/13/12 15:12	09/15/12 12:14	1
- Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analvzed	Dil Fac
Chromium	0.0026	J	0.0040	0.0010	mg/L		09/13/12 08:45	09/13/12 16:44	1
Lead	0.0050	U	0.0050	0.0030	ma/L		09/13/12 08:45	09/13/12 16:44	1
Iron	2.2		0.050	0.010	ma/l		09/13/12 08:45	09/13/12 16:44	. 1

1

09/13/12 16:44

09/13/12 08:45

0.0030

0.00040 mg/L

4.6

TestAmerica Job ID: 480-25019-1

Client Sample ID: FDUP-Sump 4-091212 Lab Sample ID: 480-25019-6 Date Collected: 09/12/12 10:37 Matrix: Water Date Received: 09/12/12 15:05 Method: 6020 - Metals (ICP/MS) RL Analyte Result Qualifier MDL Unit D Prepared Analyzed Dil Fac Antimony 0.53 J 1.0 0.15 ug/L 09/14/12 07:20 09/15/12 04:45 1 1.0 0.078 ug/L 09/14/12 07:20 09/15/12 04:45 1 Arsenic 14.1 B Cadmium 0.21 JB 0.50 0.018 ug/L 09/14/12 07:20 09/15/12 04:45 1 Method: 7470A - Mercury (CVAA) Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Mercury 0.00020 U 0.00020 0.00012 mg/L 09/13/12 08:20 09/13/12 12:59 1

Lab Sample ID: 480-25019-7 Matrix: Water

Date Collected: 09/12/12 10:45 Date Received: 09/12/12 15:05

Client Sample ID: TRIP BLANK

Method: 8260B - Volatile Organi	c Compounds ((GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			09/14/12 17:46	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			09/14/12 17:46	1
Benzene	1.0	U	1.0	0.41	ug/L			09/14/12 17:46	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			09/14/12 17:46	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			09/14/12 17:46	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			09/14/12 17:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)			66 - 137			-		09/14/12 17:46	1
Toluene-d8 (Surr)	105		71 - 126					09/14/12 17:46	1
4-Bromofluorobenzene (Surr)	111		73 - 120					09/14/12 17:46	1

Prep Type: Total/NA

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

Matrix: Water

				Percent Su
		12DCE	TOL	BFB
Lab Sample ID	Client Sample ID	(66-137)	(71-126)	(73-120)
480-25019-2	Sump 1-091212	115	105	107
480-25019-3	Sump 2-091212	110	106	108
480-25019-4	Sump 3-091212	114	105	111
480-25019-5	Sump 4-091212	110	103	103
480-25019-5 MS	Sump 4-091212	112	104	106
480-25019-5 MSD	Sump 4-091212	113	106	109
480-25019-6	FDUP-Sump 4-091212	112	102	103
480-25019-7	TRIP BLANK	115	105	111
LCS 480-80570/3	Lab Control Sample	115	109	107
MB 480-80570/4	Method Blank	110	105	102

Surrogate Legend

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

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Water

-				Percent Su
		NBZ	FBP	ТРН
Lab Sample ID	Client Sample ID	(46-120)	(48-120)	(67-150)
480-25019-1	Sump Comp-091212	80	87	58 X
480-25019-5	Sump 4-091212	78	85	59 X
480-25019-5 MS	Sump 4-091212	90	93	69
480-25019-5 MSD	Sump 4-091212	93	99	85
480-25019-6	FDUP-Sump 4-091212	89	94	49 X
LCS 480-80441/2-A	Lab Control Sample	90	96	119
MB 480-80441/1-A	Method Blank	71	82	121

Surrogate Leg	jend
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NBZ = Nitrobenzene-d5

FBP = 2-Fluorobiphenyl

TPH = p-Terphenyl-d14

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC) Matrix: Water

-		Percent Surrogate Recovery (Acceptance Lim						
		DCB1	DCB2	TCX1	TCX2			
Lab Sample ID	Client Sample ID	(10-158)	(10-158)	(18-146)	(18-146)			
480-25019-1	Sump Comp-091212	37	44	80	83			
480-25019-5	Sump 4-091212	48	55	80	85			
480-25019-5 MS	Sump 4-091212	33	45	97	96			
480-25019-5 MSD	Sump 4-091212	28	33	88	87			
480-25019-6	FDUP-Sump 4-091212	37	44	74	77			
LCS 480-80448/2-A	Lab Control Sample	53	58	88	94			
MB 480-80448/1-A	Method Blank	62	69	89	98			

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Method: 8081A - Organochlorine Pesticides (GC) Matrix: Water

-		Percent Surrogate Recovery (#					
		DCB1	DCB2	TCX1	TCX2		
Lab Sample ID	Client Sample ID	(16-120)	(16-120)	(35-120)	(35-120)		
480-25019-1	Sump Comp-091212	27	24	47	55		
480-25019-5	Sump 4-091212	10 X	12 X	61	62		
480-25019-5 MS	Sump 4-091212	41	39	62	68		
480-25019-5 MSD	Sump 4-091212	44	42	62	67		
480-25019-6	FDUP-Sump 4-091212	20	21	56	60		
LCS 480-80446/2-A	Lab Control Sample	48	52	72	72		
MB 480-80446/1-A	Method Blank	63	67	77	76		

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

RL

1.0

1.0

1.0

1.0

1.0

2.0

Limits

66 - 137

71 - 126

73 - 120

MDL Unit

0.79 ug/L

0.84 ug/L

0.41 ug/L

0.75 ug/L

0.74 ug/L

0.66 ug/L

D

Prepared

Prepared

Lab Sample ID: MB 480-80570/4

Matrix: Water

1,2-Dichlorobenzene

1,4-Dichlorobenzene

Analyte

Benzene

Chlorobenzene

Ethylbenzene

Xylenes, Total

Surrogate

Toluene-d8 (Surr)

Analysis Batch: 80570

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

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

MB MB Result Qualifier

1.0 U

1.0 U

1.0 U

1.0 U

1.0 U

2.0 U

MB MB

110

105

102

%Recovery

Qualifier

Client Sample ID: Method Blank

Analyzed

09/14/12 11:40

09/14/12 11:40

09/14/12 11:40

09/14/12 11:40

09/14/12 11:40

09/14/12 11:40

Analyzed

09/14/12 11:40

09/14/12 11:40

09/14/12 11:40

Prep Type: Total/NA

Dil Fac

1

1

1

1

1

1

1

1

1

Dil Fac

2 3 4 5

Lab Sample ID: LCS 480-80570/3 Matrix: Water Analysis Batch: 80570

Spil	te LCS	LCS			%Rec.
Analyte Adde	d Result	Qualifier Unit	t D	%Rec	Limits
1,2-Dichlorobenzene 25	.0 27.1	ug/L		108	77 _ 120
Benzene 25	.0 27.1	ug/L	-	108	71 - 124
Chlorobenzene 25	.0 26.2	ug/l	-	105	72 _ 120
Ethylbenzene 25	.0 27.2	ug/L		109	77 _ 123
Xylenes, Total 75	.0 83.9	ug/l	-	112	76 - 122

LCS	LCS	
%Recovery	Qualifier	Limits
115		66 - 137
109		71 - 126
107		73 - 120
	LCS %Recovery 115 109 107	LCS LCS %Recovery Qualifier 115 109 107

106

Lab Sample ID: 480-25019-5 MS Matrix: Water

Analysis Batch: 80570

4-Bromofluorobenzene (Surr)

·····,································										
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,2-Dichlorobenzene	5.0	U	125	133		ug/L		106	77 - 120	
Benzene	5.0	U	125	138		ug/L		110	71 ₋ 124	
Chlorobenzene	11		125	167	F	ug/L		125	72 ₋ 120	
Ethylbenzene	5.0	U	125	136		ug/L		109	77 ₋ 123	
Xylenes, Total	10	U	375	415		ug/L		111	76 - 122	
	MS	MS								
Surrogate	%Recovery	Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)			66 - 137							
Toluene-d8 (Surr)	104		71 - 126							

73 - 120

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

Client Sample ID: Sump 4-091212

Prep Type: Total/NA

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

									U	nent Salf		10 4-0	31214 121/N/4
											Fieh ly	e. 10	
Sample	Samp	le	Spike	MSD	MSD						%Rec.		RPD
Result	Quali	fier	Added	Result	Qual	ifier	Unit		D	%Rec	Limits	RPD	Limi
5.0	U		125	134			ug/L			107	77 - 120	1	20
5.0	U		125	133			ug/L			106	71 - 124	4	1:
11			125	162	F		ug/L			121	72 - 120	3	2
5.0	U		125	132			ug/L			106	77 _ 123	3	1
10	U		375	411			ug/L			110	76 - 122	1	16
MSD	MSD												
%Recovery	Quali	fier	Limits										
113			66 - 137										
106			71 - 126										
109			73 - 120										
											Prep B	atch:	80441
	MB	МВ											
Re	sult	Qualifier	RL		MDL	Unit				-			
	50							_ D	P	repared	Analyzed		Dil Fa
		U 	5.0		0.59	ug/L		_ <u>D</u>	P 09/1	7epared 3/12 14:57	Analyzed	23	Dil Fa
	5.0	U U	5.0		0.59 0.76	ug/L ug/L		D - —	09/1 09/1	3/12 14:57 3/12 14:57	Analyzed 09/14/12 11: 09/14/12 11:	23 23	Dil Fa
	5.0 MB	U U MB	5.0 5.0		0.59 0.76	ug/L ug/L		_ <u>D</u>	09/1 09/1	3/12 14:57 3/12 14:57	Analyzed 09/14/12 11: 09/14/12 11:	23 — 23	Dil Fa
%Recov	5.0 MB very	U U MB Qualifier	5.0 5.0 <i>Limits</i>		0.59 0.76	ug/L ug/L		_ <u>D</u>	09/1 09/1 09/1	repared 3/12 14:57 3/12 14:57 repared	Analyzed 09/14/12 11: 09/14/12 11: Analyzed	23	Dil Fac
%Recov	5.0 MB very 71	U U MB Qualifier	5.0 5.0 		0.59 0.76	ug/L ug/L		_ <u>D</u>	Pi 09/1 09/1 Pi 09/1	repared 3/12 14:57 3/12 14:57 repared 3/12 14:57	Analyzed 09/14/12 11: 09/14/12 11: Analyzed 09/14/12 11:	23 — 23 — 23 —	Dil Fac
%Recov	5.0 MB rery 71 82	U U MB Qualifier	5.0 5.0 <u>Limits</u> 46 - 120 48 - 120		0.59	ug/L ug/L		_ <u>D</u>	Pi 09/1 09/1 Pi 09/1 09/1	repared 3/12 14:57 3/12 14:57 repared 3/12 14:57 3/12 14:57 3/12 14:57	Analyzed 09/14/12 11: 09/14/12 11: Analyzed 09/14/12 11: 09/14/12 11:	23 — 23 	Dil Fac
%Recov	5.0 MB rery 71 82 121	U U MB Qualifier	5.0 5.0 <u>Limits</u> 46 - 120 48 - 120 67 - 150		0.59	ug/L ug/L		_ <u>D</u>	Pi 09/1 09/1 Pi 09/1 09/1 09/1	repared 3/12 14:57 3/12 14:57 repared 3/12 14:57 3/12 14:57 3/12 14:57 3/12 14:57	Analyzed 09/14/12 11: 09/14/12 11: 09/14/12 11: 09/14/12 11: 09/14/12 11:	23 23 23 23 23 23 23 23	Dil Fac
%Recov	5.0 MB very 71 82 121	U U MB Qualifier	5.0 5.0 <u>Limits</u> 46 - 120 48 - 120 67 - 150		0.59	ug/L ug/L			Pi 09/1 09/1 Pi 09/1 09/1 09/1	repared 3/12 14:57 3/12 14:57 repared 3/12 14:57 3/12 14:57 3/12 14:57 3/12 14:57 Sample	Analyzed 09/14/12 11: 09/14/12 11: Analyzed 09/14/12 11: 09/14/12 11: 09/14/12 11:	23 23 23 23 23 23 23 23	Dil Fac
%Recov	5.0 MB rery 71 82 121	U U MB Qualifier	5.0 5.0 46 - 120 48 - 120 67 - 150		0.59	ug/L ug/L		_ <u>D</u>	Pi 09/1 09/1 09/1 09/1 09/1 09/1	repared 3/12 14:57 3/12 14:57 repared 3/12 14:57 3/12 14:57 3/12 14:57 3/12 14:57 Sample I	Analyzed 09/14/12 11: 09/14/12 11: 09/14/12 11: 09/14/12 11: 09/14/12 11: 09/14/12 11: D: Lab Con Prep Tyre	23 23 23 23 23 23 23 trol S	Dil Fac
%Recov	5.0 MB rery 71 82 121	U U MB Qualifier	5.0 5.0 <u>Limits</u> 46 - 120 48 - 120 67 - 150		0.59	ug/L ug/L		_ <u>D</u>	Pi 09/1 09/1 09/1 09/1 09/1 09/1	repared 3/12 14:57 3/12 14:57 repared 3/12 14:57 3/12 14:57 3/12 14:57 Sample I	Analyzed 09/14/12 11: 09/14/12 11: 09/14/12 11: 09/14/12 11: 09/14/12 11: 09/14/12 11: D: Lab Con Prep Typ Prep B	23 23 23 23 23 23 23 trol S oe: To atch:	Dil Fac
-	Sample Result 5.0 5.0 11 5.0 10 MSD %Recovery 113 106 109 Ie Organic -A Re	Sample Samp Result Quali 5.0 U 11 5.0 U 10 U MSD MSD %Recovery Quali 113 106 109 Ie Organic Co -A MB Result	Sample Sample Result Qualifier 5.0 U 5.0 U 11 5.0 U 10 U MSD MSD %Recovery Qualifier 113 106 109 Ie Organic Compount -A MB MB Result Qualifier	Sample Sample Spike Result Qualifier Added 5.0 U 125 5.0 U 125 11 125 5.0 U 125 11 125 5.0 U 125 10 U 375 MSD MSD Kecovery Qualifier Limits 113 66 - 137 106 71 - 126 109 73 - 120 Ie Organic Compounds (GC/MS) -A MB MB MB MB	Sample Sample Spike MSD Result Qualifier Added Result 5.0 U 125 134 5.0 U 125 133 11 125 162 5.0 U 125 132 10 U 375 411 MSD MSD MSD MSD MSD %Recovery Qualifier Limits 66 - 137 106 71 - 126 109 73 - 120 Ie Organic Compounds (GC/MS) -A MB MB Result Qualifier RL	Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier Qualifier </td <td>Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier Qualifier 5.0 U 125 134 Image: Composition of the second of the se</td> <td>Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier Unit 5.0 U 125 134 ug/L ug/L 5.0 U 125 133 ug/L 11 125 162 F ug/L 5.0 U 125 132 ug/L 10 U 375 411 ug/L 10 U 375 411 ug/L 113 66 - 137 106 71 - 126 109 73 - 120 Ie Organic Compounds (GC/MS)</td> <td>Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier Unit 5.0 U 125 134 ug/L ug/L 5.0 U 125 133 ug/L 11 125 162 F ug/L 5.0 U 125 132 ug/L 11 125 132 ug/L U 5.0 U 375 411 ug/L 10 U 375 411 ug/L MSD MSD %Recovery Qualifier Limits 113 66 - 137 66 - 137 106 71 - 126 109 73 - 120 Image: Compounds (GC/MS) Image: Compounds (GC/MS)</td> <td>Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier Unit D 5.0 U 125 134 ug/L D 5.0 U 125 133 ug/L D 11 125 162 F ug/L D 5.0 U 125 132 ug/L D 5.0 U 125 132 ug/L D 10 U 375 411 ug/L D MSD MSD MSD V V NO NO %Recovery Qualifier Limits E E 009 73 - 120 D IE Organic Compounds (GC/MS)</td> <td>Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier Unit D %Rec 5.0 U 125 134 ug/L 107 5.0 U 125 133 ug/L 106 11 125 162 F ug/L 121 5.0 U 125 132 ug/L 106 11 125 132 ug/L 106 10 U 375 411 ug/L 110 MSD MSD MSD MSD MSD MSD %Recovery Qualifier Limits 66-137 106 71-126 109 73-120 Ie Organic Compounds (GC/MS) Client Sa MB MB</td> <td>Sample Sample Spike MSD MSD MSD MRC. Limits 5.0 U 125 134 ug/L D %Rec. Limits 5.0 U 125 134 ug/L 107 77.120 5.0 U 125 133 ug/L 106 71.124 11 125 162 F ug/L 121 72.120 5.0 U 125 132 ug/L 106 71.124 11 125 132 ug/L 106 77.123 10 0 375 411 ug/L 110 76.122 106 MSD <t< td=""><td>Sample Sample Spike MSD MSD MSD MSD MRC. Result Qualifier Added Result Qualifier Unit D %Rec. Limits RPD 5.0 U 125 134 ug/L 107 77.120 1 5.0 U 125 133 ug/L 106 71.124 4 11 125 162 F ug/L 121 72.120 3 5.0 U 125 132 ug/L 106 71.123 3 10 U 375 411 ug/L 110 76.122 1 MSD %Recovery Qualifier Limits 66.137 66.137 106 71.126 109 73.120 100 73.120 100 100 100 100 100 100 100 100<</td></t<></td>	Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier Qualifier 5.0 U 125 134 Image: Composition of the second of the se	Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier Unit 5.0 U 125 134 ug/L ug/L 5.0 U 125 133 ug/L 11 125 162 F ug/L 5.0 U 125 132 ug/L 10 U 375 411 ug/L 10 U 375 411 ug/L 113 66 - 137 106 71 - 126 109 73 - 120 Ie Organic Compounds (GC/MS)	Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier Unit 5.0 U 125 134 ug/L ug/L 5.0 U 125 133 ug/L 11 125 162 F ug/L 5.0 U 125 132 ug/L 11 125 132 ug/L U 5.0 U 375 411 ug/L 10 U 375 411 ug/L MSD MSD %Recovery Qualifier Limits 113 66 - 137 66 - 137 106 71 - 126 109 73 - 120 Image: Compounds (GC/MS) Image: Compounds (GC/MS)	Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier Unit D 5.0 U 125 134 ug/L D 5.0 U 125 133 ug/L D 11 125 162 F ug/L D 5.0 U 125 132 ug/L D 5.0 U 125 132 ug/L D 10 U 375 411 ug/L D MSD MSD MSD V V NO NO %Recovery Qualifier Limits E E 009 73 - 120 D IE Organic Compounds (GC/MS)	Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier Unit D %Rec 5.0 U 125 134 ug/L 107 5.0 U 125 133 ug/L 106 11 125 162 F ug/L 121 5.0 U 125 132 ug/L 106 11 125 132 ug/L 106 10 U 375 411 ug/L 110 MSD MSD MSD MSD MSD MSD %Recovery Qualifier Limits 66-137 106 71-126 109 73-120 Ie Organic Compounds (GC/MS) Client Sa MB MB	Sample Sample Spike MSD MSD MSD MRC. Limits 5.0 U 125 134 ug/L D %Rec. Limits 5.0 U 125 134 ug/L 107 77.120 5.0 U 125 133 ug/L 106 71.124 11 125 162 F ug/L 121 72.120 5.0 U 125 132 ug/L 106 71.124 11 125 132 ug/L 106 77.123 10 0 375 411 ug/L 110 76.122 106 MSD MSD <t< td=""><td>Sample Sample Spike MSD MSD MSD MSD MRC. Result Qualifier Added Result Qualifier Unit D %Rec. Limits RPD 5.0 U 125 134 ug/L 107 77.120 1 5.0 U 125 133 ug/L 106 71.124 4 11 125 162 F ug/L 121 72.120 3 5.0 U 125 132 ug/L 106 71.123 3 10 U 375 411 ug/L 110 76.122 1 MSD %Recovery Qualifier Limits 66.137 66.137 106 71.126 109 73.120 100 73.120 100 100 100 100 100 100 100 100<</td></t<>	Sample Sample Spike MSD MSD MSD MSD MRC. Result Qualifier Added Result Qualifier Unit D %Rec. Limits RPD 5.0 U 125 134 ug/L 107 77.120 1 5.0 U 125 133 ug/L 106 71.124 4 11 125 162 F ug/L 121 72.120 3 5.0 U 125 132 ug/L 106 71.123 3 10 U 375 411 ug/L 110 76.122 1 MSD %Recovery Qualifier Limits 66.137 66.137 106 71.126 109 73.120 100 73.120 100 100 100 100 100 100 100 100<

%Recovery	Qualifier	Limits
90		46 - 120
96		48 - 120
119		67 - 150
	%Recovery 90 96 119	%Recovery Qualifier 90 96 119

Lab Sample ID: 480-25019-5 MS Matrix: Water Analysis Batch: 80575

	MS		
Surrogate	%Recovery	Qualifier	Limits
Nitrobenzene-d5	90		46 - 120
2-Fluorobiphenyl	93		48 - 120
p-Terphenyl-d14	69		67 - 150

Client Sample ID: Sump 4-091212 Prep Type: Total/NA Prep Batch: 80441 Lab Sample ID: 480-25019-5 MSD

Matrix: Water

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

Client Sample ID: Sump 4-091212

Prep Type: Total/NA

1 2 3 4 5 6 7 8 9 10

Analysis Batch: 80575												Prep Batc	h: 80441
	MSD	MSD	•										
Surrogate	%Recovery	Qual	lifier	Limits									
Nitrobenzene-d5	93			46 - 120									
2-Fluorobiphenyl	99			48 - 120									
p-Terphenyl-d14	85			67 - 150									
/lethod: 608 - Polychlorina	ated Bipher	ıyls	(PCBs) (GC)									
Lab Sample ID: MB 480-80448	/1-A										Client Sa	mple ID: Metho	d Blank
Matrix: Water												Prep Type:	Total/NA
Analysis Batch: 80433												Prep Batc	h: <mark>8044</mark> 8
		MB	MB										
Analyte	Re	sult	Qualifier	RL		MDL	Unit		D	P	repared	Analyzed	Dil Fac
PCB-1016	0.	060	U	0.060	(0.038	ug/L			09/1	3/12 15:18	09/14/12 14:18	1
PCB-1221	0.	060	U	0.060	(0.038	ug/L			09/1	3/12 15:18	09/14/12 14:18	1
PCB-1232	0.	060	U	0.060	(0.038	ug/L			09/1	3/12 15:18	09/14/12 14:18	1
PCB-1242	0.	060	U	0.060	(0.038	ug/L			09/1	3/12 15:18	09/14/12 14:18	1
PCB-1248	0.	060	U	0.060	(0.038	ug/L			09/1	3/12 15:18	09/14/12 14:18	1
PCB-1254	0.	060	U	0.060	(0.031	ug/L			09/1	3/12 15:18	09/14/12 14:18	1
PCB-1260	0.	060	U	0.060	(0.031	ug/L			09/1	3/12 15:18	09/14/12 14:18	1
Surrogate	%Recov	MB /erv	MB Qualifier	Limits						Р	repared	Analvzed	Dil Fac
DCB Decachlorobiphenyl		62		10 - 158						09/1	3/12 15:18	09/14/12 14:18	1
Tetrachloro-m-xylene		89		18 - 146						09/1	3/12 15:18	09/14/12 14:18	1
Lab Sample ID: LCS 480-8044	8/ 2-A								С	lient	Sample	ID: Lab Control	Sample
Matrix: Water												Prep Type:	Total/NA
Analysis Batch: 80433												Prep Batc	h: <mark>8044</mark> 8
				Spike	LCS	LCS						%Rec.	
Analyte				Added	Result	Qua	lifier	Unit		D	%Rec	Limits	
PCB-1016				1.00	0.923			ug/L			92	44 _ 154	
PCB-1260				1.00	0.958			ug/L			96	34 - 150	
	LCS	LCS											
Surrogate	%Recovery	Qual	lifier	Limits									
DCB Decachlorobiphenyl	53			10 - 158									
Tetrachloro-m-xylene	88			18 - 146									
Lab Sample ID: 480-25019-5 M	S									С	lient San	nple ID: Sump 4	-091212
Matrix: Water												Prep Type:	Total/NA
Analysis Batch: 80433												Prep Batc	h: <mark>8044</mark> 8
	Sample	Sam	ple	Spike	MS	MS						%Rec.	
Analyte	Result	Qual	ifier	Added	Result	Qua	lifier	Unit		D	%Rec	Limits	
PCB-1016	0.057	U		0.946	0 995			ua/l			105	50 - 159	

PCB-1260	0.057	U	0.946
	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	33		10 - 158
Tetrachloro-m-xylene	97		18 - 146

0.793

ug/L

84

26 - 142

Method: 8081A - Organochlorine Pesticides (GC)

8 9

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

Lab Sample ID: 480-25019-5 MS Matrix: Water Analysis Batch: 80433	SD.						С	lient Sa	mple ID: Si Prep T Prep	ump 4-0 ype: Tot Batch:	91212 tal/NA 80448
· ···· , ··· · ··· · · · · ·	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1016	0.057	U	0.945	0.864		ug/L		91	50 - 159	14	30
PCB-1260	0.057	U	0.945	0.630		ug/L		67	26 - 142	23	30
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
DCB Decachlorobiphenyl	28		10 - 158								
Tetrachloro-m-xylene	88		18 - 146								

Lab Sample ID: MB 480-80446/1-A											Client Sa	mple ID: Metho	d Blank
Matrix: Water												Prep Type:	
Analysis Batch: 80578		мр	MD									Prep Batc	n: 80446
Analyte	Pe	eult	Qualifier	Б		мы	Unit		п	D,	renared	Analyzed	Dil Eac
	0	050		0.05	<u>. </u>	0092				09/1:	3/12 15.10	09/14/12 22·29	1
4.4'-DDE	0	.050	U	0.05	i0 (0.012	ua/L			09/1:	3/12 15:10	09/14/12 22:29	1
			-				- 0						
		ΜВ	MB										
Surrogate	%Reco	very	Qualifier	Limits					_	PI	repared	Analyzed	Dil Fac
DCB Decachlorobiphenyl		63		16 - 120						09/1	3/12 15:10	09/14/12 22:29	1
Tetrachloro-m-xylene		77		35 - 120						09/1	3/12 15:10	09/14/12 22:29	1
Lab Sample ID: LCS 480-80446/2-4	٨								CI	ont	Sample I	D: Lab Control	Sample
Matrix: Water									0.	unt	oumpier	Pren Type: "	
Analysis Batch: 80578												Pron Batel	h. 80446
Analysis Datch. 00070				Spike	LCS	LCS						%Rec.	1. 00440
Analyte				Added	Result	Qua	lifier	Unit		D	%Rec	Limits	
4,4'-DDD				0.500	0.454			ug/L		_	91	59 - 135	
4,4'-DDE				0.500	0.409			ug/L			82	52 - 123	
	100	100											
Surrogato	/ Pacovary	000	lifior	Limite									
DCB Decechlorobinhenvl	48	Qua		16 120									
	70			35 120									
	12			55 - 720									
Lab Sample ID: 480-25019-5 MS										С	lient Sam	ple ID: Sump 4	-091212
Matrix: Water												Prep Type: ¹	Total/NA
Analysis Batch: 80578												Prep Batcl	h: 80446
	Sample	Sam	ple	Spike	MS	MS						%Rec.	
Analyte	Result	Qual	ifier	Added	Result	Qua	lifier	Unit		D	%Rec	Limits	
4,4'-DDD	0.047	U		0.476	0.380			ug/L			80	26 - 146	
4,4'-DDE	0.047	U		0.476	0.339			ug/L			71	15 - 136	
	MS	MS											
Surrogate %	«Recoverv	Qual	lifier	Limits									
DCB Decachlorobiphenvl	41			16 - 120									
Tetrachloro-m-xylene	62			35 - 120									

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

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

Lab Sample ID: 480-25019-5 M	SD						C	lient Sa	mple ID: S	ump 4-0	91212
Analysis Batch: 80578									Pron	Batch	2011 NA
Analysis Datch. 00070	Sample	Sample	Spike	MSD	MSD				%Rec.	Daten.	RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
4,4'-DDD	0.047	U	0.475	0.369		ug/L		78	26 - 146	3	12
4,4'-DDE	0.047	U	0.475	0.315		ug/L		66	15 ₋ 136	7	14
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
DCB Decachlorobiphenyl	44		16 - 120								
Tetrachloro-m-xylene	62		35 - 120								

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 480-80305/1-A Matrix: Water Analysis Batch: 80548							Client Sa	mple ID: Metho Prep Type: ٦ Prep Batcl	d Blank Fotal/NA n: 80305
-	МВ	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.0040	U	0.0040	0.0010	mg/L		09/13/12 08:45	09/13/12 15:53	1
Lead	0.0050	U	0.0050	0.0030	mg/L		09/13/12 08:45	09/13/12 15:53	1
Iron	0.050	U	0.050	0.019	mg/L		09/13/12 08:45	09/13/12 15:53	1
Manganese	0.0030	U	0.0030	0 00040	ma/l		09/13/12 08:45	09/13/12 15:53	1

Lab Sample ID: LCS 480-80305/2-A Matrix: Water Analysis Batch: 80548

Analysis Batch: 80548							Prep	Batch: 80305
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chromium	0.200	0.196		mg/L		98	80 - 120	
Lead	0.200	0.200		mg/L		100	80 - 120	
Iron	10.0	9.95		mg/L		99	80 - 120	
Manganese	0.200	0.204		mg/L		102	80 - 120	

Lab Sample ID: 480-25019-5 MS	o Sample ID: 480-25019-5 MS								Client Sample ID: Sump 4-091212			
Matrix: Water									Prep Ty	/pe: Total/NA		
Analysis Batch: 80548									Prep Batch:			
	Sample	Sample	Spike	MS	MS				%Rec.			
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Chromium	0.0033		0.200	0.198		mg/L		97	75 - 125			
Lead	0.0050	U	0.200	0.213		mg/L		107	75 - 125			
Iron	2.6		10.0	12.50		mg/L		99	75 - 125			
Manganese	5.7		0.200	6.06	4	mg/L		159	75 - 125			

Lab Sample ID: 480-25019-5 MSD	Sample ID: 480-25019-5 MSD							lient Sa	mple ID: S	ump 4-0	91212
Matrix: Water									Prep 1	ype: To	tal/NA
Analysis Batch: 80548									Prep	Batch:	80305
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chromium	0.0033	J	0.200	0.195		mg/L		96	75 - 125	1	20
Lead	0.0050	U	0.200	0.209		mg/L		104	75 - 125	2	20
Iron	2.6		10.0	12.47		mg/L		98	75 - 125	0	20
Manganese	5.7		0.200	6.01	4	mg/L		136	75 _ 125	1	20

RL

1.0

1.0

0.50

Spike

Added

20.0

20.0

20.0

MDL Unit

0.15 ug/L

0.078 ug/L

0.018 ug/L

LCS LCS

19.98

19.30

19.65

Result Qualifier

D

Unit

ug/L

ug/L

ug/L

Prepared

09/14/12 07:20

09/14/12 07:20

09/14/12 07:20

%Rec

100

D

MB MB Result Qualifier

1.0 U

0.0850 J

0.150 J

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 480-80451/1-A

Lab Sample ID: LCS 480-80451/2-A

Lab Sample ID: 480-25019-5 MS

Matrix: Water

Analyte

Antimony

Cadmium

Matrix: Water

Arsenic

Analyte

Arsenic

Antimony

Cadmium

Analysis Batch: 80944

Analysis Batch: 80944

Client Sample ID: Method Blank

Analyzed

09/15/12 03:47

09/15/12 03:47

09/15/12 03:47

Client Sample ID: Lab Control Sample

%Rec.

Limits

80 - 120

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 80451

Prep Batch: 80451

Dil Fac

1

1

1

8

	97 98	80 - 120 80 - 120	
Clie	nt San	nple ID: Sump 4-091212	
		Prep Type: Total/NA Prep Batch: 80451	
%	Rec	%Rec. Limits	

Matrix: Water									Prep 1	Type: To	tal/N/
Analysis Batch: 80944									Prep	Batch:	8045
	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Antimony	0.73	J	20.0	22.66		ug/L		110	75 - 125		
Arsenic	11.9	В	20.0	33.12		ug/L		106	75 - 125		
Cadmium	0.23	JB	20.0	19.43		ug/L		96	75 _ 125		

Lab Sample ID: 480-25019-5 MSD Matrix: Water Analysis Batch: 80944							C	Client Sa	mple ID: S Prep 1 Prep	ump 4-0 Type: To Batch:	91212 tal/NA 80451
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	0.73	J	20.0	22.08		ug/L		107	75 _ 125	3	20
Arsenic	11.9	В	20.0	32.40		ug/L		102	75 ₋ 125	2	20
Cadmium	0.23	JB	20.0	19.14		ug/L		95	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-80297/1-A Matrix: Water Analysis Batch: 80427										Client S	ample ID: Me Prep Typ Prep B	ethod Blank be: Total/NA
Analysis Datch. 00427	МВ	МВ									гтер в	atch. 00297
Analyte	Result	Qualifier		RL	MDL	Unit		D	Р	repared	Analyzed	Dil Fac
Mercury	0.00020	U	0.000	020 0.0	00012	mg/L			09/1	3/12 08:20	09/13/12 12	:25 1
- Lab Sample ID: LCS 480-80297/2-A								CI	lient	t Sample	ID: Lab Con	trol Sample
Matrix: Water											Prep Typ	be: Total/NA
Analysis Batch: 80427											Prep B	atch: 80297
-			Spike	LCS	LCS						%Rec.	
Analyte			Added	Result	Qua	lifier	Unit		D	%Rec	Limits	
Mercury			0.00667	0.00625			ma/l			94	80 - 120	

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

Lab Sample ID: 480-25019-5 MS Matrix: Water Analysis Batch: 80427	Sampla	Sampla	Spiko	ме	MS		С	lient Sa	mple ID: S Prep 1 Prep	ump 4-0 Type: Tot Batch:	91212 al/NA 80297
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Mercury	0.00020	U	0.00667	0.00542		mg/L		81	75 - 125		
 Lab Sample ID: 480-25019-5 MSD							С	lient Sa	mple ID: S	ump 4-0	91212
Matrix: Water									Prep 1	Type: Tot	al/NA
Analysis Batch: 80427									Prep	Batch:	80297
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.00020	U	0.00667	0.00550		mg/L		82	75 - 125	2	20

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

GC/MS VOA

Analysis Batch: 80570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-25019-2	Sump 1-091212	Total/NA	Water	8260B	
480-25019-3	Sump 2-091212	Total/NA	Water	8260B	
480-25019-4	Sump 3-091212	Total/NA	Water	8260B	
480-25019-5	Sump 4-091212	Total/NA	Water	8260B	
480-25019-5 MS	Sump 4-091212	Total/NA	Water	8260B	
480-25019-5 MSD	Sump 4-091212	Total/NA	Water	8260B	
480-25019-6	FDUP-Sump 4-091212	Total/NA	Water	8260B	
480-25019-7	TRIP BLANK	Total/NA	Water	8260B	
LCS 480-80570/3	Lab Control Sample	Total/NA	Water	8260B	
MB 480-80570/4	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA Prep Batch: 80441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-25019-1	Sump Comp-091212	Total/NA	Water	3510C	
480-25019-5	Sump 4-091212	Total/NA	Water	3510C	
480-25019-5 MS	Sump 4-091212	Total/NA	Water	3510C	
480-25019-5 MSD	Sump 4-091212	Total/NA	Water	3510C	
480-25019-6	FDUP-Sump 4-091212	Total/NA	Water	3510C	
LCS 480-80441/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 480-80441/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 80575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-25019-1	Sump Comp-091212	Total/NA	Water	8270C	80441
480-25019-5	Sump 4-091212	Total/NA	Water	8270C	80441
480-25019-5 MS	Sump 4-091212	Total/NA	Water	8270C	80441
480-25019-5 MSD	Sump 4-091212	Total/NA	Water	8270C	80441
480-25019-6	FDUP-Sump 4-091212	Total/NA	Water	8270C	80441
LCS 480-80441/2-A	Lab Control Sample	Total/NA	Water	8270C	80441
MB 480-80441/1-A	Method Blank	Total/NA	Water	8270C	80441

GC Semi VOA

Analysis Batch: 80433

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
480-25019-1	Sump Comp-091212	Total/NA	Water	608	80448
480-25019-5	Sump 4-091212	Total/NA	Water	608	80448
480-25019-5 MS	Sump 4-091212	Total/NA	Water	608	80448
480-25019-5 MSD	Sump 4-091212	Total/NA	Water	608	80448
480-25019-6	FDUP-Sump 4-091212	Total/NA	Water	608	80448
LCS 480-80448/2-A	Lab Control Sample	Total/NA	Water	608	80448
MB 480-80448/1-A	Method Blank	Total/NA	Water	608	80448

Prep Batch: 80446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-25019-1	Sump Comp-091212	Total/NA	Water	3510C	
480-25019-5	Sump 4-091212	Total/NA	Water	3510C	
480-25019-5 MS	Sump 4-091212	Total/NA	Water	3510C	
480-25019-5 MSD	Sump 4-091212	Total/NA	Water	3510C	
480-25019-6	FDUP-Sump 4-091212	Total/NA	Water	3510C	

Prep Type

Total/NA

Total/NA

Prep Type

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Prep Type

Total/NA

Total/NA

Total/NA

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Total/NA

Total/NA

Total/NA

Matrix

Water

Water

Matrix

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Matrix

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

Client Sample ID

Client Sample ID

Sump 4-091212

Sump 4-091212

Sump 4-091212

Method Blank

Client Sample ID

Sump 4-091212

Sump 4-091212

Sump 4-091212

Method Blank

Sump Comp-091212

FDUP-Sump 4-091212

Lab Control Sample

Sump Comp-091212

FDUP-Sump 4-091212

Lab Control Sample

Method Blank

Lab Control Sample

GC Semi VOA (Continued) Prep Batch: 80446 (Continued)

Lab Sample ID

LCS 480-80446/2-A

MB 480-80446/1-A

Prep Batch: 80448 Lab Sample ID

480-25019-1

480-25019-5

480-25019-6

480-25019-5 MS

480-25019-5 MSD

LCS 480-80448/2-A

MB 480-80448/1-A

Lab Sample ID

480-25019-1

480-25019-5

480-25019-6

480-25019-5 MS

480-25019-5 MSD

LCS 480-80446/2-A

MB 480-80446/1-A

Analysis Batch: 80578

Method

3510C

3510C

Method

3510C

3510C

3510C

3510C

3510C

3510C

3510C

Method

8081A

8081A

8081A

8081A

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8081A

8081A

Prep Batch

Prep Batch

Prep Batch

80446

80446

80446

80446

80446

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80446

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Metals

Prep Batch: 80297

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
480-25019-1	Sump Comp-091212	Total/NA	Water	7470A	
480-25019-5	Sump 4-091212	Total/NA	Water	7470A	
480-25019-5 MS	Sump 4-091212	Total/NA	Water	7470A	
480-25019-5 MSD	Sump 4-091212	Total/NA	Water	7470A	
480-25019-6	FDUP-Sump 4-091212	Total/NA	Water	7470A	
LCS 480-80297/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 480-80297/1-A	Method Blank	Total/NA	Water	7470A	

Prep Batch: 80305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-25019-1	Sump Comp-091212	Total/NA	Water	3005A	
480-25019-5	Sump 4-091212	Total/NA	Water	3005A	
480-25019-5 MS	Sump 4-091212	Total/NA	Water	3005A	
480-25019-5 MSD	Sump 4-091212	Total/NA	Water	3005A	
480-25019-6	FDUP-Sump 4-091212	Total/NA	Water	3005A	
LCS 480-80305/2-A	Lab Control Sample	Total/NA	Water	3005A	
MB 480-80305/1-A	Method Blank	Total/NA	Water	3005A	

Analysis Batch: 80427

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
480-25019-1	Sump Comp-091212	Total/NA	Water	7470A	80297
480-25019-5	Sump 4-091212	Total/NA	Water	7470A	80297
480-25019-5 MS	Sump 4-091212	Total/NA	Water	7470A	80297
480-25019-5 MSD	Sump 4-091212	Total/NA	Water	7470A	80297
480-25019-6	FDUP-Sump 4-091212	Total/NA	Water	7470A	80297

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

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Metals (Continued)

Analysis Batch: 80427 (Continued)

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
LCS 480-80297/2-A	Lab Control Sample	Total/NA	Water	7470A	80297
MB 480-80297/1-A	Method Blank	Total/NA	Water	7470A	80297

Prep Batch: 80451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-25019-1	Sump Comp-091212	Total/NA	Water	3020A	
480-25019-5	Sump 4-091212	Total/NA	Water	3020A	
480-25019-5 MS	Sump 4-091212	Total/NA	Water	3020A	
480-25019-5 MSD	Sump 4-091212	Total/NA	Water	3020A	
480-25019-6	FDUP-Sump 4-091212	Total/NA	Water	3020A	
LCS 480-80451/2-A	Lab Control Sample	Total/NA	Water	3020A	
MB 480-80451/1-A	Method Blank	Total/NA	Water	3020A	

Analysis Batch: 80548

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
480-25019-1	Sump Comp-091212	Total/NA	Water	6010B	80305
480-25019-5	Sump 4-091212	Total/NA	Water	6010B	80305
480-25019-5 MS	Sump 4-091212	Total/NA	Water	6010B	80305
480-25019-5 MSD	Sump 4-091212	Total/NA	Water	6010B	80305
480-25019-6	FDUP-Sump 4-091212	Total/NA	Water	6010B	80305
LCS 480-80305/2-A	Lab Control Sample	Total/NA	Water	6010B	80305
MB 480-80305/1-A	Method Blank	Total/NA	Water	6010B	80305

Analysis Batch: 80944

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
480-25019-1	Sump Comp-091212	Total/NA	Water	6020	80451
480-25019-5	Sump 4-091212	Total/NA	Water	6020	80451
480-25019-5 MS	Sump 4-091212	Total/NA	Water	6020	80451
480-25019-5 MSD	Sump 4-091212	Total/NA	Water	6020	80451
480-25019-6	FDUP-Sump 4-091212	Total/NA	Water	6020	80451
LCS 480-80451/2-A	Lab Control Sample	Total/NA	Water	6020	80451
MB 480-80451/1-A	Method Blank	Total/NA	Water	6020	80451

Lab Sample ID: 480-25019-1

Matrix: Water

Client Sample ID: Sump Comp-091212 Date Collected: 09/12/12 12:07

Date Received: 09/12/12 15:05

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			80441	09/13/12 14:58	DE	TAL BUF
Total/NA	Analysis	8270C		1	80575	09/14/12 19:28	HTL	TAL BUF
Total/NA	Prep	3510C			80448	09/13/12 15:20	DE	TAL BUF
Total/NA	Analysis	608		1	80433	09/15/12 08:59	DB	TAL BUF
Total/NA	Prep	3510C			80446	09/13/12 15:12	DE	TAL BUF
Total/NA	Analysis	8081A		1	80578	09/15/12 10:52	LW	TAL BUF
Total/NA	Prep	7470A			80297	09/13/12 08:20	JRK	TAL BUF
Total/NA	Analysis	7470A		1	80427	09/13/12 12:50	JRK	TAL BUF
Total/NA	Prep	3005A			80305	09/13/12 08:45	JM	TAL BUF
Total/NA	Analysis	6010B		1	80548	09/13/12 16:34	LH	TAL BUF
Total/NA	Prep	3020A			80451	09/14/12 07:20	JM	TAL BUF
Total/NA	Analysis	6020		1	80944	09/15/12 03:58	MM	TAL BUF

Client Sample ID: Sump 1-091212 Date Collected: 09/12/12 12:01 Date Received: 09/12/12 15:05

_								
	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	80570	09/14/12 15:01	ND	TAL BUF

Client Sample ID: Sump 2-091212

Date Collected: 09/12/12 11:39

Date Received: 09/12/12 15:05

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type Total/NA	Type Analysis	Method 8260B	Run	Factor 5	Number 80570	or Analyzed	Analyst ND	Lab TAL BUF

Client Sample ID: Sump 3-091212 Date Collected: 09/12/12 11:19

Date Received: 09/12/12 15:05

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	80570	09/14/12 15:48	ND	TAL BUF

Client Sample ID: Sump 4-091212 Date Collected: 09/12/12 09:59

Date Received: 09/12/12 15:05

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	80570	09/14/12 16:11	ND	TAL BUF
Total/NA	Prep	3510C			80441	09/13/12 14:58	DE	TAL BUF
Total/NA	Analysis	8270C		1	80575	09/14/12 19:52	HTL	TAL BUF
Total/NA	Prep	3510C			80448	09/13/12 15:20	DE	TAL BUF
Total/NA	Analysis	608		1	80433	09/15/12 09:15	DB	TAL BUF

Lab Sample ID: 480-25019-2 Matrix: Water

Lab Sample ID: 480-25019-3

Lab Sample ID: 480-25019-4

Lab Sample ID: 480-25019-5

trix: Water

Matrix: Water

Matrix: Water

Matrix: Water

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Client Sample ID: Sump 4-091212

Lab Sample ID: 480-25019-5 Matrix: Water

Date Collected: 09/12/12 09:59 Date Received: 09/12/12 15:05

	Batch	Batch		Dilution	Batch	Prepared		
Prep Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			80446	09/13/12 15:12	DE	TAL BUF
Total/NA	Analysis	8081A		1	80578	09/15/12 11:33	LW	TAL BUF
Total/NA	Prep	7470A			80297	09/13/12 08:20	JRK	TAL BUF
Total/NA	Analysis	7470A		1	80427	09/13/12 12:51	JRK	TAL BUF
Total/NA	Prep	3005A			80305	09/13/12 08:45	JM	TAL BUF
Total/NA	Analysis	6010B		1	80548	09/13/12 16:36	LH	TAL BUF
Total/NA	Prep	3020A			80451	09/14/12 07:20	JM	TAL BUF
Total/NA	Analysis	6020		1	80944	09/15/12 04:04	MM	TAL BUF

Client Sample ID: FDUP-Sump 4-091212 Date Collected: 09/12/12 10:37 Date Received: 09/12/12 15:05

	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	80570	09/14/12 17:22	ND	TAL BUF
Total/NA	Prep	3510C			80441	09/13/12 14:58	DE	TAL BUF
Total/NA	Analysis	8270C		1	80575	09/14/12 20:16	HTL	TAL BUF
Total/NA	Prep	3510C			80448	09/13/12 15:20	DE	TAL BUF
Total/NA	Analysis	608		1	80433	09/15/12 09:31	DB	TAL BUF
Total/NA	Prep	3510C			80446	09/13/12 15:12	DE	TAL BUF
Total/NA	Analysis	8081A		1	80578	09/15/12 12:14	LW	TAL BUF
Total/NA	Prep	7470A			80297	09/13/12 08:20	JRK	TAL BUF
Total/NA	Analysis	7470A		1	80427	09/13/12 12:59	JRK	TAL BUF
Total/NA	Prep	3005A			80305	09/13/12 08:45	JM	TAL BUF
Total/NA	Analysis	6010B		1	80548	09/13/12 16:44	LH	TAL BUF
Total/NA	Prep	3020A			80451	09/14/12 07:20	JM	TAL BUF
Total/NA	Analysis	6020		1	80944	09/15/12 04:45	MM	TAL BUF

Client Sample ID: TRIP BLANK

Date Collected: 09/12/12 10:45 Date Received: 09/12/12 15:05

_	Batch	Batch		Dilution	Batch	Prenared		
	Daten	Daten		Dilution	Daten	riepaieu		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	80570	09/14/12 17:46	ND	TAL BUF

Laboratory References:

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

Matrix: Water

Lab Sample ID: 480-25019-7

Certification Summary

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

1 2 3 4 5 6 7 8 9 10

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Laboratory: TestAmerica Buffalo All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-13
California	NELAC	9	1169CA	09-30-12
Connecticut	State Program	1	PH-0568	09-30-12
Florida	NELAC	4	E87672	06-30-13
Georgia	State Program	4	N/A	03-31-13
Georgia	State Program	4	956	03-31-12
Illinois	NELAC	5	200003	09-30-12
lowa	State Program	7	374	03-01-13
Kansas	NELAC	7	E-10187	01-31-13
Kentucky	State Program	4	90029	12-31-12
Kentucky (UST)	State Program	4	30	04-01-13
Louisiana	NELAC	6	02031	06-30-13
Maine	State Program	1	NY00044	12-04-12
Maryland	State Program	3	294	03-31-13
Massachusetts	State Program	1	M-NY044	06-30-13
Michigan	State Program	5	9937	04-01-13
Minnesota	NELAC	5	036-999-337	12-31-12
New Hampshire	NELAC	1	2973	09-11-13
New Hampshire	NELAC	1	2337	11-17-12
New Jersey	NELAC	2	NY455	06-30-13
New York	NELAC	2	10026	03-31-13
North Dakota	State Program	8	R-176	03-31-13
Oklahoma	State Program	6	9421	08-31-13
Oregon	NELAC	10	NY200003	06-09-13
Pennsylvania	NELAC	3	68-00281	07-31-13
Tennessee	State Program	4	TN02970	04-01-13
Texas	NELAC	6	T104704412-11-2	07-31-13
USDA	Federal		P330-11-00386	11-22-14
Washington	State Program	10	C784	02-10-13
West Virginia DEP	State Program	3	252	09-30-12
Wisconsin	State Program	5	998310390	08-31-12

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

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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

Sample Summary

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

TestAmerica Job ID: 480-25019-1

Lab Sample ID Client Sample ID		Matrix	Collected	Received	
480-25019-1	Sump Comp-091212	Water	09/12/12 12:07	09/12/12 15:05	
480-25019-2	Sump 1-091212	Water	09/12/12 12:01	09/12/12 15:05	
480-25019-3	Sump 2-091212	Water	09/12/12 11:39	09/12/12 15:05	
480-25019-4	Sump 3-091212	Water	09/12/12 11:19	09/12/12 15:05	
480-25019-5	Sump 4-091212	Water	09/12/12 09:59	09/12/12 15:05	
480-25019-6	FDUP-Sump 4-091212	Water	09/12/12 10:37	09/12/12 15:05	
480-25019-7	TRIP BLANK	Water	09/12/12 10:45	09/12/12 15:05	

Chain of Custody Record



THELEADER & THEFEONMENTAL SESENC

6	lient Information	Sanapter	K 410	acins	Lab Bog	РМ olin, i	Anth							Car	rier Tra	acking	No(s)			COC No 480-15491-3542.1
c	ient Contact	Phone : <	11.8-1	1.1.2	E-Ma	uil Line a														Page"
5		$\Box(\underline{S},\underline{S},\underline{S},\underline{S},\underline{S},\underline{S},\underline{S},\underline{S},$	100 /	605	tony	000		giesi	ame	rical	nc.co	m						_	_	Page 1 of 1
Ĭ	oneywell International Inc										Ana	alys	is Re	que	sted					
A	dress emediation & Evaluation Services, Mey-3	Due Date Request	ed:																Γ	Preservation Codes:
C N S	ty Orristown ate, Zip	TAT Requested (d	ays):																	A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S
ľ	J, 07962	PO #										ļ			ļ					E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2SO3
Ľ		Purchase Orde	Requested	i) S			_						-			ł		G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate
EJ	^{nail} phn.Formoza@CH2M.com	WO #.				2	2		ğ										2	J - DI Water V - MCAA
ы Ч	oject Name oneywell - Buffalo Sites/ Event Desc: Honeywell Alltift GW Mon	Project # 48003159				Š	10 88		Intant	dea	olatile				1				taine	K-EDTA W-ph:4-5 L-EDA Z-other(specify)
S	te ew York	SSOW#				amp		AO	ty Pol	eetic	-iEa	folatil							5	Other:
			Sample	Sample Type (C=comp,	Matrix (W-water, 8-solid, O-wasteroff,	ld Filtered S	Hom MS/M	10B, 6020, 741	PCB - Prior	14 - (MOD) F	70C - (MOD) S	(QOW) - 805							tal Number o	
_ls	ample Identification	Sample Date	Time	G=grab)	BT=Tissue, A=Air	Ē		5	ŝ	<u>ä</u>	82	8		+-	+-			_+-	Ľ	Special Instructions/Note:
aj-	Sumo Comp-091212	0/12/11	1207	Preserv	Water	₽			2	2	2	1	+	┢	+		-	+-	ť,	
မှု	Sumo 1-091212	0/12/11	1201	6	Water			-+	-	-	-	$\frac{1}{2}$	+	+	+			-+-	1/2	·
or of −	Sump 2 001212	0/42/14	100		Water	<u> </u> ∩		-+	-+	-+	-+	-		+	+	-	_	-+-		·
ω 4	Sump 2-091212	9/12/11	11.59	G	Water			-+	-+		-+	3	-	+			-			·
┟	Sump 3-091212	9/12/11	111	6	Water			+				3	-	+	+	\vdash		- -		
╞	Sump 4-091212	9/12/11	(H.J)	<u> </u>	water	╀╢	_		2	2	2	3	_	+	+	\vdash		+		/
╞	FDUP-Sump 4-091212	9/12/11	10:51	G	water	┦╢	N	1	2	2	2	3				+-		+	10	
┟	Sump 4-091212_MS	9/12/11	DI	G	Water		Y	1	2	2	2	3	_	+	\vdash				10)
	Sump 4-091212_SD	9/12/11	10:23	G	Water	N	Y	1	2	2	2	3		-	1			_	10	
		9/12/11	10:45		Water	N	N	_	_	$ \rightarrow $		1	\perp						1	
		-9/12/14		•	Water		*		4	_				\perp	1				0	
L					Water	\square														
ľ	ossible Hazard Identification		F -1				San	npie L	Disp	osal	(A1	'ee m	ay be	ass	essec	l if sa	mple	s are r	etaiı	ned longer than 1 month)
	Non-Hazard Flammable Skin Irritant Poise eliverable Requested: I, II, III, IV, Other (specify)	on B Unkn	ownF	Radiologica	/	<u> </u>	Spe	<u>Rei</u> cial Ir	turn 1stru	To C Iction	lient s/QC	Rec	uirem	Disp ients:	osal I	By La	<u> </u>		Arci	nive For Months
ļ	Emoty Kit Palinguished by					Tig	18.	_	_			-		_	Met	tod of	Shipme	ent	_	
R	Industry BUSS Harnin	Date/Time	20121	505	Company	<u> </u>		Receiv	/edib	1	$\theta_{\mathcal{O}}$	£		_			Date		h	2 ITOT COMPANY 1
9/2	enquished by	Date/Time			Company			Receiv	/ed b	<i>,</i> ~(+					Date/1	ilmie.	4	Company
1/20	elinquished by	Date/Time			Company			Receiv	ed b	у							Date/1	lime [.]	_	Company
12	Custody Seals Intact: Custody Seal No.: <u>A</u> Yes <u>A</u> No	L			L		ľ	Cooler	Tem	peratu	ure(s)	°C an	d Other	Rema	irks: 7	.9	,2,	6,	3,	0,3.2#1

α 1 α

Client: Honeywell International Inc

Login Number: 25019 List Number: 1

Creator: May, Joel M

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

Job Number: 480-25019-1

List Source: TestAmerica Buffalo



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: 480-25086-1

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

For:

Honeywell International Inc 101 Columbia Road Morristown, New Jersey 07962

Attn: Mr. John Mojka

Authorized for release by: 9/25/2012 1:27:38 PM Robert Wienke Project Administrator robert.wienke@testamericainc.com

Designee for

John Schove Project Manager I john.schove@testamericainc.com



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

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

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

Table of Contents

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Method Summary	17
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Definitions/Glossary

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

3

Qualifiers

...

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.	5
В	Compound was found in the blank and sample.	J

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.	
¢	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	8
CNF	Contains no Free Liquid	
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample	9
EDL	Estimated Detection Limit	
EPA	United States Environmental Protection Agency	
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	
ND	Not detected at the reporting limit (or MDL or EDL if shown)	
PQL	Practical Quantitation Limit	
QC	Quality Control	
RL	Reporting Limit	12
RPD	Relative Percent Difference, a measure of the relative difference between two points	
TEF	Toxicity Equivalent Factor (Dioxin)	
TEQ	Toxicity Equivalent Quotient (Dioxin)	

Job ID: 480-25086-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-25086-1

Comments

No additional comments.

Receipt

The samples were received on 9/13/2012 2:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.4° C and 2.6° C.

GC/MS VOA

No analytical or quality issues were noted.

GC/MS Semi VOA

No analytical or quality issues were noted.

GC Semi VOA

Method(s) 608: For the method 608, the initial calibration criteria is based upon the total Aroclor value. The %RSD in some of the individual biphenyl peaks may exceed 10%, though the total Aroclor amount is still within method quality control criteria.

Method(s) 608: All primary data is reported from the ZB-5 column.

Method(s) 608: The percent difference in a multi-component continuing calibration verification is assessed on the basis of the total amount, individual peak calculations are only listed for completeness.

Method(s) 8081A: All primary data is reported from the RTX-CLPI column.

No other analytical or quality issues were noted.

Metals

Method(s) 6020: The Method Blank for batch 480-80229 contained total cadmium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples MW-2-091312 (480-25086-1) was not performed.

No other analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Client Sample ID: MW-2-091312

Lab Sample ID: 480-25086-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0029	J	0.0040	0.0010	mg/L	1	_	6010B	Total/NA
Lead	0.0037	J	0.0050	0.0030	mg/L	1		6010B	Total/NA
Iron	0.73		0.050	0.019	mg/L	1		6010B	Total/NA
Manganese	0.24		0.0030	0.00040	mg/L	1		6010B	Total/NA
Antimony	0.40	J	1.0	0.15	ug/L	1		6020	Total/NA
Arsenic	2.6		1.0	0.078	ug/L	1		6020	Total/NA
Cadmium	0.23	JB	0.50	0.018	ug/L	1		6020	Total/NA

Client Sample ID: MW-2-091312

Date Collected: 09/13/12 08:25

Manganese

Lab Sample ID: 480-25086-1

Matrix: Water

wethod: 8260B - volatile Orgai	nic Compounds (GC/WS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/14/12 20:15	
I,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/14/12 20:15	
Benzene	ND		1.0	0.41	ug/L			09/14/12 20:15	
Chlorobenzene	ND		1.0	0.75	ug/L			09/14/12 20:15	
Ethylbenzene	ND		1.0	0.74	ug/L			09/14/12 20:15	
Kylenes, Total	ND		2.0	0.66	ug/L			09/14/12 20:15	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
,2-Dichloroethane-d4 (Surr)	91		66 - 137					09/14/12 20:15	
Foluene-d8 (Surr)	92		71 - 126					09/14/12 20:15	
4-Bromofluorobenzene (Surr)	94		73 - 120					09/14/12 20:15	
Method: 8270C - Semivolatile	Organic Compou	nds (GC/M	S)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
-Chloroaniline	ND		4.8	0.56	ug/L		09/14/12 13:55	09/17/12 18:10	
laphthalene	ND		4.8	0.72	ug/L		09/14/12 13:55	09/17/12 18:10	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
litrobenzene-d5	90		46 - 120				09/14/12 13:55	09/17/12 18:10	
-Fluorobiphenyl	100		48 - 120				09/14/12 13:55	09/17/12 18:10	
-Terphenyl-d14	82		67 - 150				09/14/12 13:55	09/17/12 18:10	
Method: 608 - Polychlorinated	Biphenyls (PCB	s) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
2CB-1016	ND		0.057	0.036	ug/L		09/14/12 14:04	09/18/12 16:56	
PCB-1221	ND		0.057	0.036	ug/L		09/14/12 14:04	09/18/12 16:56	
PCB-1232	ND		0.057	0.036	ug/L		09/14/12 14:04	09/18/12 16:56	
PCB-1242	ND		0.057	0.036	ug/L		09/14/12 14:04	09/18/12 16:56	
PCB-1248	ND		0.057	0.036	ug/L		09/14/12 14:04	09/18/12 16:56	
PCB-1254	ND		0.057	0.029	ug/L		09/14/12 14:04	09/18/12 16:56	
PCB-1260	ND		0.057	0.029	ug/L		09/14/12 14:04	09/18/12 16:56	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
OCB Decachlorobiphenyl	63		10 - 158				09/14/12 14:04	09/18/12 16:56	
etrachloro-m-xylene	80		18 - 146				09/14/12 14:04	09/18/12 16:56	
Method: 8081A - Organochlori	ne Pesticides (G	C)				_			
	Result	Qualifier		MDL	Unit	D	Prepared	Analyzed	Dil Fa
,4'-DDD	ND		0.047	0.0087	ug/L		09/19/12 05:00	09/20/12 18:04	
,4'-DDE	ND		0.047	0.011	ug/L		09/19/12 05:00	09/20/12 18:04	
urrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
OCB Decachlorobiphenyl	64		16 - 120				09/19/12 05:00	09/20/12 18:04	
etrachloro-m-xylene	70		35 - 120				09/19/12 05:00	09/20/12 18:04	
lethod: 6010B - Metals (ICP)		•				_	_ .		
nalyte	Result	Qualifier		MDL	Unit	D	Prepared	Analyzed	Dil F
hromium	0.0029	J	0.0040	0.0010	mg/L		09/14/12 14:00	09/17/12 15:53	
			0.0050	0 0020	ma/l		00/14/12 14:00	00/17/12 15.53	
.ead	0.0037	J	0.0050	0.0030	ilig/L		09/14/12 14.00	03/11/12 10.00	

1

09/17/12 15:53

09/14/12 14:00

0.0030

0.00040 mg/L

0.24

TestAmerica Job ID: 480-25086-1

Lab Sample ID: 480-25086-1

Analyzed

09/18/12 23:36

09/18/12 23:36

D

Prepared

09/17/12 08:45

09/17/12 08:45

Matrix: Water

Dil Fac

1

1

Client Sample ID: MW-2-091312 Date Collected: 09/13/12 08:25 Date Received: 09/13/12 14:00 Method: 6020 - Metals (ICP/MS) RL Analyte Result Qualifier MDL Unit Antimony 0.40 J 1.0 0.15 ug/L 1.0 0.078 ug/L Arsenic 2.6

Cadmium	0.23	JB	0.50	0.018	ug/L		09/17/12 08:45	09/18/12 23:36	1
Method: 7470A - Mercury (CVAA)	Desult	Qualifian		MDI	11		Descende	Angeland	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dii Fac
Mercury	ND		0.00020	0.00012	mg/L		09/14/12 09:00	09/14/12 12:37	1

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

Matrix: Water					Prep Type: Total/NA
				Percent Surr	ogate Recovery (Acceptance Limits)
		12DCE	TOL	BFB	
Lab Sample ID	Client Sample ID	(66-137)	(71-126)	(73-120)	
480-25086-1	MW-2-091312	91	92	94	
LCS 480-80695/3	Lab Control Sample	91	91	94	
MB 480-80695/5	Method Blank	91	91	92	
Surrogate Legend					

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	ТРН	
Lab Sample ID	Client Sample ID	(46-120)	(48-120)	(67-150)	
480-25086-1	MW-2-091312	90	100	82	
LCS 480-80665/2-A	Lab Control Sample	97	104	125	
MB 480-80665/1-A	Method Blank	77	84	119	
Surrogate Legend					
NBZ = Nitrobenzene-d5					
FBP = 2-Fluorobiphenyl					
TPH = p-Terphenyl-d14					

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

Matrix: Water

			Percent Surrogate Recovery (Acceptance Limits						
		DCB1	DCB2	TCX1	TCX2				
Lab Sample ID	Client Sample ID	(10-158)	(10-158)	(18-146)	(18-146)				
480-25086-1	MW-2-091312	63	57	80	82				
LCS 480-80670/2-A	Lab Control Sample	50	49	78	82				
MB 480-80670/1-A	Method Blank	56	55	84	92				

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Water	
---------------	--

		Percent Surrogate Recovery (Acceptance Limits)						
		DCB1	DCB2	TCX1	TCX2			
ab Sample ID	Client Sample ID	(16-120)	(16-120)	(35-120)	(35-120)			
80-25086-1	MW-2-091312	64	84	70	100			
CS 480-81196/2-A	Lab Control Sample	72	90	80	101			
IB 480-81196/1-A	Method Blank	89	107	71	91			
Surrogate Legend								

TCX = Tetrachloro-m-xylene

Prep Type: Total/NA

Prep Type: Total/NA

D. Mathad Dian 5

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

Lab Sample ID: MB 480-80695/5 Matrix: Water Analysis Batch: 80695							Client S	ample ID: Metho Prep Type: 1	d Blank ^T otal/NA
· ·····, · · · · · · · · · · · · · · ·	МВ	МВ							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/14/12 19:43	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/14/12 19:43	1
Benzene	ND		1.0	0.41	ug/L			09/14/12 19:43	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/14/12 19:43	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/14/12 19:43	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/14/12 19:43	1
	МВ	МВ							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		66 - 137			-		09/14/12 19:43	1
Toluene-d8 (Surr)	91		71 - 126					09/14/12 19:43	1
4-Bromofluorobenzene (Surr)	92		73 - 120					09/14/12 19:43	1

Lab Sample ID: LCS 480-80695/3 Matrix: Water Analysis Batch: 80695

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,2-Dichlorobenzene	25.0	23.1		ug/L		92	77 _ 120	
Benzene	25.0	22.7		ug/L		91	71 - 124	
Chlorobenzene	25.0	23.4		ug/L		94	72 - 120	
Ethylbenzene	25.0	22.6		ug/L		90	77 _ 123	
Xylenes, Total	75.0	68.4		ug/L		91	76 - 122	

	LCS LCS	
Surrogate	%Recovery Qual	ifier Limits
1,2-Dichloroethane-d4 (Surr)	91	66 - 137
Toluene-d8 (Surr)	91	71 - 126
4-Bromofluorobenzene (Surr)	94	73 - 120

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

Lab Sample ID: MB 480-80665/1-/ Matrix: Water Analysis Batch: 80875	A						Client Sa	mple ID: Metho Prep Type: 1 Prep Batch	d Blank Total/NA n: 80665
Analyte	MB Result	MB Qualifier	RI	мрі	Unit	п	Prenared	Analyzed	Dil Fac
		Quaimer	<u> </u>	0.50			00/11/12 13:55		1
4-011010811111116	ND		5.0	0.59	ug/L		09/14/12 13:55	09/17/12 11.17	1
Naphthalene	ND		5.0	0.76	ug/L		09/14/12 13:55	09/17/12 11:17	1
	MB	МВ							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	77		46 - 120				09/14/12 13:55	09/17/12 11:17	1
2-Fluorobiphenyl	84		48 - 120				09/14/12 13:55	09/17/12 11:17	1
p-Terphenyl-d14	119		67 _ 150				09/14/12 13:55	09/17/12 11:17	1

8 9

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

	%Rec.	
%Rec	Limits	
92	77 _ 120	
91	71 _ 124	
94	72 _ 120	
90	77 _ 123	
91	76 - 122	

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

LCS LCS

Limits

46 - 120

48 - 120

67 - 150

%Recovery Qualifier

97

104

125

MB

ND

ND

ND

ND

ND

ND

ND

78

Result

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

Lab Sample ID: LCS 480-80665/2-A

Lab Sample ID: MB 480-80670/1-A

Matrix: Water

Nitrobenzene-d5

2-Fluorobiphenyl p-Terphenyl-d14

Matrix: Water

Analyte

PCB-1016

PCB-1221

PCB-1232

PCB-1242

PCB-1248

PCB-1254

PCB-1260

Tetrachloro-m-xylene

Analysis Batch: 81073

Surrogate

Analysis Batch: 80875

Prep Type: Total/NA

Prep Batch: 80665

Client Sample ID: Lab Control Sample

1 2 3 4 5 6 7 8

Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 80670

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

						Prep Batch	Batch: 80670		
MB									
Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
	0.060	0.038	ug/L		09/14/12 14:03	09/18/12 14:32	1		
	0.060	0.038	ug/L		09/14/12 14:03	09/18/12 14:32	1		
	0.060	0.038	ug/L		09/14/12 14:03	09/18/12 14:32	1		
	0.060	0.038	ug/L		09/14/12 14:03	09/18/12 14:32	1		
	0.060	0.038	ug/L		09/14/12 14:03	09/18/12 14:32	1		
	0.060	0.031	ug/L		09/14/12 14:03	09/18/12 14:32	1		
	0.060	0.031	ug/L		09/14/12 14:03	09/18/12 14:32	1		
МВ									
Qualifier	Limite				Propared	Analyzod	Dil Eac		

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	56		10 - 158	09/14/12 14:03	09/18/12 14:32	1
Tetrachloro-m-xylene	84		18 - 146	09/14/12 14:03	09/18/12 14:32	1

Lab Sample ID: LCS 480-80670/2-A Matrix: Water Analysis Batch: 81073

Analysis Batch: 81073									Prep B	atch: 80670
			Spike	LCS	LCS				%Rec.	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCB-1016			1.00	0.996		ug/L		100	44 - 154	
PCB-1260			1.00	0.885		ug/L		88	34 - 150	
	LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits							
DCB Decachlorobiphenyl	50		10 - 158							

18 - 146

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-81196/1 Matrix: Water Analysis Batch: 81416	-A						Client Sa	mple ID: Metho Prep Type: 1 Prep Batch	d Blank fotal/NA n: 81196
	MB	мв							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0092	ug/L		09/19/12 04:56	09/20/12 08:02	1
4,4'-DDE	ND		0.050	0.012	ug/L		09/19/12 04:56	09/20/12 08:02	1
	MB	МВ							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	89		16 - 120				09/19/12 04:56	09/20/12 08:02	1
Tetrachloro-m-xylene	71		35 - 120				09/19/12 04:56	09/20/12 08:02	1

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

Lab Sample ID: LCS 480-81196/2 Matrix: Water						Client	ntrol Sample			
Analysis Batch: 81416									Prep	Batch: 81196
			Spike	LCS	LCS				%Rec.	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
4,4'-DDD			0.500	0.469		ug/L		94	59 _ 135	
4,4'-DDE			0.500	0.443		ug/L		89	52 ₋ 123	
	LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits							
DCB Decachlorobiphenyl	72		16 - 120							
Tetrachloro-m-xylene	80		35 - 120							

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 480-80646/1-A Matrix: Water Analysis Batch: 80972	мв	МВ				Client Sa	mple ID: Metho Prep Type: 1 Prep Batch	d Blank Fotal/NA n: 80646	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.0040	0.0010	mg/L		09/14/12 14:00	09/17/12 14:41	1
Lead	ND		0.0050	0.0030	mg/L		09/14/12 14:00	09/17/12 14:41	1
Iron	ND		0.050	0.019	mg/L		09/14/12 14:00	09/17/12 14:41	1
Manganese	ND		0.0030	0.00040	mg/L		09/14/12 14:00	09/17/12 14:41	1

Lab Sample ID: LCS 480-80646/2-A	ib Sample ID: LCS 480-80646/2-A							
Matrix: Water							Prep Typ	be: Total/NA
Analysis Batch: 80972			Prep Batcl					
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chromium	0.200	0.207		mg/L		103	80 - 120	
Lead	0.200	0.196		mg/L		98	80 - 120	
Iron	10.0	10.12		mg/L		101	80 - 120	
Manganese	0.200	0.202		mg/L		101	80 - 120	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 480-80652/1-A Matrix: Water Analysis Batch: 81351							Client Sa	mple ID: Metho Prep Type: 1 Prep Batch	d Blank Total/NA n: 80652
-	MB	МВ							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.0	0.15	ug/L		09/17/12 08:45	09/18/12 20:47	1
Arsenic	ND		1.0	0.078	ug/L		09/17/12 08:45	09/18/12 20:47	1
Cadmium	0.302	J	0.50	0.018	ug/L		09/17/12 08:45	09/18/12 20:47	1

Lab Sample ID: LCS 480-80652/2-A Matrix: Water

Aatrix: Water								Prep	Гуре: То	tal/NA
Analysis Batch: 81351								Prep	Batch:	80652
		Spike	LCS	LCS				%Rec.		
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits		
Antimony		20.0	20.88		ug/L		104	80 - 120		
Arsenic		20.0	19.90		ug/L		100	80 - 120		
Cadmium		20.0	20.74		ug/L		104	80 - 120		

TestAmerica Buffalo 9/25/2012

Client Sample ID: Lab Control Sample

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-80565/1-A Matrix: Water Analysis Batch: 80667	МВ	МВ						Client Sa	mple ID: Metho Prep Type: ⁻ Prep Bato	od Blank Fotal/NA h: 80565
Analyte	Result	Qualifier	RL	MDL	Unit		DI	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/	14/12 09:00	09/14/12 12:00	1
Lab Sample ID: LCS 480-80565/2-A Matrix: Water Analysis Batch: 80667							Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 80565			Sample Fotal/NA h: 80565
			Spike	LCS LCS	5				%Rec.	
Analyte			Added	Result Qua	lifier	Unit	D	%Rec	Limits	
Mercury			0.00667	0.00633		mg/L		95	80 - 120	

GC/MS VOA

Analysis Batch: 80695

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
480-25086-1	MW-2-091312	Total/NA	Water	8260B	
LCS 480-80695/3	Lab Control Sample	Total/NA	Water	8260B	
MB 480-80695/5	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 80665

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
480-25086-1	MW-2-091312	Total/NA	Water	3510C	
LCS 480-80665/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 480-80665/1-A	Method Blank	Total/NA	Water	3510C	
Analysis Batch: 80875	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
480-25086-1	MW-2-091312	Total/NA	Water	8270C	80665
LCS 480-80665/2-A	Lab Control Sample	Total/NA	Water	8270C	80665
MB 480-80665/1-A	Method Blank	Total/NA	Water	8270C	80665

GC Semi VOA

Prep Batch: 80670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-25086-1 LCS 480-80670/2-A	Lab Control Sample	Total/NA Total/NA	Water	3510C 3510C	
MB 480-80670/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 81073

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
480-25086-1	MW-2-091312	Total/NA	Water	608	80670
LCS 480-80670/2-A	Lab Control Sample	Total/NA	Water	608	80670
MB 480-80670/1-A	Method Blank	Total/NA	Water	608	80670
	Lab Sample ID 480-25086-1 LCS 480-80670/2-A MB 480-80670/1-A	Lab Sample ID Client Sample ID 480-25086-1 MW-2-091312 LCS 480-80670/2-A Lab Control Sample MB 480-80670/1-A Method Blank	Lab Sample ID Client Sample ID Prep Type 480-25086-1 MW-2-091312 Total/NA LCS 480-80670/2-A Lab Control Sample Total/NA MB 480-80670/1-A Method Blank Total/NA	Lab Sample IDClient Sample IDPrep TypeMatrix480-25086-1MW-2-091312Total/NAWaterLCS 480-80670/2-ALab Control SampleTotal/NAWaterMB 480-80670/1-AMethod BlankTotal/NAWater	Lab Sample IDClient Sample IDPrep TypeMatrixMethod480-25086-1MW-2-091312Total/NAWater608LCS 480-80670/2-ALab Control SampleTotal/NAWater608MB 480-80670/1-AMethod BlankTotal/NAWater608

Prep Batch: 81196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-25086-1	MW-2-091312	Total/NA	Water	3510C	
LCS 480-81196/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 480-81196/1-A	Method Blank	Total/NA	Water	3510C	
Analysis Batch: 81416	;				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-25086-1	MW-2-091312	Total/NA	Water	8081A	81196

Total/NA

Total/NA

Water

Water

8081A

8081A

Metals

Prep Batch: 80565

LCS 480-81196/2-A

MB 480-81196/1-A

Lab Control Sample

Method Blank

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
480-25086-1	MW-2-091312	Total/NA	Water	7470A	
LCS 480-80565/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 480-80565/1-A	Method Blank	Total/NA	Water	7470A	

81196

81196
Metals (Continued)

LCS 480-80652/2-A

MB 480-80652/1-A

Lab Control Sample

Method Blank

8 9 10 11 12

14 15

80652

80652

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batcl
480-25086-1	MW-2-091312	Total/NA	Water	3005A	
LCS 480-80646/2-A	Lab Control Sample	Total/NA	Water	3005A	
MB 480-80646/1-A	Method Blank	Total/NA Water 3005		3005A	
rep Batch: 80652					
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batcl
480-25086-1	MW-2-091312	Total/NA	Water	3020A	
LCS 480-80652/2-A	Lab Control Sample	Total/NA	Water	3020A	
MB 480-80652/1-A	Method Blank	Total/NA	Water	3020A	
nalysis Batch: 80667	,				
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batc
480-25086-1	MW-2-091312	Total/NA	Water	7470A	8056
LCS 480-80565/2-A	Lab Control Sample	Total/NA	Water	7470A	8056
MB 480-80565/1-A	Method Blank	Total/NA	Water	7470A	8056
nalysis Batch: 80972	2				
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Bato
LCS 480-80646/2-A	Lab Control Sample	Total/NA	Water	6010B	8064
MB 480-80646/1-A	Method Blank	Total/NA	Water	6010B	8064
nalysis Batch: 81047	,				
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Bato
480-25086-1	MW-2-091312	Total/NA	Water	6010B	8064
nalysis Batch: 81351	l i i i i i i i i i i i i i i i i i i i				
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batc
480-25086-1	MW-2-091312	Total/NA	Water	6020	8065

Total/NA

Total/NA

Water

Water

6020

6020

Lab Sample ID: 480-25086-1 Matrix: Water

Client Sample ID: MW-2-091312 Date Collected: 09/13/12 08:25

Date Received: 09/13/12 14:00

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	80695	09/14/12 20:15	TRB	TAL BUF
Total/NA	Prep	3510C			80665	09/14/12 13:55	DE	TAL BUF
Total/NA	Analysis	8270C		1	80875	09/17/12 18:10	HTL	TAL BUF
Total/NA	Prep	3510C			80670	09/14/12 14:04	DE	TAL BUF
Total/NA	Analysis	608		1	81073	09/18/12 16:56	JM	TAL BUF
Total/NA	Prep	3510C			81196	09/19/12 05:00	TR	TAL BUF
Total/NA	Analysis	8081A		1	81416	09/20/12 18:04	LW	TAL BUF
Total/NA	Prep	7470A			80565	09/14/12 09:00	JRK	TAL BUF
Total/NA	Analysis	7470A		1	80667	09/14/12 12:37	JRK	TAL BUF
Total/NA	Prep	3005A			80646	09/14/12 14:00	SS	TAL BUF
Total/NA	Analysis	6010B		1	81047	09/17/12 15:53	LH	TAL BUF
Total/NA	Prep	3020A			80652	09/17/12 08:45	SS	TAL BUF
Total/NA	Analysis	6020		1	81351	09/18/12 23:36	MM	TAL BUF

Laboratory References:

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

Certification Summary

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

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Laboratory: TestAmerica Buffal	lo
All certifications held by this laboratory are listed.	Not all certifications are applicable to this report.

Authority	Program EPA		Certification ID	Expiration Date		
Arkansas DEQ	State Program	6	88-0686	07-06-13		
California	NELAC	9	1169CA	09-30-12		
Connecticut	State Program	1	PH-0568	09-30-12		
Florida	NELAC	4	E87672	06-30-13		
Georgia	State Program	4	N/A	03-31-13		
Georgia	State Program	4	956	03-31-12		
Illinois	NELAC	5	200003	09-30-12		
owa	State Program	7	374	03-01-13		
Kansas	NELAC	7	E-10187	01-31-13		
Kentucky	State Program	4	90029	12-31-12		
Kentucky (UST)	State Program	4	30	04-01-13		
_ouisiana	NELAC	6	02031	06-30-13		
Vlaine	State Program	1	NY00044	12-04-12		
Maryland	State Program	3	294	03-31-13		
Massachusetts	State Program	1 M-NY044		06-30-13		
Michigan	State Program	5	9937	04-01-13		
Minnesota	NELAC	5	036-999-337	12-31-12		
New Hampshire	NELAC	1	2973	09-11-13		
New Hampshire	NELAC	1	2337	11-17-12		
New Jersey	NELAC	2	NY455	06-30-13		
New York	NELAC	2	10026	03-31-13		
North Dakota	State Program	8	R-176	03-31-13		
Oklahoma	State Program	6	9421	08-31-13		
Oregon	NELAC	10	NY200003	06-09-13		
Pennsylvania	NELAC	3	68-00281	07-31-13		
Tennessee	State Program	4	TN02970	04-01-13		
Texas	NELAC	6	T104704412-11-2	07-31-13		
JSDA	Federal		P330-11-00386	11-22-14		
Washington	State Program	10	C784	02-10-13		
West Virginia DEP	State Program	3	252	09-30-12		
Wisconsin	State Program	5	998310390	08-31-12		

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

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	8
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1	2
	3

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

Sample Summary

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

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-25086-1	MW-2-091312	Water	09/13/12 08:25	09/13/12 14:00

								.,.			-						THE LEADER IN EN	RONMENTAL TESTING
Client Information	Sample	HIGGI		Let	o PM: golin, A	Anthor	ny I					Carrier	Tracking	No(s):		_	COC No: 480-15491-3542	2
John Formoza	Phase: 315 468 1663 tony			fail: ny.bogc	olin@t	estan	nerica	ainc.c	om		1					Page: Page 1 of 1		
Company:									An	alva	is Re	uest	ed				Job #:	
Address:	Due Date Request	ted:		_	125		Γ				T		<u> </u>				Preservation Code	s:
Remediation & Evaluation Services, Mey-3	TAT Requested (d	lavs):	_				1			1							A - HCL B - NeOH	M - Hexane N - None
Morristown		 ,,.															C - Zn Acetate	0 - AsNaO2
State, Zip: NJ, 07962																	E - NeHSO4	Q - Na2SO3
Phone:	PO#:	- Bequested															G - Amchior	R - N8252503 S - H2SO4
Email:	WO#:	i nequesieu		_	1999 (1999) 1999 (1999)		a l										H - ASCOTORC ACID I - ICS	U - Acetone
John.Formoza@CH2M.com	Device #				214 144		1 E		8								J - DI Water K - EDTA	V-MICAA W-ph4-5
Honeywell - Buffalo Sites/ Event Desc: Honeywell Alltift GW Mor	48003159						la l	훓	volat	5							L-EDA	Z - other (specify)
Site: New York	SSOW#:					Ž0	LA P	a ta	Ĩ	Volat							Other:	
			Samolo	Matrix		0, 74	Ě	ê	ŝ	8							5 POINT	
			Туре	(w-water,		8	8	3	3	2								
Comple Identification	Sample Date	Sample	(C=Comp, Group)	O-wasteloll,		910	8	91	210	260							Snaciat ins	Insctione/Note:
Sample (deminication	Gample Date										<u> </u>				18			
MW-2-091312	9/13/12	0825	G	Water	NI	NI	2	2	1	3		Π						and billion had been been also an and the state of the st
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Possible Hazard Identification					s	ample	e Dis	posa	I(A)	fee m	ay be	155655	ed If s	ample	S AFR	n etel a 1	ed longer than 1	nonth)
Non-Hazard Flammable Skin Irritant Poise	n B <u>Un</u> kn	ownR	adiological		_		Return	n To C	Client	Dec	<u> </u>	Dispose	l By La	b		Arch	ive For	Months
Deliverable Requested: I, II, III, IV, Other (specify)					P	pecia	Insu	UCIO		, Kec	Juneme	HTUS:						
Empty Kit Relinquished by:		Date:			Time	e:						N	lethod of	Shipme	ant .	_		
A Callering	0713	20121	14100	Company		Rec	eived I	lar	N	Æ	12	in	\sim	Date	13	117	1400	TA OVERAL
Relinquished by:	Date/Time:			Company		19	eived	by /		/	~ <i>n</i>	- 10		Date/	ime:			Company
Relinsvished by	Date/Time:			Company		Rec	eiver							Date/1	îme:	_		Company
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												_						

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Client: Honeywell International Inc

Login Number: 25086

List Number: 1 Creator: Robitaille, Zach L

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

Job Number: 480-25086-1

List Source: TestAmerica Buffalo



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: 480-26220-1

Client Project/Site: 30130 - Alltift OM Phase Revision: 1

For:

Honeywell International Inc 101 Columbia Road Morristown, New Jersey 07962

Attn: Mr. John Mojka

Authorized for release by: 10/17/2012 6:23:53 PM

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

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Qualifiers	
GC/MS VOA	
Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits
GC/MS Semi	AOV
Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Che	mistry
Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes
Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¢.	Listed under the "D" column to designate that the result is reported on a dry weight basis

☆	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
CNF	Contains no Free Liquid	
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
EDL	Estimated Detection Limit	
EPA	United States Environmental Protection Agency	
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	
ND	Not detected at the reporting limit (or MDL or EDL if shown)	
PQL	Practical Quantitation Limit	
QC	Quality Control	
RL	Reporting Limit	
RPD	Relative Percent Difference, a measure of the relative difference between two points	
TEF	Toxicity Equivalent Factor (Dioxin)	
TEQ	Toxicity Equivalent Quotient (Dioxin)	

Job ID: 480-26220-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-26220-1

Revision

This report has been revised to include the Priority Pollutant list of compounds for methods 624 and 625.

Comments

No additional comments.

Receipt

The samples were received on 10/5/2012 2:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4° C.

GC/MS VOA

Method(s) 624: The following samples were composited by the laboratory on 10/8/12 as requested on the chain-of-custody: (480-26220-7 MS), (480-26220-7 MSD), Grab 100512 (1-4 COMP) (480-26220-7).

Method(s) 624: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: (480-26220-7 MS), (480-26220-7 MSD), Grab 100512 (1-4 COMP) (480-26220-7). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

GC/MS Semi VOA

Method(s) 625: The continuing calibration verification (CCV) for multiple analytes associated with batch 84908 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 625: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 84701 exceeded control limits for the following analytes: 1,2,4-Trichlorobenzene, 2-Chloronaphthalene, and Hexachloroethane. The extended analyte list was requested post analysis and after holding times had expired, therefore the data is being reported as is.

No other analytical or quality issues were noted.

General Chemistry

Method(s) SM 2540D: The results reported for the following sample(s) do not concur with results previously reported for this site: COMP 100512 (480-26220-5). Reanalysis was performed (via the batch duplicate), and the result(s) confirmed.

Method(s) SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample(s) has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute time frame: COMP 100512 (480-26220-5)

No other analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Detection Summary

Client Sample ID: COMP 100512

Lab Sample ID: 480-26220-6

Lab Sample ID: 480-26220-5

Analyte	Result Qualifier	RL	RL U	Jnit	Dil Fac	D Method	Prep Type
Total Suspended Solids	44.0	4.0	4.0 m	ng/L	1	SM 2540D	Total/NA
рН	7.74 HF	0.100	0.100 S	SU	1	SM 4500 H+ B	Total/NA

Client Sample ID: 100512-TB

No Detections

Client Sample ID: Grab 100512 (1-4 COMP) Lab Sample ID: 480-26220-7

Analyte	Result (Qualifier	RL	MDL	Unit	Dil Fac	D	Method	I	Prep Type
Chlorobenzene	63		40	3.8	ug/L	8	_	624		Total/NA
4-Chloroaniline	4.2	J	5.0	0.69	ug/L	1		625	-	Total/NA

Client Sample ID: COMP 1005	512						Lab San	nple ID: 480-2	6220-5
Date Collected: 10/05/12 13:00								Matrix	x: Water
Date Received: 10/05/12 14:40									
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	44.0		4.0	4.0	mg/L			10/08/12 21:52	1
pH	7.74	HF	0.100	0.100	SU			10/05/12 20:55	1

Client Sample ID: 100512-TB

Date Collected: 10/05/12 13:15 Date Received: 10/05/12 14:40

Method: 624 - Volatile Organic	c Compounds (GC	C/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/08/12 21:06	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/08/12 21:06	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/08/12 21:06	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/08/12 21:06	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/08/12 21:06	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/08/12 21:06	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/08/12 21:06	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/08/12 21:06	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/08/12 21:06	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/08/12 21:06	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/08/12 21:06	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/08/12 21:06	1
Acrolein	ND		100	17	ug/L			10/08/12 21:06	1
Acrylonitrile	ND		25	1.9	ug/L			10/08/12 21:06	1
Benzene	ND		5.0	0.60	ug/L			10/08/12 21:06	1
Bromoform	ND		5.0	0.47	ug/L			10/08/12 21:06	1
Bromomethane	ND		5.0	1.2	ug/L			10/08/12 21:06	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/08/12 21:06	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/08/12 21:06	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/08/12 21:06	1
Chloroethane	ND		5.0	0.87	ug/L			10/08/12 21:06	1
Chloroform	ND		5.0	0.54	ug/L			10/08/12 21:06	1
Chloromethane	ND		5.0	0.64	ug/L			10/08/12 21:06	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/08/12 21:06	1
Dichlorobromomethane	ND		5.0	0.54	ug/L			10/08/12 21:06	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/08/12 21:06	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/08/12 21:06	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/08/12 21:06	1
Toluene	ND		5.0	0.45	ug/L			10/08/12 21:06	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/08/12 21:06	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/08/12 21:06	1
Trichloroethene	ND		5.0	0.60	ug/L			10/08/12 21:06	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/08/12 21:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		72 - 130			-		10/08/12 21:06	1
4-Bromofluorobenzene (Surr)	102		69 - 121					10/08/12 21:06	1
Toluene-d8 (Surr)	97		70 - 123					10/08/12 21:06	1

Lab Sample ID: 480-26220-6 Matrix: Water

5 6

Client Sample ID: Grab 100512 (1-4 COMP)

Date Collected: 10/05/12 13:00 Date Received: 10/05/12 14:40

Method: 624 - Volatile Organic	c Compounds (G	C/MS)						
Analyte	Result	Qualifier	RL	MDL	Unit	D Prepa	ared Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		40	3.1	ug/L		10/08/12 21:2	9 8
1,1,2,2-Tetrachloroethane	ND		40	2.1	ug/L		10/08/12 21:2	9 8
1,1,2-Trichloroethane	ND		40	3.9	ug/L		10/08/12 21:2	9 8
1,1-Dichloroethane	ND		40	4.7	ug/L		10/08/12 21:2	9 8
1,1-Dichloroethene	ND		40	6.8	ug/L		10/08/12 21:2	.9 8
1,2-Dichlorobenzene	ND		40	3.6	ug/L		10/08/12 21:2	:9 8
1,2-Dichloroethane	ND		40	4.8	ug/L		10/08/12 21:2	9 8
1,2-Dichloroethene, Total	ND		80	26	ug/L		10/08/12 21:2	.9 8
1,2-Dichloropropane	ND		40	4.9	ug/L		10/08/12 21:2	:9 8
1,3-Dichlorobenzene	ND		40	4.3	ug/L		10/08/12 21:2	9 8
1,4-Dichlorobenzene	ND		40	4.1	ug/L		10/08/12 21:2	.9 8
2-Chloroethyl vinyl ether	ND		200	15	ug/L		10/08/12 21:2	.9 8
Acrolein	ND		800	140	ug/L		10/08/12 21:2	.9 8
Acrylonitrile	ND		200	15	ug/L		10/08/12 21:2	.9 8
Benzene	ND		40	4.8	ug/L		10/08/12 21:2	.9 8
Bromoform	ND		40	3.7	ug/L		10/08/12 21:2	.9 8
Bromomethane	ND		40	9.5	ug/L		10/08/12 21:2	.9 8
Carbon tetrachloride	ND		40	4.1	ug/L		10/08/12 21:2	.9 8
Chlorobenzene	63		40	3.8	ug/L		10/08/12 21:2	.9 8
Chlorodibromomethane	ND		40	3.3	ug/L		10/08/12 21:2	.9 8
Chloroethane	ND		40	7.0	ug/L		10/08/12 21:2	.9 8
Chloroform	ND		40	4.3	ug/L		10/08/12 21:2	.9 8
Chloromethane	ND		40	5.1	ug/L		10/08/12 21:2	.9 8
cis-1,3-Dichloropropene	ND		40	2.6	ug/L		10/08/12 21:2	.9 8
Dichlorobromomethane	ND		40	4.3	ug/L		10/08/12 21:2	.9 8
Ethylbenzene	ND		40	3.7	ug/L		10/08/12 21:2	.9 8
Methylene Chloride	ND		40	6.5	ug/L		10/08/12 21:2	.9 8
Tetrachloroethene	ND		40	2.7	ug/L		10/08/12 21:2	.9 8
Toluene	ND		40	3.6	ug/L		10/08/12 21:2	.9 8
trans-1,2-Dichloroethene	ND		40	4.7	ug/L		10/08/12 21:2	.9 8
trans-1,3-Dichloropropene	ND		40	3.5	ug/L		10/08/12 21:2	.9 8
Trichloroethene	ND		40	4.8	ug/L		10/08/12 21:2	.9 8
Vinyl chloride	ND		40	6.0	ug/L		10/08/12 21:2	.9 8
Surrogate	%Recovery	Qualifier	Limits			Prepa	ared Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		72 - 130				10/08/12 21:2	.9 8
4-Bromofluorobenzene (Surr)	101		69 - 121				10/08/12 21:2	9 8

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

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Toluene-d8 (Surr)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND	*	10	0.49	ug/L		10/10/12 07:16	10/11/12 15:05	1
1,2-Dichlorobenzene	ND		10	0.15	ug/L		10/10/12 07:16	10/11/12 15:05	1
1,2-Diphenylhydrazine	ND		10	0.063	ug/L		10/10/12 07:16	10/11/12 15:05	1
1,3-Dichlorobenzene	ND		10	0.069	ug/L		10/10/12 07:16	10/11/12 15:05	1
1,4-Dichlorobenzene	ND		10	0.090	ug/L		10/10/12 07:16	10/11/12 15:05	1
2,4,6-Trichlorophenol	ND		5.0	0.23	ug/L		10/10/12 07:16	10/11/12 15:05	1
2,4-Dichlorophenol	ND		5.0	0.30	ug/L		10/10/12 07:16	10/11/12 15:05	1
2,4-Dimethylphenol	ND		5.0	0.13	ug/L		10/10/12 07:16	10/11/12 15:05	1
2,4-Dinitrophenol	ND		10	0.84	ug/L		10/10/12 07:16	10/11/12 15:05	1
2,4-Dinitrotoluene	ND		5.0	0.26	ug/L		10/10/12 07:16	10/11/12 15:05	1

70 - 123

Lab Sample ID: 480-26220-7

Matrix: Water

8

10/08/12 21:29

RL

MDL Unit

D

Prepared

Analyte

Client Sample ID: Grab 100512 (1-4 COMP) Date Collected: 10/05/12 13:00 Date Received: 10/05/12 14:40

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

Result Qualifier

Lab Sample ID: 480-26220-7 Matrix: Water

Analyzed

Dil Fac

2,6-Dinitrotoluene	ND	5.0	0.72	ug/L	10/10/12 07:16	10/11/12 15:05	1
2-Chloronaphthalene	ND *	5.0	0.068	ug/L	10/10/12 07:16	10/11/12 15:05	1
2-Chlorophenol	ND	5.0	0.16	ug/L	10/10/12 07:16	10/11/12 15:05	1
2-Nitrophenol	ND	5.0	0.14	ug/L	10/10/12 07:16	10/11/12 15:05	1
3,3'-Dichlorobenzidine	ND	5.0	0.82	ug/L	10/10/12 07:16	10/11/12 15:05	1
4,6-Dinitro-2-methylphenol	ND	10	0.76	ug/L	10/10/12 07:16	10/11/12 15:05	1
4-Bromophenyl phenyl ether	ND	5.0	0.11	ug/L	10/10/12 07:16	10/11/12 15:05	1
4-Chloro-3-methylphenol	ND	5.0	0.56	ug/L	10/10/12 07:16	10/11/12 15:05	1
4-Chloroaniline	4.2 J	5.0	0.69	ug/L	10/10/12 07:16	10/11/12 15:05	1
4-Chlorophenyl phenyl ether	ND	5.0	0.21	ug/L	10/10/12 07:16	10/11/12 15:05	1
4-Nitrophenol	ND	10	1.3	ug/L	10/10/12 07:16	10/11/12 15:05	1
Acenaphthene	ND	5.0	0.060	ug/L	10/10/12 07:16	10/11/12 15:05	1
Acenaphthylene	ND	5.0	0.034	ug/L	10/10/12 07:16	10/11/12 15:05	1
Anthracene	ND	5.0	0.052	ug/L	10/10/12 07:16	10/11/12 15:05	1
Benzidine	ND	80	2.5	ug/L	10/10/12 07:16	10/11/12 15:05	1
Benzo[a]anthracene	ND	5.0	0.043	ug/L	10/10/12 07:16	10/11/12 15:05	1
Benzo[a]pyrene	ND	5.0	0.058	ug/L	10/10/12 07:16	10/11/12 15:05	1
Benzo[b]fluoranthene	ND	5.0	0.062	ug/L	10/10/12 07:16	10/11/12 15:05	1
Benzo[g,h,i]perylene	ND	5.0	0.10	ug/L	10/10/12 07:16	10/11/12 15:05	1
Benzo[k]fluoranthene	ND	5.0	0.042	ug/L	10/10/12 07:16	10/11/12 15:05	1
bis (2-chloroisopropyl) ether	ND	5.0	0.086	ug/L	10/10/12 07:16	10/11/12 15:05	1
Bis(2-chloroethoxy)methane	ND	5.0	0.085	ug/L	10/10/12 07:16	10/11/12 15:05	1
Bis(2-chloroethyl)ether	ND	5.0	1.1	ug/L	10/10/12 07:16	10/11/12 15:05	1
Bis(2-ethylhexyl) phthalate	ND	10	0.86	ug/L	10/10/12 07:16	10/11/12 15:05	1
Butyl benzyl phthalate	ND	5.0	1.3	ug/L	10/10/12 07:16	10/11/12 15:05	1
Chrysene	ND	5.0	0.036	ug/L	10/10/12 07:16	10/11/12 15:05	1
Dibenz(a,h)anthracene	ND	5.0	0.055	ug/L	10/10/12 07:16	10/11/12 15:05	1
Diethyl phthalate	ND	5.0	0.17	ug/L	10/10/12 07:16	10/11/12 15:05	1
Dimethyl phthalate	ND	5.0	0.17	ug/L	10/10/12 07:16	10/11/12 15:05	1
Di-n-butyl phthalate	ND	5.0	0.94	ug/L	10/10/12 07:16	10/11/12 15:05	1
Di-n-octyl phthalate	ND	5.0	4.5	ug/L	10/10/12 07:16	10/11/12 15:05	1
Fluoranthene	ND	5.0	0.11	ug/L	10/10/12 07:16	10/11/12 15:05	1
Fluorene	ND	5.0	0.043	ug/L	10/10/12 07:16	10/11/12 15:05	1
Hexachlorobenzene	ND	5.0	0.28	ug/L	10/10/12 07:16	10/11/12 15:05	1
Hexachlorobutadiene	ND	5.0	0.62	ug/L	10/10/12 07:16	10/11/12 15:05	1
Hexachlorocyclopentadiene	ND	5.0	0.45	ug/L	10/10/12 07:16	10/11/12 15:05	1
Hexachloroethane	ND *	5.0	0.48	ug/L	10/10/12 07:16	10/11/12 15:05	1
Indeno[1,2,3-cd]pyrene	ND	5.0	0.19	ug/L	10/10/12 07:16	10/11/12 15:05	1
Isophorone	ND	5.0	0.16	ug/L	10/10/12 07:16	10/11/12 15:05	1
Naphthalene	ND	5.0	0.080	ug/L	10/10/12 07:16	10/11/12 15:05	1
Nitrobenzene	ND	5.0	0.11	ug/L	10/10/12 07:16	10/11/12 15:05	1
N-Nitrosodimethylamine	ND	10	0.96	ug/L	10/10/12 07:16	10/11/12 15:05	1
N-Nitrosodi-n-propylamine	ND	5.0	0.23	ug/L	10/10/12 07:16	10/11/12 15:05	1
N-Nitrosodiphenylamine	ND	5.0	0.40	ug/L	10/10/12 07:16	10/11/12 15:05	1
Pentachlorophenol	ND	10	0.41	ug/L	10/10/12 07:16	10/11/12 15:05	1
Phenanthrene	ND	5.0	0.071	ug/L	10/10/12 07:16	10/11/12 15:05	1
Phenol	ND	5.0	0.12	ug/L	10/10/12 07:16	10/11/12 15:05	1
Pyrene	ND	5.0	0.041	ug/L	10/10/12 07:16	10/11/12 15:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	104		52 - 151	10/10/12 07:16	10/11/12 15:05	1

Client Sample ID: Grab 100512 (1-4 COMP) Date Collected: 10/05/12 13:00 Date Received: 10/05/12 14:40

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	80		44 _ 120	10/10/12 07:16	10/11/12 15:05	1
2-Fluorophenol	42		17 - 120	10/10/12 07:16	10/11/12 15:05	1
Nitrobenzene-d5	86		42 _ 120	10/10/12 07:16	10/11/12 15:05	1
Phenol-d5	27		10 _ 120	10/10/12 07:16	10/11/12 15:05	1
p-Terphenyl-d14	93		22 _ 125	10/10/12 07:16	10/11/12 15:05	1

TestAmerica Job ID: 480-26220-1

Prep Type: Total/NA

Prep Type: Total/NA

Matrix: Water					Prep Type: Total/NA
				Percent Surr	rogate Recovery (Acceptance Limits)
		12DCE	BFB	TOL	
Lab Sample ID	Client Sample ID	(72-130)	(69-121)	(70-123)	
480-26220-6	100512-TB	91	102	97	
480-26220-7	Grab 100512 (1-4 COMP)	93	101	96	
480-26220-7 MS	Grab 100512 (1-4 COMP)	89	105	96	
480-26220-7 MSD	Grab 100512 (1-4 COMP)	89	104	94	
LCS 480-84403/4	Lab Control Sample	92	105	99	
MB 480-84403/5	Method Blank	91	102	97	
Surrogate Legend					
12DCE = 1,2-Dichloro	ethane-d4 (Surr)				
BFB = 4-Bromofluorot	penzene (Surr)				

TOL = Toluene-d8 (Surr)

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

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

Matrix: Water

-				Percent Su	rrogate Reco	very (Accept	ance Limits
		ТВР	FBP	2FP	NBZ	PHL	ТРН
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(42-120)	(10-120)	(22-125)
480-26220-7	Grab 100512 (1-4 COMP)	104	80	42	86	27	93
LCS 480-84701/2-A	Lab Control Sample	106	88	52	90	37	100
MB 480-84701/1-A	Method Blank	88	52	43	76	30	93

Surrogate Legend

TBP = 2,4,6-Tribromophenol

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol

NBZ = Nitrobenzene-d5

PHL = Phenol-d5

TPH = p-Terphenyl-d14

Lab Sample ID: MB 480-84403/5

Matrix: Water

Analysis Batch: 84403

Client Sample ID: Method Blank

Prep Type: Total/NA

8

1

Method: 624 - Volatile	Organic Compounds (G	iC/MS)

	MB	МВ							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/08/12 14:23	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/08/12 14:23	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/08/12 14:23	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/08/12 14:23	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/08/12 14:23	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/08/12 14:23	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/08/12 14:23	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/08/12 14:23	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/08/12 14:23	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/08/12 14:23	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/08/12 14:23	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/08/12 14:23	1
Acrolein	ND		100	17	ug/L			10/08/12 14:23	1
Acrylonitrile	ND		25	1.9	ug/L			10/08/12 14:23	1
Benzene	ND		5.0	0.60	ug/L			10/08/12 14:23	1
Bromoform	ND		5.0	0.47	ug/L			10/08/12 14:23	1
Bromomethane	ND		5.0	1.2	ug/L			10/08/12 14:23	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/08/12 14:23	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/08/12 14:23	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/08/12 14:23	1
Chloroethane	ND		5.0	0.87	ug/L			10/08/12 14:23	1
Chloroform	ND		5.0	0.54	ug/L			10/08/12 14:23	1
Chloromethane	ND		5.0	0.64	ug/L			10/08/12 14:23	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/08/12 14:23	1
Dichlorobromomethane	ND		5.0	0.54	ug/L			10/08/12 14:23	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/08/12 14:23	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/08/12 14:23	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/08/12 14:23	1
Toluene	ND		5.0	0.45	ug/L			10/08/12 14:23	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/08/12 14:23	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/08/12 14:23	1
Trichloroethene	ND		5.0	0.60	ug/L			10/08/12 14:23	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/08/12 14:23	1
	MB	МВ							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		72 - 130
4-Bromofluorobenzene (Surr)	102		69 - 121
Toluene-d8 (Surr)	97		70 - 123

10/08/12 14:23 1 10/08/12 14:23 1 Client Sample ID: Lab Control Sample

10/08/12 14:23

Lab Sample ID: LCS 480-84403/4 Matrix: Water Analysis Batch: 84403

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,1,1-Trichloroethane	20.0	20.3		ug/L		101	52 - 162	
1,1,2,2-Tetrachloroethane	20.0	17.5	i	ug/L		87	46 _ 157	
1,1,2-Trichloroethane	20.0	19.5		ug/L		98	52 - 150	
1,1-Dichloroethane	20.0	20.1		ug/L		100	59 _ 155	
1,1-Dichloroethene	20.0	17.8	ı	ug/L		89	1 - 234	

Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: Lab Control Sample

2 3 4 5

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

Lab Sample ID: LCS 480-84403/4

Matrix: W	later	
Analysis	Batch:	84403

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,2-Dichlorobenzene	20.0	19.4		ug/L		97	18 - 190	
1,2-Dichloroethane	20.0	19.6		ug/L		98	49 ₋ 155	
1,2-Dichloropropane	20.0	21.7		ug/L		108	1 _ 210	
1,3-Dichlorobenzene	20.0	18.7		ug/L		93	59 - 156	
1,4-Dichlorobenzene	20.0	18.4		ug/L		92	18 - 190	
2-Chloroethyl vinyl ether	100	93.3		ug/L		93	1 - 305	
Benzene	20.0	21.3		ug/L		106	37 _ 151	
Bromoform	20.0	14.6		ug/L		73	45 ₋ 169	
Bromomethane	20.0	31.6		ug/L		158	1 - 242	
Carbon tetrachloride	20.0	18.6		ug/L		93	70 - 140	
Chlorobenzene	20.0	19.7		ug/L		99	37 - 160	
Chlorodibromomethane	20.0	17.1		ug/L		85	53 ₋ 149	
Chloroethane	20.0	26.5		ug/L		133	14 - 230	
Chloroform	20.0	20.8		ug/L		104	51 ₋ 138	
Chloromethane	20.0	22.1		ug/L		111	1 _ 273	
cis-1,3-Dichloropropene	20.0	20.2		ug/L		101	1 - 227	
Dichlorobromomethane	20.0	19.4		ug/L		97	35 ₋ 155	
Ethylbenzene	20.0	20.8		ug/L		104	37 - 162	
Methylene Chloride	20.0	21.9		ug/L		110	1 - 221	
Tetrachloroethene	20.0	19.1		ug/L		95	64 - 148	
Toluene	20.0	20.0		ug/L		100	47 - 150	
trans-1,2-Dichloroethene	20.0	19.0		ug/L		95	54 - 156	
trans-1,3-Dichloropropene	20.0	17.1		ug/L		85	17 - 183	
Trichloroethene	20.0	20.2		ug/L		101	71 ₋ 157	
Vinyl chloride	20.0	23.2		ug/L		116	1 _ 251	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		72 - 130
4-Bromofluorobenzene (Surr)	105		69 - 121
Toluene-d8 (Surr)	99		70 - 123

Lab Sample ID: 480-26220-7 MS Matrix: Water Analysis Batch: 84403

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,1,1-Trichloroethane	ND		160	154		ug/L		96	52 _ 162	
1,1,2,2-Tetrachloroethane	ND		160	119		ug/L		75	46 - 157	
1,1,2-Trichloroethane	ND		160	133		ug/L		83	52 ₋ 150	
1,1-Dichloroethane	ND		160	156		ug/L		98	59 ₋ 155	
1,1-Dichloroethene	ND		160	149		ug/L		93	1 _ 234	
1,2-Dichlorobenzene	ND		160	137		ug/L		85	18 ₋ 190	
1,2-Dichloroethane	ND		160	142		ug/L		89	49 - 155	
1,2-Dichloropropane	ND		160	158		ug/L		98	1 _ 210	
1,3-Dichlorobenzene	ND		160	129		ug/L		81	59 ₋ 156	
1,4-Dichlorobenzene	ND		160	128		ug/L		80	18 ₋ 190	
2-Chloroethyl vinyl ether	ND		800	ND	F	ug/L		0	1 _ 305	
Benzene	ND		160	161		ug/L		101	37 - 151	
Bromoform	ND		160	85.9		ug/L		54	45 - 169	

Client Sample ID: Grab 100512 (1-4 COMP) Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: Grab 100512 (1-4 COMP)

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

Lab Sample ID: 480-26220-7 MS

Matrix: Water Analysis Batch: 84403

Analysis Datch. 04405										
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Bromomethane	ND		160	212		ug/L		133	1 _ 242	
Carbon tetrachloride	ND		160	142		ug/L		89	70 - 140	
Chlorobenzene	63		160	189		ug/L		79	37 _ 160	
Chlorodibromomethane	ND		160	111		ug/L		69	53 - 149	
Chloroethane	ND		160	213		ug/L		133	14 _ 230	
Chloroform	ND		160	156		ug/L		97	51 - 138	
Chloromethane	ND		160	156		ug/L		97	1 _ 273	
cis-1,3-Dichloropropene	ND		160	120		ug/L		75	1 _ 227	
Dichlorobromomethane	ND		160	138		ug/L		86	35 - 155	
Ethylbenzene	ND		160	145		ug/L		91	37 _ 162	
Methylene Chloride	ND		160	167		ug/L		104	1 _ 221	
Tetrachloroethene	ND		160	133		ug/L		83	64 ₋ 148	
Toluene	ND		160	141		ug/L		88	47 _ 150	
trans-1,2-Dichloroethene	ND		160	149		ug/L		93	54 - 156	
trans-1,3-Dichloropropene	ND		160	101		ug/L		63	17 _ 183	
Trichloroethene	ND		160	150		ug/L		93	71 - 157	
Vinyl chloride	ND		160	163		ug/L		102	1 _ 251	
	MS	MS								
0	0/ D	O	1							

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		72 - 130
4-Bromofluorobenzene (Surr)	105		69 - 121
Toluene-d8 (Surr)	96		70 - 123

Lab Sample ID: 480-26220-7 MSD Matrix: Water

Analysis Batch: 84403 Sample Sample Spike MSD MSD %Rec. RPD Result Qualifier Added RPD Limit Analyte **Result Qualifier** Unit D %Rec Limits 160 ND 1,1,1-Trichloroethane 144 ug/L 90 52 - 162 6 15 ND 160 76 1,1,2,2-Tetrachloroethane 122 ug/L 46 - 157 2 15 ND 1,1,2-Trichloroethane 160 135 ug/L 85 52 - 150 2 15 ND 160 150 94 59 - 155 15 1,1-Dichloroethane ug/L 4 1,1-Dichloroethene ND 160 141 ug/L 88 1 - 234 6 15 1,2-Dichlorobenzene ND 160 136 ug/L 85 18 - 190 1 15 1,2-Dichloroethane ND 160 139 ug/L 87 49 - 155 2 15 1,2-Dichloropropane ND 160 153 ug/L 95 1 - 210 3 15 ND 160 79 1,3-Dichlorobenzene 127 59 - 156 15 ug/L 1 1,4-Dichlorobenzene ND 160 129 ug/L 81 18 - 190 15 1 2-Chloroethyl vinyl ether ND 800 ND F ug/L 0 1 - 305 NC 15 Benzene ND 160 155 ug/L 97 37 - 151 4 15 Bromoform ND 160 86.8 ug/L 54 45 - 169 1 15 ND 123 Bromomethane 160 196 ug/L 1 _ 242 8 15 Carbon tetrachloride ND 160 132 ug/L 82 70 - 140 8 15 160 186 77 37 _ 160 2 Chlorobenzene 63 ug/L 15 Chlorodibromomethane ND 160 108 67 53 - 149 3 15 ug/L Chloroethane ND 160 192 ug/L 120 14 - 230 10 15 Chloroform ND 160 151 ug/L 94 51 - 138 3 15 Chloromethane ND 160 151 ug/L 94 1 - 273 3 15 cis-1,3-Dichloropropene ND 160 120 ug/L 75 1 _ 227 0 15

Client Sample ID: Grab 100512 (1-4 COMP) Prep Type: Total/NA

13

Spike

Added

160

160

160

160

160

160

160

160

160

Limits

72 - 130

69 - 121

70 - 123

MSD MSD

134

141

163

127

134

143

100

145

158

Result Qualifier

Unit

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

D

%Rec

84

88

102

79

84

89

63

91

99

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

Sample Sample

Qualifier

Result

ND

ND

ND

ND

ND

ND

ND

ND

ND

MSD MSD Qualifier

89

104

94

%Recovery

Lab Sample ID: 480-26220-7 MSD

Matrix: Water Analysis Batch: 84403

Dichlorobromomethane

trans-1,2-Dichloroethene

trans-1,3-Dichloropropene

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Methylene Chloride

Tetrachloroethene

Trichloroethene

Vinyl chloride

Surrogate

Toluene-d8 (Surr)

Analyte

Toluene

Ethylbenzene

Client Sample ID: Grab 100512 (1-4 COMP) Prep Type: Total/NA

%Rec.

Limits

35 - 155

37 - 162

1 - 221

64 - 148

47 - 150

54 - 156

17 - 183

71 - 157

1 - 251

15

15

15

15

1

1

1

1

1

1

1

1

1

1

RPD

2

3

2

4

5

4

1

3

4

8
9
13

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

Lab Sample ID: MB 480-84701/1-A **Client Sample ID: Method Blank** Matrix: Water Prep Type: Total/NA Prep Batch: 84701 Analysis Batch: 84908 MB MB Result Qualifier Analyte RL MDL Unit D Prepared Analyzed Dil Fac 1.13 10 1,2,4-Trichlorobenzene J 0.49 ug/L 10/10/12 07:16 10/11/12 10:21 1,2-Dichlorobenzene ND 10 0.15 10/10/12 07:16 10/11/12 10:21 ug/L ND 10 10/10/12 07:16 1,2-Diphenylhydrazine 0.063 ug/L 10/11/12 10:21 ND 10 0.069 10/10/12 07:16 10/11/12 10:21 1.3-Dichlorobenzene ug/L 1,4-Dichlorobenzene ND 10 0.090 ug/L 10/10/12 07:16 10/11/12 10:21 2,4,6-Trichlorophenol ND 10/10/12 07:16 10/11/12 10:21 5.0 0.23 ug/L 2,4-Dichlorophenol ND 5.0 0.30 ug/L 10/10/12 07:16 10/11/12 10:21 ND 5.0 2,4-Dimethylphenol 0.13 ug/L 10/10/12 07:16 10/11/12 10.21 2,4-Dinitrophenol ND 10 0.84 ug/L 10/10/12 07:16 10/11/12 10:21 10/10/12 07:16 2,4-Dinitrotoluene ND 5.0 10/11/12 10:21 0.26 ug/L

2,6-Dinitrotoluene	NE) 5.0	0.72	ug/L	10/10/12 07:16	10/11/12 10:21	1
2-Chloronaphthalene	NE	5.0	0.068	ug/L	10/10/12 07:16	10/11/12 10:21	1
2-Chlorophenol	NE) 5.0	0.16	ug/L	10/10/12 07:16	10/11/12 10:21	1
2-Nitrophenol	NE	5.0	0.14	ug/L	10/10/12 07:16	10/11/12 10:21	1
3,3'-Dichlorobenzidine	NE	5.0	0.82	ug/L	10/10/12 07:16	10/11/12 10:21	1
4,6-Dinitro-2-methylphenol	NE) 10	0.76	ug/L	10/10/12 07:16	10/11/12 10:21	1
4-Bromophenyl phenyl ethe	er NE	5.0	0.11	ug/L	10/10/12 07:16	10/11/12 10:21	1
4-Chloro-3-methylphenol	NE	5.0	0.56	ug/L	10/10/12 07:16	10/11/12 10:21	1
4-Chloroaniline	NE	5.0	0.69	ug/L	10/10/12 07:16	10/11/12 10:21	1
4-Chlorophenyl phenyl ethe	er NE	5.0	0.21	ug/L	10/10/12 07:16	10/11/12 10:21	1
4-Nitrophenol	NE) 10	1.3	ug/L	10/10/12 07:16	10/11/12 10:21	1
Acenaphthene	NE	5.0	0.060	ug/L	10/10/12 07:16	10/11/12 10:21	1
Acenaphthylene	NE	5.0	0.034	ug/L	10/10/12 07:16	10/11/12 10:21	1
Anthracene	NE	5.0	0.052	ug/L	10/10/12 07:16	10/11/12 10:21	1
Benzidine	NE) 80	2.5	ug/L	10/10/12 07:16	10/11/12 10:21	1
Benzo[a]anthracene	NE	5.0	0.043	ug/L	10/10/12 07:16	10/11/12 10:21	1
Benzo[a]pyrene	NE	5.0	0.058	ug/L	10/10/12 07:16	10/11/12 10:21	1
Delizo[a]pyrene	INL	5.0	0.056	ug/L	10/10/12 07.10	10/11/12 10.21	

Lab Sample ID: MB 480-84701/1-A

Matrix: Water

Client Sample ID: Method Blank

Prep Type: Total/NA

8	3	

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

Analysis Batch: 84908								Prep Batch	າ: 84701
	MB	МВ							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	ND		5.0	0.062	ug/L		10/10/12 07:16	10/11/12 10:21	1
Benzo[g,h,i]perylene	ND		5.0	0.10	ug/L		10/10/12 07:16	10/11/12 10:21	1
Benzo[k]fluoranthene	ND		5.0	0.042	ug/L		10/10/12 07:16	10/11/12 10:21	1
bis (2-chloroisopropyl) ether	ND		5.0	0.086	ug/L		10/10/12 07:16	10/11/12 10:21	1
Bis(2-chloroethoxy)methane	ND		5.0	0.085	ug/L		10/10/12 07:16	10/11/12 10:21	1
Bis(2-chloroethyl)ether	ND		5.0	1.1	ug/L		10/10/12 07:16	10/11/12 10:21	1
Bis(2-ethylhexyl) phthalate	ND		10	0.86	ug/L		10/10/12 07:16	10/11/12 10:21	1
Butyl benzyl phthalate	ND		5.0	1.3	ug/L		10/10/12 07:16	10/11/12 10:21	1
Chrysene	ND		5.0	0.036	ug/L		10/10/12 07:16	10/11/12 10:21	1
Dibenz(a,h)anthracene	ND		5.0	0.055	ug/L		10/10/12 07:16	10/11/12 10:21	1
Diethyl phthalate	ND		5.0	0.17	ug/L		10/10/12 07:16	10/11/12 10:21	1
Dimethyl phthalate	ND		5.0	0.17	ug/L		10/10/12 07:16	10/11/12 10:21	1
Di-n-butyl phthalate	ND		5.0	0.94	ug/L		10/10/12 07:16	10/11/12 10:21	1
Di-n-octyl phthalate	ND		5.0	4.5	ug/L		10/10/12 07:16	10/11/12 10:21	1
Fluoranthene	ND		5.0	0.11	ug/L		10/10/12 07:16	10/11/12 10:21	1
Fluorene	ND		5.0	0.043	ug/L		10/10/12 07:16	10/11/12 10:21	1
Hexachlorobenzene	ND		5.0	0.28	ug/L		10/10/12 07:16	10/11/12 10:21	1
Hexachlorobutadiene	ND		5.0	0.62	ug/L		10/10/12 07:16	10/11/12 10:21	1
Hexachlorocyclopentadiene	ND		5.0	0.45	ug/L		10/10/12 07:16	10/11/12 10:21	1
Hexachloroethane	ND		5.0	0.48	ug/L		10/10/12 07:16	10/11/12 10:21	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.19	ug/L		10/10/12 07:16	10/11/12 10:21	1
Isophorone	ND		5.0	0.16	ug/L		10/10/12 07:16	10/11/12 10:21	1
Naphthalene	ND		5.0	0.080	ug/L		10/10/12 07:16	10/11/12 10:21	1
Nitrobenzene	ND		5.0	0.11	ug/L		10/10/12 07:16	10/11/12 10:21	1
N-Nitrosodimethylamine	ND		10	0.96	ug/L		10/10/12 07:16	10/11/12 10:21	1
N-Nitrosodi-n-propylamine	ND		5.0	0.23	ug/L		10/10/12 07:16	10/11/12 10:21	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		10/10/12 07:16	10/11/12 10:21	1
Pentachlorophenol	ND		10	0.41	ug/L		10/10/12 07:16	10/11/12 10:21	1
Phenanthrene	ND		5.0	0.071	ug/L		10/10/12 07:16	10/11/12 10:21	1
Phenol	ND		5.0	0.12	ug/L		10/10/12 07:16	10/11/12 10:21	1
Pyrene	ND		5.0	0.041	ug/L		10/10/12 07:16	10/11/12 10:21	1
	MD	MD							

		N/D				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	88		52 - 151	10/10/12 07:1	6 10/11/12 10:21	1
2-Fluorobiphenyl	52		44 _ 120	10/10/12 07:1	6 10/11/12 10:21	1
2-Fluorophenol	43		17 _ 120	10/10/12 07:1	6 10/11/12 10:21	1
Nitrobenzene-d5	76		42 - 120	10/10/12 07:1	6 10/11/12 10:21	1
Phenol-d5	30		10 - 120	10/10/12 07:1	6 10/11/12 10:21	1
p-Terphenyl-d14	93		22 - 125	10/10/12 07:1	6 10/11/12 10:21	1

Lab Sample ID: LCS 480-84701/2-A Matrix: Water

Analysis Batch: 84908

Analysis Batch: 84908							Prep	Batch: 84701
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,2,4-Trichlorobenzene	100	39.2	*	ug/L		39	44 - 142	
1,2-Dichlorobenzene	100	35.5		ug/L		35	32 - 129	
1,3-Dichlorobenzene	100	31.7		ug/L		32	1 - 172	
1,4-Dichlorobenzene	100	32.5		ug/L		33	20 _ 124	

Prep Type: Total/NA

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample

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

Lab Sample ID: LCS 480-84701/2-A	

Matrix: Water						Prep Type: Total/NA	
Analysis Batch: 84908						Prep Batch: 84701	E
	Spike	LCS	LCS			%Rec.	Ð
Analyte	Added	Result	Qualifier	Unit	D %Rec	Limits	
2,4,6-Trichlorophenol	100	104		ug/L	104	37 - 144	
2,4-Dichlorophenol	100	93.5		ug/L	93	39 - 135	
2,4-Dimethylphenol	100	90.5		ug/L	90	32 - 119	
2,4-Dinitrophenol	100	94.5		ug/L	94	1 - 191	
2,4-Dinitrotoluene	100	108		ug/L	108	39 - 139	8
2,6-Dinitrotoluene	100	112		ug/L	112	50 - 158	
2-Chloronaphthalene	100	51.0	*	ug/L	51	60 - 118	9
2-Chlorophenol	100	77.6		ug/L	78	23 - 134	
2-Nitrophenol	100	91.2		ug/L	91	29 - 182	
3,3'-Dichlorobenzidine	97.0	55.2		ug/L	57	1 _ 262	
4,6-Dinitro-2-methylphenol	100	107		ug/L	107	1 - 181	
4-Bromophenyl phenyl ether	100	98.8		ug/L	99	53 - 127	
4-Chloro-3-methylphenol	100	93.3		ug/L	93	22 - 147	
4-Chlorophenyl phenyl ether	100	80.8		ug/L	81	25 - 158	
4-Nitrophenol	100	53.1		ug/L	53	1 - 132	40
Acenaphthene	100	67.1		ug/L	67	47 - 145	13
Acenaphthylene	100	71.4		ug/L	71	33 - 145	
Anthracene	100	104		ug/L	104	27 _ 133	
Benzo[a]anthracene	100	101		ug/L	101	33 - 143	
Benzo[a]pyrene	100	107		ug/L	107	17 _ 163	
Benzo[b]fluoranthene	100	105		ug/L	105	24 - 159	
Benzo[g,h,i]perylene	100	141		ug/L	141	1 _ 219	
Benzo[k]fluoranthene	100	98.2		ug/L	98	11 - 162	
bis (2-chloroisopropyl) ether	100	76.1		ug/L	76	36 - 166	
Bis(2-chloroethoxy)methane	100	92.5		ug/L	92	33 - 184	
Bis(2-chloroethyl)ether	100	81.2		ug/L	81	12 - 158	
Bis(2-ethylhexyl) phthalate	100	101		ug/L	101	8 - 158	
Butyl benzyl phthalate	100	106		ug/L	106	1 - 152	
Chrysene	100	105		ug/L	105	17 - 168	
Dibenz(a,h)anthracene	100	130		ug/L	130	1 - 227	
Diethyl phthalate	100	107		ug/L	107	1 - 114	
Dimethyl phthalate	100	103		ug/L	103	1 - 112	
Di-n-butyl phthalate	100	103		ug/L	103	1 - 118	
Di-n-octyl phthalate	100	109		ug/L	109	4 - 146	
Fluoranthene	100	107		ug/L	107	26 - 137	
Fluorene	100	87.9		uq/L	88	59 - 121	
Hexachlorobenzene	100	104		uq/L	104	1 - 152	
Hexachlorocyclopentadiene	100	27.3		ug/L	27	5 - 120	
Hexachloroethane	100	28.5	*	ua/L	29	40 - 113	
Indeno[1.2.3-cd]pvrene	100	133		ua/L	133	1 - 171	
Isophorone	100	99.7		ua/L	100	21 - 196	
Naphthalene	100	49 7		ua/L	50	21 - 133	
Nitrobenzene	100	88.8		ua/L	89	35 - 180	
N-Nitrosodi-n-propylamine	100	93.1		g/ = Ua/l	03 03	1 - 230	
N-Nitrosodiphenylamine	100	99.1		ua/l	95 QQ	54 - 125	
Pentachlorophenol	100	103		ua/l	103	14 - 176	
Phenanthrene	100	103		ug/L	103	54 120	
Phenol	100	101		ug/L	וטו גע	5 112	
Purene	100	40.0		ug/L	43	52 115	
r yrene	100	104		uy/L	104	JZ = 11J	

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

Lab Sample ID: LCS 480-84701/2 Matrix: Water	-A								Cli	ent	Sample	ID: Lab Contro Prep Type:	l Sample Total/NA
Analysis Batch: 84908												Prep Bate	ch: 84701
	LCS LCS	;											
Surrogate	%Recovery Qua	lifier	Limits										
2,4,6-Tribromophenol	106		52 - 151										
2-Fluorobiphenyl	88		44 - 120										
2-Fluorophenol	52		17_120										
Nitrobenzene-d5	90		42 _ 120										
Phenol-d5	37		10 - 120										
p-Terphenyl-d14	100		22 - 125										
Analysis Batch: 84462	МВ	МВ											
Analyte	Result	Qualifier		RL		RL	Unit		D	Р	repared	Analyzed	Dil Fa
Total Suspended Solids	ND			4.0		4.0	mg/L					10/08/12 21:48	
- Lab Sample ID: LCS 480-84462/2									Cli	ent	Sample	e ID: Lab Contro	ol Sample
Matrix: Water												Prep Type:	Total/NA
Analysis Batch: 84462													
			Spike		LCS	LCS						%Rec.	
Analyte			Added		Result	Qua	lifier	Unit		D	%Rec	Limits	
Total Suspended Solids			207		196.0			mg/L		_	95	88 - 110	
- Lab Sample ID: 480-26220-5 DU											Client S	Sample ID: COM	P 10051:

Dress	T		
Fleb	Type.	I Utal/INA	

Analysis Batch: 84462									
	Sample	Sample	DU	DU					RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	I	RPD	Limit
Total Suspended Solids	44.0		46.40		mg/L			5	15

Method: SM 4500 H+ B - pH

Matrix: Water

Lab Sample ID: LCS 480-84171/1 Matrix: Water					Client	Sample	ID: Lab Control Sample Prep Type: Total/NA
Analysis Batch: 84171	Spike	LCS	LCS				%Rec.
Analyte	Added 7.00	Result 7.010	Qualifier	Unit SU	D	%Rec 100	Limits

Prep Type

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Prep Type

Total/NA

Total/NA

Total/NA

Matrix

Water

Water

Water

Water

Water

Water

Matrix

Water

Water

Water

Client Sample ID

Grab 100512 (1-4 COMP)

Grab 100512 (1-4 COMP)

Grab 100512 (1-4 COMP)

Lab Control Sample

Method Blank

Client Sample ID

Lab Control Sample

Method Blank

Grab 100512 (1-4 COMP)

100512-TB

GC/MS VOA

Lab Sample ID

480-26220-6

480-26220-7

480-26220-7 MS

480-26220-7 MSD

LCS 480-84403/4

MB 480-84403/5

GC/MS Semi VOA

Prep Batch: 84701

LCS 480-84701/2-A

MB 480-84701/1-A

480-26220-7

Analysis Batch: 84403

Method

624

624

624

624

624

624

Method

625

625

625

Prep Batch

7 8 9 ______10 11

Analysis Batch: 84908

Lab Sample ID 480-26220-7	Client Sample ID Grab 100512 (1-4 COMP)	Prep Type Total/NA	Water	Method	Prep Batch 84701
LCS 480-84701/2-A	Lab Control Sample	Total/NA	Water	625	84701
MB 480-84701/1-A	Method Blank	Total/NA	Water	625	84701

General Chemistry

Analysis Batch: 84171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-26220-5	COMP 100512	Total/NA	Water	SM 4500 H+ B	
LCS 480-84171/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 84462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-26220-5	COMP 100512	Total/NA	Water	SM 2540D	
480-26220-5 DU	COMP 100512	Total/NA	Water	SM 2540D	
LCS 480-84462/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 480-84462/1	Method Blank	Total/NA	Water	SM 2540D	

Client Samp	le ID: COMF	P 100512				La	ab Sample	ID: 480-26220-5
Date Collected	I: 10/05/12 13:0	00					-	Matrix: Water
Date Received	: 10/05/12 14:4	0						
_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 H+ B		1	84171	10/05/12 20:55	KS	TAL BUF
Total/NA	Analysis	SM 2540D		1	84462	10/08/12 21:52	KS	TAL BUF
Client Samp	le ID: 10051	2-TB				La	ab Sample	ID: 480-26220-6
Date Collected	l: 10/05/12 13:′	15						Matrix: Water
Date Received	: 10/05/12 14:4	10						
_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	84403	10/08/12 21:06	TRB	TAL BUF
Client Samp	le ID: Grab	100512 (1-4 CC	OMP)			La	ab Sample	ID: 480-26220-7
Date Collected	I: 10/05/12 13:0	00					-	Matrix: Water
Date Received	: 10/05/12 14:4	0						
_	5.4.1	5.4.1		Dilution	Detek	Durana		

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	624		8	84403	10/08/12 21:29	TRB	TAL BUF
Total/NA	Prep	625			84701	10/10/12 07:16	TR	TAL BUF
Total/NA	Analysis	625		1	84908	10/11/12 15:05	AM	TAL BUF

Laboratory References:

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

TestAmerica Job ID: 480-26220-1

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-13
California	NELAC	9	1169CA	09-30-12
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAC	4	E87672	06-30-13
Georgia	State Program	4	N/A	03-31-13
Georgia	State Program	4	956	06-30-13
Georgia	State Program	4	956	03-31-12
Illinois	NELAC	5	200003	09-30-12
lowa	State Program	7	374	03-01-13
Kansas	NELAC	7	E-10187	01-31-13
Kentucky	State Program	4	90029	12-31-12
Kentucky (UST)	State Program	4	30	04-01-13
Louisiana	NELAC	6	02031	06-30-13
Maine	State Program	1	NY00044	12-04-12
Maryland	State Program	3	294	03-31-13
Massachusetts	State Program	1	M-NY044	06-30-13
Michigan	State Program	5	9937	04-01-13
Minnesota	NELAC	5	036-999-337	12-31-12
New Hampshire	NELAC	1	2973	09-11-13
New Hampshire	NELAC	1	2337	11-17-12
New Jersey	NELAC	2	NY455	06-30-13
New York	NELAC	2	10026	03-31-13
North Dakota	State Program	8	R-176	03-31-13
Oklahoma	State Program	6	9421	08-31-13
Oregon	NELAC	10	NY200003	06-09-13
Pennsylvania	NELAC	3	68-00281	07-31-13
Tennessee	State Program	4	TN02970	04-01-13
Texas	NELAC	6	T104704412-11-2	07-31-13
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAC	3	460185	09-14-13
Washington	State Program	10	C784	02-10-13
West Virginia DEP	State Program	3	252	09-30-13
Wisconsin	State Program	5	998310390	08-31-13

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

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Method	Method Description	Protocol	Laboratory
624	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
SM 4500 H+ B	рН	SM	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

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

Sample Summary

Client: Honeywell International Inc Project/Site: 30130 - Alltift OM Phase TestAmerica Job ID: 480-26220-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-26220-5	COMP 100512	Water	10/05/12 13:00	10/05/12 14:40
480-26220-6	100512-TB	Water	10/05/12 13:15	10/05/12 14:40
480-26220-7	Grab 100512 (1-4 COMP)	Water	10/05/12 13:00	10/05/12 14:40

Chain of Custody Record

Leb PM: John Schove COC No: Sampler: Patrick Higgins Serrier Tracking No(s); Cilent information Client Contect John Formoza 480-21387-2026.1 Phone: 315-468-1663 E-Mail: Page: Page 1 of 1 iohn.schove@testamericainc.com Company: Honeywell International Inc Job #: Analysis Requested Due Date Requi Address servation Codes 1563 Willis Ave. City: Syracuse State, Zip: NY, 13204 M - Hexane A - HCL TAT Requested (days): N - None O - AsheO2 P - Na2O4S B - NeOH 2 Weeks C - Zn Acetata D - Nitric Acid NeHSO4 Q - Na2803 - MeOH - Amchior Phone: PO#: 4500018811 R - Na2S2SO3 315-468-1663 S - H2SO4 Ascorbic Acid T - TSP Dod Email: WO#: i-ica J-DiWeter U - Acetone iohn.formoza@ch2m.com V-MCAA voject #: Project Name: K-EDTA W - ph 4-5 L - EDA Z - other (apecity) Honeywell - Alltift OM phase / Semi Annual 48003159 SSOW Honeywell - Buffalo Sites VOC - Method 624 1 +H_OOEMAS Matrix Sample (Western, Bracilit, Orwesteriol Туре Location Identification Sample Identification Sample (C=Comp Time Sample Date G≃grab) Special Instructions/Note: B7=Tiesue, A=Air) ALLTHET COLL SUMP PUMP N N 3 2 GRAB 1 100512 6700 G w 10/5/12 N N 3 2 ALLTIFT COLL SUMP PUMP GRAB 2 100512 0900 G w 10/5/12 N N 3 2 ALLTIFT COLL SUMP PUMP GRAB 3 100512 10/5/12 1100 G w N N 3 2 1300 ALLTIFT COLL SUMP PUMP GRAB 4 100512 10/5/12 G w 1300 N N ALLTIFT COLL SUMP PUMP С w COMP 100512 10/5/12 1 1 N N 1 TRIBBLANK 1315 w 100512 -TB 10/5/12 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Return To Client Disposal By Lab Archive For Month Possible Hazard Identification Non-Hazard Flammeble Skin Initant Poison B Archive For Unknown Radiological Months Deliverable Requested: I, II, III, IV, Other (specify) ethod of Shipment Empty Kit Relinquished by: Time: Date: attred Alynas 20105/2012 14:40 1015112 1440 mint shed by mpany mpany △ Custody Seal No.: ZY #Z Custody Seals Intact: coler Temperature(s) *C and Other Remarks Yes A No

14

Client: Honeywell International Inc

Login Number: 26220 List Number: 1

Creator: Robitaille, Zach L

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

APPENDIX G

SITE INSPECTION FORMS



View along access road facing North



View along access road facing South



View from lift station facing wetlands



View from lift station facing the landfill cover

Site Inspection Form



Site Nan Project I Date: <u>2</u> /	ne: <u>Alltii</u> Number: / <u>28/12</u>	<u>t</u> <u>30130</u>	Weather: <u>Cloudy</u> Assessment by: <u>John W. Formoza</u>
Yes			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
	\mathbb{X}		B. General Site Conditions 1. Vegetation stress? 2. Mowing required? 3. Access road drivable? 4. Odors? 5. Other
	$\times \times $		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?
			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
\boxtimes			E. Methane Gas Control Does one exist?
		CH2MHILI	
---------------------------------------	---	---	
		Site Inspection Form	
Yes		 Is system active or passive? <u>active</u> Permanent methane gas probes? Locks on monitoring wells? Locks in working order? <u>One vent in need of replacment (GV2)</u> Well seals in place? Methane levels within LEL limits? <u>Readings taken 1/27/12</u> Monitoring reports current? Other 	
\boxtimes		F. Leachate Collection System 1. Does one exist?	
	$\square \boxtimes \boxtimes \boxtimes$	2. Collection method: a. Sump? <u>2</u> b. Well point? c. Earthen basin/pond? d. Structure secured? e. Other	
$\boxtimes \square \boxtimes \square$		3. Pumping system: a. Automatic? b. Manual? c. Mechanically operable? d. Leaks/failures?	
	\mathbb{X}	 4. Disposais: a. Onsite pretreatment/treatment? b. Surface discharge? (NPDES/SPDES) c. POTW – hardpiped? d. Quick disconnect caps in place? 	
	\boxtimes	 5. Transportation (if any): a. Chemicals? b. Filter cake? 6. Ancillary equipment in good condition? (Pipes, valves, pumps, vaults, 	
\boxtimes		 instruments and etc.) 7. Monitoring reports current? 8. Other 	
$\mathbb{X} \mathbb{X} \mathbb{X}$		 G. Groundwater Monitoring & Recovery Wells (if any) 1. Locks on wells? 2. Wells in good condition? 3. Well seals in good condition? 4. Access to wells? 5. Monitoring reports current? 6. Other 	



			Site Inspection Form
Yes	No	<u>N/A</u>	H. Treatment Plant
		\boxtimes	1. Building in good condition? (Doors, windows, wells, roof)
		\boxtimes	2. Visual tank inspection performed?
		\boxtimes	3. Visual inspection of pipes, valves, fittings etc.?
		\boxtimes	4. Pump operation/inspection performed?
		\boxtimes	5. Instruments operation/calibration?
		\boxtimes	6. Mixer operation/inspection?
		\boxtimes	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	1. Damage due to burrowing animals?
		\boxtimes	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	5. Establishment of woody plant growth causing displacement or stress on the system?
		\boxtimes	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?
		\boxtimes	9. Damage to the stone infill within the marine mattresses?
		\bowtie	10. Damage to the general integrity of the system (Look for splits, cuts and gaps)?

John Formoza met Mr. Syrmanske from the NYSDEC on February 28, 2012 at 10:30 am. We walked the access road and cap. Mr. Srymanske did not have any comments. He does want to stop out during the wetland planting and mowing.. The inspection took approximately 1 hour. One gas vent (GV2) needs replacment. It appease it was damaged from the high winds.



Site Inspection Form

Site Nai Project Date: <u>6</u>	me: <u>Alltii</u> Number: 5/6/12	<u>ft</u> <u>30130</u>	Weather: <u>Sunny</u> Assessment by: <u>Mohammed Mohammed</u>
Yes	≥ 2010		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
	\mathbb{X}		B. General Site Conditions 1. Vegetation stress? 2. Mowing required? 3. Access road drivable? 4. Odors? 5. Other
	$\times \times $		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?
\boxtimes			E. Methane Gas Control 1. Does one exist?

			CH2MHILL
			Site Inspection Form
Yes	$\stackrel{No}{\square} \boxtimes \square \boxtimes \square$		 Is system active or passive? <u>active</u> Permanent methane gas probes? Locks on monitoring wells? Locks in working order? <u>One vent in need of replacment (GV1)</u> Well seals in place? Methane levels within LEL limits? <u>Readings taken 4/5/12</u> Monitoring reports current? Other
\boxtimes			F. Leachate Collection System 1. Does one exist?
			 2. Collection method: a. Sump? <u>2</u> b. Well point? c. Earthen basin/pond? d. Structure secured? e. Other
			3. Pumping system: a. Automatic? b. Manual? c. Mechanically operable? d. Leaks/failures?
		\boxtimes \square \boxtimes	 4. Disposals: a. Onsite pretreatment/treatment? b. Surface discharge? (NPDES/SPDES) c. POTW – hardpiped? Y d. Quick disconnect caps in place?
		\bowtie	 5. Transportation (if any): a. Chemicals? b. Filter cake? 6. Ancillary equipment in good condition? (Pipes, valves, pumps, vaults,
			7. Monitoring reports current? 8. Other
$\mathbb{X} \mathbb{X} \mathbb{X}$			 G. Groundwater Monitoring & Recovery Wells (if any) 1. Locks on wells? 2. Wells in good condition? 3. Well seals in good condition? 4. Access to wells? 5. Monitoring reports current? 6. Other



			Site Inspection Form
Yes	No	<u>N/A</u>	H. Treatment Plant
		\boxtimes	1. Building in good condition? (Doors, windows, wells, roof)
		\boxtimes	2. Visual tank inspection performed?
		\boxtimes	3. Visual inspection of pipes, valves, fittings etc.?
		\boxtimes	4. Pump operation/inspection performed?
		\boxtimes	5. Instruments operation/calibration?
		\boxtimes	6. Mixer operation/inspection?
		\boxtimes	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	1. Damage due to burrowing animals?
		\boxtimes	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	5. Establishment of woody plant growth causing displacement or stress on the system?
		\boxtimes	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?
		\boxtimes	9. 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)?

<u>Mohammed Mohammed met Mr. Szymanski from the NYSDEC on June 6, 2012 at 12:10</u> <u>PM . We walked the access road and cap. Mr. Srymanske did not have any comments. We walked thru the plantation area</u> to check the progress of the work. The inspection took approximately 1.5 hour. One gas vent (GV1) needs replacment. It appears it was damaged from the high winds.

Site Inspection Form



Site Name: Alltift			Weather: Raining		
Proje Date:	ct Numbe 9-18-12	er: <u>30130</u>	Assessment by: Mike Stout		
Yes X X X X X			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?		
			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?		
			E. Methane Gas Control 1. Does one exist?		

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		-	Site Inspection Form
Yes	No	N/A	
\boxtimes			2. Is system active or passive? <u>active</u>
	\boxtimes		3. Permanent methane gas probes?
\boxtimes			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
			1. Does one exist?
-	_		2. Collection method:
\boxtimes			a. Sump? 2
Ē	Ē	X	b. Well point?
	Ē	X	c. Earthen basin/pond?
Ē		X	d. Structure secured?
	-	-	e. Other
			3. Pumping system:
\square			a. Automatic?
			b. Manual?
			c. Mechanically operable?
			d. Leaks/failures?
_	-	_	4. Disposals:
			a. Onsite pretreatment/treatment?
Ē	Ē	X	b. Surface discharge? (NPDES/SPDES)
\boxtimes	Π	Ē	c. POTW - hardpiped? yes
Ē	Ē		d. Quick disconnect caps in place?
	_		5. Transportation (if any):
			a. Chemicals?
	Π	$\overline{\boxtimes}$	b. Filter cake?
		Ē	6. Ancillary equipment in good condition? (Pipes, valves, pumps, vaults,
-	_	-	instruments and etc.)
			7. Monitoring reports current?
-			8. Other
			G. Groundwater Monitoring & Recovery Wells (if any)
			1. Locks on wells?
			2. Wells in good condition?
X		Ē	3. Well seals in good condition?
X	Ē		4. Access to wells?
X			5. Monitoring reports current?
		-	6. Other

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		GRZWINILL
		Site Inspection Form
No	N/A	H. Treatment Plant
	\boxtimes	 Building in good condition? (Doors, windows, wells, roof)
-	\boxtimes	2. Visual tank inspection performed?
	\boxtimes	Visual inspection of pipes, valves, fittings etc.?
	\boxtimes	Pump operation/inspection performed?
	\boxtimes	5. Instruments operation/calibration?
	\boxtimes	6. Mixer operation/inspection?
	\boxtimes	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	1. 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	Impacts or damage due to navigation activities in the Buffalo River?
	\boxtimes	Establishment of woody plant growth causing displacement or stress on the system?
	\boxtimes	6. Areas of settlement or displacement of the system?
	\boxtimes	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	9. 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)?

<u>Mike Stout met with Mr. Dave Szymanski from the NYSDEC on September 18, 2012 at</u> 9:30 am. Mr. Szymanski walk the 6 wetland pods, the top of the cap and perimeter. He did not have any comments or concerns. The inspection took approximately 1 hour and 45 minutes. All gas vents were operational.

Mike Stout

Yes

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Site Inspection Form



Site Name: <u>Alltift</u> Project Number: <u>30130</u> Date: <u>11/20/2012</u>			Weather: <u>Partially cloudy 40f</u> Assessment by: <u>Mohammed Mohammed</u>
Yes X X X X X			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
	\boxtimes		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?
			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?
\boxtimes			E. Methane Gas Control

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			CH2MHILL
Yes	No	N/A	Site Inspection Form
			2. Is system active or passive? <u>active</u>
		H	3. Permanent methane gas probes?
	H	H	4. Locks on monitoring wells?
	H	H	5. Vells sale in place?
	H	H	6. Well seals in place?
	H	H	Menitering separts surrent2
			9. Other
			F. Leachate Collection System
\boxtimes			1. Does one exist?
			2. Collection method:
\boxtimes			a. Sump? 2
		\boxtimes	b. Well point?
		\boxtimes	c. Earthen basin/pond?
		\boxtimes	d. Structure secured?
~			e. Other
Cast.			3. Pumping system:
\boxtimes			a. Automatic?
	\boxtimes		b. Manual?
\boxtimes			c. Mechanically operable?
	\boxtimes		d. Leaks/failures?
_	_	_	4. Disposals:
		\boxtimes	a. Onsite pretreatment/treatment?
		\boxtimes	b. Surface discharge? (NPDES/SPDES)
	Ц	\boxtimes	c. POTW – hardpiped?
		\boxtimes	d. Quick disconnect caps in place?
			5. Transportation (if any):
H	H		a. Chemicals?
	H		b. Filter cake?
			6. Ancillary equipment in good condition? (Pipes, valves, pumps, vaults,
			Instruments and etc.)
			8. Other
			G. Groundwater Monitoring & Recovery Wells (if any)
	H		1. Locks on wells?
		H	2. Wells and condition?
	H	H	A Access to wells?
			5. Monitoring reports current?
			6 Other
			0. Other

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		CH2MHILI
		Site Inspection Form
No	N/A	H. Treatment Plant
	\boxtimes	1. Building in good condition? (Doors, windows, wells, roof)
	\boxtimes	2. Visual tank inspection performed?
	\boxtimes	3. Visual inspection of pipes, valves, fittings etc.?
	\boxtimes	4. Pump operation/inspection performed?
	\boxtimes	5. Instruments operation/calibration?
	\boxtimes	6. Mixer operation/inspection?
	\boxtimes	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	1. 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	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	6. Areas of settlement or displacement of the system?
	\boxtimes	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	9. 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)?

THE NYSDEC DID NOT ATTEND.

Mohammed Mohammed 11/20/12

Yes

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