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November 4, 2014 **VIA OVERNIGHT CARRIER**

Ms. Sharon D. Kenny, MEng, PMP, CHMM
U.S. Environmental Protection Agency, Region 3
Land and Chemicals Division
1650 Arch St.
Mail Code 3LC40
Philadelphia, PA 19103

Re: Lockheed Martin Corporation Middle River Complex
Risk-Based Disposal Approval Application (RBDAA) for the Outfall 005 Sediment Removal Action

Dear Ms. Kenny:

Lockheed Martin Corporation (Lockheed Martin) is submitting this application for risk-based disposal approval application (RBDAA) to Region 3 of the United States Environmental Protection Agency (USEPA) in accordance with regulations promulgated under the Toxic Substances Control Act (TSCA), primarily 40 *Code of Federal Regulations* (CFR) 761.61(c), which sets specific requirements for the management and disposal of polychlorinated biphenyls (PCBs). The RBDAA application is in support of an Outfall 005 sediment removal action (SRA) to expeditiously address the area containing elevated concentrations of PCB-contaminated sediment at the Middle River Complex in Middle River, Maryland. This SRA area has been defined laterally by the locations where any collected sample interval had a detection of total PCBs greater than 50 milligrams per kilogram (mg/kg). Lockheed Martin respectfully requests written approval from USEPA to document that the SRA will meet TSCA requirements, including disposal requirements.

The project includes the following elements:

- plugging and cleaning the last portion of storm drains that lead to outfalls in the sediment removal area
- removal of PCB-contaminated sediment within the SRA area with concentrations greater than 0.676 mg/kg (i.e., the cleanup goal for the full Dark Head Cove and Cow Pen Creek remedy) and disposal of PCB-contaminated sediment at a TSCA-permitted landfill facility

This application addresses the comments received from EPA and MDE on the *Application for Risk-Based Disposal Approval for PCB-Contaminated Sediment Outfall 005 Sediment Removal Action*. Ongoing discussions with EPA and MDE indicated that the responses incorporated into this RBDAA and the accompanying design report addressed the comments.

The attached "Risk-Based Disposal Approval" application presents the information needed per 40 CFR 761.61(a)(3)(i). In addition, a copy of the revised *Outfall 005 Sediment Removal Action Design Report, Dark Head Cove Sediment, Middle River Remediation Site* (Tetra Tech 2014d) is also attached to provide EPA with additional details and information regarding this removal action. Community outreach efforts at the Middle River Complex are ongoing, and will include information about this SRA. The schedule for completing the SRA by February 15, 2015 is contingent upon Lockheed Martin receiving USEPA's approval of this application by November 13, 2014. The schedule is driven by other permit application and approval requirements and by the need to perform the remediation during the 2014-2015 in-water work window.

Please contact me at (301) 548-2209 if you have any questions.

Sincerely,

Thomas D. Blackman
Project Lead, Environmental Remediation

Enclosures:

cc: (via email without enclosure)
Christine Kline, Lockheed Martin
Norm Varney, Lockheed Martin
Michael Martin, Tetra Tech
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cc: (via shipping courier, with enclosures)
Mike Musheno, LMCPI
Tom Green, LMCPI
Russ Mobley, MRAS
Doug Mettee, Lockheed Martin (MST)
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Risk-Based Disposal Approval Application for PCB-Contaminated Sediment Outfall 005 Sediment Removal Action at the Middle River Complex Middle River, Maryland

Prepared for:

Lockheed Martin Corporation

Prepared by:

Tetra Tech, Inc.

November 4, 2014

Michael Martin, P.G.
Regional Manager

Gary Braun
Project Manager

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ACRONYMS AND ABBREVIATIONS

CFR	Code of Federal Regulations
CHS	controlled hazardous substance
COC	constituent of concern
cy	cubic yard
Lockheed Martin	Lockheed Martin Corporation
MDE	Maryland Department of the Environment
mg/kg	milligram(s) per kilogram
MLLW	mean lower low water
MRC	Middle River Complex
NPL	National Priorities List
PCB(s)	polychlorinated biphenyl(s)
POTW	Publicly Owned Treatment Works
ppm	part(s) per million
RBDA	risk-based disposal approval
RBDAA	risk-based disposal approval application
RHA	Rivers and Harbors Act
SRA	sediment removal action
TCLP	toxicity characteristic leaching procedure
Tetra Tech	Tetra Tech, Inc.
TSCA	Toxic Substances Control Act
µg/L	microgram(s) per liter
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency

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Section 1
Introduction

Lockheed Martin Corporation (Lockheed Martin) is performing characterization and remedial design studies in Cow Pen Creek and Dark Head Cove to clean up sediment near the Middle River Complex (MRC) in Middle River, Maryland (Figure 1). As part of these studies, subsurface sediment samples at depths up to 54 inches below mudline were collected in 2013 from Dark Head Cove adjacent to stormwater outfalls (Outfalls 005 East and 005 West) that drain portions of the Middle River Complex. These outfalls originate from the location of former Building D in Tax Block E (Figure 2). Concentrations of polychlorinated biphenyls (PCBs) up to 3,600 parts per million (ppm) (equivalent to 3,600 milligrams per kilogram [mg/kg]) have been detected in sediment collected offshore of Outfalls 005 East and 005 West. These concentrations are higher than those previously detected in sediment, and are in an area where removal is already planned as part of the remediation of Dark Head Cove.

These sediments are subject to disposal requirements under the federal Toxic Substances Control Act (TSCA) and regulations promulgated thereunder, primarily at 40 CFR 761, because they have polychlorinated biphenyl concentrations that exceed 50 mg/kg. Additionally, the Maryland Department of the Environment (MDE) Land Restoration Program requested that installation of a boom/silt curtain and removal of these sediments be completed as soon as practicable. Therefore, Lockheed Martin is planning a sediment removal action (SRA) to expedite the removal of these sediments to limit the potential for public exposure to contaminated sediment and help prevent further contaminated-sediment migration into Dark Head Cove. Under TSCA, a PCB risk-based disposal approval (RBDA) is required for the cleanup and disposal of PCB remediation waste in any manner not expressly provided for by the regulations. Because the self-implementing procedures described in 40 CFR §761.61 may not be used to clean up sediments in marine and fresh water ecosystems, we are submitting this risk-based disposal approval application consistent with 40 CFR §761.61(c). It should be noted that the SRA is not the final sediment cleanup action. The design of the SRA evaluated removal options to satisfy the full sediment remedy objectives in addition to the SRA removal goal to remove elevated

concentrations of PCB-contaminated sediment. It was determined that dredging laterally to this SRA removal goal and vertically to the full remedy preliminary remedial goal (PRG) of 0.676 mg/kg would minimize the need for return dredging in this area during full remedy construction. Therefore, the Outfall 005 SRA dredge prism was designed to satisfy the full remedy cleanup level of 0.676 mg/kg vertically in addition to achieving the SRA PCB removal goal of 50 mg/kg laterally. Additional remediation will occur in Dark Head Cove and Cow Pen Creek after this SRA, during the complete remedial action for sediment which is currently planned to be implemented in 2016-2018 (Figure 3).

1.1 SITE BACKGROUND

The waters adjacent to the Middle River Complex are considered waters of the State of Maryland. Sediment remediation conducted in these waters will be subject to the oversight of the Controlled Hazardous Substance (CHS) Enforcement Division of the MDE, under the Environmental Restoration and Redevelopment Program (also known as the State Superfund Program). The Controlled Hazardous Substance Enforcement Division oversees the assessment and cleanup of historically contaminated hazardous waste sites in Maryland that have not been placed on the United States Environmental Protection Agency (USEPA) *National Priorities List* (NPL).

The Middle River Complex is located at 2323 Eastern Boulevard in Middle River, Maryland (Figure 1). In the late 1990s, Lockheed Martin began environmental investigations of groundwater, soil, air, and sediment at Middle River Complex to assess impacts from former industrial operations. Remedial investigations and evaluations for sediment adjacent to the Middle River Complex are complete. An evaluation of remedial alternatives and a recommended cleanup approach for sediment have been presented in a feasibility study (Tetra Tech, 2013). The Maryland Department of the Environment and the United States Environmental Protection Agency have approved the proposed remedial approach presented in the feasibility study, which has allowed Lockheed Martin to begin remedial design activities for sediment adjacent to the Lockheed Martin Middle River Complex.

1.2 SEDIMENT REMOVAL ACTION

The Maryland Department of the Environment and the United States Environmental Protection Agency (USEPA) will oversee the sediment removal activities, which will include the following actions:

- installation of a boom/silt curtain (note: this action was completed in May 2014)
- plugging of the storm drain leading to Outfalls 005 East and 005 West to prevent future migration of contaminated material to Dark Head Cove
- cleanout of storm drains directly up gradient of Outfalls 005 East and 005 West
- subsequent dredging and disposal of sediment with elevated concentrations of PCBs in Dark Head Cove adjacent to Outfalls 005 East and 005 West

Tables and figures referenced in the text are in Attachment A.

The SRA will remove, dewater, and dispose a total of approximately 6,200 cubic yards (cy) of sediment (including 5,300 cy of contaminated sediment plus 900 cy allowable overdredge) within the SRA area in Dark Head Cove with polychlorinated biphenyl concentrations greater than 0.676 mg/kg (Figure 4). Sediment will be removed by dredging, placed on a material handling barge for initial dewatering and then transferred to a bermed and lined upland handling area, where it will be allowed to further dewater. It will then be mixed with an amendment (such as quicklime) to reduce the water content for transport and disposal. The contaminated sediment will subsequently be disposed of in a TSCA-approved chemical-waste landfill or treatment facility (40 CFR Part 761.75). This sediment is the subject of the risk-based disposal approval application contained herein.

The conceptual site model developed during environmental investigations of the Middle River Complex is based on historical releases of polychlorinated biphenyls in Tax Block E that have been transported into Dark Head Cove through the storm-drain system. These polychlorinated biphenyls likely originated from transformers at former Building D (formerly located in Tax Block E), and were possibly released during historical operations there prior to 1971. However, they may also have been released during building demolition. Building D was demolished in 1971.

As a matter of background, an interim remedial measure for the Tax Block E (Figure 2) storm-drain system was completed in 2011 to minimize the transport of contaminated sediment to off-

site locations (Tetra Tech, 2012). This remedial measure cleaned the storm drains to remove accumulated solids, made a video inspection after cleaning, repaired and replaced inlets and manholes, disposed of sediment and debris, and disposed of wastewater generated by these actions.

The portion of the storm-drain system from Block E to Dark Head Cove not included in the 2011 remedial measure will be cleaned out during this risk-based removal action, and will target approximately 485 feet of storm drain from Tax Block E in the vicinity of Chesapeake Park Plaza to Outfall 005 West and Outfall 005 East (Figure 5). As part of this SRA, a hydraulic analysis of the existing storm-drain system was performed to determine the best location to plug the Outfall 005 system and also to evaluate other ways to isolate the Tax Block E storm-drain system from Outfall 005, thus preventing any further transport of contaminated soils from Tax Block E to Dark Head Cove. The Block E remediation addressing the remainder of the storm-drain system (including cleanout of Outfalls 006 and 008) will be completed in a separate remedial action during the complete sediment remedial action, currently planned for 2016–2018 (Figure 5).

1.3 PERMITTING

A number of local, state and federal permits, approvals and notifications will be required to complete the Outfall 005 SRA. A list of the anticipated permits and regulatory approvals and notifications that have been or are nearly completed for the work are presented in Table 1. Activities associated with the Outfall 005 SRA that may affect regulated resources (and therefore require regulatory review and approval) include the storm-drain cleanout and dredging in Dark Head Cove, dewatering and disposal of dredged material, and upland ground-disturbance/site-grading. Dredging in Dark Head Cove would affect a navigable water and could cause dredge/fill material to discharge into waters of the United States and the State of Maryland. These activities are regulated under Section 10 of the Rivers and Harbors Act (RHA), Section 404 of the federal Clean Water Act (CWA), and the Maryland Tidal Wetlands Protection Acts, as well as state water quality certification (WQC) under Section 401 of the CWA.

Authorization under Section 10 of the RHA and sections 401 and 404 of the CWA will be satisfied through the use of Nationwide Permit 20 approved by the United States Army Corps of Engineers (USACE), which authorizes activities required to contain, stabilize, or remove

hazardous or toxic waste materials and which are performed, ordered, or sponsored by a government agency with established legal or regulatory authority. Authorization under Maryland's Tidal Wetlands Act is satisfied by the approved Emergency Tidal Wetlands License received from the MDE Tidal Wetlands Division and the Maryland Board of Public Works. These approvals were obtained through a "Joint Permit" application submitted to both USACE and MDE for review and approval regarding impacts to waters of the United States (U.S.) and the State of Maryland, including wetlands. Also, an applicability memorandum for use of Nationwide Permit 20 was submitted to the USACE and approved as part of their review of the Joint Permit Application. In addition, a no effect determination was received from the Maryland Heritage Trust per Section 106 of the National Historic Preservation Act and a determination that the in-water portion of the project should be conducted between October 15 and February 15 was received from the Maryland Department of Natural.

An approval of a Private Aids to Navigation Application from the U.S. Coast Guard is also necessary to ensure that all in-water structures and equipment are properly marked and lighted in accordance with USCG regulations. The USCG will also use the information in the Private Aids to Navigation Application to prepare a Notice to Mariners to inform local boaters of these features.

Dredged sediment will be dewatered on a material handling barge and at an upland dewatering pad, temporarily stored in an adjacent upland area and trucked off site to an approved disposal facility.

Water removed through dredge dewatering in the upland dewatering pad will be collected and treated on-site or will be collected and transported off site for disposal. Treated water will be discharged to the local Baltimore County publicly owned treatment work (POTW) or untreated water will be containerized on-site and subsequently disposed of at an approved disposal facility. Discharge to the POTW will be done under the permit issued by the Baltimore County Public Works Department under Baltimore County Code, Article 20, Title 5, Section 114, "Industrial Wastewater Discharges." Contamination profiling, coordination of disposal volumes, and scheduling with an approved disposal facility will be effected for off-site disposal of untreated wastewater generated from dewatering. Details on water management and disposal are included in section 2.4.1.4 of this application.

Activities in the upland area within Lockheed Martin property includes site grading to allow for site access and use of stockpiling/staging areas. Ground disturbance will not exceed 1 acre and therefore is not subject to requirements for a "Construction General Permit" for stormwater runoff during construction from MDE. While site grading and ground disturbance will not exceed 5,000 square feet, grading and ground disturbance will take place within the Chesapeake Bay Critical Area and therefore a "Grading Permit" has been obtained as required under Article 33 Title 5 of the Baltimore County Code from the Baltimore County Department of Environmental Protection and Sustainability (DEPS) Stormwater Engineering Department, as well as approval of an erosion and sediment control plan from both the Baltimore County DEPS and the Baltimore County Soil Conservation District (SCD). In addition, a Stormwater Variance was approved under Article 4 of the Baltimore County Code by the DEPS Stormwater Engineering Department for post-construction related stormwater runoff due to the fact that no new structures or impervious surfaces will be created as part of the project.

Other county permitting completed include receiving approval under Baltimore County Code Article 33, Title 2 from the Baltimore County DEPS for work in the Chesapeake Bay Critical Area and under Article 33 Title 3 for work in wetlands/waters as part of the dredging operation. In addition, an Airport Zoning Permit has been acquired from the Federal Aviation Administration (FAA). This permit was acquired to allow the use of a high crane during the dredging operation and was necessary because the SRA is located in relatively close proximity to Martin State Airport.

Section 2

Request for a Risk-Based Disposal Approval

Lockheed Martin Corporation (Lockheed Martin) is submitting this risk-based disposal approval application (RBDAA) request as allowed under 40 *Code of Federal Regulations* (CFR) Part 761.61 (c). This document is the application for the risk-based approval to allow removal and off-site disposal of polychlorinated biphenyl (PCB)-contaminated sediment. Under 40 CFR §761 .61(c), a PCB risk-based disposal approval (RBDA) is required for the cleanup and disposal of PCB remediation waste associated with marine and freshwater sediments. The following sections of this request provide information required under 40 CFR §761.61(a)(3)(A)–(E).

2.1 NATURE OF CONTAMINATION

40 CFR §761.61(a)(3)(A): The nature of the contamination, including kinds of materials contaminated.

PCBs are the primary constituent of concern (COC) in the storm drain solids and in the sediment within the area planned for the sediment removal action (SRA). During pre-design sediment sampling in 2013 (Tetra Tech, Inc. [Tetra Tech], 2014a), PCB concentrations up to 3,600 mg/kg were detected in the sediment near Outfall 005 West. In the area for the SRA, sampling found sediment samples with concentrations of PCBs above 50 mg/kg, four samples produced concentrations greater than 1,000 mg/kg (Table 2, Table 3 and Figure 4). The highest concentrations were found close to Outfall 005 West in surface (0-6 inches below the mudline) and near-surface (six to 18 inches below the mudline) sediment.

PCBs have also been detected in concentrations greater than 50 mg/kg in the storm–drain sediment samples collected in 2013 (Tetra Tech, 2014b). The storm drain sampling point immediately upstream of the last legs for Outfalls 005 East and 005 West (MH-3 on Figure 5) have total PCB concentrations of 150 mg/kg; these areas will be cleaned during the SRA. As a result, storm-drain solids are also expected to exceed 50 mg/kg. Presently the storm drain is

obstructed upstream of MH-3 allowing nearly no stormwater flow as observed during an April 2014 storm. Storm-drain sediment debris is expected to include sediment, sludge, dirt, sand, rocks, concrete fragments, grease, roots, and other solid and semisolid material; mud, vegetation, and debris were observed during studies in 2009 and 2011 (Tetra Tech, 2012).

2.2 SAMPLING PROCEDURES

40 CFR §761.61(a)(3)(B): A summary of the procedures used to sample contaminated and adjacent areas and a table or cleanup site map showing PCB concentrations measured in all pre-cleanup characterization samples. The summary must include sample collection and analysis dates.

Sediment samples were collected during several investigations conducted between 2005 and 2014 (Attachment B). Sediment cores were collected using a vibracore to depths ranging up to 54 inches below the mudline surface. Samples were collected at depth intervals ranging from zero to six inches, six to 18 inches, 18 to 30 inches, and deeper (up to 54 inches below the mudline). Sediment samples collected between 2005 and 2013 were analyzed for PCB Aroclors using United States Environmental Protection Agency (USEPA) Method 8082. Table 2 includes PCB results for all samples collected from the Outfall 005 SRA area of Dark Head Cove in investigations from 2005 through 2013 by date; Figures 4, 6 and 7 show the sampling locations. Analytical data packages and data validation reports for the sampling completed between 2005 and 2013 are included with the investigation reports listed in Attachment B. The data validation reports for the samples collected and analyzed in 2013 are included in Attachment C.

Additional pre-SRA-design sampling was conducted near Outfalls 005 West and 005 East for the SRA in June, 2014 (Tetra Tech, 2014c). Samples were collected on a grid (stepping out from Outfalls 005 West and 005 East in Dark Head Cove) to delineate the horizontal and vertical extent of sediment with PCB concentrations greater than 50 mg/kg that are subject to the disposal requirements under 40 CFR Part 761.75. The sampling also delineated the vertical extent of PCB concentrations within the SRA area that exceeded the full remedy cleanup goal of 0.676 mg/kg. Samples were analyzed for total PCB by homolog groups (mono- through decachlorbiphenyls) using USEPA Method 680. The PCB data from pre-SRA-design sampling are summarized in Table 3 and the sampling locations are shown on Figures 4, 6 and 7. The data

validation reports for the pre-SRA-design sampling completed in 2014 are included in Attachment C.

2.3 SAMPLING LOCATIONS AND EXTENT OF CONTAMINATED AREA

40 CFR §761.61(a)(3)(C): The location and extent of the identified contaminated area, including topographic maps with sample locations for samples in the summary table.

Figures 6 and 7 show the area for the Outfall 005 SRA, sampling locations, and the analytical results for the samples collected in 2014 and the data for historical samples analyzed for PCBs. Figure 4 shows the bathymetry (collected in 2010) of Dark Head Cove.

The lateral extent of the Outfall 005 SRA was determined by sediment sample locations that exceeded PCB concentrations of 50 mg/kg and the vertical extent was determined by the sediment sample intervals that exceeded total PCB concentrations of 0.676 mg/kg. The appropriate depth of removal to achieve this removal concentration is based on available sediment characterization data. The collected data are sufficient to define the horizontal limits of 50 mg/kg and the vertical limits of 0.676 mg/kg for designing the SRA.

2.4 CLEANUP APPROACH

40 CFR §761.61(a)(3)(D): The cleanup plan for the site, including schedule, disposal technology, and approach. This plan should contain contingencies to be used if unanticipated higher concentrations or wider distributions of PCB remediation wastes are found or other obstacles force change in the cleanup approach.

2.4.1 Sediment Removal Action Approach to Remove PCBs

The Outfall 005 SRA remedial approach is outlined below. Environmental protection measures during construction will include silt curtain(s), stabilized access, a truck decontamination pad, silt fence(s), inlet protections, water management procedures and spill containment measures. The materials removed from the SRA are expected to be handled as follows consistent with 40 CFR 761.61:

- Dredged material will be placed in a bermed and lined area for dewatering (Figure 8)

- A spill plate/apron will be used to capture incidental spillage during the transferring of wet sediment to the dewatering area
- Drying agent will be added and mixed with the wet dredge material to stabilize the moisture content
- Dredged material return water and any accumulated contact water in the dewatering area will be collected and treated on-site before disposal to the Publicly Owned Treatment Works (POTW) after testing to confirm that it meets the POTW discharge requirements or collected and transported by tanker truck to a permitted off-site location for disposal
- Dredged sediment will be transported via lined and sealed trucks to a Lockheed Martin-approved chemical-waste facility permitted under 40 CFR Part 761.75, after confirmation that the sediment meets the facility's acceptance criteria.

2.4.1.1 Health and Safety

All work conducted for the SRA will be completed in accordance with the content of a site-specific Health and Safety Plan prepared under CFR 1910.120 (Occupational Safety and Health Standards). The Health and Safety Plan presents the programs, processes, and work practices (which address subjects such as site control, contamination avoidance, hazard avoidance and control, decontamination and other procedures) to be followed for the planned tasks and operations. Also, all on-site workers will be required to have completed hazardous waste training and site specific training which addresses hazard control and contamination avoidance principles, and all workers will also be required to read and acknowledge that they will perform their work in a manner consistent with their training and with the contents of the Health and Safety Plan. Further, all work will be conducted under oversight of an appropriately-qualified Health and Safety Officer who will be onsite during all operations, and who will have the authority to make any necessary revisions to plans and practices that may arise to protect worker health and safety.

2.4.1.2 Sediment Removal Approach

The SRA will remove, dewater, and dispose a total of approximately 6,200 cubic yards (cy) of sediment (including 5,300 cy of contaminated sediment plus 900 cy allowable overdredge) within Dark Head Cove. Contaminated sediment will be mechanically dredged using a crane with a four cubic yard level-cut environmental (closed and sealed when acuated) bucket stationed on a dredge barge. The dredging will remove between 1 feet and 4 feet of sediment to elevations of -11 feet Mean Lower Low Water (MLLW) and -14.5 feet MLLW in the SRA area. Dredged sediment will be placed on a deck barge with filter cloth-lined side rails or jersey

barriers and allowed to dewater. Sediment will be transferred from the deck barge to the bermed and lined dewatering pad area. Drying agent/amendment such as quicklime will be added to the sediment to stabilize and reduce any free water content before transferring the sediment to lined and sealed trucks for transport. Best management practices (BMPs) and water quality monitoring will be performed to minimize releases to the surrounding water column during dredging.

This Outfall 005 SRA will occur within an area that will be remediated over the next several years, during the full remedy for the Middle River Complex (MRC). The lateral extent of the dredge prism for the SRA is designed to remove sediment with polychlorinated biphenyl (PCB) concentrations greater than 50 mg/kg. In addition, the vertical extent of the dredge prism is designed to remove sediment exceeding the full remedy preliminary remediation goal (PRG) of 0.676 mg/kg to eliminate the need for return dredging in this area during the full remedy construction. While the SRA will fully address sediment within the area containing elevated concentrations of PCBs, the full remedy will address sediment contamination above site cleanup-levels in areas outside of the SRA to achieve the overall remedial action objectives for the MRC. Remedial action objectives and cleanup levels to meet those objectives (via complete sediment remediation) are described in the sediment feasibility study (Tetra Tech, 2013).

Pre-design sampling for the SRA occurred in June 2014; data and information obtained during this investigation have been used to identify the lateral extent of the area with total PCB concentrations in sediment greater than 50 mg/kg and the vertical extent in the SRA area with total PCB concentrations greater than 0.676 mg/kg. These data have been also used to determine the removal-volume calculations and complete the design for the SRA (Tetra Tech 2014d), as discussed above. Sediment outside the dredge prism and not addressed by the SRA that exceed the site cleanup levels will be addressed when the full sediment remedy is implemented and completed, as described in the feasibility study (Tetra Tech, 2013).

2.4.1.3 Sediment Disposal

The stabilized sediment from the dewatering pad will be subject to USEPA's paint filter test, to ensure that the sediment water content is low enough to be transported and disposed of in a permitted landfill in accordance with 40 CFR 761.61(a)(5)i)(B). Stabilized sediment will be transported via lined and sealed trucks to a Lockheed Martin-approved chemical-waste facility

permitted under 40 CFR Part 761.75. The Waste Management CWM Model City facility at Youngstown, NY or the Environmental Quality Wayne facility at Belleville, MI will be the designated landfill after confirmation that the sediment meets the facility's acceptance criteria.

A manifest for each waste shipment will be prepared in accordance with all applicable federal, state, and local regulations including manifest requirements under 40 CFR 761.207. Dredged and dewatered sediment will be transported by trucks equipped with an impermeable liner. Trucks will be inspected before leaving the site to prevent any spillage and overloading.

2.4.1.4 Post Sediment Removal Action Sampling

Post-removal confirmation sampling will be conducted to measure residual conditions after dredge removal operations are complete and the post-dredge survey is completed. If the post-dredge survey shows that the target elevations have not been met, one additional dredge pass will be completed. Post-SRA sediment samples will be collected to confirm that sediments with PCB concentrations greater than 0.676 mg/kg have been removed. Dredged areas will be divided into management units of up to one acre for confirmation sampling. Fifteen verification sample locations per acre in each management area will be collected via push core (or similar) from dredged areas; the number of samples in each management unit will be based on the management unit size; sample locations will be placed on a systematic square grid within the outlined management unit to provide adequate spatial coverage of the dredged area. Samples will be collected from two six-inch-depth intervals (0-6 and 6-12 inches below the mudline surface). The samples will be submitted to an off-site analytical laboratory for analysis of total polychlorinated biphenyls (PCB) using USEPA Method 680.

Post sediment removal samples will be collected to allow for the evaluation of generated residuals (i.e., sediment disturbed by the dredging that settles at the post dredge sediment surface) and undisturbed sediment. Sampling results will be compared to the 0.676 mg/kg PRG and the 50 mg/kg SRA removal goal. If any sample results contain PCBs at concentrations greater than 50 mg/kg, an additional dredge pass will be completed in the area of the exceedance followed by the collection of additional verification samples. If confirmation sampling indicates that the sediment surface does not meet the removal goal after the second dredging, the area will be re-evaluated. Sample results for the generated residuals layer (0 to 6 inches) and for the undisturbed layer (6 to 12 inches) that show total PCB concentrations greater than 0.676 mg/kg

will be evaluated to determine additional actions (such as the placement of a residuals management layer or application of *in situ* treatment). Additional post-removal response actions that may be taken are discussed in section 2.4.5 under contingencies.

2.4.1.5 Water Management

Dredged sediment will undergo passive (gravity) dewatering when dredged materials are placed on the barge and at the staging area within the dewatering pad. Any free water that accumulates in the materials handling area will be contained and collected within the lined and bermed area and transferred to holding tanks. Likewise, any rainwater that accumulates in the bermed and lined area will be contained, collected, and transferred to holding tanks. The water in the holding tanks either will be treated on-site before disposal to the Baltimore County sanitary sewer system Publicly Owned Treatment Works (POTW) after testing to confirm that it meets the POTW discharge requirements (Attachment D) according to the permit (WWDP #1642, POTW point of contact Thomas Kiefer, P.E.) and that the concentrations of total PCBs is less than 3 microgram per liter (µg/L) as required under 40 CFR 761.79(b)(1)(ii). Alternatively the untreated water will be transported by tanker truck to a permitted off-site location (Clean Harbors Baltimore facility, Baltimore, MD).

Barge Dewatering

Dredged sediment will be placed on the material handling hopper barge that is located adjacent to the area being dredged and within the silt curtain boundary. The general approach for haul barge dewatering on the project shall include passive dewatering from the barge during loading and during a resting period when the barge sits over the sediment remediation area. The resting period will start after the barge is filled with sediment with the resting haul barge located over the sediment removal area. Passive dewatering will occur from a hopper barge that is equipped with sideboards or jersey barriers around the perimeter of the deck as long as the barge is within the sediment dredge area. The sediment may be slightly heaped to promote drainage of excess water to the scuppers, but in no case will overtopping of the barge sideboards be allowed. The barge scuppers or the slots between the sideboards that will be used for drainage will be covered with filter fabric (e.g., woven geotextile fabric) to filter and retain sediment while allowing water to drain into the water over the sediment area. Monitoring of water quality (i.e., turbidity) during barge dewatering will comply with the water quality turbidity requirements.

Upland Dewatering

Dredged material will be offloaded from the barge directly into an articulated dump truck using the barge mounted crane that will be moved to be adjacent to the sediment offloading area. The offloading will take place over a spill apron. The spill apron will be a lined area between the barge and the dump truck loading area that will capture any sediment spillage and return the sediment to the barge so no discharge to the water occurs. The dump truck will slowly transport the sediment to the dewatering pad that has one long side specifically prepared with a slight ramp constructed to allow the truck to back up until the first set of rear tires are on the ramp. This will elevate the dump body significantly over the top of the bin barrier to ensure that all of the sediment dumps completely within the dewatering pad wall without spillage outside the pad. The body of the dump truck will be raised slowly to release the sediment at a controlled rate into the sediment bin. The consistency of the sediment being off loaded from the barge will determine the quantity of sediment placed into the bed of the truck. The quantity of sediment will be regulated by the crane operator to minimize the potential for incidental spillage while in transit to the dewatering pad bins. All sediment off loading and transfer operations will be performed under continuous supervision by the construction management team. Any incidental spillage that occurs during off loading or transfer will be cleaned up immediately. Dredged materials will be allowed to continue dewatering in the dewatering pad (Figure 8). Dredged sediment will be agitated with conventional earth-moving equipment to accelerate natural drying by drainage and evaporation. The dredged material will be subject to the requirements of the United States Environmental Protection Agency (USEPA) paint filter test. Test results will determine if the water content of the dredged material is low enough for transport and landfill disposal. Testing batches with unacceptable water-content levels will undergo additional agitation, drying, and testing until acceptable test results are achieved.

A drying agent (e.g., lime, fly ash, cement kiln dust) will be added to expedite dewatering. Sediment amendment may cause a chemical reaction with sediment and may cause liberation of gases or odor. An on-site batch testing of each amendment with a small amount of dredged sediment will be performed prior to its general use to verify the safe and acceptable performance of the sediment amendment.

Temporary erosion- and sediment-control measures will be placed in upland areas to prevent or minimize stormwater from contacting stockpiled material. The stockpiles will be covered by

plastic sheeting during inactive periods, at the end of each work day, just before and during precipitation, and as necessary to control dust, erosion, and odors.

Water will be collected in tanks and treated on-site before discharge to the POTW or collected and transported off site for disposal at a permitted Lockheed Martin-approved facility.

Water Treatment Operation

Final disposal of the treated water will be to the POTW. Discharge will require routine sampling of the effluent in accordance with the issued permit discharge requirements and conditions for the discharged water to have less than 3 µg/L of total PCBs specified by EPA and MDE. Alternatively the final disposal of untreated water will be to a permitted Lockheed Martin-approved facility (Clean Harbors Baltimore facility, Baltimore, MD).

For discharge to the POTW, water that accumulates in the dewatering pad will be transferred to settling and holding tanks. Once solids have settled, the water will be processed through an on-site water treatment system. The system will consist of a settling tank, sand filters, bag/cartridge filters, and a granular activated-carbon (GAC) unit. The water treatment system components will be monitored and inspected to prevent any failure, schedule delay, permit violation, or project shutdown. Processing the wastewater will reduce the total suspended solids content and reduce contaminant concentrations such that the treated water meets POTW discharge requirements for final disposal and contains less than 3 µg/L for total PCBs. In addition to the monitoring requirements of the issued permit, at least 10 samples of the treated water will be collected and analyzed for total PCBs using EPA method 680. Three of the samples for total PCB analysis will be collected during the initial operation of the water treatment system. The data for the three samples collected during the treatment system startup will be submitted to the USEPA and MDE for review prior to releasing any water to the POTW. A minimum of 5 of the 10 required samples will be collected while dredged material from the areas with the highest concentrations of PCBs (e.g., nearest Outfalls 005 East and West) is being handled.

2.4.2 Storm-Drain Cleanout

A preliminary field study of the Outfall 005 system indicates that the system is nearly completely blocked by soil and debris between IL-18 and IL-30 in Block E north of Chesapeake Park Plaza (Figure 5). Only a *de minimus* quantity of stormwater flow can pass through this portion of the

system. However, since PCB contaminated sediments are present in the storm drain system in Block E, the Outfall 005 system will be permanently plugged upstream of IL-30A to prevent any further migration of contaminated sediment from reaching Dark Head Cove. Contaminated sediments in the storm drain system north of IL-30 will be addressed under a future remedial action at which time the storm water system will be removed and then reengineered as necessary.

The storm drain cleaning that is part of the SRA and addressed in this RBDAA includes the Outfall 005 storm-drain system from near IL-30A in Chesapeake Park Plaza to the outfalls (Outfalls 005 West and 005 East) that lead to Dark Head Cove. Outfalls 005 West and 005 East are tidally influenced. Any sediment at the end of the outfall pipes will be manually cleaned before the rest of the storm drain line is cleaned, and before dredging begins. Outfalls 005 West and 005 East will be temporarily plugged. Isolating this section of the storm drain system will contain and allow for the collection of water, storm-drain sediment, and debris as it is being cleared. Sediment and debris in the storm drains will be removed using a jet/vacuum truck (or by hand at the manhole using confined-entry protocols specified in the health and safety plan). Sediment and debris will be transferred to the sediment dewatering pad (described above for sediment removal) or to a watertight roll-off container. Water will be contained and collected in holding tanks. The temporary plugs placed in Outfalls 005 West and 005 East will be removed at the completion of cleaning to allow stormwater from Chesapeake Park Plaza to resume flowing through this section of the storm drain system.

The storm drain system in Tax Block E was evaluated by a hydraulic analysis during the SRA design. Based on this analysis a recommendation for alterations to the Outfall 005 drain system near IL-30 was made.

The Maryland Department of the Environment (MDE) and the Baltimore County Department of Public Works will be contacted regarding any required permits, and these agencies will be provided with applicable notifications. All work will be conducted by a HAZWOPER-trained crew using Level C or modified Level D personal protective equipment (PPE), as appropriate.

For the below-ground work entry will be made in accordance with federal Occupational Safety and Health Administration (OSHA) procedures for confined-space entry. Where necessary, field personnel will establish and maintain sediment and erosion-control measures to minimize turbidity and the transport of materials that could degrade water quality, in accordance with the

project specifications and environmental protection and erosion-control measures. Both temporary and permanent control measures will be employed, including hay bales around inlets, curb diversion, outfall plugs, roll-off containers for sediment collection, frac tanks for water collection, and concrete repair.

Field personnel will limit soil and sediment disturbance solely to work areas to the extent practicable. Temporary control measures will be inspected daily and after each rain event. Disturbed areas will be permanently stabilized (to the extent practicable) before control measures are removed.

2.4.2.1 Plugging Upstream Inlet 30A

The upstream end of storm drain pipe near inlet IL-30A will be sealed by using an inflatable plug that will be filled with non-shrink cement grout or a similar procedure to insure a permanent seal. The location to be sealed upstream of IL-30A will be accessed by excavating an area up to 10 feet wide, 20 feet long and 7 feet deep. Prior to digging, the soil to be excavated will be sampled *in situ* and analyzed in accordance with approved disposal facility requirements to determine its final disposition (e.g. used as backfill or transported for off-site disposal). The storm drain plugging will be completed by installing an inflatable plug. After the plug has been inflated, grout will be pumped into the plug displacing the air through the pressure discharge monitoring port while maintaining the inflation pressure rated. Alternately, the storm drain pipe will be temporarily blocked with sand bags or other conformable material so that a permanent grout plug can be installed between the temporary plugs. Following installation of the plug, the excavated area will be backfilled with the stock piled material or clean imported material and returned to its current condition.

2.4.2.2 Storm Drain Line Cleaning

Storm drain systems will be cleaned using a high-pressure water nozzle to move sediment and vacuum-extracted to remove the sediment and wash water into a vacuum truck. The water nozzles used for this purpose will be configured with multiple rear-facing water jets. The storm drain pipe segment to be cleaned will be accessed via manhole, catch basin, or other structure. To prevent contaminated sediment from being released during cleaning, an inflatable plug (or suitable alternative control) must be used to contain sediment and wash water within the pipe segment. The water nozzle will be inserted into the pipe segment to be cleaned at the access

structure, and will be allowed to self-propel from the point of entry to the end of the pipe segment.

As the water nozzle is mechanically withdrawn from the pipe segment, the high-pressure jets will force the sediment back toward the point of entry. The moved sediment will then be removed using a vactor-truck. The vactor-truck vacuum nozzle will be placed in the manhole during cleaning, and will use vacuum extraction to remove the wash water and displaced sediment. Multiple passes or evolutions are required for long pipe segments, or for segments heavily laden with debris.

2.4.2.3 Outfall 005 Cleaning

Temporary plugs will be installed at the upstream access structure to isolate the MH-1 to Outfall 005 West and MH-2 to Outfall 005 East pipe segments (Figure 5). The plugs will be inflated to the manufacturer's recommended pressure, a pressure gauge will be attached to each plug, and pressure readings will be taken approximately every two hours to confirm that the plugs are not leaking.

To prevent the release of sediment and wash water at the outfall, an alternative or a variation to the storm drain line cleaning method outlined above must be used on the final discharge segments that discharge at outfalls to prevent the release of any contaminated sediment. The contractor will apply one or more of alternative methods described below depending on the accessibility, and condition of the outfall:

- Access to the outfalls is subject to tidal fluctuations, so the cleaning must be scheduled during low tide so that adequate time to perform the task can be allocated.
- The pipe segment will be fully inspected or partially inspected before cleaning, either manually or by remote camera, to determine the degree of sediment loading and identify any debris or obstacles that may affect the ability of a cleaning nozzle to travel in the pipe segment. Large debris or obstacles in the pipe will require on-site evaluation and could require manual or mechanical pre-cleaning.
- Using hand tools, the outfall will be manually cleaned to remove sediment, debris, and other foreign matter within the first several feet of the pipe-segment outlet. Typically, tidal action at the outfall prevents sediment accumulation, but the outfall could be subject to accumulation of marine growth and scaling. The structural integrity of the pipe and the condition of the internal surface area will be inspected.

- Provided the internal surface area is intact and smooth, an inflatable plug will be installed at the outfall to prevent sediment release during pipe cleaning. Residual wash water that has accumulated at the plug will be captured before its release and before the plug is removed.

- If the internal surface area of the outfall will not allow an inflatable plug to seal, as an alternate method, a second vacuum truck could be staged near the outfall if access allows. The nozzle of the second vacuum truck, if used, would be placed at the outfall to capture any wash water or sediment that may travel there. Extension hoses from the vacuum truck could be necessary to allow the vacuum nozzle to reach the outfall. An additional option is partial isolation at the outfall by placing a sheet-pile cofferdam there. A pump-intake/suction-hose at the dam would extract any wash water and sediment that may accumulate.

2.4.3 Sequence of Sediment Removal Action Activities

The SRA will be completed during the in-water work window for the site, likely between October 16, 2014 and February 14, 2015. The final in-water work window will be determined by the State of Maryland during its review for "Water Quality Certification," in consultation with the National Marine Fisheries Service and the Maryland Department of Natural Resources. In-water fieldwork for the SRA is expected to take 45–60 days; additional time for site preparation and site restoration will also be required that is outside the in-water work window.

Before sediment removal, and after the mobilization and staging-areas are set up (including construction of sediment handling and dewatering area), the Outfall 005 storm-drain system will be cleaned from the permanent plug near Chesapeake Park Plaza to the outfall and Dark Head Cove. Any material discharged past the outfall plugs during the storm drain cleanout will be contained inside a silt-curtained area for subsequent removal during SRA dredging. Recovered, dewatered sediment mixed with drying agent will be transported to a permitted landfill in lined and sealed trucks. The materials handling pad will be dismantled once all sediment has been transferred to the off-site permitted landfill. Materials-handling equipment will then be decontaminated and cleaned according to the requirements of 40 CFR 761.79, and site areas will be restored.

2.4.4 Water Quality Controls during Removal Activities

The main impact to the environment during in-water removal operations is increased turbidity caused by suspended sediment and the potential release of contamination associated with the particulates. Turbidity measures water clarity using the amount of particles suspended in water.

Sediment disturbance during dredging could temporarily increase turbidity and allow suspended sediment to be transported to adjacent areas.

Water quality will be monitored during dredging in accordance with the process outlined below in section 2.4.4.2. Care will be taken to prevent any petroleum products or other materials related to construction equipment from entering the water. Spill response plans and other relevant materials will be developed and maintained for on-site operations. These protective measures, along with BMPs, will be used during dredging to minimize turbidity and potential sediment transport outside of the dredging area.

2.4.4.1 Silt Curtain

As directed by MDE, Lockheed Martin installed a silt curtain across the Outfall 005 SRA area in May 2014. The existing curtain protects the surrounding area by encasing the entire work area (i.e., the dredge area, the offloading area, and all dredging equipment). The existing silt curtain will be utilized during dredging of the SRA area to minimize releases to the water column outside the immediate dredging area. The silt curtain was designed to function under tidal conditions, and considers contamination depth, upland stormwater discharge, technical guidance documents, and empirical observations. An additional secondary silt curtain will be placed between the dredging activities and the existing silt curtain. The interior silt curtain will be adjusted and moved as the dredging program progresses and the dredge barge is moved to the different management units.

2.4.4.2 Turbidity Monitoring

Water quality during the dredging activities will be monitored by measuring turbidity at multiple locations around the dredge area and comparing with measurements collected from background locations (Figure 9). The monitoring approach uses background monitoring locations, early warning locations near the dredging activity and compliance monitoring points. Turbidity during the dredging activity in the Outfall SRA area will be monitored by the following approach:

Turbidity will be monitored during dredging; measurements will be collected from the background locations, the early warning locations both between and outside the silt curtains and from the compliance points from two water column zones at approximately three-feet below the water surface and at about one- to two-feet near the bottom of the curtain to capture suspended

sediment migration occurring near the bottom and near the surface of the water column. The action levels will be determined from the data collected at the background monitoring locations as outlined below. Action levels will be established for the 2 water column zones, upper and lower. The turbidity data collected from the upper and lower water column zones at the early action locations and the compliance points will be compared to the action levels for the same water column zone.

- "Early Warning" Monitoring: Turbidity monitoring will occur at three or more locations (mobile monitoring) during dredging operations between the silt curtains and at three locations within 50 feet from the outer silt curtain into Dark Head Cove. These locations will be the early warning points to determine in real time whether the silt curtains and dredging operations are functioning properly to control release of suspended solids. Early warning monitoring readings will be taken approximately every two (2) hours, or more frequently if needed, throughout the dredging workday. The monitoring locations between the interior and existing silt curtains will be mobile to allow for adjustments as needed based on where the dredge is working and visual observations over the working day with a minimum of three locations being monitoring around the dredge area. The mobile monitoring to be performed outside the second curtain at approximately 50 ft. is intended to check the performance of the operations as an additional early warning. This monitoring will be performed to assess the curtain performance prior to notification from the continuous monitoring platforms. This presents an opportunity to implement additional BMPs at the earliest possible moment of turbidity excursions.

- Compliance Point Monitoring: Continuous turbidity monitoring (measurements every 30 minutes) will be conducted at three "compliance" points located 100 feet from the outer silt curtain to understand the impact of dredging on the surrounding water body.

- Background Monitoring: Continuous turbidity monitoring (measurements every 30 minutes) will be conducted at two "background" locations to establish real time action levels at the early warning and compliance points. By conducting continuous background monitoring, if an event occurs, such as storm conditions that significantly affect turbidity readings, those conditions can be accounted for in real-time. The readings from the background monitoring stations will be checked at 30 minute intervals along

with the compliance point data. The background station data will be conveyed to the crew monitoring the Early Warning locations. The background monitoring points will be located one at the confluence of Cow Pen Creek and Dark Head Cove about 500 ft. SE from the Lockheed Martin shoreline, mid-channel and the second location will be about 500 ft. further downstream (SE) in Dark Head Creek, mid-channel. The turbidity readings for these locations will be used to establish real-time background. The maximum value between the two locations will be used as the basis for establishing early warning and compliance limits. The EPA and MDE points of contact will be contacted by email should a significant change in background conditions occur.

- Turbidity Levels: Actions to resolve turbidity issues will be initiated if turbidity levels at the "Early Warning" points between the silt curtains is greater than 5 times the background, greater than 2 times the background at the "Early Warning" locations outside the outer silt curtain, or if the turbidity measurements at a Compliance point is greater than 5 NTU above the background. The 5 times early warning alarm level between the two silt curtains will allow modification of operations well before any potential exceedance that might occur at the compliance point. If the turbidity is 5 times the background between the silt curtains the expected efficiency of 80 to 90% at the outer silt curtain would reduce this to the background level. The second layer of early warning monitoring beyond the outer silt curtain will be used to confirm the effectiveness of the two silt curtains. A similar basis is used for the two times criteria for outside the silt curtain where turbidity is expected to decrease with distance.

- Corrective Measures: If the turbidity limit is exceeded at one or more of the points described above, corrective measures will be taken to restore compliance. These measures may include, but not be limited to, examining the silt curtains for damage and continuity (e.g., loss of bottom anchoring), slowing the level-cut environmental bucket operations, and, if all other measures are not effective, cessation of dredging until the turbidity readings return to compliance. EPA and MDE points of contacts will be alerted by email the day of a non-compliance event and all turbidity data and a description of the corrective measures taken will be provided.

- Routine Reporting: Transmit every Monday by email all turbidity data from the previous week to the EPA and MDE points of contact.

If any adjustments to the turbidity monitoring program are thought to be necessary during implementation of the removal action, Lockheed Martin will request review and assessment of the proposed adjustments by EPA and MDE.

2.4.4.3 Best Management Practices

The overall goal of the dredging is to remove impacted sediment while minimizing dispersion of contaminated sediment and limiting the development and production of dredging-related residuals. Potential impacts during construction of the remedy and during sediment removal will be limited by implementing the following measures and BMPs during construction, as appropriate:

- ***Dredging schedule:*** Sediment removal will be limited to the allowable in-water work window. The in-water work window will be established in the permit for this project. The anticipated work window is October 16 through February 14.

- ***Silt curtain:*** Silt curtains will be installed around the in-water work area and around the dredge operations to control migration of suspended sediment during dredging. The curtains will protect the surrounding environment by encasing the area being dredged. The dredge area, offloading area, and all dredging equipment will be within the encased area. The curtains will be inspected and monitored during construction to ensure performance.

- ***Construction methods:*** Real-time kinetic global positioning system will be used to control vertical and horizontal movement of the dredge bucket, thus minimizing reworking of the sediment bed and minimizing the volume of sediment removed. The dredge operator typically has access to real-time turbidity data from all monitoring stations, and can adjust the operational procedure (cycle time, cleaning, etc.) to ensure that the NTU readings do not exceed the specified level above background.

- ***Erosion and sedimentation controls:*** Erosion and sediment controls will be installed in the upland areas as they are depicted on the design drawings. The contractor will implement these controls throughout the project and adjust as needed to comply with the grading permit and other agency requirements.

- ***Management of water that has contacted contaminated sediment:*** The water draining from stockpiles of dredged material and stormwater that contacts contaminated sediment will be contained, treated on-site or transported to a disposal facility. Treated water will be sampled to comply with POTW requirements.

- ***Water quality monitoring:*** Water quality (i.e., turbidity) will be monitored during in-water work as described above in Section 2.4.4.2. Petroleum products or other materials related

to construction equipment will be prevented from entering the water. Spill response plans and other relevant materials will be developed and maintained to be available while operating on-site.

- ***Spill prevention controls:*** A spill prevention, control, and countermeasure plan will be in place to protect the environment from spills and releases of any hazardous materials or petroleum products, per Maryland state guidelines. Spill prevention measures will be applied during construction, and while transloading and transporting contaminated sediment. Sediment transport to the disposal facility will be via trucks equipped with an impermeable liner to prevent any leakage. The trucks will be inspected to prevent any spills during transport.

- ***Air, noise, and dust/odor monitoring:*** Air quality will be monitored to ensure compliance with ambient air standards beyond the work zone. Dust particles and odors from project activities will be controlled at all times. Dust and odor management can include: wetting excavation areas, unpaved traffic lanes, and sediment stockpiles; covering trucks loaded with sediment; covering stockpiles with plastic sheeting during inactive periods; and by daily (at a minimum) sweeping during dry weather of any paved on-site truck routes, loader paths, and loading and stockpile areas.

2.4.5 Contingencies

This SRA will be followed by a full sediment-remediation of Dark Head Cove and Cow Pen Creek in the next couple of years. Sediment identified for removal under this SRA was already planned for remediation under the full remedy; no action taken as part of this SRA will limit the implementation of the full sediment-remedy.

The Outfall 005 SRA dredge prism was designed to satisfy the full remedy cleanup level of 0.676 mg/kg vertically in addition to removing PCBs greater than 50 mg/kg laterally. Dredging during the SRA will continue until design depths have been reached and confirmation samples demonstrate that sediment above 50 mg/kg PCB have been removed. Any residual sediment contamination left subsequent to the SRA that is above the site cleanup goal (0.676 mg/kg PCB) will be addressed as part of the full sediment remedy as described below. The implementation of the full remedy construction is planned for 2016-2018.

Primary contingencies associated with the Outfall 005 SRA include:

- If post-removal samples find PCB concentrations greater than 50 mg/kg in generated residuals or the undisturbed remaining sediment, an additional dredge pass will be conducted in the area of the exceedances.

- If post-removal samples find PCB concentrations greater than 0.676 mg/kg in the generated residuals layer and less than 0.676 mg/kg in the undisturbed sediments, a residuals management layer will be placed during the completion of the full remedy.

- If post-removal samples find PCB concentrations greater than 0.676 mg/kg in both the generated residuals layer and in the undisturbed sediment, a residuals management layer may be placed, *in situ* treatment may be applied or other actions taken during the completion of the full remedy.

- If removed sediment does not meet the primary disposal facility's acceptance criteria, we have identified alternative disposal sites.

- If plugging of the storm drain system upstream of Outfall 005 proves infeasible, other alternatives will be evaluated, including physical realignment of the storm drain system in Tax Block E, or physical treatment of the stormwater coming from Tax Block E to control sediment migration.

- Backup water quality monitoring equipment will be available at the site to allow for replacement as soon as possible after the detection of equipment failure. Water quality monitoring equipment will be inspected regularly with calibration checks. The simultaneous failure of multiple meters such that no data is being collected at two of the three compliance locations would be cause for stopping the dredging operations until the meters could be repaired or replaced.

Other contingencies associated with the Outfall 005 SRA include actions made in response to challenges that might be encountered during construction. These may include:

- A debris survey will be completed prior to the initiation of dredging and identified debris that could inhibit the operation of the level-cut environmental bucket will be removed from the area. Any removed debris will be placed on a barge and transported to the staging area pending its evaluation for recycling or disposal.

- Construction might be halted during severe weather conditions where the project manager and the health and safety officer determine that conditions warrant the suspension of operations.

- Additional water storage tanks and redundant piping equipment will be on-site to handle any volume of water in excess of that anticipated during a rainstorm.

- If the duration of construction extends beyond the planned schedule, Lockheed Martin will coordinate with the Maryland Department of Environment to possibly extend the in-water work window in order to complete construction in one season.

2.5 CERTIFIED STATEMENT FOR ENVIRONMENTAL PROTECTION AGENCY REQUIREMENTS

40 CFR §761.61(a)(3)(E): A written certification, signed by the owner of the property where the cleanup site is located, and the party conducting the cleanup, that all sampling plans, sample collection procedures, extraction procedures, and instrumental/chemical procedures used to characterize the PCB contamination at the cleanup site, are on file at the location designated in the certificate, and are available for USEPA inspection.

Lockheed Martin Corporation hereby certifies that all sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analyses procedures used to assess or characterize PCB contamination in sediment adjacent to the Middle River Complex in Middle River, Maryland have been submitted to the USEPA and are on file and available for review at the Essex Public Library. A list of documents submitted to the USEPA is in Attachment B.

Thomas D. Blackman
Project Lead, Environmental Remediation
Lockheed Martin Corporation

11/04/2014

Section 3

References

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2. Tetra Tech, Inc. (Tetra Tech), 2013. *Feasibility Study for the Remediation of Sediments Adjacent to Lockheed Martin Middle River Complex*. June.

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4. Tetra Tech, Inc. (Tetra Tech), 2014b. *Storm Drainage System Sediment Sampling Report*. Middle River Complex. March.

5. Tetra Tech, Inc. (Tetra Tech), 2014c. *Additional Polychlorinated Biphenyl Sediment Sampling Work Plan.* Middle River Complex. June.

6. Tetra Tech, Inc. (Tetra Tech), 2014d. *Outfall 005 Sediment Removal Action Design Report, Dark Head Cove Sediment, Middle River Remediation Site*. Middle River Complex, Middle River. November.

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ATTACHMENT A—TABLES AND FIGURES

Tables summarizing analytical results for sediment samples collected in and around the SRA area

Table 1. Required Permits, Applications, and Notifications

Table 2. Summary of Total PCB Aroclor Concentrations - Sediment Removal Action Dredge Area

Table 3. Summary of Total PCB Homolog Concentrations - Sediment Removal Action Dredge Area

Figures showing the site, area of elevated PCB concentrations, and existing and planned core locations in and around the SRA area

Figure 1. Middle River Complex Location Map

Figure 2. Site Layout and Tax Blocks, Middle River Complex

Figure 3. Middle River Complex Overall Sediment Remedy

Figure 4. Outfall 005 SRA Sampling Locations and Dredge Plan

Figure 5. Outfall 005 SRA Storm Drain Sampling Locations and Storm Drain Cleanup Plan

Figure 6. Sample Locations for Outfall 005 West

Figure 7. Sample Locations for Outfall 005 East

Figure 8. Outfall 005 SRA Dredging Operations and Upland Sediment Handling Plan

Figure 9. Outfall 005 SRA Water Quality Monitoring Plan

Table 1. Required Permits, Applications, and Notifications

Regulation/Statute	Coverage	Trigger	Agency	Permit/Requirement
Section 404 Clean Water Act	Jurisdictional Determination of Waters of the U.S. including Wetlands	Presence of jurisdictional waters within the project area	USACE and EPA	Jurisdictional Determination
Section 404 Clean Water Act	Impacts to Waters of the U.S.	Impacts to waters of the U.S.	USACE and EPA	Joint Application with Pre-construction Notification and Nationwide Permit 20
Section 106 of the National Historic Preservation Act (Public Law 89-665; 16 U.S.C. 470 et seq)	Any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register	Potential impacts on included or eligible sites on the National Register	Maryland Heritage Trust	State Historic Preservation Office Determination
Maryland Nongame and Endangered Species Conservation Act (Annotated Code of Maryland 10-2A-01; also, Code of Maryland Regulations 08.03.08	State listed species	Potential impacts or "taking" of state listed species	Maryland Department of Natural Resources	State Endangered Species Determination
NOAA Fisheries - T&E and Essential Fish Habitat Review	Federally listed species and EFH	Potential impacts to listed species or habitat	NOAA Fisheries	Federal Endangered Species and Essential Fish Habitat Determinations
Section 402 Clean Water Act (33 U.S.C. 1342) and 40 CFR 122.26; Maryland Environment Article, Title 9, Subtitle 3: COMAR 26.08.04	Construction stormwater discharges to waters of the U.S. and state (Federal NPDES program administered by MDE)	Disturbance of greater than one acre	Maryland Department of the Environment	Construction Stormwater Permit

Regulation/Statute	Coverage	Trigger	Agency	Permit/Requirement
Section 1.04 of the Code of the Baltimore County Regulations (COBAR) Baltimore County Grading Permit	Site grades	Grading activities that disturb greater than 5,000 square feet or more than 100 cubic yards of fill material	Baltimore County EPS Stormwater Engineering and Baltimore County Soil Conservation District	County Grading Permit Review Soil Conservation District (SCD) Review
Article 33 Title 4 of the Code of Baltimore County Regulations - Critical Area and Environmental Impact Review	Impacts to critical area and other site natural resources	Activities that impact critical area resources including forest, 100-foot tidal buffer, steep slopes, wetlands, and HPAs	Baltimore County DEPS Environmental Impact Review Department	Critical Area Permit
Section 402 Clean Water Act (33 U.S.C. 1342) and 40 CFR 122.26; Environment Article, Title 4, Subtitle 1 for erosion and sediment control and Subtitle 2 for stormwater management (COMAR 26.17.01 and 26.17.02); Article 33 Title 4 of the Code of the Baltimore County Regulations (COBAR) Baltimore County Stormwater Management	General stormwater discharges to waters of the US and state (Federal NPDES program administered by MDE); stormwater management and sedimentation impacts to waters of the state; stormwater management and sedimentation impacts in Baltimore County	New stormwater discharges; Development or redevelopment of land for residential, commercial, industrial, institutional, or governmental use	Baltimore County EPS Stormwater Engineering	Post-construction Stormwater Management Permit

Table 2
Summary of Total PCB Aroclor Concentrations - Sediment Removal Action Dredge Area

Sample Location	Sample ID	Sample Date	Analysis Date	Sample Depth (ft)	Total PCB Aroclor Concentration (mg/kg)
SD-9	SD-9-031805	03/18/2005	4/8/2005	0-0.5	54
SD-27	SD-27-01	10/21/2005	10/30/2005	1-1	0.67
SD-27	SD-27-02	10/21/2005	10/31/2005	2-2	0.067
SD-27	SD-27-SS	10/21/2005	10/31/2005	0-0.5	20
SD-28	SD-28-01	10/21/2005	10/31/2005	1-1	0.61
SD-28	SD-28-02	10/21/2005	10/31/2005	2-2	0.038 U
SD-28	SD-28-SS	10/21/2005	10/31/2005	0-0.5	0.79
SD-31	SD-31-01	10/21/2005	11/1/2005	1-1	0.038 U
SD-31	SD-31-02	10/21/2005	11/1/2005	2-2	0.075
SD-31	SD-31-SS	10/21/2005	11/1/2005	0-0.5	0.17
SD-50	SD-50-01	11/14/2008	11/25/2008	0.67-1.33	2.4
SD-50	SD-50-01-D	11/14/2008	11/25/2008	0.67-1.33	1.4
SD-50	SD-50-02	11/14/2008	11/25/2008	1.83-2.17	0.61
SD-50	SD-50-04	11/14/2008	11/21/2008	3.67-4	0.72 U
SD-50	SD-50-SS	11/14/2008	11/25/2008	0-0.5	2.3
SD-53	SD-53-01	11/14/2008	12/3/2008	0.83-1.17	0.045 U
SD-53	SD-53-02	11/14/2008	12/3/2008	1.83-2.17	0.038 U
SD-53	SD-53-04	11/14/2008	12/3/2008	3.5-3.83	0.030 U
SD-53	SD-53-SS	11/14/2008	12/3/2008	0-0.5	0.039 U
SD-53	SD-53-SS-D	11/14/2008	12/3/2008	0-0.5	0.039 U
SD-57	SD-57-01	11/14/2008	11/21/2008	0.83-1.17	0.042 U
SD-57	SD-57-02	11/14/2008	11/21/2008	1.83-2.17	0.042 U
SD-57	SD-57-04	11/14/2008	11/21/2008	3.67-4	0.039 U
SD-57	SD-57-SS	11/14/2008	11/22/2008	0-0.5	0.41 U
SD-58	SD-58-01	11/14/2008	11/25/2008	0.83-1.17	14
SD-58	SD-58-02	11/14/2008	11/25/2008	1.83-2.19	0.79
SD-58	SD-58-04	11/14/2008	11/21/2008	3.75-4.08	0.031 U
SD-58	SD-58-SS	11/14/2008	11/25/2008	0-0.5	6.3
SD-59	SD-59-01	11/15/2008	12/5/2008	0.83-1.17	1.3
SD-59	SD-59-02	11/15/2008	12/4/2008	1.67-2.33	0.037 U
SD-59	SD-59-02-D	11/15/2008	12/4/2008	1.37-2.33	0.037 U
SD-59	SD-59-04	11/15/2008	12/4/2008	3.83-4.17	0.022 U
SD-59	SD-59-SS	11/15/2008	12/5/2008	0-0.5	4.2
SD-60	SD-60-01	11/12/2008	12/2/2008	0.83-1.17	0.05 U
SD-60	SD-60-02	11/12/2008	12/2/2008	1.83-2.17	0.032 U
SD-60	SD-60-04	11/12/2008	12/2/2008	3.17-3.5	0.021 U
SD-60	SD-60-SS	11/12/2008	12/2/2008	0-0.5	0.053 U
SD-88	SD-88-01	08/19/2010	9/1/2010	1-1	1.8
SD-88	SD-88-02	08/19/2010	9/1/2010	2-2	0.22
SD-88	SD-88-04	08/19/2010	9/1/2010	4-4	0.0031 U
SD-88	SD-88-SS	08/19/2010	9/1/2010	0-0.5	6.6
SD-138	SD-138-01	09/20/2013	10/4/2013	0.5-1.5	3600
SD-138	SD-138-SS	09/20/2013	10/4/2013	0-0.5	1800
SD-139	SD-139-01	09/20/2013	10/4/2013	0.5-1.5	2100
SD-139	SD-139-SS	09/20/2013	10/4/2013	0-0.5	140

Table 2

Summary of Total PCB Aroclor Concentrations - Sediment Removal Action Dredge Area

Sample Location	Sample ID	Sample Date	Analysis Date	Sample Depth (ft)	Total PCB Aroclor Concentration (mg/kg)
SD-147	SD-147-01	09/17/2013	9/30/2013	0.5-1.5	29
SD-147	SD-147-02	09/17/2013	9/27/2013	1.5-2.5	1.31
SD-147	SD-147-03	09/17/2013	9/27/2013	2.5-4.33	0.027
SD-147	SD-147-03-D	09/17/2013	9/27/2013	2.5-4.33	0.00084 U
SD-147	SD-147-SS	09/17/2013	9/30/2013	0-0.5	9.7
SD-148	SD-148-01	09/19/2013	10/7/2013	0.5-1.5	14
SD-148	SD-148-02	09/19/2013	10/4/2013	1.5-2.5	1.6
SD-148	SD-148-03	09/19/2013	10/4/2013	2.5-4.33	0.36
SD-148	SD-148-SS	09/19/2013	10/4/2013	0-0.5	1.2
SD-148	SD-148-SS-D	09/19/2013	10/4/2013	0-0.5	1.5
SD-149	SD-149-01	09/19/2013	10/7/2013	0.5-1.5	20
SD-149	SD-149-02	09/19/2013	10/4/2013	1.5-2.5	1.18
SD-149	SD-149-03	09/19/2013	10/7/2013	2.5-4.33	27
SD-149	SD-149-SS	09/19/2013	10/4/2013	0-0.5	4.9
SD-150	SD-150-01	09/19/2013	10/7/2013	0.5-1.5	14
SD-150	SD-150-02	09/19/2013	10/4/2013	1.5-2.5	1.9
SD-150	SD-150-03	09/19/2013	10/4/2013	2.5-4.33	0.93
SD-150	SD-150-SS	09/19/2013	10/4/2013	0-0.5	0.163
SD-151	SD-151-01	09/20/2013	10/4/2013	0.5-1.5	7
SD-151	SD-151-02	09/20/2013	10/3/2013	1.5-2.5	0.5
SD-151	SD-151-03	09/20/2013	10/3/2013	2.5-4.33	0.0018 U
SD-151	SD-151-SS	09/20/2013	10/3/2013	0-0.5	2.1
SD-154	SD-154	09/17/2013	9/27/2013	0-1.5	5.5
SD-155	SD-155	09/17/2013	9/27/2013	0-1.5	4.7
SD-161	SD-161-01	09/20/2013	10/12/2013	0.5-1.5	1000
SD-161	SD-161-02	09/20/2013	10/12/2013	1.5-2.5	480
SD-161	SD-161-03	09/20/2013	10/12/2013	2.5-4.33	20
SD-161	SD-161-SS	09/20/2013	10/4/2013	0-0.5	13
SD-162	SD-162-01	09/20/2013	10/4/2013	0.5-1.5	2.3
SD-162	SD-162-02	09/20/2013	10/4/2013	1.5-2.5	1.4
SD-162	SD-162-03	09/20/2013	10/4/2013	2.5-4.33	0.52
SD-162	SD-162-SS	09/20/2013	10/4/2013	0-0.5	2.2

Notes:

ft	feet
mg/kg	milligram(s) per kilogram
PCB	Polychlorinated biphenyls

Qualifiers

U	Non detect at the laboratory method detection limit noted

Table 3
Summary of Total PCB Homolog Concentrations - Sediment Removal Action Dredge Area

Sample Location	Sample ID	Sample Date	Analysis Date	Sample Depth (ft)	Total PCB Concentration (mg/kg)
SD-195	SD-195-SS	6/10/2014	7/6/2014	0-0.5	0.0004 U
SD-197	SD-197-SS	6/11/2014	7/7/2014	0-0.5	0.857
SD-197	SD-197-01	6/11/2014	7/7/2014	0.5 - 1.5	6.52
SD-197	SD-197-02	6/11/2014	7/7/2014	1.5 - 2.5	0.120
SD-197	SD-197-03	6/11/2014	7/7/2014	2.5 - 4.0	0.0291
SD-199	SD-199-SS	6/11/2014	7/7/2014	0-0.5	1.00
SD-199	SD-199-01	6/11/2014	7/7/2014	0.5 - 1.5	35.5
SD-199	SD-199-02	6/11/2014	7/7/2014	1.5 - 2.5	0.185
SD-199	SD-199-03	6/11/2014	7/7/2014	2.5 - 4.0	0.00049 U
SD-200	SD-200-SS	6/10/2014	7/6/2014	0-0.5	5.52
SD-200	SD-200-01	6/10/2014	7/6/2014	0.5 - 1.5	30.2
SD-200	SD-200-02	6/10/2014	7/6/2014	1.5 - 2.5	0.240
SD-200	SD-200-03	6/10/2014	7/7/2014	2.5 - 4.0	0.0156
SD-202	SD-202-SS	6/10/2014	7/6/2014	0-0.5	137
SD-202	SD-202-01	6/10/2014	7/6/2014	0.5 - 1.5	0.268
SD-202	SD-202-02	6/10/2014	7/6/2014	1.5 - 2.5	0.0586
SD-204	SD-204-SS	6/11/2014	7/7/2014	0-0.5	24.3
SD-204	SD-204-01	6/11/2014	7/7/2014	0.5 - 1.5	0.0855
SD-204	SD-204-02	6/11/2014	7/7/2014	1.5 - 2.5	0.216
SD-207	SD-207-SS	6/11/2014	7/10/2014	0-0.5	278
SD-207	SD-207-01	6/11/2014	7/8/2014	0.5 - 1.5	134
SD-207	SD-207-02	6/11/2014	7/7/2014	1.5 - 2.5	7.37
SD-207	SD-207-03	6/11/2014	7/7/2014	2.5 - 4.0	0.443
SD-209	SD-209-01	6/11/2014	7/7/2014	0.5 - 1.5	0.00099
SD-209	SD-209-02	6/11/2014	7/7/2014	1.5 - 2.5	0.101
SD-209	SD-209-03	6/11/2014	7/7/2014	2.5 - 4.0	0.00769
SD-223	SD-223-SS	6/13/2014	7/25/2014	0-0.5	1.21
SD-223	SD-223-01	6/13/2014	7/14/2014	0.5 - 1.5	8.64
SD-223	SD-223-02	6/13/2014	7/11/2014	1.5 - 2.5	0.131
SD-224	SD-224-01	6/13/2014	7/14/2014	0.5 - 1.5	12.4
SD-224	SD-224-SS	6/13/2014	7/10/2014	0-0.5	2.18
SD-224	SD-224-02	6/13/2014	7/14/2014	1.5 - 2.5	1.02
SD-224	SD-224-03	6/13/2014	7/14/2014	2.5 - 4.0	0.00026 U
SD-225	SD-225-SS	6/13/2014	7/25/2014	0-0.5	10.9
SD-225	SD-225-01	6/13/2014	7/25/2014	0.5 - 1.5	23.7
SD-225	SD-225-02	6/13/2014	7/25/2014	1.5 - 2.5	0.876
SD-225	SD-225-03	6/13/2014	7/14/2014	2.5 - 4.0	0.00029 U
SD-226	SD-226-SS	6/13/2014	7/11/2014	0-0.5	0.123
SD-226	SD-226-01	6/13/2014	7/14/2014	0.5 - 1.5	3.59
SD-226	SD-226-02	6/13/2014	7/14/2014	1.5 - 2.5	11.6
SD-226	SD-226-03	6/13/2014	7/14/2014	2.5 - 4.0	0.0053
SD-227	SD-227-SS	6/13/2014	7/16/2014	0-0.5	0.323

Table 3
Summary of Total PCB Homolog Concentrations - Sediment Removal Action Dredge Area

Sample Location	Sample ID	Sample Date	Analysis Date	Sample Depth (ft)	Total PCB Concentration (mg/kg)
SD-227	SD-227-01	6/13/2014	7/16/2014	0.5 - 1.5	1.49
SD-227	SD-227-02	6/13/2014	7/16/2014	1.5 - 2.5	0.0095
SD-228	SD-228-SS	6/13/2014	7/25/2014	0-0.5	2.21
SD-228	SD-228-01	6/13/2014	7/14/2014	0.5 - 1.5	5.40
SD-228	SD-228-02	6/13/2014	7/14/2014	1.5 - 2.5	0.127
SD-228	SD-228-03	6/13/2014	7/14/2014	2.5 - 4.0	0.00035 U
SD-234	SD-234-SS	6/13/2014	7/25/2014	0-0.5	93.8
SD-234	SD-234-01	6/13/2014	7/14/2014	0.5 - 1.5	0.524
SD-235	SD-235-SS	6/13/2014	7/25/2014	0-0.5	272
SD-235	SD-235-01	6/13/2014	7/13/2014	0.5 - 1.5	47.7
SD-235	SD-235-02	6/13/2014	7/13/2014	1.5 - 2.5	6.36
SD-235	SD-235-03	6/13/2014	7/3/2014	2.5 - 4.0	0.109
SD-236	SD-236-SS	6/13/2014	7/3/2014	0-0.5	0.00041 U
SD-236	SD-236-01	6/13/2014	7/25/2014	0.5 - 1.5	0.014
SD-236	SD-236-02	6/13/2014	7/2/2014	1.5 - 2.5	0.00054
SD-237	SD-237-SS	6/13/2014	7/13/2014	0-0.5	103
SD-237	SD-237-01	6/13/2014	7/26/2014	0.5 - 1.5	46.2
SD-237	SD-237-02	6/13/2014	7/25/2014	1.5 - 2.5	2.54
SD-237	SD-237-03	6/13/2014	7/11/2014	2.5 - 4.0	0.0337
SD-238	SD-238-SS	6/17/2014	7/17/2014	0-0.5	0.0563
SD-238	SD-238-01	6/17/2014	7/17/2014	0.5 - 1.5	0.068
SD-238	SD-238-02	6/17/2014	7/17/2014	1.5 - 2.5	1.44
SD-238	SD-238-03	6/17/2014	7/17/2014	2.5 - 4.0	0.036
SD-239	SD-239-SS	6/17/2014	7/14/2014	0-0.5	2.87
SD-239	SD-239-01	6/17/2014	7/14/2014	0.5 - 1.5	2.60
SD-239	SD-239-02	6/17/2014	7/14/2014	1.5 - 2.5	0.0281
SD-239	SD-239-03	6/17/2014	7/17/2014	2.5 - 4.0	0.0193
SD-240	SD-240-SS	6/17/2014	7/17/2014	0-0.5	4.84
SD-240	SD-240-01	6/17/2014	7/17/2014	0.5 - 1.5	101
SD-240	SD-240-02	6/17/2014	7/17/2014	1.5 - 2.5	4.65
SD-240	SD-240-03	6/17/2014	7/17/2014	2.5 - 4.0	0.608
SD-241	SD-241-SS	6/17/2014	7/18/2014	0-0.5	6.08
SD-241	SD-241-01	6/17/2014	7/20/2014	0.5 - 1.5	122
SD-241	SD-241-02	6/17/2014	7/18/2014	1.5 - 2.5	5.26
SD-241	SD-241-03	6/17/2014	7/18/2014	2.5 - 4.0	0.312
SD-242	SD-242-SS	6/17/2014	7/18/2014	0-0.5	0.228
SD-242	SD-242-01	6/17/2014	7/18/2014	0.5 - 1.5	1.19
SD-242	SD-242-02	6/17/2014	7/20/2014	1.5 - 2.5	50.3
SD-242	SD-242-03	6/17/2014	7/20/2014	2.5 - 4.0	12.4
SD-243	SD-243-SS	6/17/2014	7/18/2014	0-0.5	1.39

Table 3
Summary of Total PCB Homolog Concentrations - Sediment Removal Action Dredge Area

Sample Location	Sample ID	Sample Date	Analysis Date	Sample Depth (ft)	Total PCB Concentration (mg/kg)
SD-243	SD-243-01	6/17/2014	7/18/2014	0.5 - 1.5	0.034
SD-243	SD-243-02	6/17/2014	7/18/2014	1.5 - 2.5	0.0307
SD-243	SD-243-03	6/17/2014	7/20/2014	2.5 - 4.0	0.0035
SD-244	SD-244-SS	6/17/2014	7/20/2014	0-0.5	115
SD-244	SD-244-01	6/17/2014	7/26/2014	0.5 - 1.5	29.0
SD-244	SD-244-02	6/17/2014	7/20/2014	1.5 - 2.5	6.94
SD-244	SD-244-03	6/17/2014	7/20/2014	2.5 - 4.0	0.136
SD-245	SD-245-SS	6/17/2014	7/20/2014	0-0.5	8.41
SD-245	SD-245-01	6/17/2014	7/20/2014	0.5 - 1.5	77.8
SD-245	SD-245-02	6/17/2014	7/20/2014	1.5 - 2.5	15.0
SD-245	SD-245-03	6/17/2014	7/20/2014	2.5 - 4.0	1.09
SD-246	SD-246-SS	6/17/2014	7/20/2014	0-0.5	177
SD-246	SD-246-01	6/17/2014	7/20/2014	0.5 - 1.5	152
SD-246	SD-246-02	6/17/2014	7/20/2014	1.5 - 2.5	7.66
SD-246	SD-246-03	6/17/2014	7/20/2014	2.5 - 4.0	0.0201
SD-247	SD-247-SS	6/17/2014	7/20/2014	0-0.5	74.9
SD-247	SD-247-01	6/17/2014	7/20/2014	0.5 - 1.5	32.6
SD-247	SD-247-02	6/17/2014	7/18/2014	1.5 - 2.5	4.26
SD-247	SD-247-03	6/17/2014	7/30/2014	2.5 - 4.0	0.094
SD-248	SD-248-SS	6/17/2014	7/20/2014	0-0.5	0.894
SD-248	SD-248-01	6/17/2014	7/20/2014	0.5 - 1.5	R
SD-248	SD-248-02	6/17/2014	7/20/2014	1.5 - 2.5	0.0217
SD-248	SD-248-03	6/17/2014	7/26/2014	2.5 - 4.0	0.00018 U
SD-249	SD-249-SS	6/17/2014	7/26/2014	0-0.5	1.43
SD-249	SD-249-01	6/17/2014	7/22/2014	0.5 - 1.5	97.1
SD-249	SD-249-02	6/17/2014	7/21/2014	1.5 - 2.5	1.76
SD-249	SD-249-03	6/17/2014	7/21/2014	2.5 - 4.0	1.13
SD-250	SD-250-SS	6/18/2014	7/21/2014	0-0.5	1.08
SD-250	SD-250-01	6/18/2014	7/21/2014	0.5 - 1.5	4.22
SD-250	SD-250-02	6/18/2014	7/24/2014	1.5 - 2.5	50.0
SD-250	SD-250-03	6/18/2014	7/21/2014	2.5 - 4.0	31.3
SD-251	SD-251-SS	6/18/2014	7/21/2014	0-0.5	4.28
SD-251	SD-251-01	6/18/2014	7/21/2014	0.5 - 1.5	0.0631
SD-251	SD-251-02	6/18/2014	7/21/2014	1.5 - 2.5	0.0134
SD-251	SD-251-03	6/18/2014	7/21/2014	2.5 - 4.0	0.0026
SD-260	SD-260-SS	6/19/2014	7/28/2014	0-0.5	2.37
SD-260	SD-260-01	6/19/2014	7/28/2014	0.5 - 1.5	0.988
SD-260	SD-260-02	6/19/2014	7/28/2014	1.5 - 2.5	0.0018 U
SD-260	SD-260-03	6/19/2014	7/28/2014	2.5 - 4.0	0.0024 U
SD-261	SD-261-SS	6/19/2014	7/30/2014	0-0.5	0.045 U
SD-261	SD-261-01	6/19/2014	7/28/2014	0.5 - 1.5	4.36
SD-261	SD-261-02	6/19/2014	7/30/2014	1.5 - 2.5	0.026 U
SD-261	SD-261-03	6/19/2014	7/30/2014	2.5 - 4.0	0.0023 U
SD-262	SD-262-SS	6/18/2014	7/21/2014	0-0.5	0.778

Table 3
Summary of Total PCB Homolog Concentrations - Sediment Removal Action Dredge Area

Sample Location	Sample ID	Sample Date	Analysis Date	Sample Depth (ft)	Total PCB Concentration (mg/kg)
SD-262	SD-262-01	6/18/2014	7/21/2014	0.5 - 1.5	0.393
SD-262	SD-262-02	6/18/2014	7/21/2014	1.5 - 2.5	0.0024 U
SD-262	SD-262-03	6/18/2014	7/22/2014	2.5 - 4.0	0.002 U
SD-263	SD-263-SS	6/18/2014	7/23/2014	0-0.5	0.541
SD-263	SD-263-01	6/18/2014	7/23/2014	0.5 - 1.5	5.56
SD-263	SD-263-02	6/18/2014	7/23/2014	1.5 - 2.5	8.64
SD-263	SD-263-03	6/18/2014	7/23/2014	2.5 - 4.0	0.0391
SD-264	SD-264-SS	6/18/2014	7/23/2014	0-0.5	0.355
SD-264	SD-264-01	6/18/2014	7/30/2014	0.5 - 1.5	6.11
SD-264	SD-264-02	6/18/2014	7/24/2014	1.5 - 2.5	16.4
SD-264	SD-264-03	6/18/2014	7/23/2014	2.5 - 4.0	0.056
SD-265	SD-265-SS	6/18/2014	7/23/2014	0-0.5	0.737
SD-265	SD-265-01	6/18/2014	7/23/2014	0.5 - 1.5	0.687
SD-265	SD-265-02	6/18/2014	7/23/2014	1.5 - 2.5	R
SD-265	SD-265-03	6/18/2014	7/23/2014	2.5 - 4.0	6.25
SD-266	SD-266-SS	6/19/2014	7/28/2014	0-0.5	R
SD-266	SD-266-01	6/19/2014	7/30/2014	0.5 - 1.5	2.11
SD-266	SD-266-02	6/19/2014	7/28/2014	1.5 - 2.5	1.76
SD-266	SD-266-03	6/19/2014	7/28/2014	2.5 - 4.0	0.105
SD-267	SD-267-SS	6/19/2014	7/28/2014	0-0.5	R
SD-267	SD-267-01	6/19/2014	7/28/2014	0.5 - 1.5	56.1
SD-267	SD-267-02	6/19/2014	7/28/2014	1.5 - 2.5	1.43
SD-267	SD-267-03	6/19/2014	7/30/2014	2.5 - 4.0	0.212
SD-268	SD-268-SS	6/18/2014	7/23/2014	0-0.5	42.2
SD-268	SD-268-01	6/18/2014	7/24/2014	0.5 - 1.5	21.9
SD-268	SD-268-02	6/18/2014	7/24/2014	1.5 - 2.5	0.393
SD-268	SD-268-03	6/18/2014	7/24/2014	2.5 - 4.0	0.0056
SD-269	SD-269-SS	6/18/2014	7/25/2014	0-0.5	56.5
SD-269	SD-269-01	6/18/2014	7/25/2014	0.5 - 1.5	0.22
SD-269	SD-269-02	6/18/2014	7/24/2014	1.5 - 2.5	0.0561
SD-269	SD-269-03	6/18/2014	7/24/2014	2.5 - 4.0	0.00093 U
SD-270	SD-270-SS	6/18/2014	7/25/2014	0-0.5	107
SD-270	SD-270-01	6/18/2014	7/24/2014	0.5 - 1.5	9.36
SD-270	SD-270-02	6/18/2014	7/24/2014	1.5 - 2.5	0.0783
SD-270	SD-270-03	6/18/2014	7/24/2014	2.5 - 4.0	0.0529
SD-271	SD-271-SS	6/18/2014	7/24/2014	0-0.5	8.57
SD-271	SD-271-01	6/18/2014	7/23/2014	0.5 - 1.5	2.25
SD-271	SD-271-02	6/18/2014	7/24/2014	1.5 - 2.5	0.00479
SD-272	SD-272-SS	6/19/2014	7/28/2014	0-0.5	0.242
SD-272	SD-272-01	6/19/2014	7/28/2014	0.5 - 1.5	0.0019
SD-272	SD-272-02	6/19/2014	7/28/2014	1.5 - 2.5	0.0012 U
SD-273	SD-273-SS	6/18/2014	7/25/2014	0-0.5	5.56

Table 3

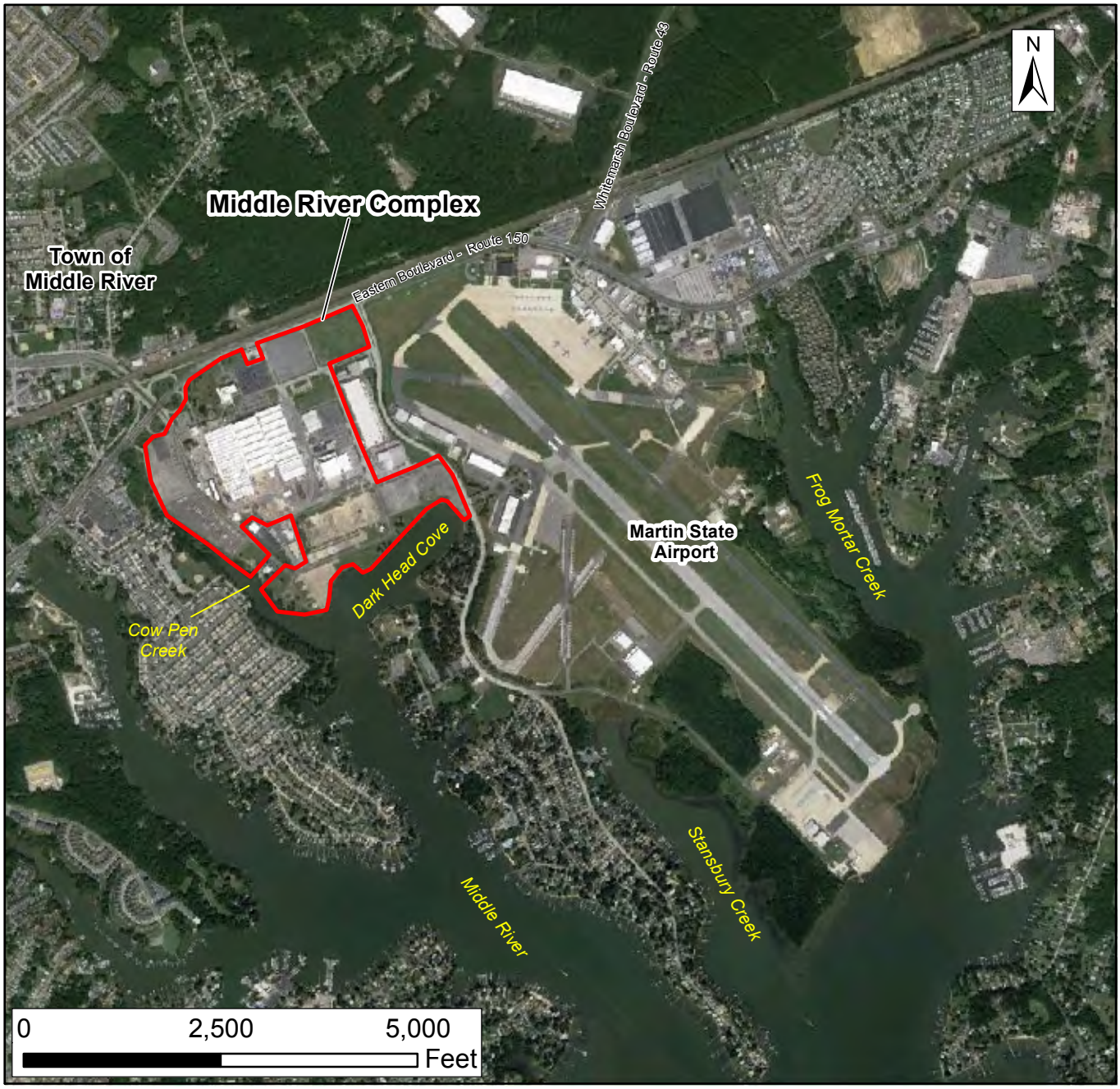
Summary of Total PCB Homolog Concentrations - Sediment Removal Action Dredge Area

Sample Location	Sample ID	Sample Date	Analysis Date	Sample Depth (ft)	Total PCB Concentration (mg/kg)
SD-273	SD-273-01	6/18/2014	7/24/2014	0.5 - 1.5	4.12
SD-273	SD-273-02	6/18/2014	7/30/2014	1.5 - 2.5	0.012
SD-273	SD-273-03	6/18/2014	7/24/2014	2.5 - 4.0	0.003
SD-274	SD-274-SS	6/19/2014	7/28/2014	0-0.5	11.3
SD-274	SD-274-01	6/19/2014	7/28/2014	0.5 - 1.5	6.23
SD-274	SD-274-02	6/19/2014	7/28/2014	1.5 - 2.5	0.311
SD-274	SD-274-03	6/19/2014	7/28/2014	2.5 - 4.0	0.023

Notes:

Concentrations are the total of detected PCB homolog groups by EPA method 680

ft	feet
mg/kg	milligram(s) per kilogram
PCB	Polychlorinated biphenyls
R	Reported laboratory result rejected during validation
Qualifiers	
U	Non detect at the laboratory method detection limit noted for Hexachlorobiphenyl



Source: Google Earth, 2013

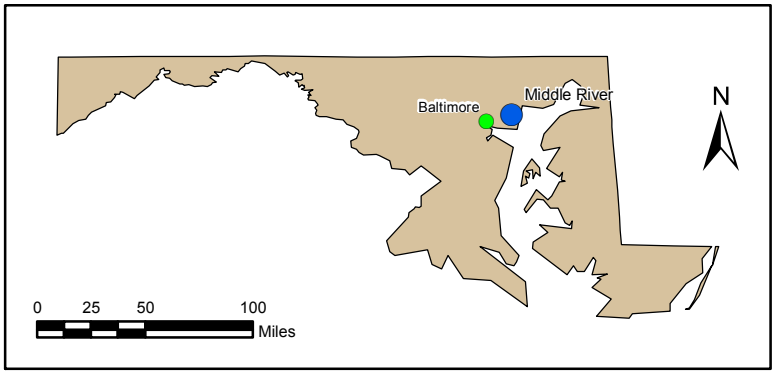


FIGURE 1

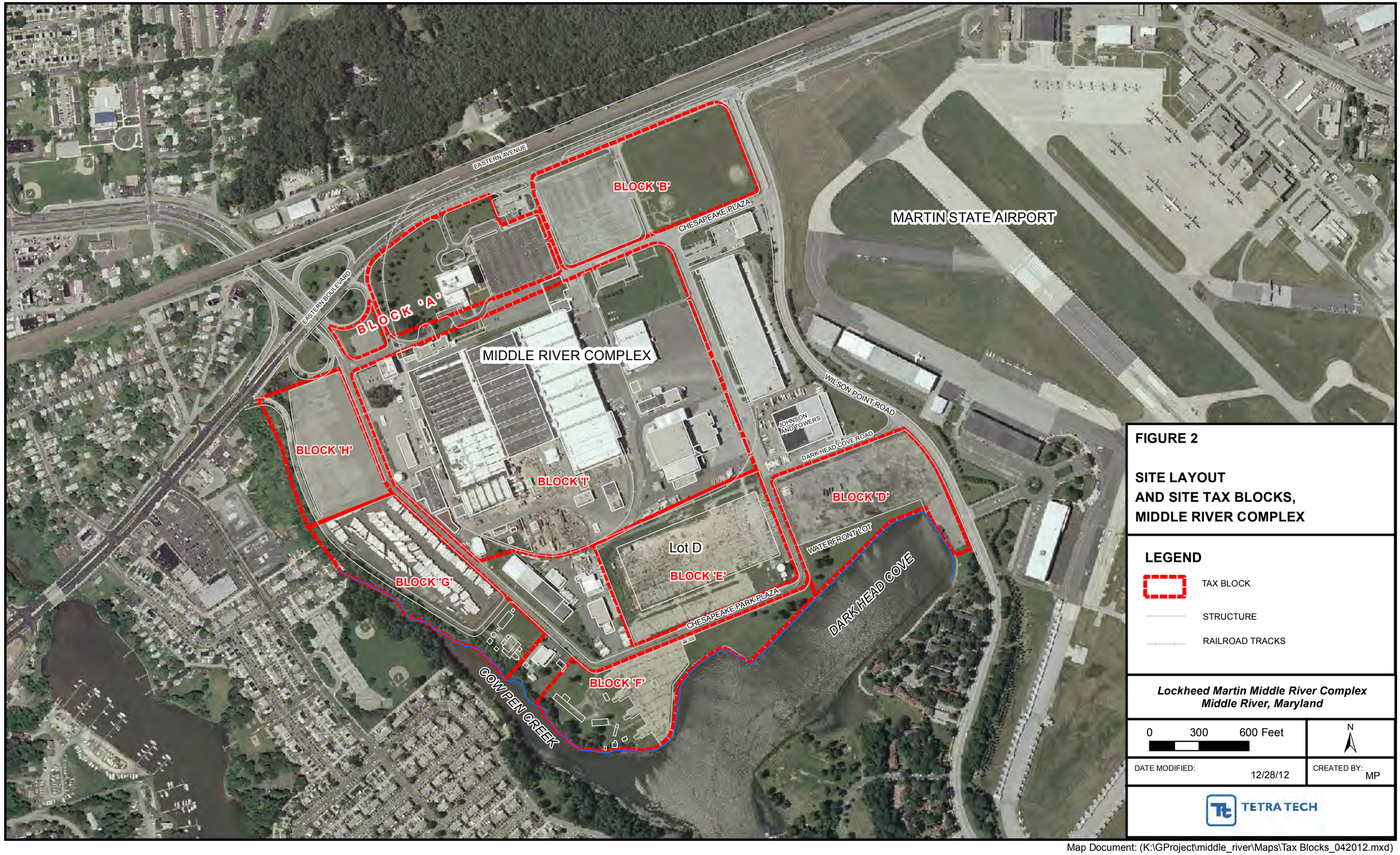
MIDDLE RIVER COMPLEX LOCATION MAP

Lockheed Martin Middle River Complex
Middle River, Maryland

DATE MODIFIED:	CREATED BY:
11/26/13	MP

TETRA TECH

Map Document: (K:\GProject\middle_river\Maps\MiddleRiver_MRC_Location Map_Fig 1-1_revised050113.mxd) 6/20/2013 -- 10:45:00 AM



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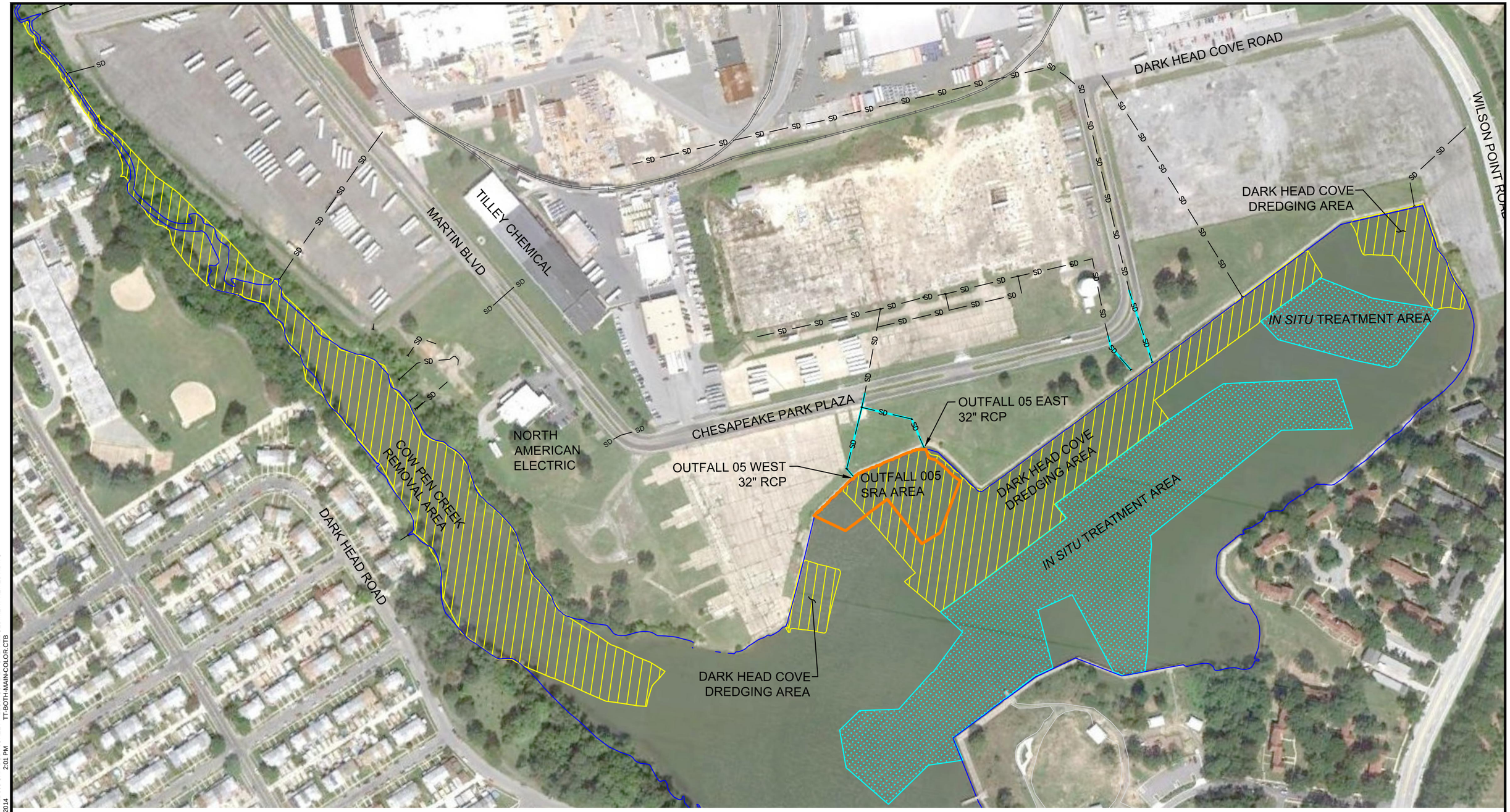


NOTES:
1. AERIAL SOURCE: GOOGLE MAPS.
2. MEAN LOWER LOW WATER (MLLW) VERTICAL DATUM.

SRA = SEDIMENT REMOVAL ACTION

LEGEND:
- RAILROAD
- OUTFALL 005 SRA BOUNDARY
- STORM DRAIN SYSTEM
- STORM DRAIN SYSTEM OUTFALL
- EDGE OF WATER
- REMOVAL AREA
- *IN SITU* TREATMENT AREA
- STORM DRAIN TO BE CLEANED

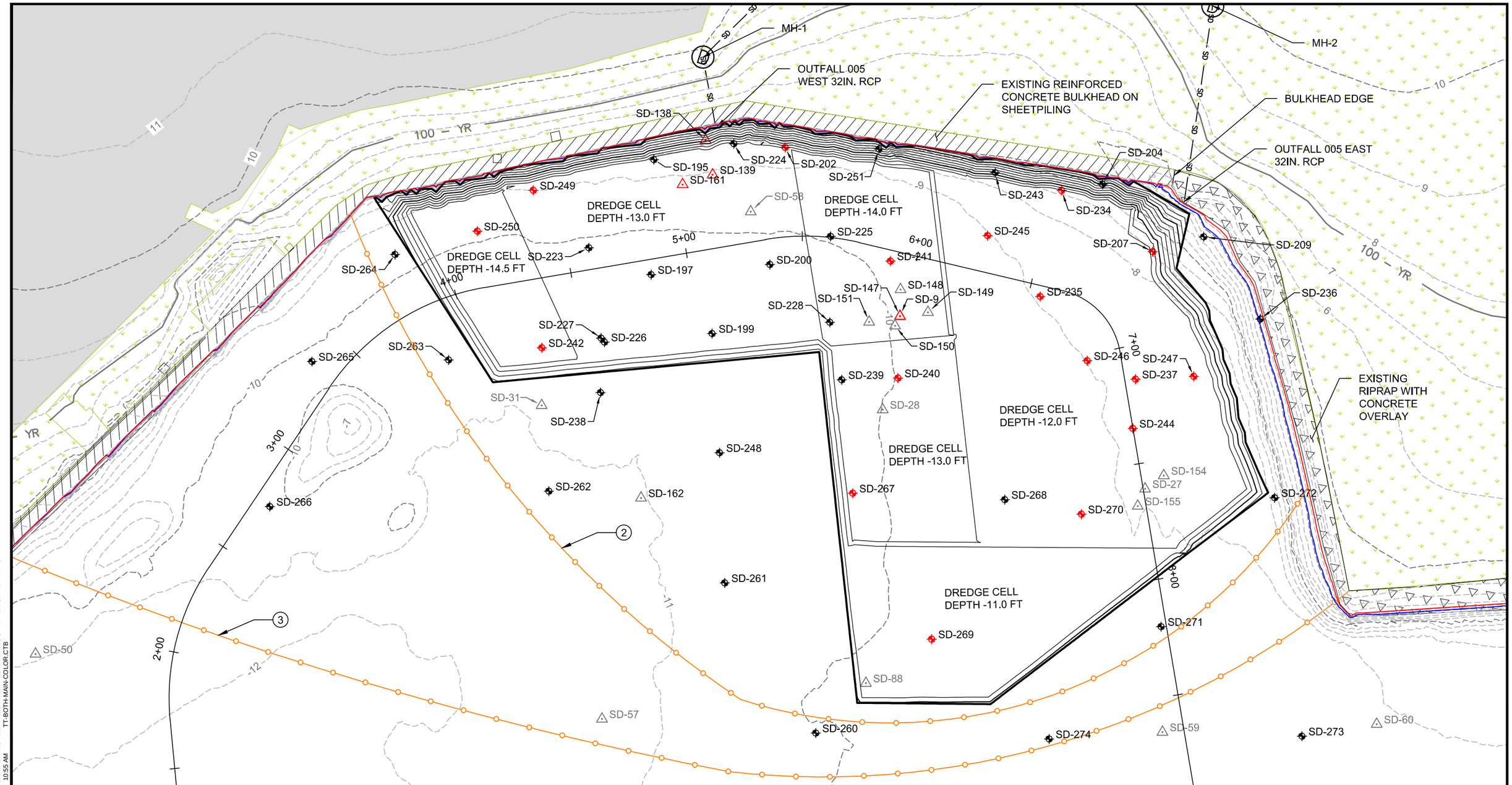
TETRA TECH

0' 250' 500'

LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MD

FIGURE 3
MIDDLE RIVER COMPLEX
OVERALL SEDIMENT REMEDY

Z:\PROJECTS\LOCKHEED - MIDDLE RIVER COMPLEX\OUTFALL 005 SRA-BOD\SHEET FILES\FIGURE 1-4 OVERALL SEDIMENT REMEDY.DWG
PLOT DETAILS: VANBUECKEN, NICH September 11, 2014 2:01 PM TT-BOTH-MAIN-COLOR.CTB



NOTES:

1. HORIZONTAL DATUM: MARYLAND STATE PLANE FEET, NAD83 (2007). VERTICAL DATUM: MEAN LOWER LOW WATER (MLLW).
2. INTERIOR SILT CURTAIN WILL BE MOVED AS DREDGING PROGRESSES.
3. EXTERIOR SILT CURTAIN WILL REMAIN STATIONARY.

LEGEND:

- EXIST. CONTOURS MAJOR 5FT
- EXIST. CONTOURS MINOR 1FT
- MEAN HIGH WATER
- MEAN LOW WATER
- CONCRETE
- GRASS
- STORM DRAIN SYSTEM
- SILT CURTAIN
- STORM DRAIN GRATE
- STORM DRAIN MANHOLE
- STORM DRAIN OUTFALL
- SEDIMENT SAMPLE - 2014
- SEDIMENT SAMPLE - 2014 W/ TSCA
- SEDIMENT SAMPLE - 2005 TO 2013
- SEDIMENT SAMPLE - 2005 TO 2013 W/ TSCA
- POST-REMEDIATION CONTOUR MAJOR 5FT
- POST-REMEDIATION CONTOUR MINOR 1FT
- OUTFALL 005 SRA BOUNDARY

SRA - SEDIMENT REMOVAL ACTION

TETRA TECH

N

0' 40' 80'

LOCKHEED MARTIN MIDDLE RIVER COMPLEX

MIDDLE RIVER, MD

FIGURE 4

OUTFALL 005 SRA

SAMPLING LOCATIONS AND DREDGE PLAN

Z:\PROJECTS\LOCKHEED - MIDDLE RIVER COMPLEX\OUTFALL 005 SRA\BODR\SHEET FILES\RBDA - OUTFALL 005 SRA DREDGE PLAN.DWG
PLOT DETAILS: VANBUECKEN, NICH October 29, 2014 10:55 AM TT-BOTH-MAIN-COLOR.CTB

PIPE SEGMENTS TO BE CLEANED DURING OUTFALL 005 SRA			
SEGMENT	LENGTH (FEET)	ACTION	SCHEDULE
IL-30A TO IL-30	-	TO BE PLUGGED UPSTREAM	OUTFALL 005 SRA
IL30 TO MH-3	40	TO BE CLEANED	OUTFALL 005 SRA
MH-3 TO MH-1	170	TO BE CLEANED	OUTFALL 005 SRA
MH-3 TO MH-2	140	TO BE CLEANED	OUTFALL 005 SRA
MH-1 TO OUTFALL 005(W)	30	TO BE CLEANED	OUTFALL 005 SRA
MH-2 TO OUTFALL 005(E)	85	TO BE CLEANED	OUTFALL 005 SRA
IL-1 TO OUTFALL 008	110	TO BE CLEANED	FULL REMEDY
IL-25 TO OUTFALL 006	200	TO BE CLEANED	FULL REMEDY

NOTES:

1. HORIZONTAL DATUM: MARYLAND STATE PLANE FEET, NAD83 (2007). VERTICAL DATUM: MEAN LOWER LOW WATER (MLLW).
2. OUTFALL SEDIMENT REMOVAL ACTION (SRA) TO BE IMPLEMENTED IN 2014-2015.
3. FULL REMEDY IN DARK HEAD COVE IS PLANNED TO BE IMPLEMENTED IN 2016-2017.
4. NORTH UPSTREAM 32 IN RCP TO BE EXCAVATED AND PLUGGED TO PREVENT FLOW INTO INLET STRUCTURE. SOUTH DOWNSTREAM FLOW TO MH-3 SHALL BE MAINTAINED.
5. STORM DRAIN CLEANING SHALL BE CONDUCTED BEGINNING AT THE MOST UPGRADIENT SECTION, PROCEEDING DOWN GRADIENT TO AVOID RECONTAMINATION.
6. PREVENT ANY SEDIMENT FLUSHING INTO THE COVE. REFER TO THE PROJECT SPECIFICATIONS FOR STORM DRAIN PLUGGING AND CLEANING PROCEDURES.

SRA = SEDIMENT REMOVAL ACTION

LEGEND:

- TAX BLOCK
- MEAN HIGH WATER
- MEAN LOW WATER
- CONTOURS MAJOR 5FT
- CONTOURS MINOR 1FT
- STORM DRAIN GRATE
- STORM DRAIN MANHOLE
- STORM DRAIN OUTFALL
- SD - STORM DRAIN PREVIOUSLY CEANED SYSTEM
- SD - STORM DRAIN SYSTEM TO BE CLEANED
- SD - STORM DRAIN SYSTEM NOT CLEANED
- SD - STORM DRAIN SYSTEM PREVIOUSLY CLEANED IN 2012 BUT TO BE CLEANED AGAIN DURING OUTFALL 005 SRA

TETRA TECH

0' 150' 300'

LOCKHEED MARTIN MIDDLE RIVER COMPLEX

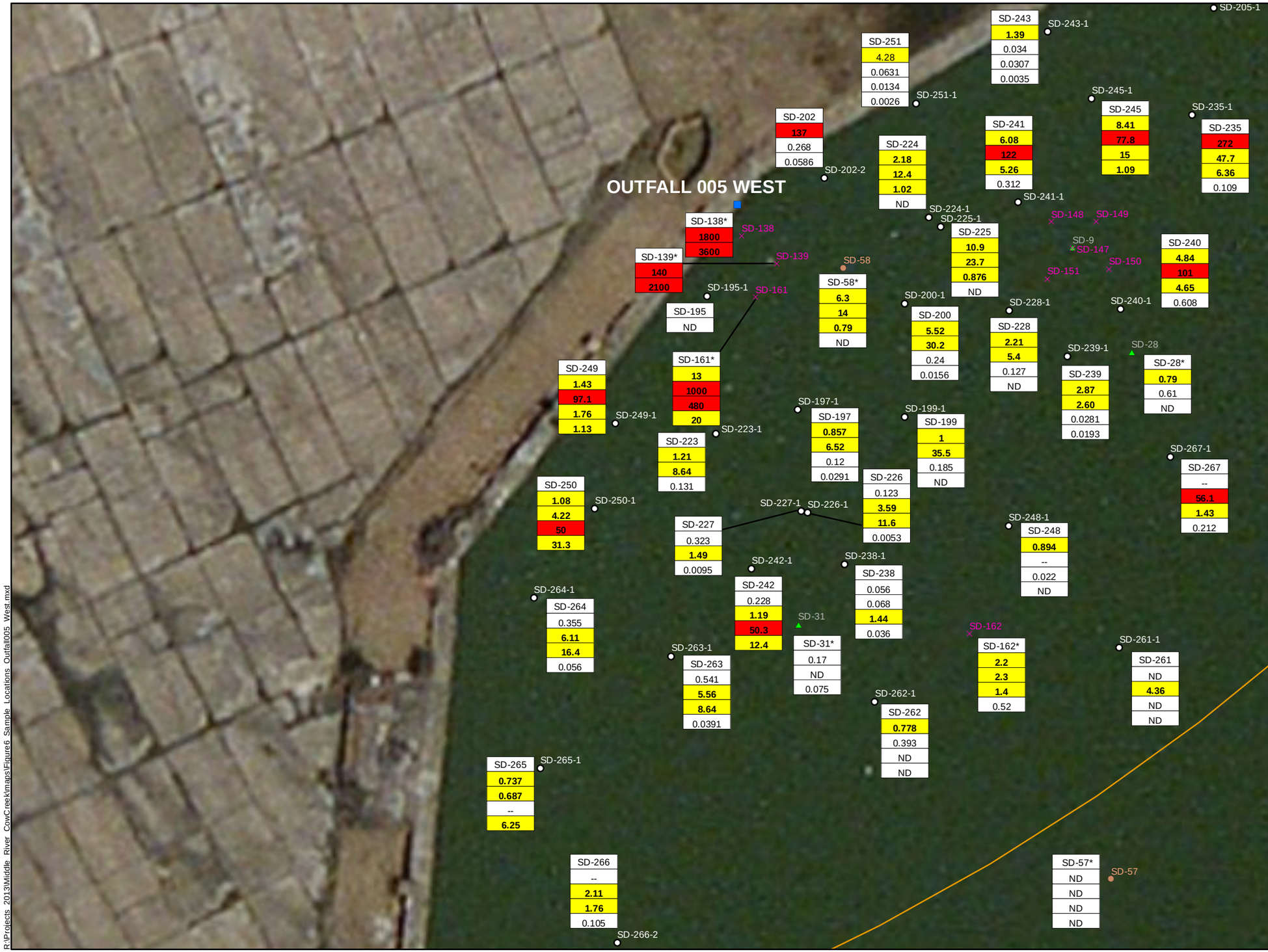
MIDDLE RIVER, MD

FIGURE 5

OUTFALL 005 SRA

STORM DRAIN SAMPLING LOCATIONS AND STORM DRAIN CLEANUP PLAN

Z:\PROJECTS\LOCKHEED - MIDDLE RIVER COMPLEX\OUTFALL 005 SRA-BOD\R\SHEET FILES\RBDA - OUTFALL 005 SRA STORM DRAIN CLEAN UP.DWG
PLOT DETAILS: VANBLUECKEN, NICH October 27, 2014 4:19 PM TT-BOTH-MAIN-COLOR.CTB



TETRA TECH

Figure 6
Sample Locations for
Outfall 005 West

Lockheed Martin Middle River Complex
Middle River, MD

LEGEND

- SRA Sample Locations - 2014
- Sediment Core/Sample Location - 2013
- Delineation Sample Location - 2010
- Sediment Sample Location - Nov 2008
- Storm Drain Outfall
- Sediment Sample Location - 2005
- Treatability Testing Sample Locations - 2013
- Boom Line

Location
SS (0-6 inches)
01 (6-18 inches)
02 (18-30 inches)
03 (30-46 inches)

Results in mg/kg Total PCBs

Total PCBs based on total homolog results (EPA Method 680) except locations with * which are total Aroclors (EPA Method 8082)

ND - Non Detect Result with reporting limit of < 0.1 mg/kg

-- Laboratory result rejected

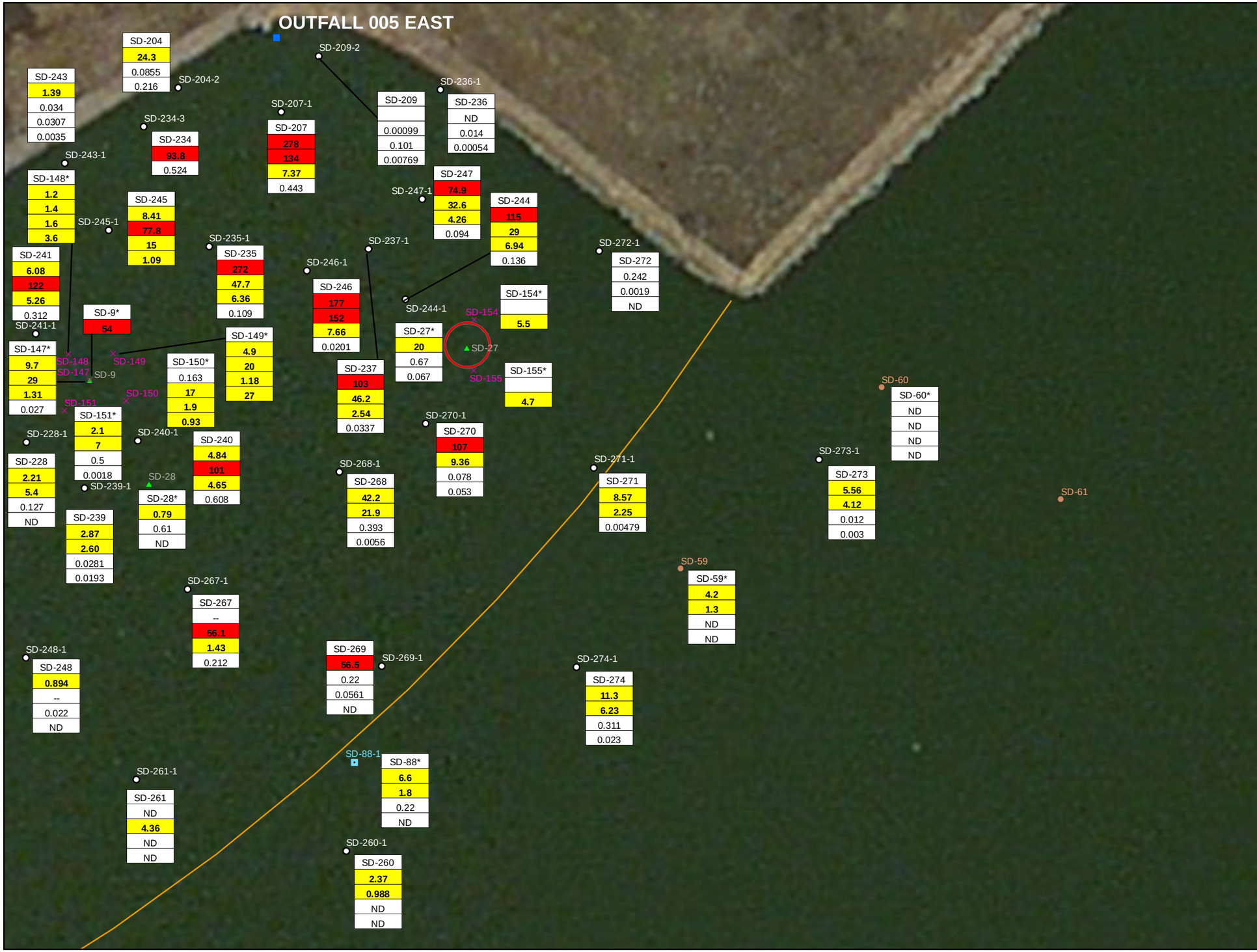
>0.676 and <50 mg/kg
>50 mg/kg

SRA: Sediment Removal Action

N
W E
S

0 12.5 25 50
Feet

R:\Projects_2013\Middle_River_CowCreekImaps\Figure6_Sample_Locations_Outfall005_West.mxd



TETRA TECH

Figure 7
Sample Locations for
Outfall 005 East

Lockheed Martin Middle River Complex
Middle River, MD

LEGEND

- SRA Sample Locations - 2014
- Sediment Core/Sample Location - 2013
- Delineation Sample Location - 2010
- Sediment Sample Location - Nov 2008
- Storm Drain Outfall
- Sediment Sample Location - 2005
- Treatability Testing Sample Locations - 2013
- Boom Line

Location
SS (0-6 inches)
01 (6-18 inches)
02 (18-30 inches)
03 (30-46 inches)

Results in mg/kg Total PCBs

Total PCBs based on total homolog results (EPA Method 680) except locations with * which are total Aroclors (EPA Method 8082)

ND - Non Detect Result with reporting limit of < 0.1 mg/kg

-- Laboratory result rejected

>0.676 and <50 mg/kg
>50 mg/kg

SRA: Sediment Removal Action

N
W E
S

0 12.5 25 50
Feet

R:\Projects_2013\Middle_River_CowCreek\maps\Figure7_Sample_Locations_Outfall005_East.mxd

NOTES:
1. HORIZONTAL DATUM: MARYLAND STATE PLANE FEET, NAD83 (2007).
2. VERTICAL DATUM: MLLW FEET (EPOCH 1983-2001).
3. BARGES: THE SAME CRANE WILL BE USED FOR DREDGING AND OFFLOADING OPERATIONS. BARGES SHOWN AS AN EXAMPLE IN TWO POTENTIAL LOCATIONS (DREDGING AND OFFLOADING).

CONSTRUCTION ACCESS
SUMP (TYP.)
DEWATERING PAD (TYP.)
IL-30A
IL-30
MH-3
MH-1
MH-2
OUTFALL 005 WEST 32IN. RCP
OUTFALL 005 EAST 32IN. RCP
EXISTING REINFORCED CONCRETE BULKHEAD ON SHEETPILING
EXISTING RIPRAP WITH CONCRETE OVERLAY
BLOCK E
BLOCK F

NOTES:
SRA = SEDIMENT REMOVAL ACTION
BMP = BEST MANAGEMENT PRACTICE

CONSTRUCTION NOTES:
1. EXCAVATOR MIXING TRACK SEDIMENT LOAD OUT
2. WATER TREATMENT SYSTEM
3. SPILL PLATE/ APRON
4. TIMBER MATS
5. SEDIMENT OFFLOADING AREA
6. 36' X 120' DREDGE/CRANE BARGE
7. 36' X 120' SEDIMENT BARGE
8. TOTAL REMOVAL: 5,300 CY; 1.2 ACRE (NOT INCLUDING OVERDREDGE ALLOWANCE)
9. INTERIOR PORTABLE SILT CURTAIN. LOCATION TO BE ADJUSTED AS THE DREDGING PROGRESSES.
10. EXISTING STATIONARY SILT CURTAIN

LEGEND:
- EXIST. CONTOURS MAJOR 5FT
- EXIST. CONTOURS MINOR 1FT
- MEAN HIGH WATER
- MEAN LOW WATER
- TAX BLOCK
- ROADS AND BUILDINGS
- CONCRETE
- GRASS
- STORM DRAIN SYSTEM
- STORM DRAIN GRATE
- STORM DRAIN MANHOLE
- STORM DRAIN OUTFALL
- EROSION CONTROL BMPS
- POST-REMEDIATION CONTOUR MAJOR 5FT
- POST-REMEDIATION CONTOUR MINOR 1FT
- OUTFALL 005 SRA BOUNDARY
- SILT CURTAIN

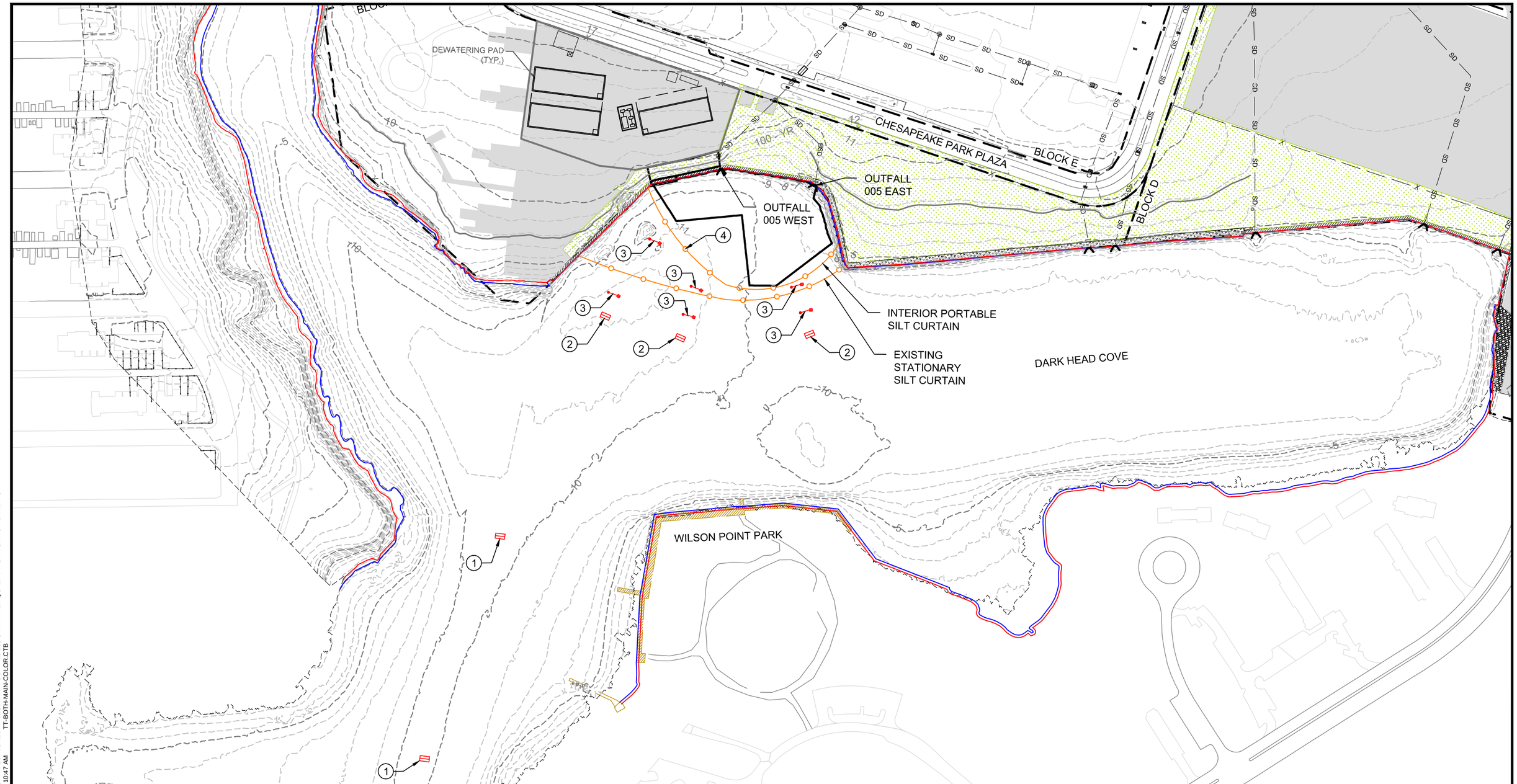
TETRA TECH

0' 80' 160'

LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MD

FIGURE 8
OUTFALL 005 SRA
DREDGING OPERATIONS AND UPLAND SEDIMENT HANDLING PLAN

Z:\PROJECTS\LOCKHEED - MIDDLE RIVER COMPLEX\OUTFALL 005 SRA-BODR\SHEET FILES\RBDA - OUTFALL 005 SRA DREDGE OPERATIONS.DWG
PLOT DETAILS: VANBUECKEN, NICH October 29, 2014 2:01 PM TT-BOTH-MAIN-COLOR.CTB



NOTES:

1. BACKGROUND DATA TURBIDITY MONITORING PLATFORM.
2. COMPLIANCE POINT TURBIDITY MONITORING PLATFORM.
3. EARLY WARNING MOBILE TURBIDITY MONITORING. MEASUREMENTS WILL BE TAKEN BY MOBILE EQUIPMENT INSIDE AT THREE LOCATIONS BETWEEN TWO SILT CURTAINS AND AT THREE LOCATIONS OUTSIDE OF EXISTING STATIONARY SILT CURTAIN.
4. INTERIOR SILT CURTAIN: THE LOCATION WILL BE ADJUSTED AS THE DREDGING PROGRESSES.

LEGEND:

- TAX BLOCK
- MEAN HIGH WATER
- MEAN LOW WATER
- EXISTING STORM DRAIN SYSTEM
- EXISTING CONTOURS MAJOR 5FT
- EXISTING CONTOURS MINOR 1FT
- EXISTING RIPRAP WITH CONCRETE OVERLAY
- EXISTING REINFORCED CONCRETE BULKHEAD
- EXISTING STONE RIPRAP AND BROKEN CONCRETE
- EXISTING GRASS
- EXISTING CONCRETE PAVEMENT
- TURBIDITY MONITORING EQUIPMENT
- TURBIDITY MONITORING PLATFORM
- OUTFALL 005 SRA BOUNDARY
- TRUCK ROUTE
- STAGING AND DEWATERING AREA
- CONSTRUCTION ACCESS
- SILT CURTAIN
- DOCK STRUCTURES

TETRA TECH

N

0' 150' 300'

LOCKHEED MARTIN MIDDLE RIVER COMPLEX

MIDDLE RIVER, MD

FIGURE 9

OUTFALL 005 SRA

WATER QUALITY MONITORING PLAN

Z:\PROJECTS\LOCKHEED - MIDDLE RIVER COMPLEX\OUTFALL 005 SRA-BODR\SHEET FILES\RBDA - OUTFALL 005 SRA WATER QUALITY MONITORING PLAN.DWG
PLOT DETAILS: VANBUECKEN, NICH October 29, 2014 10:47 AM TT-BOTH-MAIN-COLOR.CTB

ATTACHMENT B—INVESTIGATION REPORTS SUBMITTED TO THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

- Tetra Tech, 2006. Surface Water and Sediment Sampling Report, Lockheed Martin Middle River Complex. April.
- Tetra Tech, 2009. Sediment Characterization Report for Cow Pen Creek and Dark Head Cove, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard, Middle River, Maryland. October.
- Tetra Tech, 2011. Additional Characterization and Sediment Sampling Data Summary Report, Lockheed Martin Middle River Complex. March.
- Tetra Tech. 2012. Additional Sediment Characterization Report, Lockheed Martin Middle River Complex. June.
- Tetra Tech, Inc. (Tetra Tech), 2012. Block E Storm Drain System Interim Remedial Measures Final Site Remediation Report. September.
- Tetra Tech, Inc. (Tetra Tech), 2013. Feasibility Study for the Remediation of Sediments Adjacent to Lockheed Martin Middle River Complex. June.
- Tetra Tech, 2014. Sediment Remedy Design Investigation Report, Middle River Complex. January.
- Tetra Tech, 2014. Storm Drainage System Sediment Sampling Report. Middle River Complex. March.

ATTACHMENT C—PRE-SEDIMENT REMOVAL ACTION SAMPLING DATA VALIDATION REPORTS

(On CD)

Tetra Tech **INTERNAL CORRESPONDENCE**

TO:	**E. SAMUELS**	**DATE:**	**NOVEMBER 12, 2013**
FROM:	**EDWARD SEDLMYER**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC AND INORGANIC DATA VALIDATION – PCB**
LOCKHEED MIDDLE RIVER COMPLEX (MRC) – SEDIMENT INVESTIGATION
SAMPLE DELIVERY GROUP (SDG) 180-25248-1

SAMPLES: 5 / Sediment / PCB

DUP-06	SD-147-01	SD-147-02
SD-147-03	SD-147-SS	

Overview

The sample set for Lockheed MRC – Sediment Investigation, SDG 180-25248-1 consists of five (5) sediment environmental samples. The following field duplicate pair was associated with this SDG: SD-147-03 / DUP-06. The samples were analyzed for polychlorinated biphenyls (PCBs).

The samples were collected by Tetra Tech on September 17, 2013 and analyzed by Test America (Pittsburgh). All analyses were conducted in accordance with SW-846 Method 8082A analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, blank spike/blank spike duplicate results, field duplicate results, chromatographic resolution, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

- No major problems were identified.

Minor

- Sample SD-147-SS had percent solids less than 30%. The detected and nondetected results were qualified as estimated (J) and (UJ), respectively.

- The variance between the detected and nondetected values were greater than 2X the reporting limits for Aroclor-1254 and Aroclor-1260 for the field duplicate pair samples SD-147-03 / DUP-06. The detected Aroclor-1254 and Aroclor-1260 results for sample SD-147-03 were qualified as estimated (J). The nondetected Aroclor-1254 and Aroclor-1260 results for sample DUP-06 were qualified as estimated (UJ).

- The Aroclor analyses appear not to have accounted for all of the PCB congeners, resulting in underestimates of total chlorinated biphenyl (CB) concentrations in samples SD-147-01, SD-147-02, SD-147-03, and SD-147-SS. Separate congener analyses of four split samples revealed detections of comparatively low molecular weight (LMW) PCB congeners that were not included in the Aroclor-based total PCB quantitations. The presence of LMW congeners appears to be the result of dechlorination of higher molecular weight components of the Aroclors. The Aroclor patterns thus appear to have been altered by this presumed dechlorination and the Aroclor-based quantitations were therefore biased low. These LMW

congeners are eluting approximately between 7 and 10 minutes in the PCB analyses and the peaks representing LMW congeners were excluded from PCB quantitation by the laboratory because they are not part of a recognizable Aroclor pattern. Dechlorination of PCBs has been most prevalent in sediment samples as evidenced by the presence of peaks between 7 and 10 minutes but these peaks were not observed in surface and subsurface soil samples with similar or greater PCB concentrations at other site locations. Site conditions associated with sediment samples appear to favor the dechlorination process. Given the evidence from the congener analyses, the data reviewer has qualified, detected results in samples SD-147-01, SD-147-02, SD-147-03, and SD-147-SS based on chromatographic appearance, as estimated (J) because the reported Aroclor-based total PCB concentrations are likely to be biased low.

Notes

Per the laboratory narrative for the PCB analyses, "The samples were analyzed at a dilution due to the abundance of target analytes and/or matrix interference." Samples were analyzed diluted for the PCB analysis as listed below resulting in elevated results for the non-detected Aroclors.

Sample	Dilution
DUP-06	5X
SD-147-01	250X
SD-147-02	5X
SD-147-03	5X
SD-147-SS	50X

The samples DUP-06, SD-147-01, SD-147-02, and SD-147-SS had surrogate %Rs which were non-compliant. No validation action was taken as all samples were diluted 5X or greater and the surrogates were considered diluted out.

The laboratory did not verify the Aroclor detected results on an alternate column as recommended by EPA SW846 Method 8082A. Additionally, the Aroclor 1254 sample detected results were calculated based on a single point laboratory calibration for the analytical column.

Executive Summary

Laboratory Performance: None.

Other Factors Affecting Data Quality: Sample results were qualified for percent solid content <30%. Sample results were qualified for field duplicate precision non-compliances. Several samples were qualified due dechlorination of PCBs.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Edward Sedlmyer
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 05220	NSAMPLE	DUP-06			SD-147-01			SD-147-02			SD-147-03		
SDG: 180-25248-1	LAB_ID	180-25248-13			180-25248-11			180-25248-12			180-25248-15		
FRACTION: PCB	SAMP_DATE	9/17/2013			9/17/2013			9/17/2013			9/17/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	47.0			34.6			35.9			45.1		
	DUP_OF	SD-147-03											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.66	U		45	U		0.86	U		0.68	U	
AROCLOR-1221		0.84	U		57	U		1.1	U		0.88	U	
AROCLOR-1232		0.76	U		52	U		0.99	U		0.79	U	
AROCLOR-1242		0.72	U		49	U		0.94	U		0.75	U	
AROCLOR-1248		0.42	U		28	U		0.55	U		0.44	U	
AROCLOR-1254		0.63	UJ	G	43	U		820	J	Q	12	J	GQ
AROCLOR-1260		0.63	UJ	G	29000	J	Q	490	J	Q	15	J	GQ

PROJ_NO: 05220	NSAMPLE	SD-147-SS		
SDG: 180-25248-1	LAB_ID	180-25248-14		
FRACTION: PCB	SAMP_DATE	9/17/2013		
MEDIA: SEDIMENT	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	29.1		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
AROCLOR-1016		11	UJ	Y
AROCLOR-1221		14	UJ	Y
AROCLOR-1232		12	UJ	Y
AROCLOR-1242		12	UJ	Y
AROCLOR-1248		6.8	UJ	Y
AROCLOR-1254		10	UJ	Y
AROCLOR-1260		9700	J	QY

Appendix B

Results as Reported by the Laboratory

Client: Tetra Tech, Inc. Job Number: 180-25248-1

Client Sample ID: **DUP-06**

Lab Sample ID: 180-25248-13 Date Sampled: 09/17/2013 0000
Client Matrix: Sediment % Moisture: 53.0 Date Received: 09/18/2013 0850

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85122	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-84645	Initial Weight/Volume:	30.1 g
Dilution:	5.0			Final Weight/Volume:	1.0 mL
Analysis Date:	09/27/2013 1902			Injection Volume:	1 uL
Prep Date:	09/25/2013 0410			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		0.66	4.4
PCB-1221		ND		0.84	4.4
PCB-1232		ND		0.76	4.4
PCB-1242		ND		0.72	4.4
PCB-1248		ND		0.42	4.4
PCB-1254		ND		0.63	4.4
PCB-1260		ND		0.63	4.4

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	173	X	31 - 150
Tetrachloro-m-xylene	54		31 - 150

Client: Tetra Tech, Inc.

Job Number: 180-25248-1

Client Sample ID: **SD-147-01**

Lab Sample ID: 180-25248-11

Client Matrix: Sediment

% Moisture: 65.4

Date Sampled: 09/17/2013 1330

Date Received: 09/18/2013 0850

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85278	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-84645	Initial Weight/Volume:	30.0 g
Dilution:	250			Final Weight/Volume:	1.0 mL
Analysis Date:	09/30/2013 1218			Injection Volume:	1 uL
Prep Date:	09/25/2013 0410			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		45	300
PCB-1221		ND		57	300
PCB-1232		ND		52	300
PCB-1242		ND		49	300
PCB-1248		ND		28	300
PCB-1254		ND		43	300
PCB-1260		29000		43	300

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	906	X D	31 - 150
Tetrachloro-m-xylene	119	D	31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25248-1

Client Sample ID: **SD-147-02**

Lab Sample ID: 180-25248-12 Date Sampled: 09/17/2013 1330
Client Matrix: Sediment % Moisture: 64.1 Date Received: 09/18/2013 0850

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85122	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-84645	Initial Weight/Volume:	30.1 g
Dilution:	5.0			Final Weight/Volume:	1.0 mL
Analysis Date:	09/27/2013 1831			Injection Volume:	1 uL
Prep Date:	09/25/2013 0410			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		0.86	5.8
PCB-1221		ND		1.1	5.8
PCB-1232		ND		0.99	5.8
PCB-1242		ND		0.94	5.8
PCB-1248		ND		0.55	5.8
PCB-1254		820		0.82	5.8
PCB-1260		490		0.82	5.8

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	3531	X	31 - 150
Tetrachloro-m-xylene	78		31 - 150

Client: Tetra Tech, Inc.

Job Number: 180-25248-1

Client Sample ID: **SD-147-03**

Lab Sample ID: 180-25248-15

Client Matrix: Sediment

% Moisture: 54.9

Date Sampled: 09/17/2013 1330

Date Received: 09/18/2013 0850

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85122	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-84645	Initial Weight/Volume:	30.1 g
Dilution:	5.0			Final Weight/Volume:	1.0 mL
Analysis Date:	09/27/2013 2004			Injection Volume:	1 uL
Prep Date:	09/25/2013 0410			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		0.68	4.6
PCB-1221		ND		0.88	4.6
PCB-1232		ND		0.79	4.6
PCB-1242		ND		0.75	4.6
PCB-1248		ND		0.44	4.6
PCB-1254		12		0.65	4.6
PCB-1260		15		0.65	4.6

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	99		31 - 150
Tetrachloro-m-xylene	77		31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25248-1

Client Sample ID: **SD-147-SS**

Lab Sample ID: 180-25248-14 Date Sampled: 09/17/2013 1330
Client Matrix: Sediment % Moisture: 70.9 Date Received: 09/18/2013 0850

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85278	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-84645	Initial Weight/Volume:	30.0 g
Dilution:	50			Final Weight/Volume:	1.0 mL
Analysis Date:	09/30/2013 0833			Injection Volume:	1 uL
Prep Date:	09/25/2013 0410			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		11	72
PCB-1221		ND		14	72
PCB-1232		ND		12	72
PCB-1242		ND		12	72
PCB-1248		ND		6.8	72
PCB-1254		ND		10	72
PCB-1260		9700		10	72

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	429	X D	31 - 150
Tetrachloro-m-xylene	90	D	31 - 150

Appendix C

Support Documentation

HOLDTIME

SDG 180-25248-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	SD-147-SS	180-25248-14	NM	09/17/2013	09/25/2013	09/30/2013	8	5	13
PCB	UG/KG	SD-147-03	180-25248-15	NM	09/17/2013	09/25/2013	09/27/2013	8	2	10
PCB	UG/KG	SD-147-02	180-25248-12	NM	09/17/2013	09/25/2013	09/27/2013	8	2	10
PCB	UG/KG	SD-147-01	180-25248-11	NM	09/17/2013	09/25/2013	09/30/2013	8	5	13
PCB	UG/KG	DUP-06	180-25248-13	NM	09/17/2013	09/25/2013	09/27/2013	8	2	10

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 180-25248-1

Job Description: MRC Sediment Remedy Design Investigation

For:
Tetra Tech, Inc.
2171 West Park Court
Suite E
Stone Mountain, GA 30087

Attention: Eric Samuels

Approved for release.
Debra Bowen
Project Manager I
10/3/2013 2:12 PM

Debra Bowen, Project Manager I
301 Alpha Drive, Pittsburgh, PA, 15238
(412)963-2445
debra.bowen@testamericainc.com
10/03/2013

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager or designee who has signed this report.

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Sediment Remedy Design Investigation

Report Number: 180-25248-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 09/18/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 1.2° C.

SEMIVOLATILE ORGANIC COMPOUNDS (GC)
The samples were analyzed at a dilution due to the abundance of target analytes and/or matrix interference. The reporting limits have been adjusted accordingly.

The surrogate recoveries are considered diluted out for samples SD-147-01 (180-25248-11) and SD-147-SS (180-25248-14).

DCB Decachlorobiphenyl (Surr) failed the surrogate recovery criteria high for samples SD-147-02 (180-25248-12) and DUP-06 (180-25248-13). Tetrachloro-m-xylene recovered within acceptable QC limits. The data are reported.

GENERAL CHEMISTRY
No difficulties were encountered during the analysis.

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 180-25248-1

Lab Section	Qualifier	Description
GC Semi VOA		
	D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
	X	Surrogate is outside control limits

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Client Contact: Eric Samuels	Site Contact: Stu Cameron	Date: 9/17/13	COC No:
Tetra Tech	Tel/Fax: 770-596-0959 (cell)	Lab Contact:	Carrier: Fedex	1 of 2 COCs
2171 West Park Court Suite E	Analysis Turnaround Time			Job No.
Stone Mountain GA, 30087	Calendar (C) or Work Days (W) _____			05220
	TAT if different from Below: Standard			
	☐ 2 weeks			
Project Name: Middle River Sediments	☐ 1 week			
Site: MRC	☐ 2 days			
P O #	☐ 1 day			

180-25248 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	PAHs, PCBs, Metals, TOC, Moisture	PCBs, Metals, TOC, Moisture	Uranium, Thorium	PCBs	Sample Specific Notes:
SD-138-01	9/17/13	0802	C	S	1				X		
SD-138-02	9/17/13	0802	C	S	1				X		
SD-139-01	9/17/13	0849	C	S	1				X		
SD-139-02	9/17/13	0849	C	S	1				X		
SD-140-01	9/17/13	0928	C	S	1				X		
SD-140-02	9/17/13	0928	C	S	1				X		
SD-160-01	9/17/13	1055	C	S	1				X		
SD-160-02	9/17/13	1055	C	S	1				X		
SD-159-01	9/17/13	1125	C	S	1				X		
SD-159-02	9/17/13	1125	C	S	1				X		
SD-147-01	9/17/13	1330	C	S	1					X	
SD-147-02	9/17/13	1330	C	S	1					X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	9-17-13/1600	[signature]	TestAmerica	9/17/13/1600
[signature]	TestAmerica	9/17/13/1730	[signature]	TAP	9/18/13 0800

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Client Contact: Eric Samuels	Site Contact: Stu Cameron	Date: 9/17/13	COC No:
Tetra Tech	Tel/Fax: 770-596-0959 (cell)	Lab Contact:	Carrier: Fedex	2 of 2 COCs
2171 West Park Court Suite E	Analysis Turnaround Time			Job No.
Stone Mountain GA, 30087	Calendar (C) or Work Days (W) _____			112IC05220
	TAT if different from Below: Standard			SDG No.
Project Name: Middle River Sediments	☐ 2 weeks			
Site: MRC	☐ 1 week			
P O #	☐ 2 days			Sampler:
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	PAHs, PCBs, Metals, TOC, Moisture	PCBs, Metals, TOC, Moisture	Uranium, Thorium	PCBs	Sample Specific Notes:
DUP-06	9/17/13	—	C	S	1					X	
SD-147-55	9/17/13	1330	C	S	1					X	
SD-147-03	9/17/13	1330	C	S	1					X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	9-17-13/1600	[signature]	TestAmerica	9/17/13 /1600
[signature]	TestAmerica	9/17/13/1730	[signature]	TAP	9/18/13 0880

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 180-25248-1

Login Number: 25248
List Number: 1
Creator: Neri, Tom

List Source: TestAmerica Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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 containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

SAMPLE SUMMARY

Client: Tetra Tech, Inc.

Job Number: 180-25248-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
180-25248-11	SD-147-01	Sediment	09/17/2013 1330	09/18/2013 0850
180-25248-12	SD-147-02	Sediment	09/17/2013 1330	09/18/2013 0850
180-25248-13	DUP-06	Sediment	09/17/2013 0000	09/18/2013 0850
180-25248-14	SD-147-SS	Sediment	09/17/2013 1330	09/18/2013 0850
180-25248-15	SD-147-03	Sediment	09/17/2013 1330	09/18/2013 0850

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 180-25248-1

Description	Lab Location	Method	Preparation Method
Matrix: Sediment			
Polychlorinated Biphenyls (PCBs) (GC)	TAL PIT	SW846 8082A	
Automated Soxhlet Extraction (Low Level)	TAL PIT		SW846 3541
Sulfuric Acid/Permanganate Cleanup	TAL PIT		SW846 3665A
SM 2540G	TAL PIT	SM22 2540G	

Lab References:

TAL PIT = TestAmerica Pittsburgh

Method References:

SM22 = Standard Methods For The Examination Of Water And Wastewater, 22nd Edition

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

Client: Tetra Tech, Inc.

Job Number: 180-25248-1

Surrogate Recovery Report

8082A Polychlorinated Biphenyls (PCBs) (GC)

Client Matrix: Sediment

Lab Sample ID	Client Sample ID	TCX2 %Rec	DCB2 %Rec
180-25248-11	SD-147-01	119D	906X D
180-25248-12	SD-147-02	78	3531X
180-25248-13	DUP-06	54	173X
180-25248-14	SD-147-SS	90D	429X D
180-25248-15	SD-147-03	77	99
MB 180-84645/1-C		76	83
LCS 180-84645/2-C		77	85

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	31-150
DCB = DCB Decachlorobiphenyl (Surr)	31-150

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1

SDG No.:

Instrument ID: GC10 Start Date: 09/23/2013 11:01

Analysis Batch Number: 84799 End Date: 09/25/2013 03:19

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 180-84799/1		09/23/2013 11:01	1	T0930513.D	RTX-1701 0.53(mm)
IC 180-84799/2		09/23/2013 11:32	1	T0930514.D	RTX-1701 0.53(mm)
IC 180-84799/3		09/23/2013 12:04	1	T0930515.D	RTX-1701 0.53(mm)
IC 180-84799/4		09/23/2013 12:35	1	T0930516.D	RTX-1701 0.53(mm)
IC 180-84799/5		09/23/2013 13:07	1		RTX-1701 0.53(mm)
IC 180-84799/6		09/23/2013 13:38	1		RTX-1701 0.53(mm)
IC 180-84799/7		09/23/2013 14:10	1	T0930519.D	RTX-1701 0.53(mm)
IC 180-84799/8		09/23/2013 14:41	1	T0930520.D	RTX-1701 0.53(mm)
IC 180-84799/9		09/23/2013 15:13	1	T0930521.D	RTX-1701 0.53(mm)
ICRT 180-84799/10		09/23/2013 15:44	1	T0930522.D	RTX-1701 0.53(mm)
IC 180-84799/11		09/23/2013 16:16	1	T0930523.D	RTX-1701 0.53(mm)
IC 180-84799/12		09/23/2013 16:47	1	T0930524.D	RTX-1701 0.53(mm)
IC 180-84799/13		09/23/2013 17:19	1	T0930525.D	RTX-1701 0.53(mm)
ICV 180-84799/14		09/23/2013 17:50	1		RTX-1701 0.53(mm)
ICV 180-84799/15		09/23/2013 18:22	1		RTX-1701 0.53(mm)
ICV 180-84799/16		09/23/2013 18:54	1		RTX-1701 0.53(mm)
ICV 180-84799/17		09/23/2013 19:25	1		RTX-1701 0.53(mm)
ICV 180-84799/18		09/23/2013 19:56	1		RTX-1701 0.53(mm)
ICV 180-84799/19		09/23/2013 20:28	1		RTX-1701 0.53(mm)
ICV 180-84799/20		09/23/2013 20:59	1		RTX-1701 0.53(mm)
CCVRT 180-84799/21		09/24/2013 12:45	1		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 13:16	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 13:48	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 14:20	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 14:51	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 15:23	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 15:53	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 16:23	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 16:53	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 17:25	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 17:56	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 18:27	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 18:56	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 19:28	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 20:00	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 20:31	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 21:03	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 21:34	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 22:05	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 22:37	1		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 23:08	1		RTX-1701 0.53(mm)
CCV 180-84799/42		09/24/2013 23:40	1		RTX-1701 0.53(mm)
ZZZZZ		09/25/2013 00:11	10		RTX-1701 0.53(mm)
ZZZZZ		09/25/2013 00:42	10		RTX-1701 0.53(mm)
ZZZZZ		09/25/2013 01:14	10		RTX-1701 0.53(mm)

8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1

SDG No.:

Instrument ID: GC10 Start Date: 09/23/2013 11:01

Analysis Batch Number: 84799 End Date: 09/25/2013 03:19

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		09/25/2013 01:45	10		RTX-1701 0.53(mm)
ZZZZZ		09/25/2013 02:16	1		RTX-1701 0.53(mm)
ZZZZZ		09/25/2013 02:48	1		RTX-1701 0.53(mm)
CCV 180-84799/49		09/25/2013 03:19	1		RTX-1701 0.53(mm)

8082A

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 11:01 Calibration End Date: 09/23/2013 11:01 Calibration ID: 11470

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/1	T0930513.D

ANALYTE	LVL 1									RT WINDOW	AVG RT
PCB-1221 Peak 1	6.111									6.062 - 6.162	6.111
PCB-1221 Peak 2	6.292									6.243 - 6.343	6.292
PCB-1221 Peak 3	6.359									6.311 - 6.411	6.359
PCB-1254 Peak 1	7.955									7.888 - 8.028	7.955
PCB-1254 Peak 2	9.149									9.082 - 9.222	9.149
PCB-1254 Peak 3	9.566									9.496 - 9.636	9.566
PCB-1254 Peak 4	10.522									10.453 - 10.593	10.522
PCB-1254 Peak 5	11.090									11.020 - 11.160	11.090

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 11:01 Calibration End Date: 09/23/2013 11:01 Calibration ID: 11470

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/1	T0930513.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1221 Peak 1	166838				Ave		166838.000						20.0			
PCB-1221 Peak 2	104272				Ave		104272.000						20.0			
PCB-1221 Peak 3	329624				Ave		329624.000						20.0			
PCB-1254 Peak 1	225388				Ave		225388.000						20.0			
PCB-1254 Peak 2	337660				Ave		337660.000						20.0			
PCB-1254 Peak 3	162344				Ave		162344.000						20.0			
PCB-1254 Peak 4	499968				Ave		499968.000						20.0			
PCB-1254 Peak 5	323028				Ave		323028.000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 11:01 Calibration End Date: 09/23/2013 11:01 Calibration ID: 11470

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/1	T0930513.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
		LVL 1					LVL 1				
PCB-1221 Peak 1	Ave	83419					0.500				
PCB-1221 Peak 2	Ave	52136					0.500				
PCB-1221 Peak 3	Ave	164812					0.500				
PCB-1254 Peak 1	Ave	112694					0.500				
PCB-1254 Peak 2	Ave	168830					0.500				
PCB-1254 Peak 3	Ave	81172					0.500				
PCB-1254 Peak 4	Ave	249984					0.500				
PCB-1254 Peak 5	Ave	161514					0.500				

Curve Type Legend:
Ave = Average by Height

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 11:32 Calibration End Date: 09/23/2013 11:32 Calibration ID: 11471

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/2	T0930514.D

ANALYTE	LVL 1										RT WINDOW	AVG RT
PCB-1232 Peak 1	6.110										6.061 - 6.161	6.110
PCB-1232 Peak 2	7.101										7.052 - 7.152	7.101
PCB-1232 Peak 3	7.829										7.779 - 7.879	7.829
PCB-1232 Peak 4	8.640										8.590 - 8.690	8.640
PCB-1232 Peak 5	9.175										9.124 - 9.224	9.175

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 11:32 Calibration End Date: 09/23/2013 11:32 Calibration ID: 11471

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/2	T0930514.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1232 Peak 1	92670				Ave		92670.0000						20.0			
PCB-1232 Peak 2	67010				Ave		67010.0000						20.0			
PCB-1232 Peak 3	94874				Ave		94874.0000						20.0			
PCB-1232 Peak 4	49462				Ave		49462.0000						20.0			
PCB-1232 Peak 5	104848				Ave		104848.000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 11:32 Calibration End Date: 09/23/2013 11:32 Calibration ID: 11471

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/2	T0930514.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
		LVL 1					LVL 1				
PCB-1232 Peak 1	Ave	46335					0.500				
PCB-1232 Peak 2	Ave	33505					0.500				
PCB-1232 Peak 3	Ave	47437					0.500				
PCB-1232 Peak 4	Ave	24731					0.500				
PCB-1232 Peak 5	Ave	52424					0.500				

Curve Type Legend:
Ave = Average by Height

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 12:04 Calibration End Date: 09/23/2013 12:04 Calibration ID: 11472

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/3	T0930515.D

ANALYTE	LVL 1									RT WINDOW	AVG RT
PCB-1242 Peak 1	6.840									6.789 - 6.889	6.840
PCB-1242 Peak 2	7.181									7.129 - 7.229	7.181
PCB-1242 Peak 3	7.827									7.775 - 7.875	7.827
PCB-1242 Peak 4	8.408									8.356 - 8.456	8.408
PCB-1242 Peak 5	8.933									8.886 - 8.986	8.933

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 12:04 Calibration End Date: 09/23/2013 12:04 Calibration ID: 11472

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/3	T0930515.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1242 Peak 1	384688				Ave		384688.000						20.0			
PCB-1242 Peak 2	149334				Ave		149334.000						20.0			
PCB-1242 Peak 3	179020				Ave		179020.000						20.0			
PCB-1242 Peak 4	217298				Ave		217298.000						20.0			
PCB-1242 Peak 5	118344				Ave		118344.000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 12:04 Calibration End Date: 09/23/2013 12:04 Calibration ID: 11472

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/3	T0930515.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
		LVL 1					LVL 1				
PCB-1242 Peak 1	Ave	192344					0.500				
PCB-1242 Peak 2	Ave	74667					0.500				
PCB-1242 Peak 3	Ave	89510					0.500				
PCB-1242 Peak 4	Ave	108649					0.500				
PCB-1242 Peak 5	Ave	59172					0.500				

Curve Type Legend:
Ave = Average by Height

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 12:35 Calibration End Date: 09/23/2013 12:35 Calibration ID: 11473

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/4	T0930516.D

ANALYTE	LVL 1									RT WINDOW	AVG RT
PCB-1248 Peak 1	7.448									7.396 - 7.496	7.448
PCB-1248 Peak 2	7.667									7.614 - 7.714	7.667
PCB-1248 Peak 3	8.407									8.355 - 8.455	8.407
PCB-1248 Peak 4	9.171									9.118 - 9.218	9.171
PCB-1248 Peak 5	10.519									10.464 - 10.564	10.519

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 12:35 Calibration End Date: 09/23/2013 12:35 Calibration ID: 11473

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/4	T0930516.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1248 Peak 1	339916				Ave		339916.000						20.0			
PCB-1248 Peak 2	123720				Ave		123720.000						20.0			
PCB-1248 Peak 3	352358				Ave		352358.000						20.0			
PCB-1248 Peak 4	327462				Ave		327462.000						20.0			
PCB-1248 Peak 5	165020				Ave		165020.000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 12:35 Calibration End Date: 09/23/2013 12:35 Calibration ID: 11473

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/4	T0930516.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
		LVL 1					LVL 1				
PCB-1248 Peak 1	Ave	169958					0.500				
PCB-1248 Peak 2	Ave	61860					0.500				
PCB-1248 Peak 3	Ave	176179					0.500				
PCB-1248 Peak 4	Ave	163731					0.500				
PCB-1248 Peak 5	Ave	82510					0.500				

Curve Type Legend:
Ave = Average by Height

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 14:10 Calibration End Date: 09/23/2013 17:19 Calibration ID: 11476

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/7	T0930519.D
Level 2	IC 180-84799/8	T0930520.D
Level 3	IC 180-84799/9	T0930521.D
Level 4	ICRT 180-84799/10	T0930522.D
Level 5	IC 180-84799/11	T0930523.D
Level 6	IC 180-84799/12	T0930524.D
Level 7	IC 180-84799/13	T0930525.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
PCB-1016 Peak 1	6.357	6.358	6.358	6.358	6.359	6.358	6.360				6.309 - 6.409	6.358
PCB-1016 Peak 2	6.838	6.838	6.839	6.839	6.840	6.839	6.841				6.789 - 6.889	6.839
PCB-1016 Peak 3	7.450	7.450	7.451	7.450	7.452	7.450	7.453				7.401 - 7.501	7.451
PCB-1016 Peak 4	7.664	7.665	7.665	7.665	7.667	7.665	7.667				7.616 - 7.716	7.665
PCB-1016 Peak 5	7.825	7.825	7.826	7.825	7.827	7.827	7.828				7.778 - 7.878	7.826
PCB-1260 Peak 1	10.881	10.878	10.876	10.880	10.879	10.878	10.882				10.829 - 10.929	10.879
PCB-1260 Peak 2	11.416	11.416	11.416	11.417	11.420	11.417	11.420				11.366 - 11.466	11.418
PCB-1260 Peak 3	13.393	13.391	13.395	13.395	13.397	13.393	13.398				13.344 - 13.444	13.395
PCB-1260 Peak 4	14.235	14.233	14.234	14.234	14.237	14.235	14.237				14.183 - 14.283	14.235
PCB-1260 Peak 5	15.384	15.382	15.381	15.385	15.385	15.381	15.385				15.333 - 15.433	15.383
Tetrachloro-m-xylene	5.769	5.768	5.767	5.768	5.769	5.768	5.770				5.719 - 5.819	5.768
DCB Decachlorobiphenyl (Surr)	17.906	17.901	17.904	17.905	17.909	17.905	17.908				17.836 - 17.976	17.905

Data File: \\PITSVR06\D\chem\gc10.i\09303B8082ALL.b\T0930723.D
Report Date: 01-Oct-2013 05:42

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/L)	TARGET RANGE	RATIO

5 Aroclor-1242 CAS #: 53469-21-9

Peaks not detected for Quant. or Qual. signal(s).

---

6 Aroclor-1248 CAS #: 12672-29-6

Operator disabled compound identification.

---

7 Aroclor-1254 CAS #: 11097-69-1

Operator disabled compound identification.

---

8 Aroclor-1260 CAS #: 11096-82-5

10.863	10.858	0.005	447989	1.16317	465.27	0.00- 0.00	0.00
11.398	11.394	0.004	657069	1.43980	575.92	115.86- 115.86	0.00
13.376	13.368	0.008	305823	0.90359	361.44	136.91- 136.91	0.00
14.212	14.204	0.008	808862	1.17765	471.06	140.00- 140.00	0.00
15.362	15.353	0.009	717976	1.41199	564.80	128.33- 128.33	0.00

Average of Peak Concentrations = 487.70

---

9 Aroclor-1262 CAS #: 37324-23-5

Operator disabled compound identification.

---

10 Aroclor-1268 CAS #: 11100-14-4

Operator disabled compound identification.

$ 11 DCB Decachlorobiphenyl (Surr) CAS #: 2051-24-3

17.889	17.884	0.005	5727	7e-004	0.029093	(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 14:10 Calibration End Date: 09/23/2013 17:19 Calibration ID: 11476

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/7	T0930519.D
Level 2	IC 180-84799/8	T0930520.D
Level 3	IC 180-84799/9	T0930521.D
Level 4	ICRT 180-84799/10	T0930522.D
Level 5	IC 180-84799/11	T0930523.D
Level 6	IC 180-84799/12	T0930524.D
Level 7	IC 180-84799/13	T0930525.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
PCB-1016 Peak 1	310300 246993	271100 250661	279405 241612	261666	Ave		265962.357				8.9		20.0			
PCB-1016 Peak 2	592700 486048	522780 483484	539680 466854	505710	Ave		513893.643				8.3		20.0			
PCB-1016 Peak 3	791600 710868	713900 738408	756520 725823	717158	Ave		736325.250				4.0		20.0			
PCB-1016 Peak 4	341500 290709	310080 300127	318500 286570	299104	Ave		306655.750				6.1		20.0			
PCB-1016 Peak 5	251200 220874	228300 233547	246640 221215	228264	Ave		232862.821				5.1		20.0			
PCB-1260 Peak 1	433300 361551	399040 362315	409150 348679	381990	Ave		385146.357				7.9		20.0			
PCB-1260 Peak 2	525600 423986	476560 428835	481395 407784	450368	Ave		456361.071				9.0		20.0			
PCB-1260 Peak 3	408500 315920	345860 310527	351850 299516	336998	Ave		338452.857				10.8		20.0			
PCB-1260 Peak 4	732100 661608	679240 663017	724700 659505	687726	Ave		686842.214				4.4		20.0			
PCB-1260 Peak 5	558600 486302	508880 486202	540195 477103	502112	Ave		508484.893				6.0		20.0			
Tetrachloro-m-xylene	23400000 19924880	19295600 20367230	20787200 20138305	20402120	Ave		20616476.4				6.4		20.0			
DCB Decachlorobiphenyl (Surr)	8240000 7568420	7833600 7609710	8455700 7339395	8070720	Ave		7873935.00				5.1		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 14:10 Calibration End Date: 09/23/2013 17:19 Calibration ID: 11476

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/7	T0930519.D
Level 2	IC 180-84799/8	T0930520.D
Level 3	IC 180-84799/9	T0930521.D
Level 4	ICRT 180-84799/10	T0930522.D
Level 5	IC 180-84799/11	T0930523.D
Level 6	IC 180-84799/12	T0930524.D
Level 7	IC 180-84799/13	T0930525.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	Ave	3103 501322	13555 966446	55881	130833	246993	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1016 Peak 2	Ave	5927 966967	26139 1867416	107936	252855	486048	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1016 Peak 3	Ave	7916 1476816	35695 2903291	151304	358579	710868	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1016 Peak 4	Ave	3415 600254	15504 1146281	63700	149552	290709	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1016 Peak 5	Ave	2512 467094	11415 884859	49328	114132	220874	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1260 Peak 1	Ave	4333 724630	19952 1394714	81830	190995	361551	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1260 Peak 2	Ave	5256 857669	23828 1631136	96279	225184	423986	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1260 Peak 3	Ave	4085 621053	17293 1198062	70370	168499	315920	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1260 Peak 4	Ave	7321 1326034	33962 2638018	144940	343863	661608	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1260 Peak 5	Ave	5586 972404	25444 1908413	108039	251056	486302	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
Tetrachloro-m-xylene	Ave	11700 2036723	48239 4027661	207872	510053	996244	0.000500 0.100	0.00250 0.200	0.0100	0.0250	0.0500
DCB Decachlorobiphenyl (Surr)	Ave	4120 760971	19584 1467879	84557	201768	378421	0.000500 0.100	0.00250 0.200	0.0100	0.0250	0.0500

Curve Type Legend:
Ave = Average by Height

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1

SDG No.:

Instrument ID: GC10 Start Date: 09/26/2013 10:39

Analysis Batch Number: 85122 End Date: 09/27/2013 22:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 180-85122/1		09/26/2013 10:39	1	T0930626.D	RTX-1701 0.53(mm)
CCV 180-85122/2		09/26/2013 11:10	1	T0930627.D	RTX-1701 0.53(mm)
CCV 180-85122/3		09/26/2013 11:42	1	T0930628.D	RTX-1701 0.53(mm)
CCV 180-85122/4		09/26/2013 12:13	1	T0930629.D	RTX-1701 0.53(mm)
CCV 180-85122/5		09/26/2013 12:45	1		RTX-1701 0.53(mm)
CCV 180-85122/6		09/26/2013 13:17	1		RTX-1701 0.53(mm)
CCVRT 180-85122/7		09/26/2013 13:48	1		RTX-1701 0.53(mm)
CCVRT 180-85122/8		09/27/2013 07:07	1	T0930668.D	RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 07:38	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 08:10	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 08:40	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 09:10	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 09:40	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 10:10	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 10:44	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 11:15	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 11:47	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 12:18	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 12:50	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 13:22	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 13:52	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 14:22	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 14:52	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 15:24	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 15:55	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 16:27	5		RTX-1701 0.53(mm)
MB 180-84645/1-C		09/27/2013 16:58	1	T0930687.D	RTX-1701 0.53(mm)
LCS 180-84645/2-C		09/27/2013 17:30	1	T0930688.D	RTX-1701 0.53(mm)
CCV 180-85122/29		09/27/2013 18:01	1	T0930689.D	RTX-1701 0.53(mm)
180-25248-12	SD-147-02	09/27/2013 18:31	5	T0930690.D	RTX-1701 0.53(mm)
180-25248-13	DUP-06	09/27/2013 19:02	5	T0930691.D	RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 19:33	5		RTX-1701 0.53(mm)
180-25248-15	SD-147-03	09/27/2013 20:04	5	T0930693.D	RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 20:36	50		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 21:07	50		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 21:39	1		RTX-1701 0.53(mm)
CCV 180-85122/37		09/27/2013 22:10	1	T0930697.D	RTX-1701 0.53(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1

SDG No.:

Instrument ID: GC10 Start Date: 09/30/2013 04:20

Analysis Batch Number: 85278 End Date: 10/01/2013 01:54

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 180-85278/1		09/30/2013 04:20	1	T0930708.D	RTX-1701 0.53(mm)
CCV 180-85278/2		09/30/2013 04:52	1	T0930709.D	RTX-1701 0.53(mm)
CCV 180-85278/3		09/30/2013 05:23	1	T0930710.D	RTX-1701 0.53(mm)
CCV 180-85278/4		09/30/2013 05:55	1	T0930711.D	RTX-1701 0.53(mm)
CCV 180-85278/5		09/30/2013 06:26	1		RTX-1701 0.53(mm)
CCV 180-85278/6		09/30/2013 06:58	1		RTX-1701 0.53(mm)
CCVRT 180-85278/7		09/30/2013 07:29	1	T0930714.D	RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 08:01	50		RTX-1701 0.53(mm)
180-25248-14	SD-147-SS	09/30/2013 08:33	50	T0930716.D	RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 09:05	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 09:37	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 10:12	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 10:44	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 11:15	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 11:47	10		RTX-1701 0.53(mm)
180-25248-11	SD-147-01	09/30/2013 12:18	250	T0930723.D	RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 12:50	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 13:21	1		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 13:53	1		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 14:24	1		RTX-1701 0.53(mm)
CCV 180-85278/21		09/30/2013 14:55	1	T0930728.D	RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 15:26	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 15:58	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 16:29	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 17:01	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 17:32	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 18:03	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 18:35	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 19:06	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 19:37	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 20:09	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 20:40	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 21:12	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 21:43	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 22:15	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 22:46	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 23:17	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 23:49	10		RTX-1701 0.53(mm)
ZZZZZ		10/01/2013 00:20	10		RTX-1701 0.53(mm)
ZZZZZ		10/01/2013 00:51	1		RTX-1701 0.53(mm)
ZZZZZ		10/01/2013 01:23	1		RTX-1701 0.53(mm)
CCV 180-85278/42		10/01/2013 01:54	1		RTX-1701 0.53(mm)

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1

SDG No.:

Lab Sample ID: CCVRT 180-85122/8 Calibration Date: 09/27/2013 07:07

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T0930668.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	265962	274664		0.516	0.500	3.3	20.0
PCB-1016 Peak 2	Ave	513894	538438		0.524	0.500	4.8	20.0
PCB-1016 Peak 3	Ave	736325	774808		0.526	0.500	5.2	20.0
PCB-1016 Peak 4	Ave	306656	327048		0.533	0.500	6.6	20.0
PCB-1016 Peak 5	Ave	232863	251756		0.541	0.500	8.1	20.0
PCB-1260 Peak 1	Ave	385146	413740		0.537	0.500	7.4	20.0
PCB-1260 Peak 2	Ave	456361	486278		0.533	0.500	6.6	20.0
PCB-1260 Peak 3	Ave	338453	362894		0.536	0.500	7.2	20.0
PCB-1260 Peak 4	Ave	686842	749040		0.545	0.500	9.1	20.0
PCB-1260 Peak 5	Ave	508485	555022		0.546	0.500	9.2	20.0
Tetrachloro-m-xylene	Ave	20616476	21629080		0.0262	0.0250	4.9	20.0
DCB Decachlorobiphenyl (Surr)	Ave	7873935	8581160		0.0272	0.0250	9.0	20.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1

SDG No.:

Lab Sample ID: CCVRT 180-85122/8 Calibration Date: 09/27/2013 07:07

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T0930668.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	6.36	6.30	6.40
PCB-1016 Peak 2	6.84	6.78	6.88
PCB-1016 Peak 3	7.45	7.39	7.49
PCB-1016 Peak 4	7.66	7.61	7.71
PCB-1016 Peak 5	7.82	7.77	7.87
PCB-1260 Peak 1	10.87	10.82	10.92
PCB-1260 Peak 2	11.41	11.35	11.45
PCB-1260 Peak 3	13.38	13.33	13.43
PCB-1260 Peak 4	14.23	14.17	14.27
PCB-1260 Peak 5	15.37	15.31	15.41
Tetrachloro-m-xylene	5.77	5.71	5.81
DCB Decachlorobiphenyl (Surr)	17.90	17.82	17.96

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1

SDG No.:

Lab Sample ID: CCV 180-85122/29 Calibration Date: 09/27/2013 18:01

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T0930689.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	265962	274248		0.516	0.500	3.1	20.0
PCB-1016 Peak 2	Ave	513894	542854		0.528	0.500	5.6	20.0
PCB-1016 Peak 3	Ave	736325	782986		0.532	0.500	6.3	20.0
PCB-1016 Peak 4	Ave	306656	327656		0.534	0.500	6.8	20.0
PCB-1016 Peak 5	Ave	232863	254100		0.546	0.500	9.1	20.0
PCB-1260 Peak 1	Ave	385146	417612		0.542	0.500	8.4	20.0
PCB-1260 Peak 2	Ave	456361	493284		0.540	0.500	8.1	20.0
PCB-1260 Peak 3	Ave	338453	363666		0.537	0.500	7.4	20.0
PCB-1260 Peak 4	Ave	686842	765486		0.557	0.500	11.5	20.0
PCB-1260 Peak 5	Ave	508485	560540		0.551	0.500	10.2	20.0
Tetrachloro-m-xylene	Ave	20616476	21587080		0.0262	0.0250	4.7	20.0
DCB Decachlorobiphenyl (Surr)	Ave	7873935	8602880		0.0273	0.0250	9.3	20.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1

SDG No.:

Lab Sample ID: CCV 180-85122/29 Calibration Date: 09/27/2013 18:01

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T0930689.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	6.36	6.30	6.40
PCB-1016 Peak 2	6.84	6.78	6.88
PCB-1016 Peak 3	7.46	7.39	7.49
PCB-1016 Peak 4	7.67	7.61	7.71
PCB-1016 Peak 5	7.83	7.77	7.87
PCB-1260 Peak 1	10.88	10.82	10.92
PCB-1260 Peak 2	11.42	11.35	11.45
PCB-1260 Peak 3	13.40	13.33	13.43
PCB-1260 Peak 4	14.24	14.17	14.27
PCB-1260 Peak 5	15.38	15.31	15.41
Tetrachloro-m-xylene	5.77	5.71	5.81
DCB Decachlorobiphenyl (Surr)	17.90	17.82	17.96

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1

SDG No.:

Lab Sample ID: CCV 180-85122/37 Calibration Date: 09/27/2013 22:10

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T0930697.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	265962	280360		0.527	0.500	5.4	20.0
PCB-1016 Peak 2	Ave	513894	550454		0.536	0.500	7.1	20.0
PCB-1016 Peak 3	Ave	736325	796458		0.541	0.500	8.2	20.0
PCB-1016 Peak 4	Ave	306656	337094		0.550	0.500	9.9	20.0
PCB-1016 Peak 5	Ave	232863	259364		0.557	0.500	11.4	20.0
PCB-1260 Peak 1	Ave	385146	428088		0.556	0.500	11.1	20.0
PCB-1260 Peak 2	Ave	456361	496472		0.544	0.500	8.8	20.0
PCB-1260 Peak 3	Ave	338453	370320		0.547	0.500	9.4	20.0
PCB-1260 Peak 4	Ave	686842	764430		0.556	0.500	11.3	20.0
PCB-1260 Peak 5	Ave	508485	568274		0.559	0.500	11.8	20.0
Tetrachloro-m-xylene	Ave	20616476	22101320		0.0268	0.0250	7.2	20.0
DCB Decachlorobiphenyl (Surr)	Ave	7873935	8578720		0.0272	0.0250	9.0	20.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1

SDG No.:

Lab Sample ID: CCV 180-85122/37 Calibration Date: 09/27/2013 22:10

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T0930697.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	6.35	6.30	6.40
PCB-1016 Peak 2	6.83	6.78	6.88
PCB-1016 Peak 3	7.44	7.39	7.49
PCB-1016 Peak 4	7.66	7.61	7.71
PCB-1016 Peak 5	7.82	7.77	7.87
PCB-1260 Peak 1	10.87	10.82	10.92
PCB-1260 Peak 2	11.40	11.35	11.45
PCB-1260 Peak 3	13.38	13.33	13.43
PCB-1260 Peak 4	14.22	14.17	14.27
PCB-1260 Peak 5	15.36	15.31	15.41
Tetrachloro-m-xylene	5.76	5.71	5.81
DCB Decachlorobiphenyl (Surr)	17.89	17.82	17.96

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1

SDG No.:

Lab Sample ID: CCVRT 180-85278/7 Calibration Date: 09/30/2013 07:29

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T0930714.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	265962	249468		0.469	0.500	-6.2	20.0
PCB-1016 Peak 2	Ave	513894	496602		0.483	0.500	-3.4	20.0
PCB-1016 Peak 3	Ave	736325	691880		0.470	0.500	-6.0	20.0
PCB-1016 Peak 4	Ave	306656	298192		0.486	0.500	-2.8	20.0
PCB-1016 Peak 5	Ave	232863	231838		0.498	0.500	-0.4	20.0
PCB-1260 Peak 1	Ave	385146	378482		0.491	0.500	-1.7	20.0
PCB-1260 Peak 2	Ave	456361	439526		0.482	0.500	-3.7	20.0
PCB-1260 Peak 3	Ave	338453	331278		0.489	0.500	-2.1	20.0
PCB-1260 Peak 4	Ave	686842	677106		0.493	0.500	-1.4	20.0
PCB-1260 Peak 5	Ave	508485	499278		0.491	0.500	-1.8	20.0
Tetrachloro-m-xylene	Ave	20616476	19618320		0.0238	0.0250	-4.8	20.0
DCB Decachlorobiphenyl (Surr)	Ave	7873935	7855280		0.0249	0.0250	-0.2	20.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1

SDG No.:

Lab Sample ID: CCVRT 180-85278/7 Calibration Date: 09/30/2013 07:29

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T0930714.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	6.35	6.30	6.40
PCB-1016 Peak 2	6.83	6.78	6.88
PCB-1016 Peak 3	7.44	7.39	7.49
PCB-1016 Peak 4	7.66	7.60	7.70
PCB-1016 Peak 5	7.82	7.76	7.86
PCB-1260 Peak 1	10.86	10.81	10.91
PCB-1260 Peak 2	11.40	11.34	11.44
PCB-1260 Peak 3	13.37	13.32	13.42
PCB-1260 Peak 4	14.21	14.16	14.26
PCB-1260 Peak 5	15.36	15.30	15.40
Tetrachloro-m-xylene	5.76	5.71	5.81
DCB Decachlorobiphenyl (Surr)	17.89	17.81	17.95

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1

SDG No.:

Lab Sample ID: CCV 180-85278/21 Calibration Date: 09/30/2013 14:55

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T0930728.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	265962	250446		0.471	0.500	-5.8	20.0
PCB-1016 Peak 2	Ave	513894	493330		0.480	0.500	-4.0	20.0
PCB-1016 Peak 3	Ave	736325	700226		0.475	0.500	-4.9	20.0
PCB-1016 Peak 4	Ave	306656	297938		0.486	0.500	-2.8	20.0
PCB-1016 Peak 5	Ave	232863	230416		0.495	0.500	-1.1	20.0
PCB-1260 Peak 1	Ave	385146	376716		0.489	0.500	-2.2	20.0
PCB-1260 Peak 2	Ave	456361	445700		0.488	0.500	-2.3	20.0
PCB-1260 Peak 3	Ave	338453	332070		0.491	0.500	-1.9	20.0
PCB-1260 Peak 4	Ave	686842	678382		0.494	0.500	-1.2	20.0
PCB-1260 Peak 5	Ave	508485	501652		0.493	0.500	-1.3	20.0
Tetrachloro-m-xylene	Ave	20616476	19742400		0.0239	0.0250	-4.2	20.0
DCB Decachlorobiphenyl (Surr)	Ave	7873935	7895280		0.0251	0.0250	0.3	20.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1

SDG No.:

Lab Sample ID: CCV 180-85278/21 Calibration Date: 09/30/2013 14:55

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T0930728.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	6.35	6.30	6.40
PCB-1016 Peak 2	6.83	6.78	6.88
PCB-1016 Peak 3	7.44	7.39	7.49
PCB-1016 Peak 4	7.65	7.60	7.70
PCB-1016 Peak 5	7.81	7.76	7.86
PCB-1260 Peak 1	10.86	10.81	10.91
PCB-1260 Peak 2	11.39	11.34	11.44
PCB-1260 Peak 3	13.37	13.32	13.42
PCB-1260 Peak 4	14.20	14.16	14.26
PCB-1260 Peak 5	15.35	15.30	15.40
Tetrachloro-m-xylene	5.76	5.71	5.81
DCB Decachlorobiphenyl (Surr)	17.88	17.81	17.95

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1

SDG No.:

Sample No.: CCVRT 180-85122/8 Date Analyzed: 09/27/2013 07:07

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm)

Lab File ID (Standard): T0930668.D Heated Purge: (Y/N) N

Calibration ID: 11476

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB	
				RT #	RT #	
CONTINUING CALIBRATION SURROGATE				5.77	17.90	
UPPER LIMIT				5.82	17.95	
LOWER LIMIT				5.72	17.85	
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 180-85122/8		09/27/2013 07:07	T0930668.D	5.77	17.90	
MB 180-84645/1-C		09/27/2013 16:58	T0930687.D	5.77	17.90	
LCS 180-84645/2-C		09/27/2013 17:30	T0930688.D	5.77	17.90	
CCV 180-85122/29		09/27/2013 18:01	T0930689.D	5.77	17.90	
180-25248-12	SD-147-02	09/27/2013 18:31	T0930690.D	5.77	17.90	
180-25248-13	DUP-06	09/27/2013 19:02	T0930691.D	5.77	17.90	
180-25248-15	SD-147-03	09/27/2013 20:04	T0930693.D	5.77	17.89	
CCV 180-85122/37		09/27/2013 22:10	T0930697.D	5.76	17.89	

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

TCX RT Limit = ± 0.05 minutes of surrogate RT
DCB RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1

SDG No.:

Sample No.: CCVRT 180-85278/7 Date Analyzed: 09/30/2013 07:29

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm)

Lab File ID (Standard): T0930714.D Heated Purge: (Y/N) N

Calibration ID: 11476

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB	
				RT #	RT #	
CONTINUING CALIBRATION SURROGATE				5.76	17.89	
UPPER LIMIT				5.81	17.94	
LOWER LIMIT				5.71	17.84	
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 180-85278/7		09/30/2013 07:29	T0930714.D	5.76	17.89	
180-25248-14	SD-147-SS	09/30/2013 08:33	T0930716.D	5.76	17.89	
180-25248-11	SD-147-01	09/30/2013 12:18	T0930723.D	5.77	17.89	
CCV 180-85278/21		09/30/2013 14:55	T0930728.D	5.76	17.88	

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

TCX RT Limit = ± 0.05 minutes of surrogate RT
DCB RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

Client: Tetra Tech, Inc.

Job Number: 180-25248-1

Method Blank - Batch: 180-84645

Method: 8082A
Preparation: 3541

Lab Sample ID:	MB 180-84645/1-C	Analysis Batch:	180-85122	Instrument ID:	GC10
Client Matrix:	Sediment	Prep Batch:	180-84645	Lab File ID:	T0930687.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	09/27/2013 1658	Units:	ug/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	09/25/2013 0410			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
PCB-1016	ND		0.062	0.42
PCB-1221	ND		0.080	0.42
PCB-1232	ND		0.071	0.42
PCB-1242	ND		0.068	0.42
PCB-1248	ND		0.039	0.42
PCB-1254	ND		0.059	0.42
PCB-1260	ND		0.059	0.42

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	83	31 - 150
Tetrachloro-m-xylene	76	31 - 150

Lab Control Sample - Batch: 180-84645

Method: 8082A
Preparation: 3541

Lab Sample ID:	LCS 180-84645/2-C	Analysis Batch:	180-85122	Instrument ID:	GC10
Client Matrix:	Sediment	Prep Batch:	180-84645	Lab File ID:	T0930688.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	09/27/2013 1730	Units:	ug/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	09/25/2013 0410			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
PCB-1016	33.3	22.0	66	40 - 115	
PCB-1260	33.3	22.8	68	40 - 115	

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	85	31 - 150
Tetrachloro-m-xylene	77	31 - 150

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1

SDG No.:

Batch Number: 84645 Batch Start Date: 09/25/13 04:10 Batch Analyst: Geehring, Kevin

Batch Method: 3541 Batch End Date: 09/25/13 11:08

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	InitialAmount	GCMATRIXWORKS 00008	op-p/pcb sur 00009		
MB 180-84645/1		3541, 3665A, 3660B, 8082A		1.0 mL	30.0 g		25 uL		
LCS 180-84645/2		3541, 3665A, 3660B, 8082A		1.0 mL	30.0 g	25 uL	25 uL		
180-25248-A-11	SD-147-01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25248-A-12	SD-147-02	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		25 uL		
180-25248-A-13	DUP-06	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		25 uL		
180-25248-A-14	SD-147-SS	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25248-A-15	SD-147-03	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		25 uL		

Batch Notes	
Balance ID	1120122641
Batch Comment	sox # 4 5 6 7
Person's name who did the concentration	kg bp
Exchange Solvent Lot #	963970
Exchange Solvent Name	Hexane
Magnesium Sulfate Lot #	963972
N-evap #	2
Na2SO4 Lot Number	962926
Person's name who did the prep	kg bp
Solvent	Hexane/acetone
Solvent Lot #	950525
Uncorrected N-evap Temperature	32 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1

SDG No.:

Batch Number: 84843 Batch Start Date: 09/26/13 11:19 Batch Analyst: Eppinger, David

Batch Method: 3665A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
MB 180-84645/1-A		3665A, 3660B, 8082A		1 mL	1 mL				
LCS 180-84645/2-A		3665A, 3660B, 8082A		1 mL	1 mL				
180-25248-A-11-A	SD-147-01	3665A, 3660B, 8082A	T	1 mL	1 mL				
180-25248-A-12-A	SD-147-02	3665A, 3660B, 8082A	T	1 mL	1 mL				
180-25248-A-13-A	DUP-06	3665A, 3660B, 8082A	T	1 mL	1 mL				
180-25248-A-14-A	SD-147-SS	3665A, 3660B, 8082A	T	1 mL	1 mL				
180-25248-A-15-A	SD-147-03	3665A, 3660B, 8082A	T	1 mL	1 mL				

Batch Notes	
Batch Comment	H2SO4 lot# 32783

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-25248-1

SDG No.:

Batch Number: 84845 Batch Start Date: 09/26/13 11:20 Batch Analyst: Eppinger, David

Batch Method: 3660B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	GCTBASOLUTION 00011			
MB 180-84645/1-B		3660B, 8082A		1 mL	1 mL	1 mL			
LCS 180-84645/2-B		3660B, 8082A		1 mL	1 mL	1 mL			
180-25248-A-11-B	SD-147-01	3660B, 8082A	T	1 mL	1 mL	1 mL			
180-25248-A-12-B	SD-147-02	3660B, 8082A	T	1 mL	1 mL	1 mL			
180-25248-A-13-B	DUP-06	3660B, 8082A	T	1 mL	1 mL	1 mL			
180-25248-A-14-B	SD-147-SS	3660B, 8082A	T	1 mL	1 mL	1 mL			
180-25248-A-15-B	SD-147-03	3660B, 8082A	T	1 mL	1 mL	1 mL			

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

TETRA TECH NUS, INC. **CALCULATION WORKSHEET** PAGE ____ OF ____

CLIENT Lockheed MRC		JOB NUMBER	
SUBJECT PCB			
BASED ON 8082		DRAWING NUMBER	
BY Ed Hadley	CHECKED BY	APPROVED BY	DATE

SD-147-01 Aroclor-1260 = 29,000 ug/Kg

Peak 1 $\frac{447789 \times 1.0\,ul \times 250\,df}{385146 \times 30.0 \times 1\,ul \times 0.346} = 28014$

Peak 2 $\frac{657069 \times 1000\,ul \times 250\,df}{456361 \times 30.0 \times 1\,ul \times 0.346} = 34677$

Peak 3 $\frac{305823 \times 1000\,ul \times 250}{338452 \times 30.0 \times 1\,ul \times 0.346} = 21762$

Peak 4 $\frac{808862 \times 1000\,ul \times 250}{686842 \times 30.0 \times 1\,ul \times 0.346} = 28363$

Peak 5 $\frac{717976 \times 1000\,ul \times 250}{508484 \times 30.0 \times 1\,ul \times 0.346} = 34007$

146823 / 5 =

29364 ug/Kg

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25248-1

SDG No.:

Client Sample ID: SD-147-01 | Lab Sample ID: 180-25248-11

Matrix: Sediment | Lab File ID: T0930723.D

Analysis Method: 8082A | Date Collected: 09/17/2013 13:30

Extraction Method: 3541 | Date Extracted: 09/25/2013 04:10

Sample wt/vol: 30.0(g) | Date Analyzed: 09/30/2013 12:18

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 250

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 65.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85278 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		300	45
11104-28-2	PCB-1221	ND		300	57
11141-16-5	PCB-1232	ND		300	52
53469-21-9	PCB-1242	ND		300	49
12672-29-6	PCB-1248	ND		300	28
11097-69-1	PCB-1254	ND		300	43
11096-82-5	PCB-1260	29000		300	43

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	906	X D	31-150
877-09-8	Tetrachloro-m-xylene	119	D	31-150

Data File: \\PITSVR06\D\chem\gc10.i\09303B8082ALL.b\T0930723.D
Report Date: 01-Oct-2013 05:42

TestAmerica Pittsburgh

Data file : \\PITSVR06\D\chem\gc10.i\09303B8082ALL.b\T0930723.D
Lab Smp Id: 180-25248-a-11-c
Inj Date : 30-SEP-2013 12:18
Operator : 402331 Inst ID: gc10.i
Smp Info : 09303B8082ALL.b
Misc Info : 180-25248-a-11-c
Comment : 8082 PCB ANALYSIS
Method : \\PITSVR06\D\chem\gc10.i\09303B8082ALL.b\PCBBB_LL.m
Meth Date : 01-Oct-2013 05:40 oravecj Quant Type: ESTD
Cal Date : 23-SEP-2013 17:19 Cal File: T0930525.D
Als bottle: 59
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: PITPC-113

Concentration Formula: Amt * DF * Vt/Vo/Vi * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Vt	40000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 2 Tetrachloro-m-xylene					CAS #: 877-09-8		
5.766	5.762	0.004	1956	9e-005	0.0037950		(R)
3 Aroclor-1232					CAS #: 11141-16-5		

Peaks not detected for Quant. or Qual. signal(s).

1 Aroclor-1221 CAS #: 11104-28-2

Operator disabled compound identification.

4 Aroclor-1016 CAS #: 12674-11-2

Peaks not detected for Quant. or Qual. signal(s).

DUP-06

Data File: T0930691.D

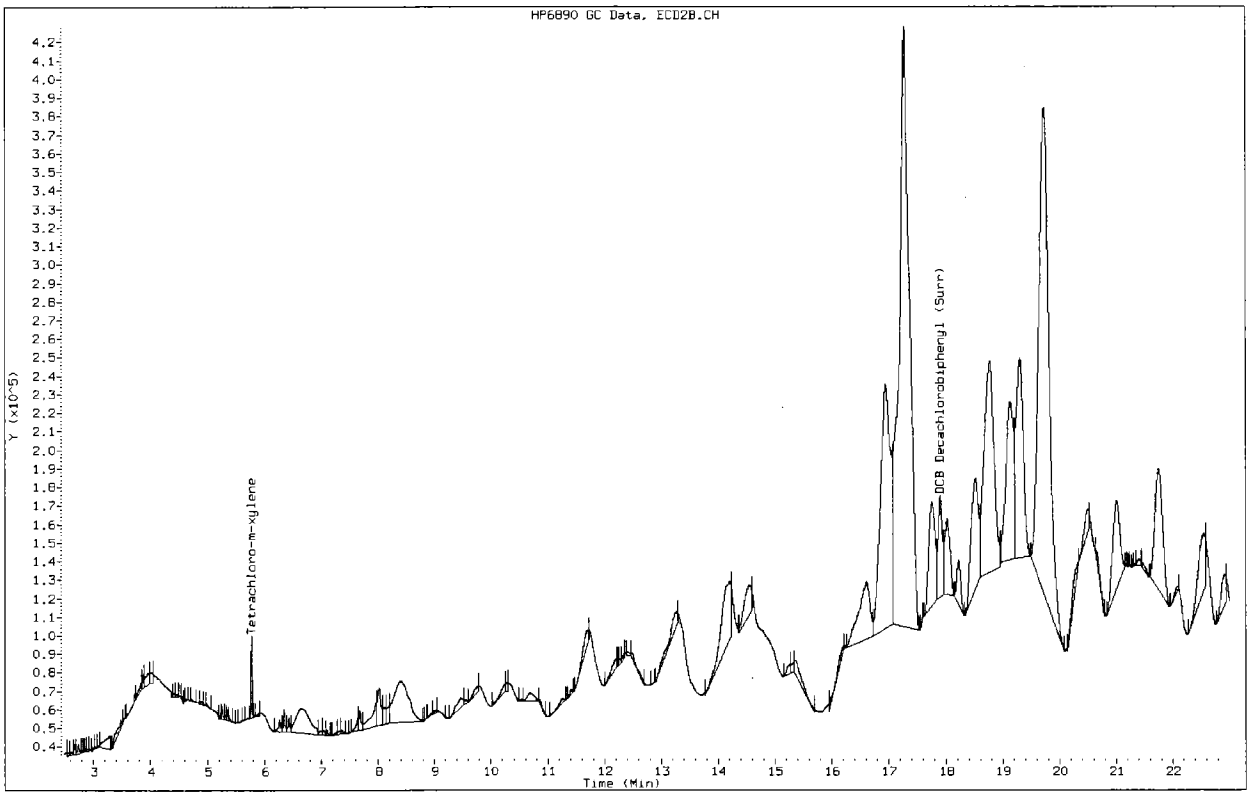
Date: 27-SEP-2013 19:02

Client ID:

Instrument: gc10.i

Sample Info: 09273B8082ALL.b

Operator: 402331



SD-147-01

Data File: T0930723.D

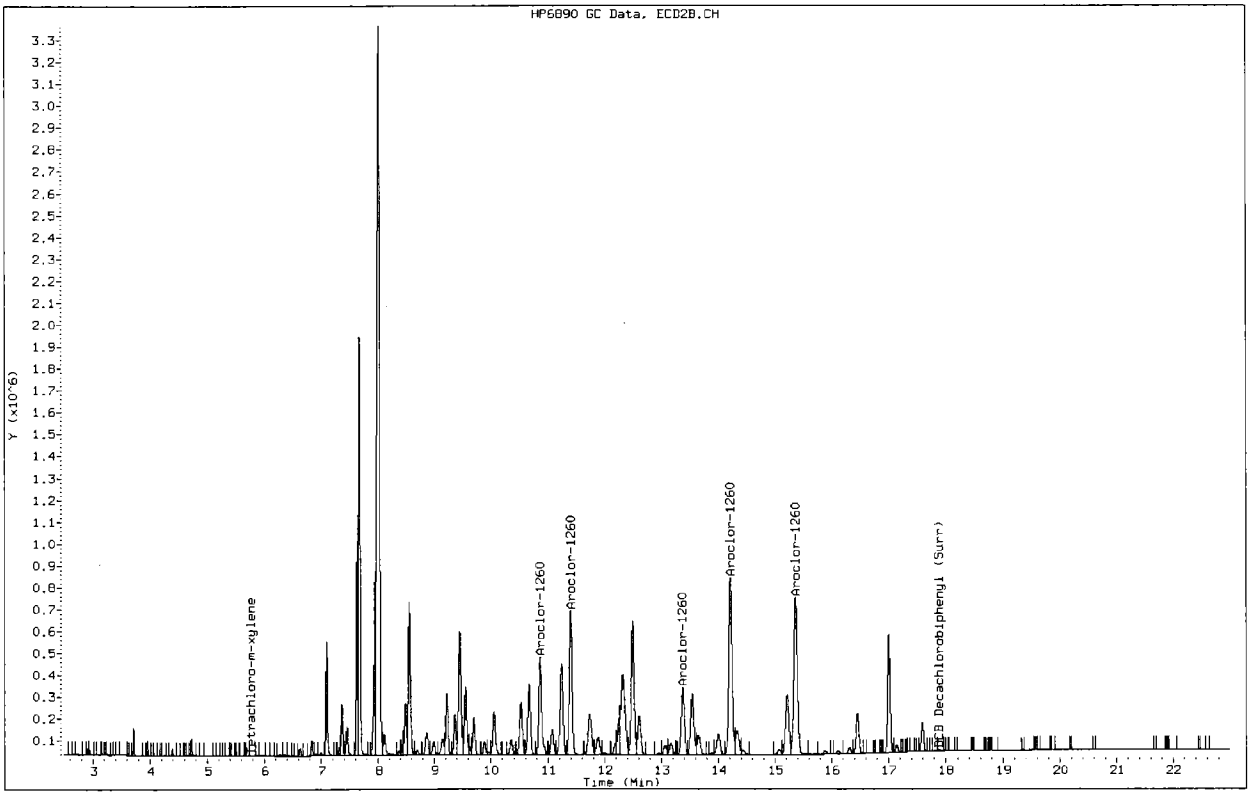
Date: 30-SEP-2013 12:18

Client ID:

Instrument: gc10.i

Sample Info: 09303B8082ALL.b

Operator: 402331



~~DHP-01~~
SD-147-02

Data File: T0930690.D

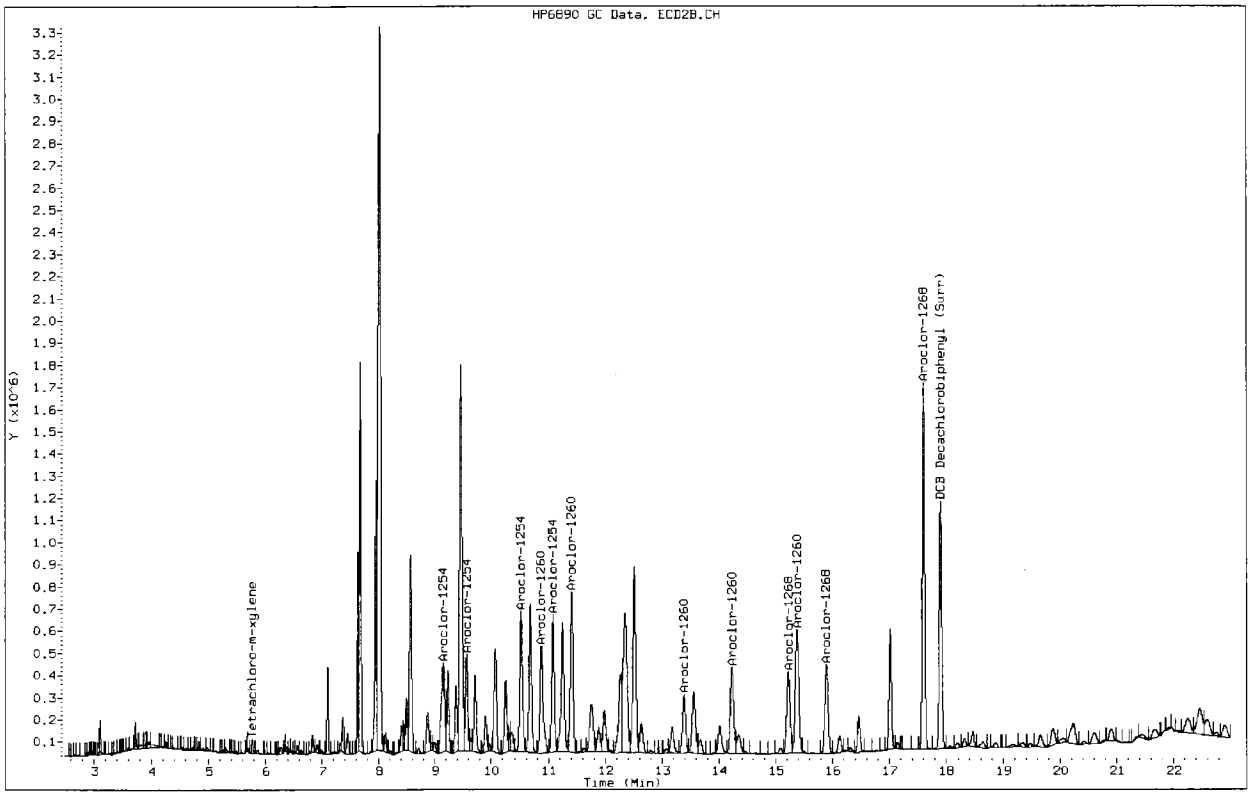
Date: 27-SEP-2013 18:31

Client ID:

Instrument: gc10.i

Sample Info: 09273B8082ALL.b

Operator: 402331



SD-147-03

Data File: T0930693.D

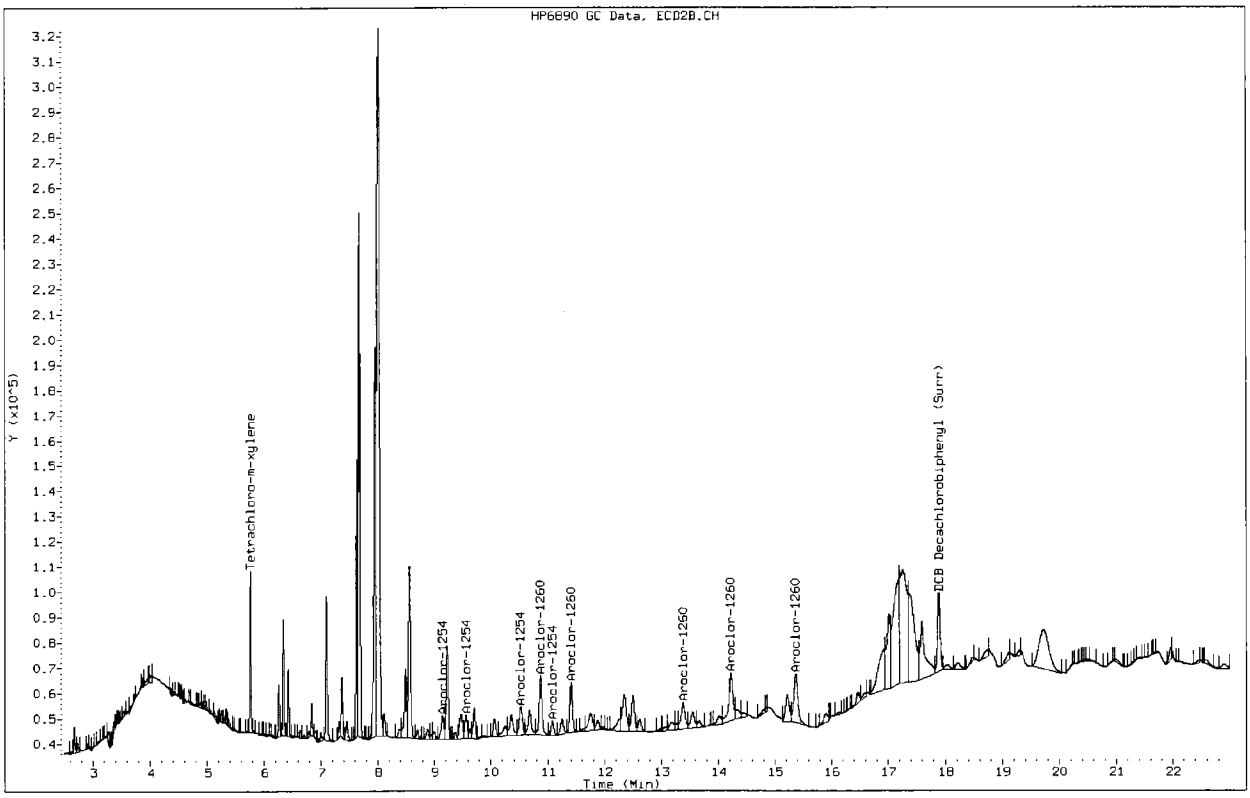
Date: 27-SEP-2013 20:04

Client ID:

Instrument: gc10.i

Sample Info: 09273B8082ALL.b

Operator: 402331



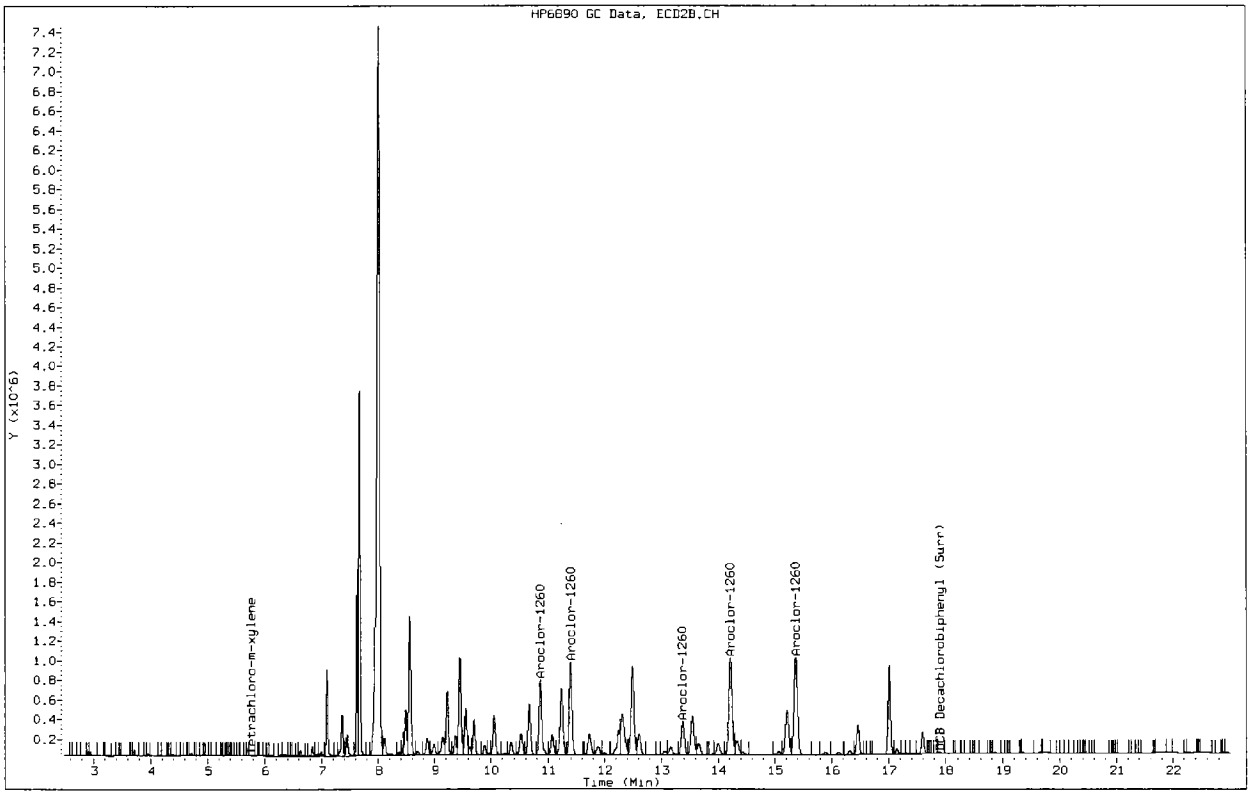
SD-147-SS

Data File: T0930716.D

Date: 30-SEP-2013 08:33

Client ID: Instrument: gc10.i

Sample Info: 09303B8082ALL.b Operator: 402331



Tetra Tech **INTERNAL CORRESPONDENCE**

TO:	**E. SAMUELS**	**DATE:**	**NOVEMBER 12, 2013**
FROM:	**A. COGNETTI**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION- PAH/PCB**
MRC SEDIMENT INVESTIGATION
FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) – 180-25321-1

SAMPLES: 32/Sediment/PAH/PCB

DUP-07	SD-113-01	SD-113-02	SD-113-03
SD-113-SS	SD-114-01	SD-114-02	SD-114-03
SD-114-SS	SD-115-01	SD-115-02	SD-115-03
SD-115-SS	SD-117-01	SD-117-02	SD-117-SS
SD-118-01	SD-118-02	SD-118-03	SD-118-SS
SD-119-01	SD-119-02	SD-119-03	SD-119-SS
SD-120-01	SD-120-02	SD-120-03	SD-120-SS
SD-152	SD-153	SD-154	SD-155

Overview

The sample set for MRC Sediment Investigation, SDG 180-25321-1, consists of thirty-two (32) sediment environmental samples for polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs). There is one (1) field duplicate pair included within this SDG: DUP-07 and SD-118-02.

The samples were collected on September 17 and 18, 2013 and analyzed by Test America. SVOC analysis followed Method 8270D and PCBs Method 8082A analytical and reporting protocols.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, GC/MS tuning, initial and continuing calibration verification results, laboratory method blank results, laboratory control sample recoveries, matrix spike / matrix spike duplicate recoveries, internal standards, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems- None.

Minor

- The percent solids in sample SD-120-SS was less than 30% (24.9%). The detected and nondetected results were qualified as estimated (J) and (UJ), respectively in sample SD-120-SS.

- The continuing calibration percent differences (%Ds) for dibenzo(a,h)anthracene and benzo(g,h,i)perylene were greater than the 20% quality control limit and less than 50% on September 30, 2013 @ 22:45 on instrument 722. The detected benzo(g,h,i)perylene result in the affected sample SD-119-03 was qualified as estimated (J). No action was taken on the nondetected dibenzo(a,h)anthracene result in the affected sample.

- The internal standard recovery of perylene-d12 was greater than the upper quality control limit in samples SD-115-02, SD-114-01, SD-114-02, SD-119-SS and SD-119-01. The analytes quantitated using this internal standard are benzo(b)fluoranthene, benzo(k)fluoranthene,

benzo(a)pyrene, indeno (1,2,3-cd)pyrene, dibenzo(a,h)anthracene and benzo(g,h,i)perylene. The detected results of the aforementioned analytes in the affected samples were qualified as estimated (J).

- The Aroclor analyses appear not to have accounted for all of the PCB congeners, resulting in underestimates of total chlorinated biphenyl (CB) concentrations in some samples. Separate congener analyses of four split samples revealed detections of comparatively low molecular weight (LMW) PCB congeners that were not included in the Aroclor-based total PCB quantitations. The presence of LMW congeners appears to be the result of dechlorination of higher molecular weight components of the Aroclors. The Aroclor patterns thus appear to have been altered by this presumed dechlorination and the Aroclor-based quantitations were therefore biased low. These LMW congeners are eluting approximately between 7 and 10 minutes in the PCB analyses and the peaks representing LMW congeners were excluded from PCB quantitation by the laboratory because they are not part of a recognizable Aroclor pattern. Dechlorination of PCBs has been most prevalent in sediment samples as evidenced by the presence of peaks between 7 and 10 minutes but these peaks were not observed in surface and subsurface soil samples with similar or greater PCB concentrations at other site locations. Site conditions associated with sediment samples appear to favor the dechlorination process. Given the evidence from the congener analyses, the data reviewer has qualified, detected results in several samples based on chromatographic appearance, as estimated (J) because the reported Aroclor-based total PCB concentrations are likely to be biased low.

- Field duplicate imprecision was noted in the field duplicate pair DUP-07 and SD-118-02 for benzo(g,h,i)perylene and indeno(1,2,3-cd)pyrene. The relative percent differences (RPDs) and variances exceeded quality control limits. The detected benzo(g,h,i)perylene and indeno(1,2,3-cd)pyrene results were qualified as estimated (J) in the field duplicate pair.

Notes

Samples SD-119-01, SD-119-02, SD-119-03 and SD-119-SS are not listed on the chain of custody.

The matrix spike/ matrix spike duplicate (MS/MSD) percent recoveries (%Rs) of Aroclor-1016 were 0% in sample SD-115-01. The sample was diluted 10X for analysis and contained both Aroclor 1254 and Aroclor 1260 at concentration 10X the spiked concentration. No action was required.

The surrogate recoveries of decachlorobiphenyl were greater than the upper quality control limit in several samples. The samples were SD-152, SD-153, SD-154, SD-155, SD-117-01, SD-118-SS, SD-118-01, SD-118-02, SD-113-SS, SD-115-SS, SD-115-01, SD-115-02, SD-114-01, SD-114-02, SD-119-SS and SD-119-01. Sample SD-114-03 had a surrogate recovery of tetrachloro-m-xylene less than the lower quality control limit. All of the aforementioned samples were diluted 5X or 10X for analysis. No action was taken.

The MS/MSD %Rs of Aroclor-1260 was less than the lower quality control limit in sample SD-115-01. No action was taken on the Aroclor 1260 result because the sample concentration was greater than 4X the spike amount.

Executive Summary

Laboratory Performance: The continuing calibration %D for benzo(g,h,i)perylene was outside quality control limits. The internal standard recovery of perylene-d12 was greater than the upper quality control limit in samples SD-115-02, SD-114-01, SD-114-02, SD-119-SS and SD-119-01.

Other Factors Affecting Data Quality: Field duplicate imprecision was noted in the field duplicate pair DUP-07 and SD-118-02 for benzo(g,h,i)perylene and indeno(1,2,3-cd)pyrene.

The data for these analyses were reviewed with reference to Region III Modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994). The text of this report has been formulated to address only those problem areas affecting data quality.

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Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 05220	NSAMPLE	DUP-07			SD-113-01			SD-113-02			SD-113-03		
SDG: 180-25321-1	LAB_ID	180-25321-28			180-25321-17			180-25321-18			180-25321-19		
FRACTION: PAH	SAMP_DATE	9/18/2013			9/18/2013			9/18/2013			9/18/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	42.6			44.6			42.7			49.7		
	DUP_OF	SD-118-02											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		3.5	U		36	J	P	3.5	U		3	U	
ACENAPHTHENE		7.3	J	P	43	J	P	3.7	U		3.2	U	
ACENAPHTHYLENE		23	J	P	150			4.5	U		3.8	U	
ANTHRACENE		12	J	P	190			3.8	U		3.3	U	
BENZO(A)ANTHRACENE		30	J	P	570			4.9	U		4.2	U	
BENZO(A)PYRENE		26	J	P	650			3.9	U		3.3	U	
BENZO(B)FLUORANTHENE		33	J	P	790			6.1	U		5.3	U	
BENZO(G,H,I)PERYLENE		19	J	GP	700			3.9	U		3.3	U	
BENZO(K)FLUORANTHENE		15	J	P	220			7.9	U		6.8	U	
CHRYSENE		32	J	P	710			4.6	U		4	U	
DIBENZO(A,H)ANTHRACENE		7.6	J	P	290			4.3	U		3.7	U	
FLUORANTHENE		42			1200			4.2	U		3.6	U	
FLUORENE		6.7	J	P	52	J	P	5.1	U		4.4	U	
INDENO(1,2,3-CD)PYRENE		15	J	GP	590			4	U		3.4	U	
NAPHTHALENE		21	J	P	57	J	P	3.4	U		2.9	U	
PHENANTHRENE		24	J	P	320			6.2	U		5.3	U	
PYRENE		52			1100			3.9	U		3.4	U	

PROJ_NO: 05220	NSAMPLE	SD-113-SS			SD-114-01			SD-114-02			SD-114-03		
SDG: 180-25321-1	LAB_ID	180-25321-16			180-25321-25			180-25321-26			180-25321-27		
FRACTION: PAH	SAMP_DATE	9/18/2013			9/18/2013			9/18/2013			9/18/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	41.3			51.7			46.6			43.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		120	J	P	60			84			7.8	J	P
ACENAPHTHENE		100	J	P	170			350			22	J	P
ACENAPHTHYLENE		480			260			280			25	J	P
ANTHRACENE		530			560			970			34	J	P
BENZO(A)ANTHRACENE		1500			1700			2600			56		
BENZO(A)PYRENE		1700			1700	J	N	2300	J	N	40		
BENZO(B)FLUORANTHENE		2000			1800	J	N	2800	J	N	40		
BENZO(G,H,I)PERYLENE		1900			920	J	N	1200	J	N	22	J	P
BENZO(K)FLUORANTHENE		670			1200	J	N	1000	J	N	20	J	P
CHRYSENE		1800			1900			2900			50		
DIBENZO(A,H)ANTHRACENE		830			210	J	N	330	J	N	4.3	U	
FLUORANTHENE		2900			3900			7000			120		
FLUORENE		160	J	P	150			330			24	J	P
INDENO(1,2,3-CD)PYRENE		1600			890	J	N	1200	J	N	23	J	P
NAPHTHALENE		170	J	P	110			170			35	J	P
PHENANTHRENE		960			1700			2800			99		
PYRENE		2700			3000			4900			87		

PROJ_NO: 05220	NSAMPLE	SD-114-SS			SD-115-01			SD-115-02			SD-115-03		
SDG: 180-25321-1	LAB_ID	180-25321-24			180-25321-21			180-25321-22			180-25321-23		
FRACTION: PAH	SAMP_DATE	9/18/2013			9/18/2013			9/18/2013			9/18/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	43.3			46.1			42.7			43.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		33	J	P	110			55			3.4	U	
ACENAPHTHENE		36	J	P	360			50			4.6	J	P
ACENAPHTHYLENE		150			300			150			18	J	P
ANTHRACENE		240			830			210			5.7	J	P
BENZO(A)ANTHRACENE		660			2300			620			15	J	P
BENZO(A)PYRENE		820			2400			590	J	N	11	J	P
BENZO(B)FLUORANTHENE		980			3000			700	J	N	15	J	P
BENZO(G,H,I)PERYLENE		620			1500			420	J	N	3.8	U	
BENZO(K)FLUORANTHENE		320			940			330	J	N	7.6	U	
CHRYSENE		820			2300			780			23	J	P
DIBENZO(A,H)ANTHRACENE		140			320			110	J	N	4.2	U	
FLUORANTHENE		1200			5000			1200			21	J	P
FLUORENE		47			300			67			5	U	
INDENO(1,2,3-CD)PYRENE		520			1400			390	J	N	3.9	U	
NAPHTHALENE		62			260			95			24	J	P
PHENANTHRENE		410			2400			390			12	J	P
PYRENE		1400			3900			1200			24	J	P

PROJ_NO: 05220	NSAMPLE	SD-115-SS			SD-117-01			SD-117-02			SD-117-SS		
SDG: 180-25321-1	LAB_ID	180-25321-20			180-25321-6			180-25321-7			180-25321-5		
FRACTION: PAH	SAMP_DATE	9/18/2013			9/18/2013			9/18/2013			9/18/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	34.0			72.6			55.5			33.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		53	J	P	18	J	P	5.7	J	P	36	J	P
ACENAPHTHENE		65	J	P	15	J	P	4	J	P	120	J	P
ACENAPHTHYLENE		240	J	P	57			16	J	P	370		
ANTHRACENE		400			85			18			610		
BENZO(A)ANTHRACENE		1300			300			63			1600		
BENZO(A)PYRENE		1400			330			65			2000		
BENZO(B)FLUORANTHENE		1900			370			99			3100		
BENZO(G,H,I)PERYLENE		1900			320			80			2000		
BENZO(K)FLUORANTHENE		460			180			23			1000		
CHRYSENE		1600			400			81			2300		
DIBENZO(A,H)ANTHRACENE		870			120			41			830		
FLUORANTHENE		2600			680			150			2600		
FLUORENE		52	U		28	J	P	10	J	P	91	J	P
INDENO(1,2,3-CD)PYRENE		1600			280			78			1800		
NAPHTHALENE		34	U		24	J	P	9.3	J	P	51	J	P
PHENANTHRENE		750			270			55			350		
PYRENE		2200			620			110			2200		

PROJ_NO: 05220	NSAMPLE	SD-118-01			SD-118-02			SD-118-03			SD-118-SS		
SDG: 180-25321-1	LAB_ID	180-25321-9			180-25321-10			180-25321-11			180-25321-8		
FRACTION: PAH	SAMP_DATE	9/18/2013			9/18/2013			9/18/2013			9/18/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	50.3			42.6			45.0			55.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		92	J	P	3.5	U		3.3	U		50	J	P
ACENAPHTHENE		240	J	P	3.7	U		3.5	U		66	J	P
ACENAPHTHYLENE		470			8.9	J	P	4.2	U		260		
ANTHRACENE		800			9.1	J	P	3.6	U		320		
BENZO(A)ANTHRACENE		2400			31	J	P	7.5	J	P	990		
BENZO(A)PYRENE		2600			33	J	P	7.4	J	P	1200		
BENZO(B)FLUORANTHENE		3000			39			9.9	J	P	1300		
BENZO(G,H,I)PERYLENE		2400			86	J	G	3.7	U		1300		
BENZO(K)FLUORANTHENE		1200			15	J	P	7.4	U		530		
CHRYSENE		3300			33	J	P	7	J	P	1300		
DIBENZO(A,H)ANTHRACENE		950			4.3	U		4.1	U		510		
FLUORANTHENE		5000			56			11	J	P	2000		
FLUORENE		200	J	P	5.1	U		4.9	U		110	J	P
INDENO(1,2,3-CD)PYRENE		2000			98	J	G	76			1100		
NAPHTHALENE		150	J	P	3.4	U		3.2	U		71	J	P
PHENANTHRENE		1400			22	J	P	5.9	U		540		
PYRENE		4500			44			10	J	P	1900		

PROJ_NO: 05220	NSAMPLE	SD-119-01			SD-119-02			SD-119-03			SD-119-SS		
SDG: 180-25321-1	LAB_ID	180-25321-30			180-25321-31			180-25321-32			180-25321-29		
FRACTION: PAH	SAMP_DATE	9/18/2013			9/18/2013			9/18/2013			9/18/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	47.1			44.9			48.7			44.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		60			4.5	J	P	3.1	U		40		
ACENAPHTHENE		99			9.9	J	P	3.3	U		67		
ACENAPHTHYLENE		240			27	J	P	3.9	U		210		
ANTHRACENE		410			13	J	P	3.3	J	P	310		
BENZO(A)ANTHRACENE		1100			26	J	P	12	J	P	890		
BENZO(A)PYRENE		1200	J	N	26	J	P	13	J	P	1000	J	N
BENZO(B)FLUORANTHENE		1400	J	N	28	J	P	16	J	P	1300	J	N
BENZO(G,H,I)PERYLENE		660	J	N	23	J	P	8.5	J	CP	630	J	N
BENZO(K)FLUORANTHENE		730	J	N	23	J	P	7.4	J	P	510	J	N
CHRYSENE		1400			36	J	P	14	J	P	1100		
DIBENZO(A,H)ANTHRACENE		160	J	N	4.1	U		3.8	U		140	J	N
FLUORANTHENE		2600			50			23	J	P	1600		
FLUORENE		92			4.9	U		4.5	U		73		
INDENO(1,2,3-CD)PYRENE		620	J	N	23	J	P	6.4	J	P	580	J	N
NAPHTHALENE		100			24	J	P	2.9	U		74		
PHENANTHRENE		700			19	J	P	9.9	J	P	560		
PYRENE		2200			47			24	J	P	1600		

PROJ_NO: 05220	NSAMPLE	SD-120-01			SD-120-02			SD-120-03			SD-120-SS		
SDG: 180-25321-1	LAB_ID	180-25321-13			180-25321-14			180-25321-15			180-25321-12		
FRACTION: PAH	SAMP_DATE	9/18/2013			9/18/2013			9/18/2013			9/18/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	70.9			46.8			48.0			24.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		3.1	J	P	3.2	U		3.1	U		37	J	PY
ACENAPHTHENE		4.7	J	P	3.4	U		3.3	U		70	J	PY
ACENAPHTHYLENE		14	J	P	4.1	U		4	U		260	J	PY
ANTHRACENE		18	J	P	5.6	J	P	3.4	U		320	J	PY
BENZO(A)ANTHRACENE		65			16	J	P	4.4	U		1100	J	Y
BENZO(A)PYRENE		74			17	J	P	3.5	U		1200	J	Y
BENZO(B)FLUORANTHENE		110			22	J	P	5.5	U		1500	J	Y
BENZO(G,H,I)PERYLENE		100			84			3.5	U		1700	J	Y
BENZO(K)FLUORANTHENE		26			9.8	J	P	7	U		680	J	Y
CHRYSENE		71			19	J	P	4.1	U		1400	J	Y
DIBENZO(A,H)ANTHRACENE		53			4	U		3.9	U		880	J	Y
FLUORANTHENE		130			37			3.7	U		2500	J	Y
FLUORENE		8.9	J	P	4.7	U		4.6	U		130	J	PY
INDENO(1,2,3-CD)PYRENE		93			80			3.6	U		1600	J	Y
NAPHTHALENE		4.6	J	P	3.1	U		3	U		35	UJ	Y
PHENANTHRENE		31			14	J	P	5.5	U		430	J	Y
PYRENE		110			28	J	P	3.5	U		1800	J	Y

PROJ_NO: 05220	NSAMPLE	SD-152			SD-153			SD-154			SD-155		
SDG: 180-25321-1	LAB_ID	180-25321-1			180-25321-4			180-25321-2			180-25321-3		
FRACTION: PAH	SAMP_DATE	9/17/2013			9/18/2013			9/17/2013			9/17/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	37.3			33.0			32.3			31.3		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		190			110	J	P	92	J	P	110	J	P
ACENAPHTHENE		82	J	P	70	J	P	78	J	P	83	J	P
ACENAPHTHYLENE		150			140	J	P	130			160	J	P
ANTHRACENE		290			240			250			310	J	P
BENZO(A)ANTHRACENE		710			640			940			830		
BENZO(A)PYRENE		750			690			970			910		
BENZO(B)FLUORANTHENE		1000			890			1400			1200		
BENZO(G,H,I)PERYLENE		820			790			860			1300		
BENZO(K)FLUORANTHENE		350			330			410			400		
CHRYSENE		870			820			1100			1100		
DIBENZO(A,H)ANTHRACENE		370			360			330			700		
FLUORANTHENE		1700			1400			1700			1800		
FLUORENE		130			100	J	P	92	J	P	130	J	P
INDENO(1,2,3-CD)PYRENE		740			710			760			1100		
NAPHTHALENE		220			130	J	P	96	J	P	150	J	P
PHENANTHRENE		650			480			510			600		
PYRENE		1400			1100			1300			1400		

PROJ_NO: 05220	NSAMPLE	DUP-07			SD-113-01			SD-113-02			SD-113-03		
SDG: 180-25321-1	LAB_ID	180-25321-28			180-25321-17			180-25321-18			180-25321-19		
FRACTION: PCB	SAMP_DATE	9/18/2013			9/18/2013			9/18/2013			9/18/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	42.6			44.6			42.7			49.7		
	DUP_OF	SD-118-02											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		1.5	U		1.4	U		1.4	U		1.2	U	
AROCLOR-1221		1.9	U		1.8	U		1.9	U		1.6	U	
AROCLOR-1232		1.7	U		1.6	U		1.7	U		1.4	U	
AROCLOR-1242		1.6	U		1.5	U		1.6	U		1.4	U	
AROCLOR-1248		0.93	U		0.88	U		0.92	U		0.79	U	
AROCLOR-1254		1.4	U		150	J	Q	1.4	U		1.2	U	
AROCLOR-1260		1.4	U		150	J	Q	1.4	U		1.2	U	

PROJ_NO: 05220	NSAMPLE	SD-113-SS			SD-114-01			SD-114-02			SD-114-03		
SDG: 180-25321-1	LAB_ID	180-25321-16			180-25321-25			180-25321-26			180-25321-27		
FRACTION: PCB	SAMP_DATE	9/18/2013			9/18/2013			9/18/2013			9/18/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	41.3			51.7			46.6			43.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		1.5	U		1.2	U		1.3	U		1.4	U	
AROCLOR-1221		1.9	U		1.5	U		1.7	U		1.8	U	
AROCLOR-1232		1.7	U		1.4	U		1.5	U		1.6	U	
AROCLOR-1242		1.6	U		1.3	U		1.5	U		1.6	U	
AROCLOR-1248		0.95	U		0.76	U		0.85	U		0.91	U	
AROCLOR-1254		870	J	Q	1300	J	Q	1.3	U		1.4	U	
AROCLOR-1260		1300	J	Q	970	J	Q	580	J	Q	1.4	U	

PROJ_NO: 05220	NSAMPLE	SD-114-SS			SD-115-01			SD-115-02			SD-115-03		
SDG: 180-25321-1	LAB_ID	180-25321-24			180-25321-21			180-25321-22			180-25321-23		
FRACTION: PCB	SAMP_DATE	9/18/2013			9/18/2013			9/18/2013			9/18/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	43.3			46.1			42.7			43.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		1.4	U		1.3	U		1.5	U		1.4	U	
AROCLOR-1221		1.8	U		1.7	U		1.9	U		1.8	U	
AROCLOR-1232		1.6	U		1.5	U		1.7	U		1.6	U	
AROCLOR-1242		1.6	U		1.5	U		1.6	U		1.5	U	
AROCLOR-1248		0.91	U		0.85	U		0.92	U		0.9	U	
AROCLOR-1254		1.4	U		750	J	Q	1.4	U		1.4	U	
AROCLOR-1260		280	J	Q	1100	J	Q	150			18		

PROJ_NO: 05220	NSAMPLE	SD-115-SS			SD-117-01			SD-117-02			SD-117-SS		
SDG: 180-25321-1	LAB_ID	180-25321-20			180-25321-6			180-25321-7			180-25321-5		
FRACTION: PCB	SAMP_DATE	9/18/2013			9/18/2013			9/18/2013			9/18/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	34.0			72.6			55.5			33.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		1.8	U		0.43	U		0.56	U		0.93	U	
AROCLOR-1221		2.3	U		0.55	U		0.72	U		1.2	U	
AROCLOR-1232		2.1	U		0.49	U		0.64	U		1.1	U	
AROCLOR-1242		2	U		0.47	U		0.61	U		1	U	
AROCLOR-1248		1.2	U		0.27	U		0.35	U		0.59	U	
AROCLOR-1254		1.7	U		56			0.53	U		220	J	Q
AROCLOR-1260		430	J	Q	86			7.3			340	J	Q

PROJ_NO: 05220	NSAMPLE	SD-118-01			SD-118-02			SD-118-03			SD-118-SS		
SDG: 180-25321-1	LAB_ID	180-25321-9			180-25321-10			180-25321-11			180-25321-8		
FRACTION: PCB	SAMP_DATE	9/18/2013			9/18/2013			9/18/2013			9/18/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	50.3			42.6			45.0			55.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.61	U		0.73	U		0.69	U		0.56	U	
AROCLOR-1221		0.79	U		0.93	U		0.88	U		0.72	U	
AROCLOR-1232		0.71	U		0.84	U		0.79	U		0.65	U	
AROCLOR-1242		0.67	U		0.8	U		0.75	U		0.62	U	
AROCLOR-1248		0.39	U		0.46	U		0.44	U		0.36	U	
AROCLOR-1254		1000	J	Q	0.7	U		0.66	U		400	J	Q
AROCLOR-1260		1200	J	Q	0.7	U		0.66	U		710	J	Q

PROJ_NO: 05220	NSAMPLE	SD-119-01			SD-119-02			SD-119-03			SD-119-SS		
SDG: 180-25321-1	LAB_ID	180-25321-30			180-25321-31			180-25321-32			180-25321-29		
FRACTION: PCB	SAMP_DATE	9/18/2013			9/18/2013			9/18/2013			9/18/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	47.1			44.9			48.7			44.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		1.3	U		1.4	U		1.3	U		1.4	U	
AROCLOR-1221		1.7	U		1.8	U		1.6	U		1.8	U	
AROCLOR-1232		1.5	U		1.6	U		1.5	U		1.6	U	
AROCLOR-1242		1.4	U		1.5	U		1.4	U		1.5	U	
AROCLOR-1248		0.84	U		0.88	U		0.81	U		0.89	U	
AROCLOR-1254		330	J	Q	1.3	U		10			540	J	Q
AROCLOR-1260		310	J	Q	1.3	U		11			800	J	Q

PROJ_NO: 05220	NSAMPLE	SD-120-01			SD-120-02			SD-120-03			SD-120-SS		
SDG: 180-25321-1	LAB_ID	180-25321-13			180-25321-14			180-25321-15			180-25321-12		
FRACTION: PCB	SAMP_DATE	9/18/2013			9/18/2013			9/18/2013			9/18/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	70.9			46.8			48.0			24.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.43	U		0.66	U		0.65	U		1.2	UJ	Y
AROCLOR-1221		0.56	U		0.85	U		0.83	U		1.6	UJ	Y
AROCLOR-1232		0.5	U		0.76	U		0.74	U		1.4	UJ	Y
AROCLOR-1242		0.48	U		0.73	U		0.71	U		1.4	UJ	Y
AROCLOR-1248		0.28	U		0.42	U		0.41	U		0.79	UJ	Y
AROCLOR-1254		12			0.63	U		0.62	U		260	J	Y
AROCLOR-1260		16			1.4	J	P	0.81	J	P	530	J	Y

PROJ_NO: 05220	NSAMPLE	SD-152			SD-153			SD-154			SD-155		
SDG: 180-25321-1	LAB_ID	180-25321-1			180-25321-4			180-25321-2			180-25321-3		
FRACTION: PCB	SAMP_DATE	9/17/2013			9/18/2013			9/17/2013			9/17/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	37.3			33.0			32.3			31.3		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.83	U		0.93	U		9.6	U		9.9	U	
AROCLOR-1221		1.1	U		1.2	U		12	U		13	U	
AROCLOR-1232		0.96	U		1.1	U		11	U		11	U	
AROCLOR-1242		0.91	U		1	U		11	U		11	U	
AROCLOR-1248		0.53	U		0.59	U		6.1	U		6.3	U	
AROCLOR-1254		180	J	Q	0.89	U		9.2	U		9.4	U	
AROCLOR-1260		190	J	Q	1700	J	Q	5500	J	Q	4700	J	Q

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: DUP-07 | Lab Sample ID: 180-25321-28

Matrix: Sediment | Lab File ID: F0930020.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 00:00

Extract. Method: 3541 | Date Extracted: 09/27/2013 13:04

Sample wt/vol: 30.0(g) | Date Analyzed: 09/30/2013 13:51

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 5

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 57.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85237 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	12	J	39	3.8
56-55-3	Benzo[a]anthracene	30	J	39	4.9
205-99-2	Benzo[b]fluoranthene	33	J	39	6.2
207-08-9	Benzo[k]fluoranthene	15	J	39	7.9
191-24-2	Benzo[g,h,i]perylene	19	J	39	3.9
50-32-8	Benzo[a]pyrene	26	J	39	3.9
218-01-9	Chrysene	32	J	39	4.7
53-70-3	Dibenz(a,h)anthracene	7.6	J	39	4.4
206-44-0	Fluoranthene	42		39	4.2
86-73-7	Fluorene	6.7	J	39	5.2
193-39-5	Indeno[1,2,3-cd]pyrene	15	J	39	4.0
85-01-8	Phenanthrene	24	J	39	6.2
129-00-0	Pyrene	52		39	4.0
83-32-9	Acenaphthene	7.3	J	39	3.8
208-96-8	Acenaphthylene	23	J	39	4.5
91-20-3	Naphthalene	21	J	39	3.4
91-57-6	2-Methylnaphthalene	ND		39	3.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	70		27-110
321-60-8	2-Fluorobiphenyl	64		28-108
1718-51-0	Terphenyl-d14 (Surr)	48		21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-113-01 | Lab Sample ID: 180-25321-17

Matrix: Sediment | Lab File ID: N0927017.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 11:33

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.1(g) | Date Analyzed: 09/28/2013 07:24

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 15

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 55.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85121 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	190		110	11
56-55-3	Benzo[a]anthracene	570		110	14
205-99-2	Benzo[b]fluoranthene	790		110	18
207-08-9	Benzo[k]fluoranthene	220		110	23
191-24-2	Benzo[g,h,i]perylene	700		110	11
50-32-8	Benzo[a]pyrene	650		110	11
218-01-9	Chrysene	710		110	13
53-70-3	Dibenz(a,h)anthracene	290		110	12
206-44-0	Fluoranthene	1200		110	12
86-73-7	Fluorene	52	J	110	15
193-39-5	Indeno[1,2,3-cd]pyrene	590		110	12
85-01-8	Phenanthrene	320		110	18
129-00-0	Pyrene	1100		110	11
83-32-9	Acenaphthene	43	J	110	11
208-96-8	Acenaphthylene	150		110	13
91-20-3	Naphthalene	57	J	110	9.6
91-57-6	2-Methylnaphthalene	36	J	110	10

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	75	D	27-110
321-60-8	2-Fluorobiphenyl	80	D	28-108
1718-51-0	Terphenyl-d14 (Surr)	77	D	21-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-113-02 | Lab Sample ID: 180-25321-18

Matrix: Sediment | Lab File ID: N0927018.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 11:33

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.1(g) | Date Analyzed: 09/28/2013 07:50

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 5

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 57.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85121 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	ND		39	3.8
56-55-3	Benzo[a]anthracene	ND		39	4.9
205-99-2	Benzo[b]fluoranthene	ND		39	6.1
207-08-9	Benzo[k]fluoranthene	ND		39	7.9
191-24-2	Benzo[g,h,i]perylene	ND		39	3.9
50-32-8	Benzo[a]pyrene	ND		39	3.9
218-01-9	Chrysene	ND		39	4.6
53-70-3	Dibenz(a,h)anthracene	ND		39	4.3
206-44-0	Fluoranthene	ND		39	4.2
86-73-7	Fluorene	ND		39	5.1
193-39-5	Indeno[1,2,3-cd]pyrene	ND		39	4.0
85-01-8	Phenanthrene	ND		39	6.2
129-00-0	Pyrene	ND		39	3.9
83-32-9	Acenaphthene	ND		39	3.7
208-96-8	Acenaphthylene	ND		39	4.5
91-20-3	Naphthalene	ND		39	3.4
91-57-6	2-Methylnaphthalene	ND		39	3.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	71		27-110
321-60-8	2-Fluorobiphenyl	83		28-108
1718-51-0	Terphenyl-d14 (Surr)	81		21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-113-03 | Lab Sample ID: 180-25321-19

Matrix: Sediment | Lab File ID: N0927019.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 11:33

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.1(g) | Date Analyzed: 09/28/2013 08:16

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 5

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 50.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85121 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	ND		34	3.3
56-55-3	Benzo[a]anthracene	ND		34	4.2
205-99-2	Benzo[b]fluoranthene	ND		34	5.3
207-08-9	Benzo[k]fluoranthene	ND		34	6.8
191-24-2	Benzo[g,h,i]perylene	ND		34	3.3
50-32-8	Benzo[a]pyrene	ND		34	3.3
218-01-9	Chrysene	ND		34	4.0
53-70-3	Dibenz(a,h)anthracene	ND		34	3.7
206-44-0	Fluoranthene	ND		34	3.6
86-73-7	Fluorene	ND		34	4.4
193-39-5	Indeno[1,2,3-cd]pyrene	ND		34	3.4
85-01-8	Phenanthrene	ND		34	5.3
129-00-0	Pyrene	ND		34	3.4
83-32-9	Acenaphthene	ND		34	3.2
208-96-8	Acenaphthylene	ND		34	3.8
91-20-3	Naphthalene	ND		34	2.9
91-57-6	2-Methylnaphthalene	ND		34	3.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	75		27-110
321-60-8	2-Fluorobiphenyl	87		28-108
1718-51-0	Terphenyl-d14 (Surr)	83		21-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-113-SS | Lab Sample ID: 180-25321-16

Matrix: Sediment | Lab File ID: N0927016.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 11:33

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.0(g) | Date Analyzed: 09/28/2013 06:58

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 40

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 58.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85121 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	530		320	32
56-55-3	Benzo[a]anthracene	1500		320	40
205-99-2	Benzo[b]fluoranthene	2000		320	51
207-08-9	Benzo[k]fluoranthene	670		320	65
191-24-2	Benzo[g,h,i]perylene	1900		320	32
50-32-8	Benzo[a]pyrene	1700		320	32
218-01-9	Chrysene	1800		320	38
53-70-3	Dibenz(a,h)anthracene	830		320	36
206-44-0	Fluoranthene	2900		320	35
86-73-7	Fluorene	160	J	320	43
193-39-5	Indeno[1,2,3-cd]pyrene	1600		320	33
85-01-8	Phenanthrene	960		320	51
129-00-0	Pyrene	2700		320	33
83-32-9	Acenaphthene	100	J	320	31
208-96-8	Acenaphthylene	480		320	37
91-20-3	Naphthalene	170	J	320	28
91-57-6	2-Methylnaphthalene	120	J	320	29

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	63	D	27-110
321-60-8	2-Fluorobiphenyl	69	D	28-108
1718-51-0	Terphenyl-d14 (Surr)	67	D	21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-114-01 | Lab Sample ID: 180-25321-25

Matrix: Sediment | Lab File ID: F0930017.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 15:07

Extract. Method: 3541 | Date Extracted: 09/27/2013 13:04

Sample wt/vol: 30.1(g) | Date Analyzed: 09/30/2013 12:29

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 5

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 48.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85237 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	560		32	3.1
56-55-3	Benzo[a]anthracene	1700		32	4.0
205-99-2	Benzo[b]fluoranthene	1800	*	32	5.1
207-08-9	Benzo[k]fluoranthene	1200	*	32	6.5
191-24-2	Benzo[g,h,i]perylene	920	*	32	3.2
50-32-8	Benzo[a]pyrene	1700	*	32	3.2
218-01-9	Chrysene	1900		32	3.8
53-70-3	Dibenz(a,h)anthracene	210	*	32	3.6
206-44-0	Fluoranthene	3900		32	3.4
86-73-7	Fluorene	150		32	4.2
193-39-5	Indeno[1,2,3-cd]pyrene	890	*	32	3.3
85-01-8	Phenanthrene	1700		32	5.1
129-00-0	Pyrene	3000		32	3.3
83-32-9	Acenaphthene	170		32	3.1
208-96-8	Acenaphthylene	260		32	3.7
91-20-3	Naphthalene	110		32	2.8
91-57-6	2-Methylnaphthalene	60		32	2.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	73		27-110
321-60-8	2-Fluorobiphenyl	71		28-108
1718-51-0	Terphenyl-d14 (Surr)	48		21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-114-02 | Lab Sample ID: 180-25321-26

Matrix: Sediment | Lab File ID: F0930018.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 15:07

Extract. Method: 3541 | Date Extracted: 09/27/2013 13:04

Sample wt/vol: 30.4(g) | Date Analyzed: 09/30/2013 12:57

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 5

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 53.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85237 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	970		35	3.5
56-55-3	Benzo[a]anthracene	2600		35	4.4
205-99-2	Benzo[b]fluoranthene	2800		35	5.6
207-08-9	Benzo[k]fluoranthene	1000		35	7.1
191-24-2	Benzo[g,h,i]perylene	1200		35	3.5
50-32-8	Benzo[a]pyrene	2300		35	3.5
218-01-9	Chrysene	2900		35	4.2
53-70-3	Dibenz(a,h)anthracene	330		35	3.9
206-44-0	Fluoranthene	7000		35	3.8
86-73-7	Fluorene	330		35	4.7
193-39-5	Indeno[1,2,3-cd]pyrene	1200		35	3.6
85-01-8	Phenanthrene	2800		35	5.6
129-00-0	Pyrene	4900		35	3.6
83-32-9	Acenaphthene	350		35	3.4
208-96-8	Acenaphthylene	280		35	4.0
91-20-3	Naphthalene	170		35	3.0
91-57-6	2-Methylnaphthalene	84		35	3.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	56		27-110
321-60-8	2-Fluorobiphenyl	55		28-108
1718-51-0	Terphenyl-d14 (Surr)	39		21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-114-03 | Lab Sample ID: 180-25321-27

Matrix: Sediment | Lab File ID: F0930019.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 15:07

Extract. Method: 3541 | Date Extracted: 09/27/2013 13:04

Sample wt/vol: 30.0(g) | Date Analyzed: 09/30/2013 13:24

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 5

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 56.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85237 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	34	J	39	3.8
56-55-3	Benzo[a]anthracene	56		39	4.8
205-99-2	Benzo[b]fluoranthene	40		39	6.0
207-08-9	Benzo[k]fluoranthene	20	J	39	7.8
191-24-2	Benzo[g,h,i]perylene	22	J	39	3.8
50-32-8	Benzo[a]pyrene	40		39	3.8
218-01-9	Chrysene	50		39	4.6
53-70-3	Dibenz(a,h)anthracene	ND		39	4.3
206-44-0	Fluoranthene	120		39	4.1
86-73-7	Fluorene	24	J	39	5.1
193-39-5	Indeno[1,2,3-cd]pyrene	23	J	39	4.0
85-01-8	Phenanthrene	99		39	6.1
129-00-0	Pyrene	87		39	3.9
83-32-9	Acenaphthene	22	J	39	3.7
208-96-8	Acenaphthylene	25	J	39	4.4
91-20-3	Naphthalene	35	J	39	3.3
91-57-6	2-Methylnaphthalene	7.8	J	39	3.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	74		27-110
321-60-8	2-Fluorobiphenyl	69		28-108
1718-51-0	Terphenyl-d14 (Surr)	52		21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-114-SS | Lab Sample ID: 180-25321-24

Matrix: Sediment | Lab File ID: F0930016.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 15:07

Extract. Method: 3541 | Date Extracted: 09/27/2013 13:04

Sample wt/vol: 30.3(g) | Date Analyzed: 09/30/2013 12:02

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 5

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 56.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85237 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	240		38	3.7
56-55-3	Benzo[a]anthracene	660		38	4.8
205-99-2	Benzo[b]fluoranthene	980		38	6.0
207-08-9	Benzo[k]fluoranthene	320		38	7.7
191-24-2	Benzo[g,h,i]perylene	620		38	3.8
50-32-8	Benzo[a]pyrene	820		38	3.8
218-01-9	Chrysene	820		38	4.5
53-70-3	Dibenz(a,h)anthracene	140		38	4.2
206-44-0	Fluoranthene	1200		38	4.1
86-73-7	Fluorene	47		38	5.0
193-39-5	Indeno[1,2,3-cd]pyrene	520		38	3.9
85-01-8	Phenanthrene	410		38	6.1
129-00-0	Pyrene	1400		38	3.9
83-32-9	Acenaphthene	36	J	38	3.7
208-96-8	Acenaphthylene	150		38	4.4
91-20-3	Naphthalene	62		38	3.3
91-57-6	2-Methylnaphthalene	33	J	38	3.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	65		27-110
321-60-8	2-Fluorobiphenyl	62		28-108
1718-51-0	Terphenyl-d14 (Surr)	47		21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-115-01 | Lab Sample ID: 180-25321-21

Matrix: Sediment | Lab File ID: F0930013.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 14:05

Extract. Method: 3541 | Date Extracted: 09/27/2013 13:04

Sample wt/vol: 30.4(g) | Date Analyzed: 09/30/2013 10:39

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 5

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 53.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85237 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	830		36	3.5
56-55-3	Benzo[a]anthracene	2300		36	4.5
205-99-2	Benzo[b]fluoranthene	3000		36	5.6
207-08-9	Benzo[k]fluoranthene	940		36	7.2
191-24-2	Benzo[g,h,i]perylene	1500		36	3.5
50-32-8	Benzo[a]pyrene	2400		36	3.6
218-01-9	Chrysene	2300		36	4.2
53-70-3	Dibenz(a,h)anthracene	320		36	4.0
206-44-0	Fluoranthene	5000		36	3.8
86-73-7	Fluorene	300		36	4.7
193-39-5	Indeno[1,2,3-cd]pyrene	1400		36	3.7
85-01-8	Phenanthrene	2400		36	5.7
129-00-0	Pyrene	3900		36	3.6
83-32-9	Acenaphthene	360		36	3.4
208-96-8	Acenaphthylene	300		36	4.1
91-20-3	Naphthalene	260		36	3.1
91-57-6	2-Methylnaphthalene	110		36	3.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	81		27-110
321-60-8	2-Fluorobiphenyl	81		28-108
1718-51-0	Terphenyl-d14 (Surr)	54		21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh
Job No.: 180-25321-1
SDG No.:
Client Sample ID: SD-115-02
Lab Sample ID: 180-25321-22
Matrix: Sediment
Lab File ID: F0930014.D
Analysis Method: 8270D LL
Date Collected: 09/18/2013 14:05
Extract. Method: 3541
Date Extracted: 09/27/2013 13:04
Sample wt/vol: 30.1(g)
Date Analyzed: 09/30/2013 11:07
Con. Extract Vol.: 0.5(mL)
Dilution Factor: 5
Injection Volume: 2(uL)
Level: (low/med) Low
% Moisture: 57.3
GPC Cleanup:(Y/N) N
Analysis Batch No.: 85237
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	210		39	3.8
56-55-3	Benzo[a]anthracene	620		39	4.9
205-99-2	Benzo[b]fluoranthene	700		39	6.1
207-08-9	Benzo[k]fluoranthene	330		39	7.9
191-24-2	Benzo[g,h,i]perylene	420		39	3.9
50-32-8	Benzo[a]pyrene	590		39	3.9
218-01-9	Chrysene	780		39	4.6
53-70-3	Dibenz(a,h)anthracene	110		39	4.3
206-44-0	Fluoranthene	1200		39	4.2
86-73-7	Fluorene	67		39	5.1
193-39-5	Indeno[1,2,3-cd]pyrene	390		39	4.0
85-01-8	Phenanthrene	390		39	6.2
129-00-0	Pyrene	1200		39	3.9
83-32-9	Acenaphthene	50		39	3.7
208-96-8	Acenaphthylene	150		39	4.5
91-20-3	Naphthalene	95		39	3.4
91-57-6	2-Methylnaphthalene	55		39	3.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	74		27-110
321-60-8	2-Fluorobiphenyl	74		28-108
1718-51-0	Terphenyl-d14 (Surr)	57		21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-115-03 | Lab Sample ID: 180-25321-23

Matrix: Sediment | Lab File ID: F0930015.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 14:05

Extract. Method: 3541 | Date Extracted: 09/27/2013 13:04

Sample wt/vol: 30.2(g) | Date Analyzed: 09/30/2013 11:34

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 5

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 56.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85237 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	5.7	J	38	3.7
56-55-3	Benzo[a]anthracene	15	J	38	4.7
205-99-2	Benzo[b]fluoranthene	15	J	38	5.9
207-08-9	Benzo[k]fluoranthene	ND		38	7.6
191-24-2	Benzo[g,h,i]perylene	ND		38	3.8
50-32-8	Benzo[a]pyrene	11	J	38	3.8
218-01-9	Chrysene	23	J	38	4.5
53-70-3	Dibenz(a,h)anthracene	ND		38	4.2
206-44-0	Fluoranthene	21	J	38	4.0
86-73-7	Fluorene	ND		38	5.0
193-39-5	Indeno[1,2,3-cd]pyrene	ND		38	3.9
85-01-8	Phenanthrene	12	J	38	6.0
129-00-0	Pyrene	24	J	38	3.8
83-32-9	Acenaphthene	4.6	J	38	3.6
208-96-8	Acenaphthylene	18	J	38	4.3
91-20-3	Naphthalene	24	J	38	3.3
91-57-6	2-Methylnaphthalene	ND		38	3.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	74		27-110
321-60-8	2-Fluorobiphenyl	70		28-108
1718-51-0	Terphenyl-d14 (Surr)	53		21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-115-SS | Lab Sample ID: 180-25321-20

Matrix: Sediment | Lab File ID: N0927020.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 14:05

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.0(g) | Date Analyzed: 09/28/2013 08:41

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 40

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 66.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85121 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	400		390	38
56-55-3	Benzo[a]anthracene	1300		390	49
205-99-2	Benzo[b]fluoranthene	1900		390	62
207-08-9	Benzo[k]fluoranthene	460		390	79
191-24-2	Benzo[g,h,i]perylene	1900		390	39
50-32-8	Benzo[a]pyrene	1400		390	39
218-01-9	Chrysene	1600		390	47
53-70-3	Dibenz(a,h)anthracene	870		390	44
206-44-0	Fluoranthene	2600		390	42
86-73-7	Fluorene	ND		390	52
193-39-5	Indeno[1,2,3-cd]pyrene	1600		390	40
85-01-8	Phenanthrene	750		390	62
129-00-0	Pyrene	2200		390	40
83-32-9	Acenaphthene	65	J	390	38
208-96-8	Acenaphthylene	240	J	390	45
91-20-3	Naphthalene	ND		390	34
91-57-6	2-Methylnaphthalene	53	J	390	35

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	61	D	27-110
321-60-8	2-Fluorobiphenyl	65	D	28-108
1718-51-0	Terphenyl-d14 (Surr)	64	D	21-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-117-01 | Lab Sample ID: 180-25321-6

Matrix: Sediment | Lab File ID: N0927004.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 08:35

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.1(g) | Date Analyzed: 09/28/2013 01:48

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 10

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 27.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85121 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	85		46	4.5
56-55-3	Benzo[a]anthracene	300		46	5.7
205-99-2	Benzo[b]fluoranthene	370		46	7.2
207-08-9	Benzo[k]fluoranthene	180		46	9.3
191-24-2	Benzo[g,h,i]perylene	320		46	4.6
50-32-8	Benzo[a]pyrene	330		46	4.6
218-01-9	Chrysene	400		46	5.5
53-70-3	Dibenz(a,h)anthracene	120		46	5.1
206-44-0	Fluoranthene	680		46	4.9
86-73-7	Fluorene	28	J	46	6.0
193-39-5	Indeno[1,2,3-cd]pyrene	280		46	4.7
85-01-8	Phenanthrene	270		46	7.3
129-00-0	Pyrene	620		46	4.6
83-32-9	Acenaphthene	15	J	46	4.4
208-96-8	Acenaphthylene	57		46	5.2
91-20-3	Naphthalene	24	J	46	3.9
91-57-6	2-Methylnaphthalene	18	J	46	4.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	69		27-110
321-60-8	2-Fluorobiphenyl	79		28-108
1718-51-0	Terphenyl-d14 (Surr)	81		21-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-117-02 | Lab Sample ID: 180-25321-7

Matrix: Sediment | Lab File ID: N0927005.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 08:35

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.1(g) | Date Analyzed: 09/28/2013 02:14

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 3

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 44.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85121 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	18		18	1.8
56-55-3	Benzo[a]anthracene	63		18	2.3
205-99-2	Benzo[b]fluoranthene	99		18	2.8
207-08-9	Benzo[k]fluoranthene	23		18	3.6
191-24-2	Benzo[g,h,i]perylene	80		18	1.8
50-32-8	Benzo[a]pyrene	65		18	1.8
218-01-9	Chrysene	81		18	2.1
53-70-3	Dibenz(a,h)anthracene	41		18	2.0
206-44-0	Fluoranthene	150		18	1.9
86-73-7	Fluorene	10	J	18	2.4
193-39-5	Indeno[1,2,3-cd]pyrene	78		18	1.9
85-01-8	Phenanthrene	55		18	2.9
129-00-0	Pyrene	110		18	1.8
83-32-9	Acenaphthene	4.0	J	18	1.7
208-96-8	Acenaphthylene	16	J	18	2.1
91-20-3	Naphthalene	9.3	J	18	1.5
91-57-6	2-Methylnaphthalene	5.7	J	18	1.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	69		27-110
321-60-8	2-Fluorobiphenyl	74		28-108
1718-51-0	Terphenyl-d14 (Surr)	67		21-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-117-SS | Lab Sample ID: 180-25321-5

Matrix: Sediment | Lab File ID: N0927003.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 08:35

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.1(g) | Date Analyzed: 09/28/2013 01:22

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 25

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 66.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85121 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	610		250	25
56-55-3	Benzo[a]anthracene	1600		250	31
205-99-2	Benzo[b]fluoranthene	3100		250	39
207-08-9	Benzo[k]fluoranthene	1000		250	51
191-24-2	Benzo[g,h,i]perylene	2000		250	25
50-32-8	Benzo[a]pyrene	2000		250	25
218-01-9	Chrysene	2300		250	30
53-70-3	Dibenz(a,h)anthracene	830		250	28
206-44-0	Fluoranthene	2600		250	27
86-73-7	Fluorene	91	J	250	33
193-39-5	Indeno[1,2,3-cd]pyrene	1800		250	26
85-01-8	Phenanthrene	350		250	40
129-00-0	Pyrene	2200		250	25
83-32-9	Acenaphthene	120	J	250	24
208-96-8	Acenaphthylene	370		250	29
91-20-3	Naphthalene	51	J	250	22
91-57-6	2-Methylnaphthalene	36	J	250	23

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	52	D	27-110
321-60-8	2-Fluorobiphenyl	59	D	28-108
1718-51-0	Terphenyl-d14 (Surr)	55	D	21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-118-01 | Lab Sample ID: 180-25321-9

Matrix: Sediment | Lab File ID: N0927007.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 09:40

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.1(g) | Date Analyzed: 09/28/2013 03:06

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 40

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 49.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85121 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	800		270	26
56-55-3	Benzo[a]anthracene	2400		270	33
205-99-2	Benzo[b]fluoranthene	3000		270	42
207-08-9	Benzo[k]fluoranthene	1200		270	53
191-24-2	Benzo[g,h,i]perylene	2400		270	26
50-32-8	Benzo[a]pyrene	2600		270	26
218-01-9	Chrysene	3300		270	31
53-70-3	Dibenz(a,h)anthracene	950		270	29
206-44-0	Fluoranthene	5000		270	28
86-73-7	Fluorene	200	J	270	35
193-39-5	Indeno[1,2,3-cd]pyrene	2000		270	27
85-01-8	Phenanthrene	1400		270	42
129-00-0	Pyrene	4500		270	27
83-32-9	Acenaphthene	240	J	270	25
208-96-8	Acenaphthylene	470		270	30
91-20-3	Naphthalene	150	J	270	23
91-57-6	2-Methylnaphthalene	92	J	270	24

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	66	D	27-110
321-60-8	2-Fluorobiphenyl	73	D	28-108
1718-51-0	Terphenyl-d14 (Surr)	66	D	21-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-118-02 | Lab Sample ID: 180-25321-10

Matrix: Sediment | Lab File ID: N0927008.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 09:40

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.1(g) | Date Analyzed: 09/28/2013 03:32

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 5

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 57.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85121 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	9.1	J	39	3.8
56-55-3	Benzo[a]anthracene	31	J	39	4.9
205-99-2	Benzo[b]fluoranthene	39		39	6.1
207-08-9	Benzo[k]fluoranthene	15	J	39	7.9
191-24-2	Benzo[g,h,i]perylene	86		39	3.9
50-32-8	Benzo[a]pyrene	33	J	39	3.9
218-01-9	Chrysene	33	J	39	4.6
53-70-3	Dibenz(a,h)anthracene	ND		39	4.3
206-44-0	Fluoranthene	56		39	4.2
86-73-7	Fluorene	ND		39	5.1
193-39-5	Indeno[1,2,3-cd]pyrene	98		39	4.0
85-01-8	Phenanthrene	22	J	39	6.2
129-00-0	Pyrene	44		39	3.9
83-32-9	Acenaphthene	ND		39	3.7
208-96-8	Acenaphthylene	8.9	J	39	4.5
91-20-3	Naphthalene	ND		39	3.4
91-57-6	2-Methylnaphthalene	ND		39	3.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	82		27-110
321-60-8	2-Fluorobiphenyl	89		28-108
1718-51-0	Terphenyl-d14 (Surr)	80		21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-118-03 | Lab Sample ID: 180-25321-11

Matrix: Sediment | Lab File ID: N0927009.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 09:40

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.2(g) | Date Analyzed: 09/28/2013 03:57

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 5

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 55.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85121 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	ND		37	3.6
56-55-3	Benzo[a]anthracene	7.5	J	37	4.6
205-99-2	Benzo[b]fluoranthene	9.9	J	37	5.8
207-08-9	Benzo[k]fluoranthene	ND		37	7.4
191-24-2	Benzo[g,h,i]perylene	ND		37	3.7
50-32-8	Benzo[a]pyrene	7.4	J	37	3.7
218-01-9	Chrysene	7.0	J	37	4.4
53-70-3	Dibenz(a,h)anthracene	ND		37	4.1
206-44-0	Fluoranthene	11	J	37	3.9
86-73-7	Fluorene	ND		37	4.9
193-39-5	Indeno[1,2,3-cd]pyrene	76		37	3.8
85-01-8	Phenanthrene	ND		37	5.9
129-00-0	Pyrene	10	J	37	3.7
83-32-9	Acenaphthene	ND		37	3.5
208-96-8	Acenaphthylene	ND		37	4.2
91-20-3	Naphthalene	ND		37	3.2
91-57-6	2-Methylnaphthalene	ND		37	3.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	90		27-110
321-60-8	2-Fluorobiphenyl	93		28-108
1718-51-0	Terphenyl-d14 (Surr)	98		21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-118-SS | Lab Sample ID: 180-25321-8

Matrix: Sediment | Lab File ID: N0927006.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 09:40

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.1(g) | Date Analyzed: 09/28/2013 02:40

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 30

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 44.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85121 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	320		180	18
56-55-3	Benzo[a]anthracene	990		180	23
205-99-2	Benzo[b]fluoranthene	1300		180	28
207-08-9	Benzo[k]fluoranthene	530		180	37
191-24-2	Benzo[g,h,i]perylene	1300		180	18
50-32-8	Benzo[a]pyrene	1200		180	18
218-01-9	Chrysene	1300		180	22
53-70-3	Dibenz(a,h)anthracene	510		180	20
206-44-0	Fluoranthene	2000		180	19
86-73-7	Fluorene	110	J	180	24
193-39-5	Indeno[1,2,3-cd]pyrene	1100		180	19
85-01-8	Phenanthrene	540		180	29
129-00-0	Pyrene	1900		180	18
83-32-9	Acenaphthene	66	J	180	17
208-96-8	Acenaphthylene	260		180	21
91-20-3	Naphthalene	71	J	180	16
91-57-6	2-Methylnaphthalene	50	J	180	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	63	D	27-110
321-60-8	2-Fluorobiphenyl	74	D	28-108
1718-51-0	Terphenyl-d14 (Surr)	75	D	21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-119-01 | Lab Sample ID: 180-25321-30

Matrix: Sediment | Lab File ID: F0930022.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 10:38

Extract. Method: 3541 | Date Extracted: 09/27/2013 13:04

Sample wt/vol: 30.3(g) | Date Analyzed: 09/30/2013 14:46

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 5

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 52.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85237 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	410		35	3.4
56-55-3	Benzo[a]anthracene	1100		35	4.4
205-99-2	Benzo[b]fluoranthene	1400	*	35	5.5
207-08-9	Benzo[k]fluoranthene	730	*	35	7.1
191-24-2	Benzo[g,h,i]perylene	660	*	35	3.5
50-32-8	Benzo[a]pyrene	1200	*	35	3.5
218-01-9	Chrysene	1400		35	4.2
53-70-3	Dibenz(a,h)anthracene	160	*	35	3.9
206-44-0	Fluoranthene	2600		35	3.7
86-73-7	Fluorene	92		35	4.6
193-39-5	Indeno[1,2,3-cd]pyrene	620	*	35	3.6
85-01-8	Phenanthrene	700		35	5.6
129-00-0	Pyrene	2200		35	3.5
83-32-9	Acenaphthene	99		35	3.4
208-96-8	Acenaphthylene	240		35	4.0
91-20-3	Naphthalene	100		35	3.0
91-57-6	2-Methylnaphthalene	60		35	3.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	73		27-110
321-60-8	2-Fluorobiphenyl	69		28-108
1718-51-0	Terphenyl-d14 (Surr)	47		21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-119-02 | Lab Sample ID: 180-25321-31

Matrix: Sediment | Lab File ID: F0930023.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 10:38

Extract. Method: 3541 | Date Extracted: 09/27/2013 13:04

Sample wt/vol: 30.1(g) | Date Analyzed: 09/30/2013 15:14

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 5

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 55.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85237 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	13	J	37	3.6
56-55-3	Benzo[a]anthracene	26	J	37	4.6
205-99-2	Benzo[b]fluoranthene	28	J	37	5.8
207-08-9	Benzo[k]fluoranthene	23	J	37	7.5
191-24-2	Benzo[g,h,i]perylene	23	J	37	3.7
50-32-8	Benzo[a]pyrene	26	J	37	3.7
218-01-9	Chrysene	36	J	37	4.4
53-70-3	Dibenz(a,h)anthracene	ND		37	4.1
206-44-0	Fluoranthene	50		37	4.0
86-73-7	Fluorene	ND		37	4.9
193-39-5	Indeno[1,2,3-cd]pyrene	23	J	37	3.8
85-01-8	Phenanthrene	19	J	37	5.9
129-00-0	Pyrene	47		37	3.7
83-32-9	Acenaphthene	9.9	J	37	3.6
208-96-8	Acenaphthylene	27	J	37	4.2
91-20-3	Naphthalene	24	J	37	3.2
91-57-6	2-Methylnaphthalene	4.5	J	37	3.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	73		27-110
321-60-8	2-Fluorobiphenyl	65		28-108
1718-51-0	Terphenyl-d14 (Surr)	48		21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-119-03 | Lab Sample ID: 180-25321-32

Matrix: Sediment | Lab File ID: FN930008.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 10:38

Extract. Method: 3541 | Date Extracted: 09/27/2013 13:04

Sample wt/vol: 30.2(g) | Date Analyzed: 10/01/2013 03:47

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 5

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 51.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85401 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	3.3	J	34	3.3
56-55-3	Benzo[a]anthracene	12	J	34	4.3
205-99-2	Benzo[b]fluoranthene	16	J	34	5.3
207-08-9	Benzo[k]fluoranthene	7.4	J	34	6.9
191-24-2	Benzo[g,h,i]perylene	8.5	J	34	3.4
50-32-8	Benzo[a]pyrene	13	J	34	3.4
218-01-9	Chrysene	14	J	34	4.1
53-70-3	Dibenz(a,h)anthracene	ND		34	3.8
206-44-0	Fluoranthene	23	J	34	3.6
86-73-7	Fluorene	ND		34	4.5
193-39-5	Indeno[1,2,3-cd]pyrene	6.4	J	34	3.5
85-01-8	Phenanthrene	9.9	J	34	5.4
129-00-0	Pyrene	24	J	34	3.4
83-32-9	Acenaphthene	ND		34	3.3
208-96-8	Acenaphthylene	ND		34	3.9
91-20-3	Naphthalene	ND		34	2.9
91-57-6	2-Methylnaphthalene	ND		34	3.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	75		27-110
321-60-8	2-Fluorobiphenyl	61		28-108
1718-51-0	Terphenyl-d14 (Surr)	52		21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-119-SS | Lab Sample ID: 180-25321-29

Matrix: Sediment | Lab File ID: F0930021.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 10:38

Extract. Method: 3541 | Date Extracted: 09/27/2013 13:04

Sample wt/vol: 30.4(g) | Date Analyzed: 09/30/2013 14:19

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 5

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 55.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85237 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	310		37	3.6
56-55-3	Benzo[a]anthracene	890		37	4.7
205-99-2	Benzo[b]fluoranthene	1300		37	5.9
207-08-9	Benzo[k]fluoranthene	510		37	7.5
191-24-2	Benzo[g,h,i]perylene	630		37	3.7
50-32-8	Benzo[a]pyrene	1000		37	3.7
218-01-9	Chrysene	1100		37	4.4
53-70-3	Dibenz(a,h)anthracene	140		37	4.1
206-44-0	Fluoranthene	1600		37	4.0
86-73-7	Fluorene	73		37	4.9
193-39-5	Indeno[1,2,3-cd]pyrene	580		37	3.8
85-01-8	Phenanthrene	560		37	5.9
129-00-0	Pyrene	1600		37	3.8
83-32-9	Acenaphthene	67		37	3.6
208-96-8	Acenaphthylene	210		37	4.3
91-20-3	Naphthalene	74		37	3.2
91-57-6	2-Methylnaphthalene	40		37	3.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	59		27-110
321-60-8	2-Fluorobiphenyl	57		28-108
1718-51-0	Terphenyl-d14 (Surr)	37		21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-120-01 | Lab Sample ID: 180-25321-13

Matrix: Sediment | Lab File ID: N0927011.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 11:07

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.2(g) | Date Analyzed: 09/28/2013 04:49

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 5

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 29.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85121 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	18	J	23	2.3
56-55-3	Benzo[a]anthracene	65		23	2.9
205-99-2	Benzo[b]fluoranthene	110		23	3.7
207-08-9	Benzo[k]fluoranthene	26		23	4.7
191-24-2	Benzo[g,h,i]perylene	100		23	2.3
50-32-8	Benzo[a]pyrene	74		23	2.3
218-01-9	Chrysene	71		23	2.8
53-70-3	Dibenz(a,h)anthracene	53		23	2.6
206-44-0	Fluoranthene	130		23	2.5
86-73-7	Fluorene	8.9	J	23	3.1
193-39-5	Indeno[1,2,3-cd]pyrene	93		23	2.4
85-01-8	Phenanthrene	31		23	3.7
129-00-0	Pyrene	110		23	2.4
83-32-9	Acenaphthene	4.7	J	23	2.2
208-96-8	Acenaphthylene	14	J	23	2.7
91-20-3	Naphthalene	4.6	J	23	2.0
91-57-6	2-Methylnaphthalene	3.1	J	23	2.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	61		27-110
321-60-8	2-Fluorobiphenyl	77		28-108
1718-51-0	Terphenyl-d14 (Surr)	77		21-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-120-02 | Lab Sample ID: 180-25321-14

Matrix: Sediment | Lab File ID: N0927012.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 11:07

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.1(g) | Date Analyzed: 09/28/2013 05:15

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 5

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 53.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85121 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	5.6	J	36	3.5
56-55-3	Benzo[a]anthracene	16	J	36	4.5
205-99-2	Benzo[b]fluoranthene	22	J	36	5.6
207-08-9	Benzo[k]fluoranthene	9.8	J	36	7.2
191-24-2	Benzo[g,h,i]perylene	84		36	3.5
50-32-8	Benzo[a]pyrene	17	J	36	3.6
218-01-9	Chrysene	19	J	36	4.2
53-70-3	Dibenz(a,h)anthracene	ND		36	4.0
206-44-0	Fluoranthene	37		36	3.8
86-73-7	Fluorene	ND		36	4.7
193-39-5	Indeno[1,2,3-cd]pyrene	80		36	3.7
85-01-8	Phenanthrene	14	J	36	5.7
129-00-0	Pyrene	28	J	36	3.6
83-32-9	Acenaphthene	ND		36	3.4
208-96-8	Acenaphthylene	ND		36	4.1
91-20-3	Naphthalene	ND		36	3.1
91-57-6	2-Methylnaphthalene	ND		36	3.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	67		27-110
321-60-8	2-Fluorobiphenyl	74		28-108
1718-51-0	Terphenyl-d14 (Surr)	68		21-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-120-03 | Lab Sample ID: 180-25321-15

Matrix: Sediment | Lab File ID: N0927013.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 11:07

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.0(g) | Date Analyzed: 09/28/2013 05:41

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 5

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 52.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85121 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	ND		35	3.4
56-55-3	Benzo[a]anthracene	ND		35	4.4
205-99-2	Benzo[b]fluoranthene	ND		35	5.5
207-08-9	Benzo[k]fluoranthene	ND		35	7.0
191-24-2	Benzo[g,h,i]perylene	ND		35	3.5
50-32-8	Benzo[a]pyrene	ND		35	3.5
218-01-9	Chrysene	ND		35	4.1
53-70-3	Dibenz(a,h)anthracene	ND		35	3.9
206-44-0	Fluoranthene	ND		35	3.7
86-73-7	Fluorene	ND		35	4.6
193-39-5	Indeno[1,2,3-cd]pyrene	ND		35	3.6
85-01-8	Phenanthrene	ND		35	5.5
129-00-0	Pyrene	ND		35	3.5
83-32-9	Acenaphthene	ND		35	3.3
208-96-8	Acenaphthylene	ND		35	4.0
91-20-3	Naphthalene	ND		35	3.0
91-57-6	2-Methylnaphthalene	ND		35	3.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	86		27-110
321-60-8	2-Fluorobiphenyl	97		28-108
1718-51-0	Terphenyl-d14 (Surr)	91		21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-120-SS | Lab Sample ID: 180-25321-12

Matrix: Sediment | Lab File ID: N0927010.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 11:07

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.1(g) | Date Analyzed: 09/28/2013 04:23

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 30

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 75.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85121 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	320	J	400	39
56-55-3	Benzo[a]anthracene	1100		400	50
205-99-2	Benzo[b]fluoranthene	1500		400	63
207-08-9	Benzo[k]fluoranthene	680		400	81
191-24-2	Benzo[g,h,i]perylene	1700		400	40
50-32-8	Benzo[a]pyrene	1200		400	40
218-01-9	Chrysene	1400		400	48
53-70-3	Dibenz(a,h)anthracene	880		400	45
206-44-0	Fluoranthene	2500		400	43
86-73-7	Fluorene	130	J	400	53
193-39-5	Indeno[1,2,3-cd]pyrene	1600		400	41
85-01-8	Phenanthrene	430		400	64
129-00-0	Pyrene	1800		400	40
83-32-9	Acenaphthene	70	J	400	38
208-96-8	Acenaphthylene	260	J	400	46
91-20-3	Naphthalene	ND		400	35
91-57-6	2-Methylnaphthalene	37	J	400	36

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	56	D	27-110
321-60-8	2-Fluorobiphenyl	63	D	28-108
1718-51-0	Terphenyl-d14 (Surr)	63	D	21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-152 | Lab Sample ID: 180-25321-1

Matrix: Sediment | Lab File ID: N0926024.D

Analysis Method: 8270D LL | Date Collected: 09/17/2013 11:03

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.0(g) | Date Analyzed: 09/26/2013 22:02

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 15

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 62.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85033 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	290		130	13
56-55-3	Benzo[a]anthracene	710		130	17
205-99-2	Benzo[b]fluoranthene	1000		130	21
207-08-9	Benzo[k]fluoranthene	350		130	27
191-24-2	Benzo[g,h,i]perylene	820		130	13
50-32-8	Benzo[a]pyrene	750		130	13
218-01-9	Chrysene	870		130	16
53-70-3	Dibenz(a,h)anthracene	370		130	15
206-44-0	Fluoranthene	1700		130	14
86-73-7	Fluorene	130		130	18
193-39-5	Indeno[1,2,3-cd]pyrene	740		130	14
85-01-8	Phenanthrene	650		130	21
129-00-0	Pyrene	1400		130	14
83-32-9	Acenaphthene	82	J	130	13
208-96-8	Acenaphthylene	150		130	15
91-20-3	Naphthalene	220		130	12
91-57-6	2-Methylnaphthalene	190		130	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	58	D	27-110
321-60-8	2-Fluorobiphenyl	68	D	28-108
1718-51-0	Terphenyl-d14 (Surr)	73	D	21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-153 | Lab Sample ID: 180-25321-4

Matrix: Sediment | Lab File ID: N0926027.D

Analysis Method: 8270D LL | Date Collected: 09/18/2013 07:42

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.2(g) | Date Analyzed: 09/26/2013 23:19

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 15

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 67.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85033 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	240		150	15
56-55-3	Benzo[a]anthracene	640		150	19
205-99-2	Benzo[b]fluoranthene	890		150	24
207-08-9	Benzo[k]fluoranthene	330		150	30
191-24-2	Benzo[g,h,i]perylene	790		150	15
50-32-8	Benzo[a]pyrene	690		150	15
218-01-9	Chrysene	820		150	18
53-70-3	Dibenz(a,h)anthracene	360		150	17
206-44-0	Fluoranthene	1400		150	16
86-73-7	Fluorene	100	J	150	20
193-39-5	Indeno[1,2,3-cd]pyrene	710		150	15
85-01-8	Phenanthrene	480		150	24
129-00-0	Pyrene	1100		150	15
83-32-9	Acenaphthene	70	J	150	14
208-96-8	Acenaphthylene	140	J	150	17
91-20-3	Naphthalene	130	J	150	13
91-57-6	2-Methylnaphthalene	110	J	150	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	45	D	27-110
321-60-8	2-Fluorobiphenyl	57	D	28-108
1718-51-0	Terphenyl-d14 (Surr)	59	D	21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-154 | Lab Sample ID: 180-25321-2

Matrix: Sediment | Lab File ID: N0926025.D

Analysis Method: 8270D LL | Date Collected: 09/17/2013 13:40

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.1(g) | Date Analyzed: 09/26/2013 22:28

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 10

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 67.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85033 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	250		100	10
56-55-3	Benzo[a]anthracene	940		100	13
205-99-2	Benzo[b]fluoranthene	1400		100	16
207-08-9	Benzo[k]fluoranthene	410		100	21
191-24-2	Benzo[g,h,i]perylene	860		100	10
50-32-8	Benzo[a]pyrene	970		100	10
218-01-9	Chrysene	1100		100	12
53-70-3	Dibenz(a,h)anthracene	330		100	11
206-44-0	Fluoranthene	1700		100	11
86-73-7	Fluorene	92	J	100	14
193-39-5	Indeno[1,2,3-cd]pyrene	760		100	11
85-01-8	Phenanthrene	510		100	16
129-00-0	Pyrene	1300		100	10
83-32-9	Acenaphthene	78	J	100	9.9
208-96-8	Acenaphthylene	130		100	12
91-20-3	Naphthalene	96	J	100	8.9
91-57-6	2-Methylnaphthalene	92	J	100	9.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	29		27-110
321-60-8	2-Fluorobiphenyl	43		28-108
1718-51-0	Terphenyl-d14 (Surr)	49		21-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-155 | Lab Sample ID: 180-25321-3

Matrix: Sediment | Lab File ID: N0926026.D

Analysis Method: 8270D LL | Date Collected: 09/17/2013 14:30

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.0(g) | Date Analyzed: 09/26/2013 22:54

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 30

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 68.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85033 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	310	J	320	31
56-55-3	Benzo[a]anthracene	830		320	40
205-99-2	Benzo[b]fluoranthene	1200		320	50
207-08-9	Benzo[k]fluoranthene	400		320	65
191-24-2	Benzo[g,h,i]perylene	1300		320	32
50-32-8	Benzo[a]pyrene	910		320	32
218-01-9	Chrysene	1100		320	38
53-70-3	Dibenz(a,h)anthracene	700		320	36
206-44-0	Fluoranthene	1800		320	34
86-73-7	Fluorene	130	J	320	42
193-39-5	Indeno[1,2,3-cd]pyrene	1100		320	33
85-01-8	Phenanthrene	600		320	51
129-00-0	Pyrene	1400		320	32
83-32-9	Acenaphthene	83	J	320	31
208-96-8	Acenaphthylene	160	J	320	37
91-20-3	Naphthalene	150	J	320	28
91-57-6	2-Methylnaphthalene	110	J	320	29

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	56	D	27-110
321-60-8	2-Fluorobiphenyl	64	D	28-108
1718-51-0	Terphenyl-d14 (Surr)	70	D	21-130

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: DUP-07 | Lab Sample ID: 180-25321-28

Matrix: Sediment | Lab File ID: T0930742.D

Analysis Method: 8082A | Date Collected: 09/18/2013 00:00

Extraction Method: 3541 | Date Extracted: 09/28/2013 05:45

Sample wt/vol: 30.0(g) | Date Analyzed: 09/30/2013 22:15

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 57.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85278 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		9.8	1.5
11104-28-2	PCB-1221	ND		9.8	1.9
11141-16-5	PCB-1232	ND		9.8	1.7
53469-21-9	PCB-1242	ND		9.8	1.6
12672-29-6	PCB-1248	ND		9.8	0.93
11097-69-1	PCB-1254	ND		9.8	1.4
11096-82-5	PCB-1260	ND		9.8	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	68		31-150
877-09-8	Tetrachloro-m-xylene	66		31-150

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-113-01 | Lab Sample ID: 180-25321-17

Matrix: Sediment | Lab File ID: T0930729.D

Analysis Method: 8082A | Date Collected: 09/18/2013 11:33

Extraction Method: 3541 | Date Extracted: 09/28/2013 05:45

Sample wt/vol: 30.1(g) | Date Analyzed: 09/30/2013 15:26

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 55.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85278 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		9.3	1.4
11104-28-2	PCB-1221	ND		9.3	1.8
11141-16-5	PCB-1232	ND		9.3	1.6
53469-21-9	PCB-1242	ND		9.3	1.5
12672-29-6	PCB-1248	ND		9.3	0.88
11097-69-1	PCB-1254	150		9.3	1.3
11096-82-5	PCB-1260	150		9.3	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	142		31-150
877-09-8	Tetrachloro-m-xylene	90		31-150

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-113-02 | Lab Sample ID: 180-25321-18

Matrix: Sediment | Lab File ID: T0930730.D

Analysis Method: 8082A | Date Collected: 09/18/2013 11:33

Extraction Method: 3541 | Date Extracted: 09/28/2013 05:45

Sample wt/vol: 30.2(g) | Date Analyzed: 09/30/2013 15:58

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 57.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85278 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		9.7	1.4
11104-28-2	PCB-1221	ND		9.7	1.9
11141-16-5	PCB-1232	ND		9.7	1.7
53469-21-9	PCB-1242	ND		9.7	1.6
12672-29-6	PCB-1248	ND		9.7	0.92
11097-69-1	PCB-1254	ND		9.7	1.4
11096-82-5	PCB-1260	ND		9.7	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	92		31-150
877-09-8	Tetrachloro-m-xylene	92		31-150

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-113-03 | Lab Sample ID: 180-25321-19

Matrix: Sediment | Lab File ID: T0930731.D

Analysis Method: 8082A | Date Collected: 09/18/2013 11:33

Extraction Method: 3541 | Date Extracted: 09/28/2013 05:45

Sample wt/vol: 30.1(g) | Date Analyzed: 09/30/2013 16:29

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 50.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85278 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		8.4	1.2
11104-28-2	PCB-1221	ND		8.4	1.6
11141-16-5	PCB-1232	ND		8.4	1.4
53469-21-9	PCB-1242	ND		8.4	1.4
12672-29-6	PCB-1248	ND		8.4	0.79
11097-69-1	PCB-1254	ND		8.4	1.2
11096-82-5	PCB-1260	ND		8.4	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	97		31-150
877-09-8	Tetrachloro-m-xylene	93		31-150

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh
Job No.: 180-25321-1
SDG No.:
Client Sample ID: SD-113-SS
Lab Sample ID: 180-25321-16
Matrix: Sediment
Lab File ID: T0930724.D
Analysis Method: 8082A
Date Collected: 09/18/2013 11:33
Extraction Method: 3541
Date Extracted: 09/28/2013 05:45
Sample wt/vol: 30.0(g)
Date Analyzed: 09/30/2013 12:50
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 10
Injection Volume: 1(uL)
GC Column: RTX-1701 ID: 0.53(mm)
% Moisture: 58.7
GPC Cleanup:(Y/N) N
Analysis Batch No.: 85278
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		10	1.5
11104-28-2	PCB-1221	ND		10	1.9
11141-16-5	PCB-1232	ND		10	1.7
53469-21-9	PCB-1242	ND		10	1.6
12672-29-6	PCB-1248	ND		10	0.95
11097-69-1	PCB-1254	870		10	1.4
11096-82-5	PCB-1260	1300		10	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	272	X	31-150
877-09-8	Tetrachloro-m-xylene	75		31-150

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh
Job No.: 180-25321-1
SDG No.:
Client Sample ID: SD-114-01
Lab Sample ID: 180-25321-25
Matrix: Sediment
Lab File ID: T0930739.D
Analysis Method: 8082A
Date Collected: 09/18/2013 15:07
Extraction Method: 3541
Date Extracted: 09/28/2013 05:45
Sample wt/vol: 30.1(g)
Date Analyzed: 09/30/2013 20:40
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 10
Injection Volume: 1(uL)
GC Column: RTX-1701 ID: 0.53(mm)
% Moisture: 48.3
GPC Cleanup:(Y/N) N
Analysis Batch No.: 85278
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		8.0	1.2
11104-28-2	PCB-1221	ND		8.0	1.5
11141-16-5	PCB-1232	ND		8.0	1.4
53469-21-9	PCB-1242	ND		8.0	1.3
12672-29-6	PCB-1248	ND		8.0	0.76
11097-69-1	PCB-1254	1300		8.0	1.1
11096-82-5	PCB-1260	970		8.0	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	155	X	31-150
877-09-8	Tetrachloro-m-xylene	58		31-150

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-114-02 | Lab Sample ID: 180-25321-26

Matrix: Sediment | Lab File ID: T0930740.D

Analysis Method: 8082A | Date Collected: 09/18/2013 15:07

Extraction Method: 3541 | Date Extracted: 09/28/2013 05:45

Sample wt/vol: 30.0(g) | Date Analyzed: 09/30/2013 21:12

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 53.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85278 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		8.9	1.3
11104-28-2	PCB-1221	ND		8.9	1.7
11141-16-5	PCB-1232	ND		8.9	1.5
53469-21-9	PCB-1242	ND		8.9	1.5
12672-29-6	PCB-1248	ND		8.9	0.85
11097-69-1	PCB-1254	ND		8.9	1.3
11096-82-5	PCB-1260	580		8.9	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	517	X	31-150
877-09-8	Tetrachloro-m-xylene	119		31-150

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh
Job No.: 180-25321-1
SDG No.:
Client Sample ID: SD-114-03
Lab Sample ID: 180-25321-27
Matrix: Sediment
Lab File ID: T0930741.D
Analysis Method: 8082A
Date Collected: 09/18/2013 15:07
Extraction Method: 3541
Date Extracted: 09/28/2013 05:45
Sample wt/vol: 30.1(g)
Date Analyzed: 09/30/2013 21:43
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 10
Injection Volume: 1(uL)
GC Column: RTX-1701 ID: 0.53(mm)
% Moisture: 56.6
GPC Cleanup:(Y/N) N
Analysis Batch No.: 85278
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		9.6	1.4
11104-28-2	PCB-1221	ND		9.6	1.8
11141-16-5	PCB-1232	ND		9.6	1.6
53469-21-9	PCB-1242	ND		9.6	1.6
12672-29-6	PCB-1248	ND		9.6	0.91
11097-69-1	PCB-1254	ND		9.6	1.4
11096-82-5	PCB-1260	ND		9.6	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	146		31-150
877-09-8	Tetrachloro-m-xylene	12	X	31-150

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-114-SS | Lab Sample ID: 180-25321-24

Matrix: Sediment | Lab File ID: T0930738.D

Analysis Method: 8082A | Date Collected: 09/18/2013 15:07

Extraction Method: 3541 | Date Extracted: 09/28/2013 05:45

Sample wt/vol: 30.1(g) | Date Analyzed: 09/30/2013 20:09

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 56.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85278 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		9.6	1.4
11104-28-2	PCB-1221	ND		9.6	1.8
11141-16-5	PCB-1232	ND		9.6	1.6
53469-21-9	PCB-1242	ND		9.6	1.6
12672-29-6	PCB-1248	ND		9.6	0.91
11097-69-1	PCB-1254	ND		9.6	1.4
11096-82-5	PCB-1260	280		9.6	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	135		31-150
877-09-8	Tetrachloro-m-xylene	131		31-150

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-115-01 | Lab Sample ID: 180-25321-21

Matrix: Sediment | Lab File ID: T0930733.D

Analysis Method: 8082A | Date Collected: 09/18/2013 14:05

Extraction Method: 3541 | Date Extracted: 09/28/2013 05:45

Sample wt/vol: 30.1(g) | Date Analyzed: 09/30/2013 17:32

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 53.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85278 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		9.0	1.3
11104-28-2	PCB-1221	ND		9.0	1.7
11141-16-5	PCB-1232	ND		9.0	1.5
53469-21-9	PCB-1242	ND		9.0	1.5
12672-29-6	PCB-1248	ND		9.0	0.85
11097-69-1	PCB-1254	750		9.0	1.3
11096-82-5	PCB-1260	1100		9.0	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	229	X	31-150
877-09-8	Tetrachloro-m-xylene	89		31-150

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-115-02 | Lab Sample ID: 180-25321-22

Matrix: Sediment | Lab File ID: T0930736.D

Analysis Method: 8082A | Date Collected: 09/18/2013 14:05

Extraction Method: 3541 | Date Extracted: 09/28/2013 05:45

Sample wt/vol: 30.0(g) | Date Analyzed: 09/30/2013 19:06

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 57.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85278 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		9.8	1.5
11104-28-2	PCB-1221	ND		9.8	1.9
11141-16-5	PCB-1232	ND		9.8	1.7
53469-21-9	PCB-1242	ND		9.8	1.6
12672-29-6	PCB-1248	ND		9.8	0.92
11097-69-1	PCB-1254	ND		9.8	1.4
11096-82-5	PCB-1260	150		9.8	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	322	X	31-150
877-09-8	Tetrachloro-m-xylene	90		31-150

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-115-03 | Lab Sample ID: 180-25321-23

Matrix: Sediment | Lab File ID: T0930737.D

Analysis Method: 8082A | Date Collected: 09/18/2013 14:05

Extraction Method: 3541 | Date Extracted: 09/28/2013 05:45

Sample wt/vol: 30.0(g) | Date Analyzed: 09/30/2013 19:37

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 56.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85278 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		9.5	1.4
11104-28-2	PCB-1221	ND		9.5	1.8
11141-16-5	PCB-1232	ND		9.5	1.6
53469-21-9	PCB-1242	ND		9.5	1.5
12672-29-6	PCB-1248	ND		9.5	0.90
11097-69-1	PCB-1254	ND		9.5	1.4
11096-82-5	PCB-1260	18		9.5	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	102		31-150
877-09-8	Tetrachloro-m-xylene	95		31-150

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-115-SS | Lab Sample ID: 180-25321-20

Matrix: Sediment | Lab File ID: T0930732.D

Analysis Method: 8082A | Date Collected: 09/18/2013 14:05

Extraction Method: 3541 | Date Extracted: 09/28/2013 05:45

Sample wt/vol: 30.0(g) | Date Analyzed: 09/30/2013 17:01

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 66.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85278 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		12	1.8
11104-28-2	PCB-1221	ND		12	2.3
11141-16-5	PCB-1232	ND		12	2.1
53469-21-9	PCB-1242	ND		12	2.0
12672-29-6	PCB-1248	ND		12	1.2
11097-69-1	PCB-1254	ND		12	1.7
11096-82-5	PCB-1260	430		12	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	189	X	31-150
877-09-8	Tetrachloro-m-xylene	83		31-150

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-117-01 | Lab Sample ID: 180-25321-6

Matrix: Sediment | Lab File ID: T0930674.D

Analysis Method: 8082A | Date Collected: 09/18/2013 08:35

Extraction Method: 3541 | Date Extracted: 09/25/2013 04:10

Sample wt/vol: 30.0(g) | Date Analyzed: 09/27/2013 10:10

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 27.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85122 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		2.9	0.43
11104-28-2	PCB-1221	ND		2.9	0.55
11141-16-5	PCB-1232	ND		2.9	0.49
53469-21-9	PCB-1242	ND		2.9	0.47
12672-29-6	PCB-1248	ND		2.9	0.27
11097-69-1	PCB-1254	56		2.9	0.41
11096-82-5	PCB-1260	86		2.9	0.41

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	153	X	31-150
877-09-8	Tetrachloro-m-xylene	82		31-150

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-117-02 | Lab Sample ID: 180-25321-7

Matrix: Sediment | Lab File ID: T0930675.D

Analysis Method: 8082A | Date Collected: 09/18/2013 08:35

Extraction Method: 3541 | Date Extracted: 09/25/2013 04:10

Sample wt/vol: 30.0(g) | Date Analyzed: 09/27/2013 10:44

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 44.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85122 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		3.8	0.56
11104-28-2	PCB-1221	ND		3.8	0.72
11141-16-5	PCB-1232	ND		3.8	0.64
53469-21-9	PCB-1242	ND		3.8	0.61
12672-29-6	PCB-1248	ND		3.8	0.35
11097-69-1	PCB-1254	ND		3.8	0.53
11096-82-5	PCB-1260	7.3		3.8	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	99		31-150
877-09-8	Tetrachloro-m-xylene	91		31-150

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-117-SS | Lab Sample ID: 180-25321-5

Matrix: Sediment | Lab File ID: T0930673.D

Analysis Method: 8082A | Date Collected: 09/18/2013 08:35

Extraction Method: 3541 | Date Extracted: 09/25/2013 04:10

Sample wt/vol: 30.1(g) | Date Analyzed: 09/27/2013 09:40

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 66.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85122 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		6.3	0.93
11104-28-2	PCB-1221	ND		6.3	1.2
11141-16-5	PCB-1232	ND		6.3	1.1
53469-21-9	PCB-1242	ND		6.3	1.0
12672-29-6	PCB-1248	ND		6.3	0.59
11097-69-1	PCB-1254	220		6.3	0.89
11096-82-5	PCB-1260	340		6.3	0.89

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	126		31-150
877-09-8	Tetrachloro-m-xylene	85		31-150

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-118-01 | Lab Sample ID: 180-25321-9

Matrix: Sediment | Lab File ID: T0930677.D

Analysis Method: 8082A | Date Collected: 09/18/2013 09:40

Extraction Method: 3541 | Date Extracted: 09/25/2013 04:10

Sample wt/vol: 30.1(g) | Date Analyzed: 09/27/2013 11:47

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 49.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85122 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		4.1	0.61
11104-28-2	PCB-1221	ND		4.1	0.79
11141-16-5	PCB-1232	ND		4.1	0.71
53469-21-9	PCB-1242	ND		4.1	0.67
12672-29-6	PCB-1248	ND		4.1	0.39
11097-69-1	PCB-1254	1000		4.1	0.59
11096-82-5	PCB-1260	1200		4.1	0.59

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	403	X	31-150
877-09-8	Tetrachloro-m-xylene	95		31-150

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-118-02 | Lab Sample ID: 180-25321-10

Matrix: Sediment | Lab File ID: T0930678.D

Analysis Method: 8082A | Date Collected: 09/18/2013 09:40

Extraction Method: 3541 | Date Extracted: 09/25/2013 04:10

Sample wt/vol: 30.0(g) | Date Analyzed: 09/27/2013 12:18

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 57.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85122 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		4.9	0.73
11104-28-2	PCB-1221	ND		4.9	0.93
11141-16-5	PCB-1232	ND		4.9	0.84
53469-21-9	PCB-1242	ND		4.9	0.80
12672-29-6	PCB-1248	ND		4.9	0.46
11097-69-1	PCB-1254	ND		4.9	0.70
11096-82-5	PCB-1260	ND		4.9	0.70

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	235	X	31-150
877-09-8	Tetrachloro-m-xylene	63		31-150

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-118-03 | Lab Sample ID: 180-25321-11

Matrix: Sediment | Lab File ID: T0930679.D

Analysis Method: 8082A | Date Collected: 09/18/2013 09:40

Extraction Method: 3541 | Date Extracted: 09/25/2013 04:10

Sample wt/vol: 30.1(g) | Date Analyzed: 09/27/2013 12:50

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 55.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85122 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		4.6	0.69
11104-28-2	PCB-1221	ND		4.6	0.88
11141-16-5	PCB-1232	ND		4.6	0.79
53469-21-9	PCB-1242	ND		4.6	0.75
12672-29-6	PCB-1248	ND		4.6	0.44
11097-69-1	PCB-1254	ND		4.6	0.66
11096-82-5	PCB-1260	ND		4.6	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	114		31-150
877-09-8	Tetrachloro-m-xylene	88		31-150

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-118-SS | Lab Sample ID: 180-25321-8

Matrix: Sediment | Lab File ID: T0930676.D

Analysis Method: 8082A | Date Collected: 09/18/2013 09:40

Extraction Method: 3541 | Date Extracted: 09/25/2013 04:10

Sample wt/vol: 30.0(g) | Date Analyzed: 09/27/2013 11:15

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 44.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85122 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		3.8	0.56
11104-28-2	PCB-1221	ND		3.8	0.72
11141-16-5	PCB-1232	ND		3.8	0.65
53469-21-9	PCB-1242	ND		3.8	0.62
12672-29-6	PCB-1248	ND		3.8	0.36
11097-69-1	PCB-1254	400		3.8	0.54
11096-82-5	PCB-1260	710		3.8	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	188	X	31-150
877-09-8	Tetrachloro-m-xylene	62		31-150

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh
Job No.: 180-25321-1
SDG No.:
Client Sample ID: SD-119-01
Lab Sample ID: 180-25321-30
Matrix: Sediment
Lab File ID: T0930744.D
Analysis Method: 8082A
Date Collected: 09/18/2013 10:38
Extraction Method: 3541
Date Extracted: 09/28/2013 05:45
Sample wt/vol: 30.0(g)
Date Analyzed: 09/30/2013 23:17
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 10
Injection Volume: 1(uL)
GC Column: RTX-1701 ID: 0.53(mm)
% Moisture: 52.9
GPC Cleanup:(Y/N) N
Analysis Batch No.: 85278
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		8.8	1.3
11104-28-2	PCB-1221	ND		8.8	1.7
11141-16-5	PCB-1232	ND		8.8	1.5
53469-21-9	PCB-1242	ND		8.8	1.4
12672-29-6	PCB-1248	ND		8.8	0.84
11097-69-1	PCB-1254	330		8.8	1.3
11096-82-5	PCB-1260	310		8.8	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	179	X	31-150
877-09-8	Tetrachloro-m-xylene	55		31-150

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-119-02 | Lab Sample ID: 180-25321-31

Matrix: Sediment | Lab File ID: T0930745.D

Analysis Method: 8082A | Date Collected: 09/18/2013 10:38

Extraction Method: 3541 | Date Extracted: 09/28/2013 05:45

Sample wt/vol: 30.0(g) | Date Analyzed: 09/30/2013 23:49

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 55.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85278 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		9.3	1.4
11104-28-2	PCB-1221	ND		9.3	1.8
11141-16-5	PCB-1232	ND		9.3	1.6
53469-21-9	PCB-1242	ND		9.3	1.5
12672-29-6	PCB-1248	ND		9.3	0.88
11097-69-1	PCB-1254	ND		9.3	1.3
11096-82-5	PCB-1260	ND		9.3	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	133		31-150
877-09-8	Tetrachloro-m-xylene	84		31-150

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-119-03 | Lab Sample ID: 180-25321-32

Matrix: Sediment | Lab File ID: T0930746.D

Analysis Method: 8082A | Date Collected: 09/18/2013 10:38

Extraction Method: 3541 | Date Extracted: 09/28/2013 06:25

Sample wt/vol: 30.0(g) | Date Analyzed: 10/01/2013 00:20

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 51.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85278 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		8.6	1.3
11104-28-2	PCB-1221	ND		8.6	1.6
11141-16-5	PCB-1232	ND		8.6	1.5
53469-21-9	PCB-1242	ND		8.6	1.4
12672-29-6	PCB-1248	ND		8.6	0.81
11097-69-1	PCB-1254	10		8.6	1.2
11096-82-5	PCB-1260	11		8.6	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	70		31-150
877-09-8	Tetrachloro-m-xylene	93		31-150

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh
Job No.: 180-25321-1
SDG No.:
Client Sample ID: SD-119-SS
Lab Sample ID: 180-25321-29
Matrix: Sediment
Lab File ID: T0930743.D
Analysis Method: 8082A
Date Collected: 09/18/2013 10:38
Extraction Method: 3541
Date Extracted: 09/28/2013 05:45
Sample wt/vol: 30.1(g)
Date Analyzed: 09/30/2013 22:46
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 10
Injection Volume: 1(uL)
GC Column: RTX-1701 ID: 0.53(mm)
% Moisture: 55.9
GPC Cleanup:(Y/N) N
Analysis Batch No.: 85278
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		9.4	1.4
11104-28-2	PCB-1221	ND		9.4	1.8
11141-16-5	PCB-1232	ND		9.4	1.6
53469-21-9	PCB-1242	ND		9.4	1.5
12672-29-6	PCB-1248	ND		9.4	0.89
11097-69-1	PCB-1254	540		9.4	1.3
11096-82-5	PCB-1260	800		9.4	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	184	X	31-150
877-09-8	Tetrachloro-m-xylene	81		31-150

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-120-01 | Lab Sample ID: 180-25321-13

Matrix: Sediment | Lab File ID: T0930681.D

Analysis Method: 8082A | Date Collected: 09/18/2013 11:07

Extraction Method: 3541 | Date Extracted: 09/25/2013 04:10

Sample wt/vol: 30.2(g) | Date Analyzed: 09/27/2013 13:52

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 29.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85122 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		2.9	0.43
11104-28-2	PCB-1221	ND		2.9	0.56
11141-16-5	PCB-1232	ND		2.9	0.50
53469-21-9	PCB-1242	ND		2.9	0.48
12672-29-6	PCB-1248	ND		2.9	0.28
11097-69-1	PCB-1254	12		2.9	0.42
11096-82-5	PCB-1260	16		2.9	0.41

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	110		31-150
877-09-8	Tetrachloro-m-xylene	94		31-150

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-120-02 | Lab Sample ID: 180-25321-14

Matrix: Sediment | Lab File ID: T0930682.D

Analysis Method: 8082A | Date Collected: 09/18/2013 11:07

Extraction Method: 3541 | Date Extracted: 09/25/2013 04:10

Sample wt/vol: 30.0(g) | Date Analyzed: 09/27/2013 14:22

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 53.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85122 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		4.5	0.66
11104-28-2	PCB-1221	ND		4.5	0.85
11141-16-5	PCB-1232	ND		4.5	0.76
53469-21-9	PCB-1242	ND		4.5	0.73
12672-29-6	PCB-1248	ND		4.5	0.42
11097-69-1	PCB-1254	ND		4.5	0.63
11096-82-5	PCB-1260	1.4	J	4.5	0.63

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	76		31-150
877-09-8	Tetrachloro-m-xylene	66		31-150

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-120-03 | Lab Sample ID: 180-25321-15

Matrix: Sediment | Lab File ID: T0930683.D

Analysis Method: 8082A | Date Collected: 09/18/2013 11:07

Extraction Method: 3541 | Date Extracted: 09/25/2013 04:10

Sample wt/vol: 30.0(g) | Date Analyzed: 09/27/2013 14:52

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 52.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85122 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		4.3	0.65
11104-28-2	PCB-1221	ND		4.3	0.83
11141-16-5	PCB-1232	ND		4.3	0.74
53469-21-9	PCB-1242	ND		4.3	0.71
12672-29-6	PCB-1248	ND		4.3	0.41
11097-69-1	PCB-1254	ND		4.3	0.62
11096-82-5	PCB-1260	0.81	J	4.3	0.62

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	91		31-150
877-09-8	Tetrachloro-m-xylene	88		31-150

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-120-SS | Lab Sample ID: 180-25321-12

Matrix: Sediment | Lab File ID: T0930680.D

Analysis Method: 8082A | Date Collected: 09/18/2013 11:07

Extraction Method: 3541 | Date Extracted: 09/25/2013 04:10

Sample wt/vol: 30.0(g) | Date Analyzed: 09/27/2013 13:22

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 75.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85122 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		8.4	1.2
11104-28-2	PCB-1221	ND		8.4	1.6
11141-16-5	PCB-1232	ND		8.4	1.4
53469-21-9	PCB-1242	ND		8.4	1.4
12672-29-6	PCB-1248	ND		8.4	0.79
11097-69-1	PCB-1254	260		8.4	1.2
11096-82-5	PCB-1260	530		8.4	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	143		31-150
877-09-8	Tetrachloro-m-xylene	72		31-150

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-152 | Lab Sample ID: 180-25321-1

Matrix: Sediment | Lab File ID: T0930669.D

Analysis Method: 8082A | Date Collected: 09/17/2013 11:03

Extraction Method: 3541 | Date Extracted: 09/25/2013 04:10

Sample wt/vol: 30.0(g) | Date Analyzed: 09/27/2013 07:38

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 62.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85122 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		5.6	0.83
11104-28-2	PCB-1221	ND		5.6	1.1
11141-16-5	PCB-1232	ND		5.6	0.96
53469-21-9	PCB-1242	ND		5.6	0.91
12672-29-6	PCB-1248	ND		5.6	0.53
11097-69-1	PCB-1254	180		5.6	0.79
11096-82-5	PCB-1260	190		5.6	0.79

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	376	X	31-150
877-09-8	Tetrachloro-m-xylene	94		31-150

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh
Job No.: 180-25321-1
SDG No.:
Client Sample ID: SD-153
Lab Sample ID: 180-25321-4
Matrix: Sediment
Lab File ID: T0930672.D
Analysis Method: 8082A
Date Collected: 09/18/2013 07:42
Extraction Method: 3541
Date Extracted: 09/25/2013 04:10
Sample wt/vol: 30.1(g)
Date Analyzed: 09/27/2013 09:10
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 5
Injection Volume: 1(uL)
GC Column: RTX-1701 ID: 0.53(mm)
% Moisture: 67.0
GPC Cleanup:(Y/N) N
Analysis Batch No.: 85122
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		6.3	0.93
11104-28-2	PCB-1221	ND		6.3	1.2
11141-16-5	PCB-1232	ND		6.3	1.1
53469-21-9	PCB-1242	ND		6.3	1.0
12672-29-6	PCB-1248	ND		6.3	0.59
11097-69-1	PCB-1254	ND		6.3	0.89
11096-82-5	PCB-1260	1700		6.3	0.89

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	313	X	31-150
877-09-8	Tetrachloro-m-xylene	84		31-150

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-154 | Lab Sample ID: 180-25321-2

Matrix: Sediment | Lab File ID: T0930694.D

Analysis Method: 8082A | Date Collected: 09/17/2013 13:40

Extraction Method: 3541 | Date Extracted: 09/25/2013 04:10

Sample wt/vol: 30.0(g) | Date Analyzed: 09/27/2013 20:36

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 50

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 67.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85122 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		65	9.6
11104-28-2	PCB-1221	ND		65	12
11141-16-5	PCB-1232	ND		65	11
53469-21-9	PCB-1242	ND		65	11
12672-29-6	PCB-1248	ND		65	6.1
11097-69-1	PCB-1254	ND		65	9.2
11096-82-5	PCB-1260	5500		65	9.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	647	X D	31-150
877-09-8	Tetrachloro-m-xylene	103	D	31-150

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-155 | Lab Sample ID: 180-25321-3

Matrix: Sediment | Lab File ID: T0930695.D

Analysis Method: 8082A | Date Collected: 09/17/2013 14:30

Extraction Method: 3541 | Date Extracted: 09/25/2013 04:10

Sample wt/vol: 30.1(g) | Date Analyzed: 09/27/2013 21:07

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 50

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 68.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85122 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		66	9.9
11104-28-2	PCB-1221	ND		66	13
11141-16-5	PCB-1232	ND		66	11
53469-21-9	PCB-1242	ND		66	11
12672-29-6	PCB-1248	ND		66	6.3
11097-69-1	PCB-1254	ND		66	9.4
11096-82-5	PCB-1260	4700		66	9.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	455	X D	31-150
877-09-8	Tetrachloro-m-xylene	116	D	31-150

Appendix C

Support Documentation

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Sediment Remedy Design Investigation

Report Number: 180-25321-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 09/20/2013; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.7° C and 4.5° C.

Samples SD-119-SS, SD-119-01, SD-119-02 and SD-119-03 were submitted for analysis; however, they were not listed on the Chain-of-Custody (COC). Also, there was no MS/MSD samples listed on the COC; however there were two extra containers sent for sample SD-120-03, this sample was logged in for QC analysis.

SEMIVOLATILE ORGANIC COMPOUNDS (GC)
The samples and associated MS/MSD were analyzed at a dilution due to the abundance of target analytes and/or matrix interference. The reporting limits have been adjusted accordingly.

The surrogates of several samples are considered diluted out.

Internal standard responses were outside of acceptance limits for several samples. The samples show evidence of matrix interference.

POLYCHLORINATED BIPHENYLS (PCBs)
The samples and associated MS/MSD were analyzed at a dilution due to the abundance of target analytes and/or matrix interference. The reporting limits have been adjusted accordingly.

The surrogates of samples SD-154 (180-25321-2) and SD-155 ((180-25321-3) are considered diluted out.

DCB Decachlorobiphenyl (Surr) failed the surrogate recovery criteria high for several samples. Tetrachloro-m-xylene recovered within acceptable QC limits. The data are reported.

Tetrachloro-m-xylene failed the surrogate recovery criteria low for SD-114-03 (180-25321-27). DCB Decachlorobiphenyl (Surr) recovered within acceptable QC limits. The data are reported.

Surrogate recoveries were also outside control limits for the MS and/or MSD of sample SD-115-01 (180-25321-21)

PCB-1016 failed the recovery criteria for the MS/MSD of sample SD-115-01 (180-25321-21). The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

METALS
Chromium and Zinc were detected in method blank MB 180-85283 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Antimony, Lead and Selenium failed the recovery criteria for the MS and/or MSD of sample SD-120-03 (180-25321-15).

Chromium was detected in method blank MB 180-85287 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or

RL, the result has been flagged.

Antimony and Selenium failed the recovery criteria for the MS and/or MSD of sample SD-115-01 (180-25321-21). The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

GENERAL CHEMISTRY

Please note that the reporting limit for Lloyd Kahn TOC analysis is a nominal value and does not reflect adjustments in sample mass processed on an individual basis.

Total Organic Carbon - Duplicates failed the recovery criteria for the MSD of sample SD-120-03 (180-25321-15) in batch 180-84787.

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

180-25321 Chain of Custody

1.0

hain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact		Site Contact: Stu Cameron	Date: 9/18/13	COC No:
Tetra Tech	Tel/Fax: 770-596-0959 (cell)	Lab Contact:	Carrier: Fedex	1 of 3 COCs
2171 West Park Court Suite E	Analysis Turnaround Time			Job No.
Stone Mountain GA, 30087	Calendar (C) or Work Days (W) _____			112IC05220
	TAT if different from Below: Standard			SDG No.
Project Name: Middle River Sediments	☐ 2 weeks			
Site: MRC	☐ 1 week			Sampler:
P O #	☐ 2 days			
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample:	PAHs, PCBs, Metals, [redacted]	[redacted] TOC, Moisture	Uranium, Thorium	Sample Specific Notes:
SD-152	9/17/13	1103	C	S	1		X			
SD-154	9/17/13	1340	C	S	1		X			
SD-155	9/17/13	1430	C	S	1		X			
SD-153	9/18/13	0742	C	S	1		X			
SD-117-SS	9/18/13	0835	C	S	1		X	X		
SD-117-01	9/18/13	0835	C	S	1		X	X		
SD-117-02	9/18/13	0835	C	S	1		X	X		
SD-118-SS	9/18/13	0940	C	S	1		X	X		
SD-118-01	9/18/13	0940	C	S	1		X	X		
SD-118-02	9/18/13	0940	C	S	1		X	X		
SD-118-03	9/18/13	0940	C	S	1		X	X		
SD-120-SS	9/18/13	1107	C	S	1		X	X		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	9-18-13/1640	[signature]	TestAmerica	9/18/13 1160
[signature]	TestAmerica	9/18/13/1700	[signature]	TA	9-19-13 930
[signature]	TA	9/19/13 1200	[signature]	TAP	9/20/13 0845

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

10/15/2013
Page 2994 of 2999

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Client Contact: Eric Samuels	Site Contact: Stu Cameron	Date:	COC No: 10/159
Tetra Tech	Tel/Fax: 770-596-0959 (cell)	Lab Contact:	Carrier: Fedex	2 of 3 COCs
2171 West Park Court Suite E	Analysis Turnaround Time			Job No.
Stone Mountain GA, 30087	Calendar (C) or Work Days (W) _____			112IC05220
	TAT if different from Below: Standard			SDG No.
Project Name: Middle River Sediments	☐ 2 weeks			
Site: MRC	☐ 1 week			
P O #	☐ 2 days			Sampler:
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	PAHs, PCBs, Metals, [redacted]	[redacted] TOC, Moisture	Uranium, Thorium	Sample Specific Notes:
SD-120-01	9/18/13	1107	C	S	1		X	X		
SD-120-02	9/18/13	1107	C	S	1		X	X		
SD-120-03	9/18/13	1107	C	S	1		X	X		
SD-113-SS	9/18/13	1133	C	S	1		X	X		
SD-113-01	9/18/13	1133	C	S	1		X	X		
SD-113-02	9/18/13	1133	C	S	1		X	X		
SD-113-03	9/18/13	1133	C	S	1		X	X		
SD-115-SS	9/18/13	1405	C	S	1		X	X		
SD-115-01	9/18/13	1405	C	S	1		X	X		
SD-115-02	9/18/13	1405	C	S	1		X	X		
SD-115-03	9/18/13	1405	C	S	1		X	X		
SD-114-SS	9/18/13	1507	C	S	1		X	X		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	9-18-13/1600	[signature]	TestAmerica	9/18/13 1600
[signature]	TestAmerica	9/18/13/1700	[signature]	TA	9.19.13 930
[signature]	TA	9/19/13 1200	[signature]	TA	9/20/13 0845

Page 2995 of 2999

North Canton
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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Client Contact: Eric Samuels	Site Contact: Stu Cameron	Date: 9/18/13	COC No:
Tetra Tech	Tel/Fax: 770-596-0959 (cell)	Lab Contact:	Carrier: Fedex	3 of 3 COCs
2171 West Park Court Suite E	Analysis Turnaround Time			Job No.
Stone Mountain GA, 30087	Calendar (C) or Work Days (W) _____			112IC05220
	TAT if different from Below: Standard			SDG No.
	☐ 2 weeks			
Project Name: Middle River Sediments	☐ 1 week			
Site: MRC	☐ 2 days			Sampler:
PO#	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	PAHs, PCBs, Metals, [redacted]	[redacted], TOC, Moisture	Uranium, Thorium	Sample Specific Notes:
SD-114-01	9/18/13	1507	C	S	1		X	X		
SD-114-02	9/18/13	1507	C	S	1		X	X		
SD-114-03	9/18/13	1507	C	S	1		X	X		
DUP-07	9/18/13	—	C	S	1		X	X		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For _____ Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	9-18-13/1600	[signature]	TestAmerica	9/18/13 / 1600
[signature]	TestAmerica	9/18/13/1700	[signature]	TA	9.19.13 930
[signature]	TAK	9/18/13 1700	[signature]	TAK	9/20/13 0815

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 180-25321-1

Login Number: 25321
List Number: 1
Creator: Skowronek, Elyse N

List Source: TestAmerica Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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 containers received and the COC.	False	
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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

SAMPLE SUMMARY

Client: Tetra Tech, Inc.

Job Number: 180-25321-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
180-25321-1	SD-152	Sediment	09/17/2013 1103	09/20/2013 0845
180-25321-2	SD-154	Sediment	09/17/2013 1340	09/20/2013 0845
180-25321-3	SD-155	Sediment	09/17/2013 1430	09/20/2013 0845
180-25321-4	SD-153	Sediment	09/18/2013 0742	09/20/2013 0845
180-25321-5	SD-117-SS	Sediment	09/18/2013 0835	09/20/2013 0845
180-25321-6	SD-117-01	Sediment	09/18/2013 0835	09/20/2013 0845
180-25321-7	SD-117-02	Sediment	09/18/2013 0835	09/20/2013 0845
180-25321-8	SD-118-SS	Sediment	09/18/2013 0940	09/20/2013 0845
180-25321-9	SD-118-01	Sediment	09/18/2013 0940	09/20/2013 0845
180-25321-10	SD-118-02	Sediment	09/18/2013 0940	09/20/2013 0845
180-25321-11	SD-118-03	Sediment	09/18/2013 0940	09/20/2013 0845
180-25321-12	SD-120-SS	Sediment	09/18/2013 1107	09/20/2013 0845
180-25321-13	SD-120-01	Sediment	09/18/2013 1107	09/20/2013 0845
180-25321-14	SD-120-02	Sediment	09/18/2013 1107	09/20/2013 0845
180-25321-15	SD-120-03	Sediment	09/18/2013 1107	09/20/2013 0845
180-25321-15MS	SD-120-03	Sediment	09/18/2013 1107	09/20/2013 0845
180-25321-15MSD	SD-120-03	Sediment	09/18/2013 1107	09/20/2013 0845
180-25321-16	SD-113-SS	Sediment	09/18/2013 1133	09/20/2013 0845
180-25321-17	SD-113-01	Sediment	09/18/2013 1133	09/20/2013 0845
180-25321-18	SD-113-02	Sediment	09/18/2013 1133	09/20/2013 0845
180-25321-19	SD-113-03	Sediment	09/18/2013 1133	09/20/2013 0845
180-25321-20	SD-115-SS	Sediment	09/18/2013 1405	09/20/2013 0845
180-25321-21	SD-115-01	Sediment	09/18/2013 1405	09/20/2013 0845
180-25321-22	SD-115-02	Sediment	09/18/2013 1405	09/20/2013 0845
180-25321-23	SD-115-03	Sediment	09/18/2013 1405	09/20/2013 0845
180-25321-24	SD-114-SS	Sediment	09/18/2013 1507	09/20/2013 0845
180-25321-25	SD-114-01	Sediment	09/18/2013 1507	09/20/2013 0845
180-25321-26	SD-114-02	Sediment	09/18/2013 1507	09/20/2013 0845
180-25321-27	SD-114-03	Sediment	09/18/2013 1507	09/20/2013 0845
180-25321-28	DUP-07	Sediment	09/18/2013 0000	09/20/2013 0845
180-25321-29	SD-119-SS	Sediment	09/18/2013 1038	09/20/2013 0845
180-25321-30	SD-119-01	Sediment	09/18/2013 1038	09/20/2013 0845
180-25321-31	SD-119-02	Sediment	09/18/2013 1038	09/20/2013 0845
180-25321-32	SD-119-03	Sediment	09/18/2013 1038	09/20/2013 0845

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 180-25321-1

Description	Lab Location	Method	Preparation Method
Matrix: Sediment			
Semivolatile Organic Compounds by GC/MS - Low Level	TAL PIT	SW846 8270D LL	
Automated Soxhlet Extraction (Low Level)	TAL PIT		SW846 3541
Polychlorinated Biphenyls (PCBs) (GC)	TAL PIT	SW846 8082A	
Automated Soxhlet Extraction (Low Level)	TAL PIT		SW846 3541
Sulfuric Acid/Permanganate Cleanup	TAL PIT		SW846 3665A
Metals (ICP/MS)	TAL PIT	SW846 6020A	
Preparation, Metals	TAL PIT		SW846 3050B
Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	TAL PIT	SW846 7471B	
Preparation, Mercury	TAL PIT		SW846 7471B
SM 2540G	TAL PIT	SM22 2540G	
Organic Carbon, Total (TOC)	TAL PIT	EPA Lloyd Kahn	

Lab References:

TAL PIT = TestAmerica Pittsburgh

Method References:

EPA = US Environmental Protection Agency

SM22 = Standard Methods For The Examination Of Water And Wastewater, 22nd Edition

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

HOLDTIME

SDG 180-25321-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
	MG/KG	SD-119-02	180-25321-31	NM	09/18/2013	09/26/2013	09/26/2013	8	0	8
	MG/KG	DUP-07	180-25321-28	NM	09/18/2013	09/26/2013	09/26/2013	8	0	8
	MG/KG	SD-120-SS	180-25321-12	NM	09/18/2013	09/25/2013	09/25/2013	7	0	7
	MG/KG	SD-120-03	180-25321-15	NM	09/18/2013	09/26/2013	09/26/2013	8	0	8
	MG/KG	SD-120-02	180-25321-14	NM	09/18/2013	09/25/2013	09/25/2013	7	0	7
	MG/KG	SD-120-01	180-25321-13	NM	09/18/2013	09/25/2013	09/25/2013	7	0	7
	MG/KG	SD-119-03	180-25321-32	NM	09/18/2013	09/26/2013	09/26/2013	8	0	8
	MG/KG	SD-119-01	180-25321-30	NM	09/18/2013	09/26/2013	09/26/2013	8	0	8
	MG/KG	SD-118-SS	180-25321-8	NM	09/18/2013	09/25/2013	09/25/2013	7	0	7
	MG/KG	SD-118-03	180-25321-11	NM	09/18/2013	09/25/2013	09/25/2013	7	0	7
	MG/KG	SD-118-02	180-25321-10	NM	09/18/2013	09/25/2013	09/25/2013	7	0	7
	MG/KG	SD-118-01	180-25321-9	NM	09/18/2013	09/25/2013	09/25/2013	7	0	7
	MG/KG	SD-117-SS	180-25321-5	NM	09/18/2013	09/25/2013	09/25/2013	7	0	7
	MG/KG	SD-117-02	180-25321-7	NM	09/18/2013	09/25/2013	09/25/2013	7	0	7
	MG/KG	SD-114-01	180-25321-25	NM	09/18/2013	09/26/2013	09/26/2013	8	0	8

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
	MG/KG	SD-119-SS	180-25321-29	NM	09/18/2013	09/26/2013	09/26/2013	8	0	8
	MG/KG	SD-117-01	180-25321-6	NM	09/18/2013	09/25/2013	09/25/2013	7	0	7
	MG/KG	SD-113-02	180-25321-18	NM	09/18/2013	09/25/2013	09/25/2013	7	0	7
	MG/KG	SD-113-03	180-25321-19	NM	09/18/2013	09/26/2013	09/26/2013	8	0	8
	MG/KG	SD-113-SS	180-25321-16	NM	09/18/2013	09/25/2013	09/25/2013	7	0	7
	MG/KG	SD-114-02	180-25321-26	NM	09/18/2013	09/26/2013	09/26/2013	8	0	8
	MG/KG	SD-113-01	180-25321-17	NM	09/18/2013	09/25/2013	09/25/2013	7	0	7
	MG/KG	SD-114-03	180-25321-27	NM	09/18/2013	09/26/2013	09/26/2013	8	0	8
	MG/KG	SD-114-SS	180-25321-24	NM	09/18/2013	09/26/2013	09/26/2013	8	0	8
	MG/KG	SD-115-01	180-25321-21	NM	09/18/2013	09/26/2013	09/26/2013	8	0	8
	MG/KG	SD-115-02	180-25321-22	NM	09/18/2013	09/26/2013	09/26/2013	8	0	8
	MG/KG	SD-115-03	180-25321-23	NM	09/18/2013	09/26/2013	09/26/2013	8	0	8
	MG/KG	SD-115-SS	180-25321-20	NM	09/18/2013	09/26/2013	09/26/2013	8	0	8
HG	MG/KG	SD-155	180-25321-3	NM	09/17/2013	10/07/2013	10/07/2013	20	0	20
HG	MG/KG	SD-119-SS	180-25321-29	NM	09/18/2013	10/08/2013	10/08/2013	20	0	20
HG	MG/KG	SD-118-SS	180-25321-8	NM	09/18/2013	10/07/2013	10/07/2013	19	0	19
HG	MG/KG	SD-119-01	180-25321-30	NM	09/18/2013	10/08/2013	10/08/2013	20	0	20
HG	MG/KG	SD-119-02	180-25321-31	NM	09/18/2013	10/08/2013	10/08/2013	20	0	20

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	SD-119-03	180-25321-32	NM	09/18/2013	10/08/2013	10/08/2013	20	0	20
HG	MG/KG	SD-118-03	180-25321-11	NM	09/18/2013	10/07/2013	10/07/2013	19	0	19
HG	MG/KG	SD-120-01	180-25321-13	NM	09/18/2013	10/07/2013	10/07/2013	19	0	19
HG	MG/KG	SD-120-02	180-25321-14	NM	09/18/2013	10/07/2013	10/07/2013	19	0	19
HG	MG/KG	SD-120-03	180-25321-15	NM	09/18/2013	10/07/2013	10/07/2013	19	0	19
HG	MG/KG	SD-120-SS	180-25321-12	NM	09/18/2013	10/07/2013	10/07/2013	19	0	19
HG	MG/KG	SD-152	180-25321-1	NM	09/17/2013	10/07/2013	10/07/2013	20	0	20
HG	MG/KG	SD-154	180-25321-2	NM	09/17/2013	10/07/2013	10/07/2013	20	0	20
HG	MG/KG	SD-118-02	180-25321-10	NM	09/18/2013	10/07/2013	10/07/2013	19	0	19
HG	MG/KG	SD-115-SS	180-25321-20	NM	09/18/2013	10/07/2013	10/07/2013	19	0	19
HG	MG/KG	SD-153	180-25321-4	NM	09/18/2013	10/07/2013	10/07/2013	19	0	19
HG	MG/KG	SD-113-03	180-25321-19	NM	09/18/2013	10/07/2013	10/07/2013	19	0	19
HG	MG/KG	SD-117-02	180-25321-7	NM	09/18/2013	10/07/2013	10/07/2013	19	0	19
HG	MG/KG	SD-118-01	180-25321-9	NM	09/18/2013	10/07/2013	10/07/2013	19	0	19
HG	MG/KG	DUP-07	180-25321-28	NM	09/18/2013	10/08/2013	10/08/2013	20	0	20
HG	MG/KG	SD-113-02	180-25321-18	NM	09/18/2013	10/07/2013	10/07/2013	19	0	19
HG	MG/KG	SD-113-SS	180-25321-16	NM	09/18/2013	10/07/2013	10/07/2013	19	0	19
HG	MG/KG	SD-114-01	180-25321-25	NM	09/18/2013	10/08/2013	10/08/2013	20	0	20

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	SD-114-02	180-25321-26	NM	09/18/2013	10/08/2013	10/08/2013	20	0	20
HG	MG/KG	SD-117-01	180-25321-6	NM	09/18/2013	10/07/2013	10/07/2013	19	0	19
HG	MG/KG	SD-114-SS	180-25321-24	NM	09/18/2013	10/08/2013	10/08/2013	20	0	20
HG	MG/KG	SD-115-01	180-25321-21	NM	09/18/2013	10/08/2013	10/08/2013	20	0	20
HG	MG/KG	SD-115-02	180-25321-22	NM	09/18/2013	10/08/2013	10/08/2013	20	0	20
HG	MG/KG	SD-115-03	180-25321-23	NM	09/18/2013	10/08/2013	10/08/2013	20	0	20
HG	MG/KG	SD-114-03	180-25321-27	NM	09/18/2013	10/08/2013	10/08/2013	20	0	20
HG	MG/KG	SD-113-01	180-25321-17	NM	09/18/2013	10/07/2013	10/07/2013	19	0	19
HG	MG/KG	SD-117-SS	180-25321-5	NM	09/18/2013	10/07/2013	10/07/2013	19	0	19
M	MG/KG	SD-114-SS	180-25321-24	NM	09/18/2013	10/01/2013	10/10/2013	13	9	22
M	MG/KG	SD-115-01	180-25321-21	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-115-02	180-25321-22	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-115-02	180-25321-22	NM	09/18/2013	10/01/2013	10/10/2013	13	9	22
M	MG/KG	SD-115-03	180-25321-23	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-115-03	180-25321-23	NM	09/18/2013	10/01/2013	10/10/2013	13	9	22
M	MG/KG	SD-117-01	180-25321-6	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-117-02	180-25321-7	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-114-SS	180-25321-24	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	MG/KG	SD-113-01	180-25321-17	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-115-SS	180-25321-20	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-114-03	180-25321-27	NM	09/18/2013	10/01/2013	10/10/2013	13	9	22
M	MG/KG	SD-114-03	180-25321-27	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-114-02	180-25321-26	NM	09/18/2013	10/01/2013	10/10/2013	13	9	22
M	MG/KG	SD-114-02	180-25321-26	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-114-01	180-25321-25	NM	09/18/2013	10/01/2013	10/10/2013	13	9	22
M	MG/KG	SD-114-01	180-25321-25	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-113-SS	180-25321-16	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-113-02	180-25321-18	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	DUP-07	180-25321-28	NM	09/18/2013	10/01/2013	10/10/2013	13	9	22
M	MG/KG	DUP-07	180-25321-28	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-118-02	180-25321-10	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-113-03	180-25321-19	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-152	180-25321-1	NM	09/17/2013	10/01/2013	10/09/2013	14	8	22
M	MG/KG	SD-118-01	180-25321-9	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-117-SS	180-25321-5	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-155	180-25321-3	NM	09/17/2013	10/01/2013	10/09/2013	14	8	22

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	MG/KG	SD-153	180-25321-4	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-120-SS	180-25321-12	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-120-03	180-25321-15	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-120-02	180-25321-14	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-120-01	180-25321-13	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-119-SS	180-25321-29	NM	09/18/2013	10/01/2013	10/10/2013	13	9	22
M	MG/KG	SD-119-01	180-25321-30	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-154	180-25321-2	NM	09/17/2013	10/01/2013	10/09/2013	14	8	22
M	MG/KG	SD-119-SS	180-25321-29	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-118-03	180-25321-11	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-118-SS	180-25321-8	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-119-01	180-25321-30	NM	09/18/2013	10/01/2013	10/10/2013	13	9	22
M	MG/KG	SD-119-02	180-25321-31	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-119-02	180-25321-31	NM	09/18/2013	10/01/2013	10/10/2013	13	9	22
M	MG/KG	SD-119-03	180-25321-32	NM	09/18/2013	10/01/2013	10/09/2013	13	8	21
M	MG/KG	SD-119-03	180-25321-32	NM	09/18/2013	10/01/2013	10/10/2013	13	9	22
PAH	UG/KG	SD-118-02	180-25321-10	NM	09/18/2013	09/26/2013	09/28/2013	8	2	10
PAH	UG/KG	SD-153	180-25321-4	NM	09/18/2013	09/26/2013	09/26/2013	8	0	8

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PAH	UG/KG	SD-118-SS	180-25321-8	NM	09/18/2013	09/26/2013	09/28/2013	8	2	10
PAH	UG/KG	SD-119-01	180-25321-30	NM	09/18/2013	09/27/2013	09/30/2013	9	3	12
PAH	UG/KG	SD-155	180-25321-3	NM	09/17/2013	09/26/2013	09/26/2013	9	0	9
PAH	UG/KG	SD-119-03	180-25321-32	NM	09/18/2013	09/27/2013	10/01/2013	9	4	13
PAH	UG/KG	SD-118-03	180-25321-11	NM	09/18/2013	09/26/2013	09/28/2013	8	2	10
PAH	UG/KG	SD-120-01	180-25321-13	NM	09/18/2013	09/26/2013	09/28/2013	8	2	10
PAH	UG/KG	SD-120-02	180-25321-14	NM	09/18/2013	09/26/2013	09/28/2013	8	2	10
PAH	UG/KG	SD-120-03	180-25321-15	NM	09/18/2013	09/26/2013	09/28/2013	8	2	10
PAH	UG/KG	SD-152	180-25321-1	NM	09/17/2013	09/26/2013	09/26/2013	9	0	9
PAH	UG/KG	SD-154	180-25321-2	NM	09/17/2013	09/26/2013	09/26/2013	9	0	9
PAH	UG/KG	SD-118-01	180-25321-9	NM	09/18/2013	09/26/2013	09/28/2013	8	2	10
PAH	UG/KG	SD-119-02	180-25321-31	NM	09/18/2013	09/27/2013	09/30/2013	9	3	12
PAH	UG/KG	SD-120-SS	180-25321-12	NM	09/18/2013	09/26/2013	09/28/2013	8	2	10
PAH	UG/KG	SD-113-SS	180-25321-16	NM	09/18/2013	09/26/2013	09/28/2013	8	2	10
PAH	UG/KG	SD-119-SS	180-25321-29	NM	09/18/2013	09/27/2013	09/30/2013	9	3	12
PAH	UG/KG	SD-113-01	180-25321-17	NM	09/18/2013	09/26/2013	09/28/2013	8	2	10
PAH	UG/KG	SD-117-SS	180-25321-5	NM	09/18/2013	09/26/2013	09/28/2013	8	2	10
PAH	UG/KG	SD-113-03	180-25321-19	NM	09/18/2013	09/26/2013	09/28/2013	8	2	10

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PAH	UG/KG	DUP-07	180-25321-28	NM	09/18/2013	09/27/2013	09/30/2013	9	3	12
PAH	UG/KG	SD-114-01	180-25321-25	NM	09/18/2013	09/27/2013	09/30/2013	9	3	12
PAH	UG/KG	SD-114-02	180-25321-26	NM	09/18/2013	09/27/2013	09/30/2013	9	3	12
PAH	UG/KG	SD-114-SS	180-25321-24	NM	09/18/2013	09/27/2013	09/30/2013	9	3	12
PAH	UG/KG	SD-115-01	180-25321-21	NM	09/18/2013	09/27/2013	09/30/2013	9	3	12
PAH	UG/KG	SD-115-02	180-25321-22	NM	09/18/2013	09/27/2013	09/30/2013	9	3	12
PAH	UG/KG	SD-115-03	180-25321-23	NM	09/18/2013	09/27/2013	09/30/2013	9	3	12
PAH	UG/KG	SD-115-SS	180-25321-20	NM	09/18/2013	09/26/2013	09/28/2013	8	2	10
PAH	UG/KG	SD-117-01	180-25321-6	NM	09/18/2013	09/26/2013	09/28/2013	8	2	10
PAH	UG/KG	SD-114-03	180-25321-27	NM	09/18/2013	09/27/2013	09/30/2013	9	3	12
PAH	UG/KG	SD-113-02	180-25321-18	NM	09/18/2013	09/26/2013	09/28/2013	8	2	10
PAH	UG/KG	SD-117-02	180-25321-7	NM	09/18/2013	09/26/2013	09/28/2013	8	2	10
PCB	UG/KG	SD-118-02	180-25321-10	NM	09/18/2013	09/25/2013	09/27/2013	7	2	9
PCB	UG/KG	SD-119-SS	180-25321-29	NM	09/18/2013	09/28/2013	09/30/2013	10	2	12
PCB	UG/KG	SD-119-03	180-25321-32	NM	09/18/2013	09/28/2013	10/01/2013	10	3	13
PCB	UG/KG	SD-119-02	180-25321-31	NM	09/18/2013	09/28/2013	09/30/2013	10	2	12
PCB	UG/KG	SD-119-01	180-25321-30	NM	09/18/2013	09/28/2013	09/30/2013	10	2	12
PCB	UG/KG	SD-118-03	180-25321-11	NM	09/18/2013	09/25/2013	09/27/2013	7	2	9

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	SD-118-SS	180-25321-8	NM	09/18/2013	09/25/2013	09/27/2013	7	2	9
PCB	UG/KG	SD-120-01	180-25321-13	NM	09/18/2013	09/25/2013	09/27/2013	7	2	9
PCB	UG/KG	SD-120-02	180-25321-14	NM	09/18/2013	09/25/2013	09/27/2013	7	2	9
PCB	UG/KG	SD-120-03	180-25321-15	NM	09/18/2013	09/25/2013	09/27/2013	7	2	9
PCB	UG/KG	SD-120-SS	180-25321-12	NM	09/18/2013	09/25/2013	09/27/2013	7	2	9
PCB	UG/KG	SD-152	180-25321-1	NM	09/17/2013	09/25/2013	09/27/2013	8	2	10
PCB	UG/KG	SD-118-01	180-25321-9	NM	09/18/2013	09/25/2013	09/27/2013	7	2	9
PCB	UG/KG	SD-154	180-25321-2	NM	09/17/2013	09/25/2013	09/27/2013	8	2	10
PCB	UG/KG	SD-114-02	180-25321-26	NM	09/18/2013	09/28/2013	09/30/2013	10	2	12
PCB	UG/KG	SD-153	180-25321-4	NM	09/18/2013	09/25/2013	09/27/2013	7	2	9
PCB	UG/KG	SD-114-03	180-25321-27	NM	09/18/2013	09/28/2013	09/30/2013	10	2	12
PCB	UG/KG	SD-155	180-25321-3	NM	09/17/2013	09/25/2013	09/27/2013	8	2	10
PCB	UG/KG	DUP-07	180-25321-28	NM	09/18/2013	09/28/2013	09/30/2013	10	2	12
PCB	UG/KG	SD-113-01	180-25321-17	NM	09/18/2013	09/28/2013	09/30/2013	10	2	12
PCB	UG/KG	SD-113-02	180-25321-18	NM	09/18/2013	09/28/2013	09/30/2013	10	2	12
PCB	UG/KG	SD-113-03	180-25321-19	NM	09/18/2013	09/28/2013	09/30/2013	10	2	12
PCB	UG/KG	SD-114-SS	180-25321-24	NM	09/18/2013	09/28/2013	09/30/2013	10	2	12
PCB	UG/KG	SD-114-01	180-25321-25	NM	09/18/2013	09/28/2013	09/30/2013	10	2	12

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	SD-117-SS	180-25321-5	NM	09/18/2013	09/25/2013	09/27/2013	7	2	9
PCB	UG/KG	SD-115-01	180-25321-21	NM	09/18/2013	09/28/2013	09/30/2013	10	2	12
PCB	UG/KG	SD-115-02	180-25321-22	NM	09/18/2013	09/28/2013	09/30/2013	10	2	12
PCB	UG/KG	SD-115-03	180-25321-23	NM	09/18/2013	09/28/2013	09/30/2013	10	2	12
PCB	UG/KG	SD-115-SS	180-25321-20	NM	09/18/2013	09/28/2013	09/30/2013	10	2	12
PCB	UG/KG	SD-117-01	180-25321-6	NM	09/18/2013	09/25/2013	09/27/2013	7	2	9
PCB	UG/KG	SD-117-02	180-25321-7	NM	09/18/2013	09/25/2013	09/27/2013	7	2	9
PCB	UG/KG	SD-113-SS	180-25321-16	NM	09/18/2013	09/28/2013	09/30/2013	10	2	12

Field Duplicate Precision

ANALYTE	DUP-07	SD-118-02	RPD	DIFFERENCE
ACENAPHTHENE	7.3	ND	200.00	3.6
ACENAPHTHYLENE	23	8.9	88.40	14.1
ANTHRACENE	12	9.1	27.49	2.9
BENZO(A)ANTHRACENE	30	31	3.28	1
BENZO(A)PYRENE	26	33	23.73	7
BENZO(B)FLUORANTHENE	33	39	16.67	6
BENZO(G,H,I)PERYLENE	19	86	127.62	67
BENZO(K)FLUORANTHENE	15	15	0.00	0
CHRYSENE	32	33	3.08	1
DIBENZO(A,H)ANTHRACENE	7.6	ND	200.00	3.3
FLUORANTHENE	42	56	28.57	14
FLUORENE	6.7	ND	200.00	1.6
INDENO(1,2,3-CD)PYRENE	15	98	146.90	83
NAPHTHALENE	21	ND	200.00	17.6
PHENANTHRENE	24	22	8.70	2
PYRENE	52	44	16.67	8

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab File ID: N0806DF1.D DFTPP Injection Date: 08/06/2013

Instrument ID: 733 DFTPP Injection Time: 06:17

Analysis Batch No.: 79656

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	42.3	
68	Less than 2.0 % of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	48.0	
70	Less than 2.0 % of mass 69	0.4	(0.9)1
127	40.0 - 60.0 % of mass 198	52.8	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	7.3	
275	10.0 - 30.0 % of mass 198	24.6	
365	Greater than 1.0 % of mass 198	3.4	
441	Present but less than mass 443	10.8	(78.3)3
442	Greater than 40.0 % of mass 198	71.6	
443	17.0 - 23.0 % of mass 442	13.9	(19.4)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-79656/2	N0806IC1.D	08/06/2013	06:33
	IC 180-79656/3	N0806IC2.D	08/06/2013	07:00
	IC 180-79656/4	N0806IC3.D	08/06/2013	07:27
	ICIS 180-79656/5	N0806IC4.D	08/06/2013	07:53
	IC 180-79656/6	N0806IC5.D	08/06/2013	08:20
	IC 180-79656/7	N0806IC6.D	08/06/2013	08:47
	IC 180-79656/8	N0806IC7.D	08/06/2013	09:14
	IC 180-79656/9	N0806IC8.D	08/06/2013	09:41

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 79656

SDG No.:

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/06/2013 06:33 Calibration End Date: 08/06/2013 09:41 Calibration ID: 10611

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-79656/2	N0806IC1.D
Level 2	IC 180-79656/3	N0806IC2.D
Level 3	IC 180-79656/4	N0806IC3.D
Level 4	ICIS 180-79656/5	N0806IC4.D
Level 5	IC 180-79656/6	N0806IC5.D
Level 6	IC 180-79656/7	N0806IC6.D
Level 7	IC 180-79656/8	N0806IC7.D
Level 8	IC 180-79656/9	N0806IC8.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	+++++ 0.3158	0.3377 0.3159	0.3218 0.3222	0.3151	0.3132	Ave		0.3202			0.0100	2.6		20.0			
N-Nitrosodimethylamine	0.3188 0.4115	0.3704 0.4077	0.3793 0.4194	0.3951	0.4101	Ave		0.3891			0.0100	8.5		20.0			
Pyridine	0.5979 0.7810	0.6729 0.7609	0.7431 0.7746	0.7481	0.7785	Ave		0.7321			0.0100	8.8		20.0			
Methyl methanesulfonate	0.5880 0.5667	0.5757 0.5368	0.5691 0.5368	0.5762	0.5757	Ave		0.5656			0.0100	3.3		20.0			
Benzaldehyde	1.0939 0.8787	0.9836 0.7992	1.0071 0.7597	1.0099	0.9557	Ave		0.9360			0.0100	12.2		20.0			
Phenol	1.6251 1.5187	1.6323 1.4203	1.6620 1.3732	1.6163	1.5652	Ave		1.5516			0.8000	6.8		20.0			
Aniline	1.8580 1.6852	1.8056 1.5969	1.8477 1.5522	1.8509	1.7623	Ave		1.7448			0.0100	6.9		20.0			
Bis(2-chloroethyl)ether	1.1772 1.0739	1.1728 1.0129	1.1849 1.0230	1.1595	1.1061	Ave		1.1138			0.7000	6.3		20.0			
2-Chlorophenol	1.1994 1.2891	1.2491 1.2692	1.2662 1.2732	1.2909	1.2838	Ave		1.2651			0.8000	2.4		20.0			
n-Decane	1.0893 0.9266	1.0375 0.8794	1.0573 0.8540	1.0193	0.9644	Ave		0.9785				8.8					
1,3-Dichlorobenzene	1.6132 1.5485	1.6201 1.4932	1.6040 1.5000	1.5656	1.5634	Ave		1.5635			0.0100	3.1		20.0			
1,4-Dichlorobenzene	1.6633 1.5543	1.6369 1.5032	1.5941 1.4988	1.5799	1.5602	Ave		1.5738			0.0100	3.7		20.0			
Benzyl alcohol	0.6962 0.7540	0.7093 0.7283	0.7098 0.7356	0.7620	0.7533	Ave		0.7311			0.0100	3.3		20.0			
1,2-Dichlorobenzene	1.6325 1.4957	1.5684 1.4418	1.5630 1.4408	1.5235	1.5002	Ave		1.5207			0.0100	4.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 79656

SDG No.:

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/06/2013 06:33 Calibration End Date: 08/06/2013 09:41 Calibration ID: 10611

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
2-Methylphenol	1.0676 1.0680	1.1012 1.0017	1.1148 0.9845	1.1440	1.0926	Ave		1.0718			0.7000	5.1		20.0			
Indene	2.2813 2.0464	2.3148 1.9207	2.2852 1.8837	2.1920	2.1236	Ave		2.1310			0.0100	7.9		20.0			
2,2'-oxybis[1-chloropropane]	1.5242 1.1465	1.4554 1.0400	1.4462 +++++	1.3542	1.2403	Ave		1.3152			0.0100	13.6		20.0			
N-Nitrosopyrrolidine	0.4432 0.5177	0.4744 0.4986	0.4962 0.5139	0.5225	0.5288	Ave		0.4994			0.0100	5.7		20.0			
N-Nitrosodi-n-propylamine	0.8531 0.7108	0.8850 0.6542	0.8759 0.6378	0.8299	0.7525	Ave		0.7749			0.5000	12.9		20.0			
Acetophenone	+++++ 1.5524	1.9108 1.4258	1.8697 1.3848	1.7431	1.6231	Ave		1.6442			0.0100	12.6		20.0			
Methylphenol, 3 & 4	1.1088 1.0651	1.1538 0.9785	1.1783 0.9746	1.1561	1.0893	Ave		1.0881			0.6000	7.2		20.0			
Hexachloroethane	0.6106 0.6160	0.6103 0.5967	0.6236 0.6029	0.6269	0.6211	Ave		0.6135			0.3000	1.7		20.0			
Nitrobenzene	0.3505 0.3349	0.3551 0.3220	0.3691 0.3165	0.3588	0.3398	Ave		0.3433			0.2000	5.3		20.0			
Isophorone	0.5328 0.5536	0.5371 0.5262	0.5570 0.5279	0.5706	0.5563	Ave		0.5452			0.4000	3.0		20.0			
2-Nitrophenol	0.1259 0.1881	0.1528 0.1866	0.1627 0.1893	0.1779	0.1860	Ave		0.1712			0.1000	13.2		20.0			
2,4-Dimethylphenol	0.2607 0.3035	0.2755 0.2929	0.2894 0.2878	0.2835	0.2921	Ave		0.2857			0.2000	4.5		20.0			
Bis(2-chloroethoxy)methane	0.3727 0.3529	0.3834 0.3371	0.3904 0.3384	0.3799	0.3671	Ave		0.3652			0.3000	5.6		20.0			
Benzoic acid	+++++ 0.1644	0.0912 0.1693	0.1061 0.1766	0.1317	0.1537	Qua	0.3243	6.2461	-0.191		0.0100			20.0	0.9999		0.9900
2,4-Dichlorophenol	0.2366 0.2914	0.2650 0.2863	0.2838 0.2841	0.2885	0.2988	Ave		0.2793			0.2000	7.1		20.0			
1,2,4-Trichlorobenzene	0.3564 0.3544	0.3623 0.3455	0.3600 0.3449	0.3563	0.3571	Ave		0.3546			0.0100	1.8		20.0			
Naphthalene	1.0900 0.9882	1.0854 0.9366	1.0820 0.9182	1.0441	1.0207	Ave		1.0206			0.7000	6.6		20.0			
4-Chloroaniline	0.3994 0.4091	0.4118 0.3900	0.4253 0.3888	0.4254	0.4230	Ave		0.4091			0.0100	3.7		20.0			
2,6-Dichlorophenol	0.2552 0.2800	0.2770 0.2719	0.2784 0.2752	0.2832	0.2824	Ave		0.2754			0.0100	3.3		20.0			
Hexachlorobutadiene	0.2153 0.2327	0.2193 0.2300	0.2226 0.2327	0.2242	0.2249	Ave		0.2252			0.0100	2.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 79656

SDG No.:

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/06/2013 06:33 Calibration End Date: 08/06/2013 09:41 Calibration ID: 10611

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Caprolactam	0.0402 0.0781	0.0531 0.0794	0.0597 0.0806	0.0715	0.0765	Qua	0.0761	12.895	-0.719		0.0100			20.0	0.9999		0.9900
4-Chloro-3-methylphenol	0.2092 0.2732	0.2385 0.2589	0.2592 0.2615	0.2659	0.2710	Ave		0.2547			0.2000	8.3		20.0			
2-Methylnaphthalene	0.7072 0.6563	0.6960 0.6263	0.7248 0.6149	0.7078	0.6831	Ave		0.6770			0.4000	6.0		20.0			
1-Methylnaphthalene	0.6771 0.6083	0.6674 0.5752	0.6655 0.5685	0.6419	0.6233	Ave		0.6284			0.0100	6.7		20.0			
Hexachlorocyclopentadiene	0.3662 0.5017	0.4029 0.5016	0.4124 0.4967	0.4458	0.4817	Ave		0.4511			0.0500	11.6		20.0			
1,2,4,5-Tetrachlorobenzene	0.6279 0.6921	0.6422 0.6812	0.6564 0.6628	0.6579	0.6759	Ave		0.6621			0.0100	3.2		20.0			
2,4,6-Trichlorophenol	0.2764 0.3972	0.3251 0.3968	0.3350 0.4031	0.3711	0.3789	Ave		0.3604			0.2000	12.4		20.0			
2,4,5-Trichlorophenol	0.2830 0.4070	0.3394 0.4121	0.3604 0.4085	0.3839	0.4024	Ave		0.3746			0.2000	12.1		20.0			
1,1'-Biphenyl	1.5426 1.4514	1.5166 1.3943	1.5295 1.3573	1.5211	1.4798	Ave		1.4741			0.0100	4.6		20.0			
2-Chloronaphthalene	1.2528 1.2664	1.2200 1.2642	1.3127 1.1613	1.2772	1.2998	Ave		1.2568			0.8000	3.8		20.0			
2-Nitroaniline	0.2307 0.3191	0.2723 0.3156	0.3049 0.3134	0.3086	0.3174	Ave		0.2977			0.0100	10.4		20.0			
Dimethyl phthalate	1.2063 1.1855	1.1872 1.1675	1.1992 1.1315	1.1889	1.1766	Ave		1.1803			0.0100	2.0		20.0			
1,3-Dinitrobenzene	+++++ 0.2047	0.1511 0.2057	0.1743 0.2050	0.1875	0.1980	Ave		0.1895			0.0100	10.8		20.0			
2,6-Dinitrotoluene	0.2039 0.2791	0.2517 0.2755	0.2603 0.2743	0.2713	0.2686	Ave		0.2606			0.2000	9.4		20.0			
Acenaphthylene	1.7427 1.8293	1.8049 1.7751	1.8571 1.7182	1.8832	1.8470	Ave		1.8072			0.9000	3.2		20.0			
3-Nitroaniline	0.2336 0.3105	0.2632 0.3088	0.2871 0.3111	0.2967	0.3042	Ave		0.2894			0.0100	9.6		20.0			
Acenaphthene	1.1430 1.1174	1.1926 1.0588	1.1884 1.0338	1.1731	1.1278	Ave		1.1294			0.9000	5.2		20.0			
2,4-Dinitrophenol	+++++ 0.1710	+++++ 0.1815	0.0870 0.1863	0.1248	0.1515	Qua	0.6498	5.7005	-0.141		0.0100			20.0	0.9998		0.9900
4-Nitrophenol	+++++ 0.1526	0.1136 0.1526	0.1272 0.1535	0.1407	0.1482	Ave		0.1412			0.0100	10.9		20.0			
2,4-Dinitrotoluene	0.2572 0.3559	0.2999 0.3599	0.3242 0.3587	0.3402	0.3502	Ave		0.3308			0.2000	10.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 79656

SDG No.:

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/06/2013 06:33 Calibration End Date: 08/06/2013 09:41 Calibration ID: 10611

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dibenzofuran	1.6792 1.6040	1.6844 1.5575	1.6593 1.5217	1.6375	1.5965	Ave		1.6175			0.8000	3.6		20.0			
2,3,5,6-Tetrachlorophenol	+++++ 0.3281	0.2447 0.3454	0.2708 0.3572	0.2880	0.3109	Ave		0.3064			0.0100	13.3		20.0			
2,3,4,6-Tetrachlorophenol	0.2305 0.3339	0.2681 0.3418	0.2850 0.3335	0.3075	0.3103	Ave		0.3013			0.0100	12.7		20.0			
2-Naphthylamine	0.8813 +++++	0.9812 +++++	1.0097 +++++	0.8649	0.7813	Ave		0.9037			0.0100	10.2		20.0			
Diethyl phthalate	1.1058 1.1024	1.1710 1.0618	1.1747 0.9997	1.1393	1.1194	Ave		1.1093			0.0100	5.2		20.0			
Hexadecane	0.4009 0.3891	0.4124 0.3561	0.4340 0.3454	0.4266	0.4079	Ave		0.3966				8.0					
4-Chlorophenyl phenyl ether	0.6196 0.6684	0.6211 0.6665	0.6344 0.6767	0.6371	0.6505	Ave		0.6468			0.4000	3.4		20.0			
4-Nitroaniline	0.2156 0.2917	0.2359 0.2853	0.2604 0.2842	0.2766	0.2833	Ave		0.2666			0.0100	10.3		20.0			
Fluorene	1.2131 1.2235	1.2880 1.1958	1.2928 1.1657	1.2575	1.2311	Ave		1.2334			0.9000	3.6		20.0			
4,6-Dinitro-2-methylphenol	+++++ 0.1483	0.0769 0.1541	0.0937 0.1578	0.1190	0.1385	Qua	0.3665	6.7681	-0.177		0.0100			20.0	0.9999		0.9900
N-Nitrosodiphenylamine	0.4945 0.5732	0.5290 0.5553	0.5426 0.5552	0.5589	0.5685	Ave		0.5472			0.0100	4.6		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.8379 0.9339	0.8920 0.8881	0.9386 0.8655	0.9400	0.9590	Ave		0.9069			0.0100	4.7		20.0			
4-Bromophenyl phenyl ether	0.2128 0.2505	0.2156 0.2507	0.2236 0.2500	0.2344	0.2465	Ave		0.2355			0.1000	6.9		20.0			
Hexachlorobenzene	0.2411 0.2462	0.2300 0.2428	0.2379 0.2447	0.2401	0.2431	Ave		0.2407			0.1000	2.1		20.0			
Atrazine	0.1451 0.1999	0.1640 0.1916	0.1757 0.1769	0.1873	0.1992	Ave		0.1800			0.0100	10.4		20.0			
n-Octadecane	1.3841 1.4873	1.5600 1.3337	1.5947 1.2747	1.6664	1.5927	Ave		1.4867				9.5					
Pentachlorophenol	0.2115 0.1565	0.0992 0.1654	0.0993 0.1658	0.1241	0.1430	Qua	0.2651	6.4881	-0.176		0.0500			20.0	0.9992		0.9900
Phenanthrene	1.1558 1.1205	1.1252 1.0938	1.1275 1.0851	1.1146	1.1312	Ave		1.1192			0.7000	2.0		20.0			
Anthracene	1.0071 1.1482	1.0743 1.1072	1.1154 1.0715	1.1365	1.1558	Ave		1.1020			0.7000	4.5		20.0			
Carbazole	0.8759 1.0121	0.9278 0.9901	0.9614 0.9850	0.9805	1.0151	Ave		0.9685			0.0100	4.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 79656

SDG No.:

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/06/2013 06:33 Calibration End Date: 08/06/2013 09:41 Calibration ID: 10611

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Di-n-butyl phthalate	0.7762 1.2134	0.9270 1.1890	1.0179 1.1770	1.1128	1.2027	Ave		1.0770			0.0100	14.7		20.0			
Fluoranthene	0.9146 1.1223	0.9803 1.1066	1.0184 1.1065	1.0410	1.0984	Ave		1.0485			0.6000	7.0		20.0			
Benzidine	+++++ 0.2322	0.2303 0.2498	0.2871 0.2781	0.2609	0.2694	Ave		0.2583			0.0100	8.5		20.0			
Pyrene	1.2649 1.2709	1.2782 1.2196	1.3097 1.2119	1.3311	1.3048	Ave		1.2739			0.6000	3.3		20.0			
Butyl benzyl phthalate	0.3352 0.5263	0.3518 0.5244	0.3842 0.5302	0.4570	0.5127	Qua	0.0929	1.8948	-0.005		0.0100			20.0	0.9998		0.9900
3,3'-Dichlorobenzidine	+++++ 0.3827	0.1956 0.4035	0.2267 0.4193	0.2921	0.3496	Qua	0.2020	2.6654	-0.080		0.0100			20.0	0.9998		0.9900
Bis(2-ethylhexyl) phthalate	0.3735 0.6978	0.3992 0.7052	0.4677 0.7102	0.6021	0.6730	Qua	0.1149	1.4232	-0.005		0.0100			20.0	0.9998		0.9900
Benzo[a]anthracene	1.0059 1.0963	1.0122 1.1040	1.0487 1.1230	1.0757	1.1058	Ave		1.0714			0.8000	4.2		20.0			
Chrysene	0.9389 1.0204	0.9617 1.0104	0.9867 1.0240	0.9958	1.0072	Ave		0.9931			0.7000	3.0		20.0			
Di-n-octyl phthalate	1.4148 1.3168	0.9540 1.3193	0.7424 1.3024	1.0140	1.2109	Qua	0.1525	0.7417	0.0008		0.0100			20.0	0.9992		0.9900
7,12-Dimethylbenz(a)anthracene	+++++ 0.6157	0.4456 0.6150	0.4912 0.6143	0.5331	0.5919	Ave		0.5581			0.0100	12.4		20.0			
Benzo[b]fluoranthene	1.0073 1.3811	1.1800 1.3047	1.3165 1.3539	1.3377	1.3616	Ave		1.2803			0.7000	9.9		20.0			
Benzo[k]fluoranthene	1.0777 1.3110	1.2109 1.3170	1.2830 1.2361	1.3436	1.3497	Ave		1.2661			0.7000	7.1		20.0			
Benzo[a]pyrene	0.8307 1.2041	0.8805 1.1938	0.9730 1.1889	1.0991	1.1824	Ave		1.0691			0.7000	14.3		20.0			
Indeno[1,2,3-cd]pyrene	0.9039 1.4234	1.0299 1.4184	1.1508 1.4039	1.2356	1.3718	Qua	0.0942	0.6858	0.0013		0.5000			20.0	0.9998		0.9900
Dibenz(a,h)anthracene	0.7674 1.1841	0.8730 1.1984	0.9777 1.1929	1.0429	1.1484	Qua	0.0825	0.8357	-0.001		0.4000			20.0	0.9999		0.9900
Benzo[g,h,i]perylene	0.7712 1.2042	0.9123 1.2027	0.9863 1.2034	1.0455	1.1721	Qua	0.0813	0.8228	0		0.5000			20.0	0.9998		0.9900
2-Fluorophenol (Surr)	0.8776 1.1102	0.9604 1.0863	0.9964 1.1032	1.0679	1.1010	Ave		1.0379				8.2		20.0			
Phenol-d5 (Surr)	1.2849 1.3812	1.3643 1.3267	1.4072 1.3151	1.4335	1.4087	Ave		1.3652				3.8		20.0			
Nitrobenzene-d5 (Surr)	0.3137 0.3254	0.3351 0.3164	0.3417 0.3112	0.3356	0.3385	Ave		0.3272				3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 79656

SDG No.:

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/06/2013 06:33 Calibration End Date: 08/06/2013 09:41 Calibration ID: 10611

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
2-Fluorobiphenyl	1.4313 1.3451	1.4051 1.3131	1.4280 1.2937	1.3894	1.3638	Ave		1.3712				3.7		20.0			
2,4,6-Tribromophenol (Surr)	+++++ 0.1057	0.0721 0.1055	0.0838 0.1067	0.0933	0.1028	Ave		0.0957			0.0100	14.0		20.0			
Terphenyl-d14 (Surr)	0.8454 0.9132	0.8932 0.9054	0.9182 0.9082	0.9192	0.9243	Ave		0.9034				2.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Matrix: Sediment Level: Low

GC Column (1): Rxi-5SilMS ID: 0.32 (mm)

Client Sample ID	Lab Sample ID	NBZ	#	FBP	#	TPH	#
SD-152	180-25321-1	58	D	68	D	73	D
SD-154	180-25321-2	29		43		49	
SD-155	180-25321-3	56	D	64	D	70	D
SD-153	180-25321-4	45	D	57	D	59	D
SD-117-SS	180-25321-5	52	D	59	D	55	D
SD-117-01	180-25321-6	69		79		81	
SD-117-02	180-25321-7	69		74		67	
SD-118-SS	180-25321-8	63	D	74	D	75	D
SD-118-01	180-25321-9	66	D	73	D	66	D
SD-118-02	180-25321-10	82		89		80	
SD-118-03	180-25321-11	90		93		98	
SD-120-SS	180-25321-12	56	D	63	D	63	D
SD-120-01	180-25321-13	61		77		77	
SD-120-02	180-25321-14	67		74		68	
SD-120-03	180-25321-15	86		97		91	
SD-113-SS	180-25321-16	63	D	69	D	67	D
SD-113-01	180-25321-17	75	D	80	D	77	D
SD-113-02	180-25321-18	71		83		81	
SD-113-03	180-25321-19	75		87		83	
SD-115-SS	180-25321-20	61	D	65	D	64	D
SD-115-01	180-25321-21	81		81		54	
SD-115-02	180-25321-22	74		74		57	
SD-115-03	180-25321-23	74		70		53	
SD-114-SS	180-25321-24	65		62		47	
SD-114-01	180-25321-25	73		71		48	
SD-114-02	180-25321-26	56		55		39	
SD-114-03	180-25321-27	74		69		52	
DUP-07	180-25321-28	70		64		48	
SD-119-SS	180-25321-29	59		57		37	
SD-119-01	180-25321-30	73		69		47	
SD-119-02	180-25321-31	73		65		48	
SD-119-03	180-25321-32	75		61		52	
	MB 180-84803/1-A	67		70		74	
	MB 180-84991/1-A	75		64		67	

	QC LIMITS
NBZ = Nitrobenzene-d5 (Surr)	27-110
FBP = 2-Fluorobiphenyl	28-108
TPH = Terphenyl-d14 (Surr)	21-130

Column to be used to flag recovery values

FORM II 8270D LL

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Matrix: Sediment Level: Low

GC Column (1): Rxi-5SilMS ID: 0.32 (mm)

Client Sample ID	Lab Sample ID	NBZ #	FBP #	TPH #
	LCS 180-84803/2-A	69	74	82
	LCS 180-84991/2-A	73	63	66
SD-120-03 MS	180-25321-15 MS	69	79	82
SD-120-03 MSD	180-25321-15 MSD	71	81	83

	QC LIMITS
NBZ = Nitrobenzene-d5 (Surr)	27-110
FBP = 2-Fluorobiphenyl	28-108
TPH = Terphenyl-d14 (Surr)	21-130

Column to be used to flag recovery values

FORM II 8270D LL

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: N0927002.D

Lab ID: LCS 180-84803/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Anthracene	333	238	72	43-111	
Benzo[a]anthracene	333	262	79	45-110	
Benzo[b]fluoranthene	333	226	68	37-108	
Benzo[k]fluoranthene	333	217	65	39-115	
Benzo[g,h,i]perylene	333	225	67	35-127	
Benzo[a]pyrene	333	244	73	42-114	
Chrysene	333	271	81	44-108	
Dibenz(a,h)anthracene	333	228	68	34-131	
Fluoranthene	333	265	80	40-118	
Fluorene	333	255	77	43-110	
Indeno[1,2,3-cd]pyrene	333	214	64	34-130	
Phenanthrene	333	236	71	41-107	
Pyrene	333	244	73	39-113	
Acenaphthene	333	243	73	42-104	
Acenaphthylene	333	237	71	43-117	
Naphthalene	333	226	68	42-104	
2-Methylnaphthalene	333	228	68	43-105	

Column to be used to flag recovery and RPD values

FORM III 8270D LL

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: F0930002.D

Lab ID: LCS 180-84991/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Anthracene	333	207	62	43-111	
Benzo[a]anthracene	333	222	66	45-110	
Benzo[b]fluoranthene	333	201	60	37-108	
Benzo[k]fluoranthene	333	230	69	39-115	
Benzo[g,h,i]perylene	333	187	56	35-127	
Benzo[a]pyrene	333	216	65	42-114	
Chrysene	333	222	67	44-108	
Dibenz(a,h)anthracene	333	196	59	34-131	
Fluoranthene	333	213	64	40-118	
Fluorene	333	224	67	43-110	
Indeno[1,2,3-cd]pyrene	333	186	56	34-130	
Phenanthrene	333	211	63	41-107	
Pyrene	333	251	75	39-113	
Acenaphthene	333	212	64	42-104	
Acenaphthylene	333	216	65	43-117	
Naphthalene	333	207	62	42-104	
2-Methylnaphthalene	333	216	65	43-105	

Column to be used to flag recovery and RPD values

FORM III 8270D LL

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: N0927014.D

Lab ID: 180-25321-15 MS Client ID: SD-120-03 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Anthracene	695	ND	568	82	43-111	
Benzo[a]anthracene	695	ND	653	94	45-110	
Benzo[b]fluoranthene	695	ND	514	74	37-108	
Benzo[k]fluoranthene	695	ND	532	77	39-115	
Benzo[g,h,i]perylene	695	ND	649	93	35-127	
Benzo[a]pyrene	695	ND	585	84	42-114	
Chrysene	695	ND	667	96	44-108	
Dibenz(a,h)anthracene	695	ND	630	91	34-131	
Fluoranthene	695	ND	668	96	40-118	
Fluorene	695	ND	597	86	43-110	
Indeno[1,2,3-cd]pyrene	695	ND	614	88	34-130	
Phenanthrene	695	ND	549	79	41-107	
Pyrene	695	ND	534	77	39-113	
Acenaphthene	695	ND	589	85	42-104	
Acenaphthylene	695	ND	547	79	43-117	
Naphthalene	695	ND	483	69	42-104	
2-Methylnaphthalene	695	ND	493	71	43-105	

Column to be used to flag recovery and RPD values

FORM III 8270D LL

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: N0927015.D

Lab ID: 180-25321-15 MSD Client ID: SD-120-03 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Anthracene	695	595	86	5	35	43-111	
Benzo[a]anthracene	695	668	96	2	31	45-110	
Benzo[b]fluoranthene	695	534	77	4	28	37-108	
Benzo[k]fluoranthene	695	569	82	7	42	39-115	
Benzo[g,h,i]perylene	695	671	97	3	21	35-127	
Benzo[a]pyrene	695	624	90	6	31	42-114	
Chrysene	695	686	99	3	31	44-108	
Dibenz(a,h)anthracene	695	663	95	5	32	34-131	
Fluoranthene	695	727	105	8	23	40-118	
Fluorene	695	611	88	2	37	43-110	
Indeno[1,2,3-cd]pyrene	695	635	91	3	30	34-130	
Phenanthrene	695	580	83	5	20	41-107	
Pyrene	695	550	79	3	28	39-113	
Acenaphthene	695	578	83	2	34	42-104	
Acenaphthylene	695	570	82	4	36	43-117	
Naphthalene	695	493	71	2	25	42-104	
2-Methylnaphthalene	695	511	74	4	34	43-105	

Column to be used to flag recovery and RPD values

FORM III 8270D LL

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab File ID: N0926DF1.D DFTPP Injection Date: 09/26/2013

Instrument ID: 733 DFTPP Injection Time: 11:30

Analysis Batch No.: 85033

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	34.4	
68	Less than 2.0 % of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	37.6	
70	Less than 2.0 % of mass 69	0.2	(0.6)1
127	40.0 - 60.0 % of mass 198	45.6	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.6	
275	10.0 - 30.0 % of mass 198	25.9	
365	Greater than 1.0 % of mass 198	2.9	
441	Present but less than mass 443	11.0	(84.8)3
442	Greater than 40.0 % of mass 198	68.1	
443	17.0 - 23.0 % of mass 442	13.0	(19.1)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-85033/8	N09260CC.D	09/26/2013	11:45
SD-152	180-25321-1	N0926024.D	09/26/2013	22:02
SD-154	180-25321-2	N0926025.D	09/26/2013	22:28
SD-155	180-25321-3	N0926026.D	09/26/2013	22:54
SD-153	180-25321-4	N0926027.D	09/26/2013	23:19

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab Sample ID: CCVIS 180-85033/8 Calibration Date: 09/26/2013 11:45

Instrument ID: 733 Calib Start Date: 08/06/2013 06:33

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 08/06/2013 09:41

Lab File ID: N09260CC.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.3202	0.3878	0.0100	6.05	5.00	21.1*	20.0
N-Nitrosodimethylamine	Ave	0.3891	0.4887	0.0100	6.28	5.00	25.6*	20.0
Pyridine	Ave	0.7321	0.9471	0.0100	6.47	5.00	29.4*	20.0
Methyl methanesulfonate	Ave	0.5656	0.5855	0.0100	5.18	5.00	3.5	20.0
Benzaldehyde	Ave	0.9360	0.9698	0.0100	5.18	5.00	3.6	20.0
Phenol	Ave	1.552	1.612	0.8000	5.19	5.00	3.9	20.0
Aniline	Ave	1.745	1.791	0.0100	5.13	5.00	2.7	20.0
Bis(2-chloroethyl)ether	Ave	1.114	1.096	0.7000	4.92	5.00	-1.6	20.0
2-Chlorophenol	Ave	1.265	1.333	0.8000	5.27	5.00	5.4	20.0
1,3-Dichlorobenzene	Ave	1.564	1.637	0.0100	5.24	5.00	4.7	20.0
1,4-Dichlorobenzene	Ave	1.574	1.588	0.0100	5.05	5.00	0.9	20.0
Benzyl alcohol	Ave	0.7311	0.7345	0.0100	5.02	5.00	0.5	20.0
1,2-Dichlorobenzene	Ave	1.521	1.523	0.0100	5.01	5.00	0.1	20.0
2-Methylphenol	Ave	1.072	1.128	0.7000	5.26	5.00	5.3	20.0
Indene	Ave	2.131	2.194	0.0100	5.15	5.00	3.0	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.315	1.289	0.0100	4.90	5.00	-2.0	20.0
N-Nitrosopyrrolidine	Ave	0.4994	0.5108	0.0100	5.11	5.00	2.3	20.0
Acetophenone	Ave	1.644	1.647	0.0100	5.01	5.00	0.2	20.0
N-Nitrosodi-n-propylamine	Ave	0.7749	0.7523	0.5000	4.85	5.00	-2.9	20.0
Methylphenol, 3 & 4	Ave	1.088	1.155	0.6000	5.31	5.00	6.2	20.0
Hexachloroethane	Ave	0.6135	0.5869	0.3000	4.78	5.00	-4.3	20.0
Nitrobenzene	Ave	0.3433	0.3115	0.2000	4.54	5.00	-9.3	20.0
Isophorone	Ave	0.5452	0.5358	0.4000	4.91	5.00	-1.7	20.0
2-Nitrophenol	Ave	0.1712	0.1898	0.1000	5.55	5.00	10.9	20.0
2,4-Dimethylphenol	Ave	0.2857	0.2651	0.2000	4.64	5.00	-7.2	20.0
Benzoic acid	Qua	0.1418	0.1697	0.0100	11.8	10.0	17.6	20.0
Bis(2-chloroethoxy)methane	Ave	0.3652	0.3350	0.3000	4.59	5.00	-8.3	20.0
2,4-Dichlorophenol	Ave	0.2793	0.3002	0.2000	5.37	5.00	7.5	20.0
1,2,4-Trichlorobenzene	Ave	0.3546	0.3447	0.0100	4.86	5.00	-2.8	20.0
Naphthalene	Ave	1.021	1.017	0.7000	4.98	5.00	-0.4	20.0
4-Chloroaniline	Ave	0.4091	0.4135	0.0100	5.05	5.00	1.1	20.0
2,6-Dichlorophenol	Ave	0.2754	0.2857	0.0100	5.19	5.00	3.7	20.0
Hexachlorobutadiene	Ave	0.2252	0.2182	0.0100	4.84	5.00	-3.1	20.0
Caprolactam	Qua	0.0674	0.0817	0.0100	5.54	5.00	10.8	20.0
4-Chloro-3-methylphenol	Ave	0.2547	0.2759	0.2000	5.42	5.00	8.3	20.0
2-Methylnaphthalene	Ave	0.6770	0.6934	0.4000	5.12	5.00	2.4	20.0
1-Methylnaphthalene	Ave	0.6284	0.6335	0.0100	5.04	5.00	0.8	20.0
Hexachlorocyclopentadiene	Ave	0.4511	0.4372	0.0500	4.85	5.00	-3.1	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.6621	0.6463	0.0100	4.88	5.00	-2.4	20.0
2,4,6-Trichlorophenol	Ave	0.3604	0.3981	0.2000	5.52	5.00	10.5	20.0
2,4,5-Trichlorophenol	Ave	0.3746	0.4055	0.2000	5.41	5.00	8.3	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab Sample ID: CCVIS 180-85033/8 Calibration Date: 09/26/2013 11:45

Instrument ID: 733 Calib Start Date: 08/06/2013 06:33

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 08/06/2013 09:41

Lab File ID: N09260CC.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.474	1.473	0.0100	4.99	5.00	-0.1	20.0
2-Chloronaphthalene	Ave	1.257	1.187	0.8000	4.72	5.00	-5.6	20.0
2-Nitroaniline	Ave	0.2977	0.2906	0.0100	4.88	5.00	-2.4	20.0
Dimethyl phthalate	Ave	1.180	1.239	0.0100	5.25	5.00	5.0	20.0
1,3-Dinitrobenzene	Ave	0.1895	0.2132	0.0100	5.63	5.00	12.5	20.0
2,6-Dinitrotoluene	Ave	0.2606	0.2924	0.2000	5.61	5.00	12.2	20.0
Acenaphthylene	Ave	1.807	1.813	0.9000	5.02	5.00	0.3	20.0
3-Nitroaniline	Ave	0.2894	0.3176	0.0100	5.49	5.00	9.7	20.0
Acenaphthene	Ave	1.129	1.160	0.9000	5.14	5.00	2.7	20.0
2,4-Dinitrophenol	Qua	0.1504	0.1735	0.0100	12.4	10.0	23.8*	20.0
4-Nitrophenol	Ave	0.1412	0.1492	0.0100	10.6	10.0	5.7	20.0
2,4-Dinitrotoluene	Ave	0.3308	0.3933	0.2000	5.95	5.00	18.9	20.0
Dibenzofuran	Ave	1.618	1.630	0.8000	5.04	5.00	0.8	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3064	0.3252	0.0100	5.31	5.00	6.1	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3013	0.3244	0.0100	5.38	5.00	7.6	20.0
2-Naphthylamine	Ave	0.9037	0.9164	0.0100	5.07	5.00	1.4	20.0
Diethyl phthalate	Ave	1.109	1.198	0.0100	5.40	5.00	8.0	20.0
4-Chlorophenyl phenyl ether	Ave	0.6468	0.6830	0.4000	5.28	5.00	5.6	20.0
4-Nitroaniline	Ave	0.2666	0.3233	0.0100	6.06	5.00	21.2*	20.0
Fluorene	Ave	1.233	1.320	0.9000	5.35	5.00	7.0	20.0
4,6-Dinitro-2-methylphenol	Qua	0.1269	0.1380	0.0100	10.7	10.0	7.2	20.0
N-Nitrosodiphenylamine	Ave	0.5472	0.5301	0.0100	4.84	5.00	-3.1	20.0
4-Bromophenyl phenyl ether	Ave	0.2355	0.2282	0.1000	4.85	5.00	-3.1	20.0
Hexachlorobenzene	Ave	0.2407	0.2044	0.1000	4.25	5.00	-15.1	20.0
Atrazine	Ave	0.1800	0.2066	0.0100	5.74	5.00	14.8	20.0
Pentachlorophenol	Qua	0.1456	0.1078	0.0500	8.00	10.0	-20.0	20.0
Phenanthrene	Ave	1.119	1.045	0.7000	4.67	5.00	-6.6	20.0
Anthracene	Ave	1.102	1.085	0.7000	4.92	5.00	-1.6	20.0
Carbazole	Ave	0.9685	0.9732	0.0100	5.02	5.00	0.5	20.0
Di-n-butyl phthalate	Ave	1.077	1.195	0.0100	5.55	5.00	11.0	20.0
Fluoranthene	Ave	1.049	1.194	0.6000	5.69	5.00	13.8	20.0
Benzidine	Ave	0.2583	0.4179	0.0100	8.09	5.00	61.8*	20.0
Pyrene	Ave	1.274	1.187	0.6000	4.66	5.00	-6.8	20.0
Butyl benzyl phthalate	Qua	0.4527	0.5004	0.0100	5.10	5.00	2.1	20.0
3,3'-Dichlorobenzidine	Qua	0.3242	0.3893	0.0100	5.92	5.00	18.4	20.0
Bis(2-ethylhexyl) phthalate	Qua	0.5786	0.6964	0.0100	5.40	5.00	8.0	20.0
Benzo[a]anthracene	Ave	1.071	1.146	0.8000	5.35	5.00	7.0	20.0
Chrysene	Ave	0.9931	1.042	0.7000	5.24	5.00	4.9	20.0
Di-n-octyl phthalate	Qua	1.159	1.294	0.0100	5.42	5.00	8.3	20.0
7,12-Dimethylbenz(a)anthracene	Ave	0.5581	0.5178	0.0100	4.64	5.00	-7.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab Sample ID: CCVIS 180-85033/8 Calibration Date: 09/26/2013 11:45

Instrument ID: 733 Calib Start Date: 08/06/2013 06:33

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 08/06/2013 09:41

Lab File ID: N09260CC.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[b]fluoranthene	Ave	1.280	1.211	0.7000	4.73	5.00	-5.4	20.0
Benzo[k]fluoranthene	Ave	1.266	1.192	0.7000	4.71	5.00	-5.8	20.0
Benzo[a]pyrene	Ave	1.069	1.100	0.7000	5.14	5.00	2.9	20.0
Indeno[1,2,3-cd]pyrene	Qua	1.242	1.288	0.5000	4.81	5.00	-3.9	20.0
Dibenz(a,h)anthracene	Qua	1.048	1.104	0.4000	4.94	5.00	-1.2	20.0
Benzo[g,h,i]perylene	Qua	1.062	1.092	0.5000	4.82	5.00	-3.7	20.0
2-Fluorophenol (Surr)	Ave	1.038	1.181		5.69	5.00	13.8	20.0
Phenol-d5 (Surr)	Ave	1.365	1.491		5.46	5.00	9.2	20.0
Nitrobenzene-d5 (Surr)	Ave	0.3272	0.3117		4.76	5.00	-4.7	20.0
2-Fluorobiphenyl	Ave	1.371	1.377		5.02	5.00	0.4	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.0957	0.0819	0.0100	4.28	5.00	-14.5	20.0
Terphenyl-d14 (Surr)	Ave	0.9034	0.8475		4.69	5.00	-6.2	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab File ID: N0927DF1.D DFTPP Injection Date: 09/27/2013

Instrument ID: 733 DFTPP Injection Time: 22:58

Analysis Batch No.: 85121

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	35.9	
68	Less than 2.0 % of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	39.0	
70	Less than 2.0 % of mass 69	0.3	(0.8)1
127	40.0 - 60.0 % of mass 198	46.0	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.4	
275	10.0 - 30.0 % of mass 198	24.7	
365	Greater than 1.0 % of mass 198	2.8	
441	Present but less than mass 443	10.4	(80.5)3
442	Greater than 40.0 % of mass 198	67.5	
443	17.0 - 23.0 % of mass 442	12.9	(19.1)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-85121/21	N09270CC.D	09/27/2013	23:12
	MB 180-84803/1-A	N0927001.D	09/27/2013	23:38
	LCS 180-84803/2-A	N0927002.D	09/28/2013	00:30
SD-117-SS	180-25321-5	N0927003.D	09/28/2013	01:22
SD-117-01	180-25321-6	N0927004.D	09/28/2013	01:48
SD-117-02	180-25321-7	N0927005.D	09/28/2013	02:14
SD-118-SS	180-25321-8	N0927006.D	09/28/2013	02:40
SD-118-01	180-25321-9	N0927007.D	09/28/2013	03:06
SD-118-02	180-25321-10	N0927008.D	09/28/2013	03:32
SD-118-03	180-25321-11	N0927009.D	09/28/2013	03:57
SD-120-SS	180-25321-12	N0927010.D	09/28/2013	04:23
SD-120-01	180-25321-13	N0927011.D	09/28/2013	04:49
SD-120-02	180-25321-14	N0927012.D	09/28/2013	05:15
SD-120-03	180-25321-15	N0927013.D	09/28/2013	05:41
SD-120-03 MS	180-25321-15 MS	N0927014.D	09/28/2013	06:06
SD-120-03 MSD	180-25321-15 MSD	N0927015.D	09/28/2013	06:32
SD-113-SS	180-25321-16	N0927016.D	09/28/2013	06:58
SD-113-01	180-25321-17	N0927017.D	09/28/2013	07:24
SD-113-02	180-25321-18	N0927018.D	09/28/2013	07:50
SD-113-03	180-25321-19	N0927019.D	09/28/2013	08:16
SD-115-SS	180-25321-20	N0927020.D	09/28/2013	08:41

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab Sample ID: CCVIS 180-85121/21 Calibration Date: 09/27/2013 23:12

Instrument ID: 733 Calib Start Date: 08/06/2013 06:33

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 08/06/2013 09:41

Lab File ID: N09270CC.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.3202	0.3782	0.0100	5.90	5.00	18.1	20.0
N-Nitrosodimethylamine	Ave	0.3891	0.5037	0.0100	6.47	5.00	29.5*	20.0
Pyridine	Ave	0.7321	0.8690	0.0100	5.93	5.00	18.7	20.0
Methyl methanesulfonate	Ave	0.5656	0.5871	0.0100	5.19	5.00	3.8	20.0
Benzaldehyde	Ave	0.9360	0.9781	0.0100	5.23	5.00	4.5	20.0
Phenol	Ave	1.552	1.613	0.8000	5.20	5.00	4.0	20.0
Aniline	Ave	1.745	1.736	0.0100	4.97	5.00	-0.5	20.0
Bis(2-chloroethyl)ether	Ave	1.114	1.092	0.7000	4.90	5.00	-1.9	20.0
2-Chlorophenol	Ave	1.265	1.335	0.8000	5.28	5.00	5.5	20.0
1,3-Dichlorobenzene	Ave	1.564	1.553	0.0100	4.97	5.00	-0.7	20.0
1,4-Dichlorobenzene	Ave	1.574	1.600	0.0100	5.08	5.00	1.7	20.0
Benzyl alcohol	Ave	0.7311	0.7334	0.0100	5.02	5.00	0.3	20.0
1,2-Dichlorobenzene	Ave	1.521	1.523	0.0100	5.01	5.00	0.2	20.0
2-Methylphenol	Ave	1.072	1.114	0.7000	5.20	5.00	4.0	20.0
Indene	Ave	2.131	2.178	0.0100	5.11	5.00	2.2	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.315	1.285	0.0100	4.88	5.00	-2.3	20.0
N-Nitrosopyrrolidine	Ave	0.4994	0.4945	0.0100	4.95	5.00	-1.0	20.0
Acetophenone	Ave	1.644	1.619	0.0100	4.92	5.00	-1.5	20.0
N-Nitrosodi-n-propylamine	Ave	0.7749	0.7430	0.5000	4.79	5.00	-4.1	20.0
Methylphenol, 3 & 4	Ave	1.088	1.131	0.6000	5.20	5.00	3.9	20.0
Hexachloroethane	Ave	0.6135	0.5871	0.3000	4.79	5.00	-4.3	20.0
Nitrobenzene	Ave	0.3433	0.3152	0.2000	4.59	5.00	-8.2	20.0
Isophorone	Ave	0.5452	0.5392	0.4000	4.94	5.00	-1.1	20.0
2-Nitrophenol	Ave	0.1712	0.1891	0.1000	5.52	5.00	10.4	20.0
2,4-Dimethylphenol	Ave	0.2857	0.2604	0.2000	4.56	5.00	-8.8	20.0
Benzoic acid	Qua	0.1418	0.1591	0.0100	11.1	10.0	11.1	20.0
Bis(2-chloroethoxy)methane	Ave	0.3652	0.3246	0.3000	4.44	5.00	-11.1	20.0
2,4-Dichlorophenol	Ave	0.2793	0.2961	0.2000	5.30	5.00	6.0	20.0
1,2,4-Trichlorobenzene	Ave	0.3546	0.3472	0.0100	4.90	5.00	-2.1	20.0
Naphthalene	Ave	1.021	1.002	0.7000	4.91	5.00	-1.8	20.0
4-Chloroaniline	Ave	0.4091	0.4120	0.0100	5.04	5.00	0.7	20.0
2,6-Dichlorophenol	Ave	0.2754	0.2824	0.0100	5.13	5.00	2.5	20.0
Hexachlorobutadiene	Ave	0.2252	0.2225	0.0100	4.94	5.00	-1.2	20.0
Caprolactam	Qua	0.0674	0.0706	0.0100	4.83	5.00	-3.4	20.0
4-Chloro-3-methylphenol	Ave	0.2547	0.2668	0.2000	5.24	5.00	4.7	20.0
2-Methylnaphthalene	Ave	0.6770	0.6671	0.4000	4.93	5.00	-1.5	20.0
1-Methylnaphthalene	Ave	0.6284	0.6181	0.0100	4.92	5.00	-1.6	20.0
Hexachlorocyclopentadiene	Ave	0.4511	0.4630	0.0500	5.13	5.00	2.6	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.6621	0.6549	0.0100	4.95	5.00	-1.1	20.0
2,4,6-Trichlorophenol	Ave	0.3604	0.4065	0.2000	5.64	5.00	12.8	20.0
2,4,5-Trichlorophenol	Ave	0.3746	0.4256	0.2000	5.68	5.00	13.6	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab Sample ID: CCVIS 180-85121/21 Calibration Date: 09/27/2013 23:12

Instrument ID: 733 Calib Start Date: 08/06/2013 06:33

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 08/06/2013 09:41

Lab File ID: N09270CC.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.474	1.467	0.0100	4.98	5.00	-0.5	20.0
2-Chloronaphthalene	Ave	1.257	1.211	0.8000	4.82	5.00	-3.7	20.0
2-Nitroaniline	Ave	0.2977	0.2900	0.0100	4.87	5.00	-2.6	20.0
Dimethyl phthalate	Ave	1.180	1.233	0.0100	5.22	5.00	4.5	20.0
1,3-Dinitrobenzene	Ave	0.1895	0.2008	0.0100	5.30	5.00	6.0	20.0
2,6-Dinitrotoluene	Ave	0.2606	0.2875	0.2000	5.52	5.00	10.3	20.0
Acenaphthylene	Ave	1.807	1.839	0.9000	5.09	5.00	1.8	20.0
3-Nitroaniline	Ave	0.2894	0.3060	0.0100	5.29	5.00	5.7	20.0
2,4-Dinitrophenol	Qua	0.1504	0.1698	0.0100	12.2	10.0	21.8*	20.0
Acenaphthene	Ave	1.129	1.175	0.9000	5.20	5.00	4.1	20.0
4-Nitrophenol	Ave	0.1412	0.1378	0.0100	9.76	10.0	-2.4	20.0
2,4-Dinitrotoluene	Ave	0.3308	0.3746	0.2000	5.66	5.00	13.2	20.0
Dibenzofuran	Ave	1.618	1.614	0.8000	4.99	5.00	-0.2	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3064	0.3346	0.0100	5.46	5.00	9.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3013	0.3365	0.0100	5.58	5.00	11.7	20.0
2-Naphthylamine	Ave	0.9037	0.8326	0.0100	4.61	5.00	-7.9	20.0
Diethyl phthalate	Ave	1.109	1.198	0.0100	5.40	5.00	8.0	20.0
4-Chlorophenyl phenyl ether	Ave	0.6468	0.6678	0.4000	5.16	5.00	3.3	20.0
4-Nitroaniline	Ave	0.2666	0.2897	0.0100	5.43	5.00	8.6	20.0
Fluorene	Ave	1.233	1.282	0.9000	5.19	5.00	3.9	20.0
4,6-Dinitro-2-methylphenol	Qua	0.1269	0.1415	0.0100	11.0	10.0	9.6	20.0
N-Nitrosodiphenylamine	Ave	0.5472	0.5419	0.0100	4.95	5.00	-1.0	20.0
4-Bromophenyl phenyl ether	Ave	0.2355	0.2353	0.1000	5.00	5.00	-0.0	20.0
Hexachlorobenzene	Ave	0.2407	0.2172	0.1000	4.51	5.00	-9.8	20.0
Atrazine	Ave	0.1800	0.2081	0.0100	5.78	5.00	15.7	20.0
Pentachlorophenol	Qua	0.1456	0.1218	0.0500	8.90	10.0	-11.0	20.0
Phenanthrene	Ave	1.119	1.064	0.7000	4.75	5.00	-5.0	20.0
Anthracene	Ave	1.102	1.092	0.7000	4.95	5.00	-0.9	20.0
Carbazole	Ave	0.9685	0.9531	0.0100	4.92	5.00	-1.6	20.0
Di-n-butyl phthalate	Ave	1.077	1.172	0.0100	5.44	5.00	8.8	20.0
Fluoranthene	Ave	1.049	1.139	0.6000	5.43	5.00	8.6	20.0
Benzidine	Ave	0.2583	0.4141	0.0100	8.02	5.00	60.3*	20.0
Pyrene	Ave	1.274	1.286	0.6000	5.05	5.00	1.0	20.0
Butyl benzyl phthalate	Qua	0.4527	0.5000	0.0100	5.10	5.00	2.0	20.0
3,3'-Dichlorobenzidine	Qua	0.3242	0.3706	0.0100	5.68	5.00	13.6	20.0
Bis(2-ethylhexyl) phthalate	Qua	0.5786	0.7029	0.0100	5.45	5.00	8.9	20.0
Benzo[a]anthracene	Ave	1.071	1.156	0.8000	5.39	5.00	7.9	20.0
Chrysene	Ave	0.9931	1.050	0.7000	5.29	5.00	5.8	20.0
Di-n-octyl phthalate	Qua	1.159	1.359	0.0100	5.66	5.00	13.2	20.0
7,12-Dimethylbenz(a)anthracene	Ave	0.5581	0.5512	0.0100	4.94	5.00	-1.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab Sample ID: CCVIS 180-85121/21 Calibration Date: 09/27/2013 23:12

Instrument ID: 733 Calib Start Date: 08/06/2013 06:33

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 08/06/2013 09:41

Lab File ID: N09270CC.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[b]fluoranthene	Ave	1.280	1.236	0.7000	4.83	5.00	-3.5	20.0
Benzo[k]fluoranthene	Ave	1.266	1.207	0.7000	4.77	5.00	-4.7	20.0
Benzo[a]pyrene	Ave	1.069	1.125	0.7000	5.26	5.00	5.2	20.0
Indeno[1,2,3-cd]pyrene	Qua	1.242	1.293	0.5000	4.82	5.00	-3.5	20.0
Dibenz(a,h)anthracene	Qua	1.048	1.112	0.4000	4.97	5.00	-0.5	20.0
Benzo[g,h,i]perylene	Qua	1.062	1.079	0.5000	4.77	5.00	-4.7	20.0
2-Fluorophenol (Surr)	Ave	1.038	1.173		5.65	5.00	13.0	20.0
Phenol-d5 (Surr)	Ave	1.365	1.458		5.34	5.00	6.8	20.0
Nitrobenzene-d5 (Surr)	Ave	0.3272	0.3163		4.83	5.00	-3.3	20.0
2-Fluorobiphenyl	Ave	1.371	1.424		5.19	5.00	3.8	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.0957	0.0849	0.0100	4.44	5.00	-11.3	20.0
Terphenyl-d14 (Surr)	Ave	0.9034	0.8966		4.96	5.00	-0.8	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab File ID: N0927001.D Lab Sample ID: MB 180-84803/1-A

Matrix: Sediment Date Extracted: 09/26/2013 03:45

Instrument ID: 733 Date Analyzed: 09/27/2013 23:38

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
SD-152	180-25321-1	N0926024.D	09/26/2013 22:02
SD-154	180-25321-2	N0926025.D	09/26/2013 22:28
SD-155	180-25321-3	N0926026.D	09/26/2013 22:54
SD-153	180-25321-4	N0926027.D	09/26/2013 23:19
	LCS 180-84803/2-A	N0927002.D	09/28/2013 00:30
SD-117-SS	180-25321-5	N0927003.D	09/28/2013 01:22
SD-117-01	180-25321-6	N0927004.D	09/28/2013 01:48
SD-117-02	180-25321-7	N0927005.D	09/28/2013 02:14
SD-118-SS	180-25321-8	N0927006.D	09/28/2013 02:40
SD-118-01	180-25321-9	N0927007.D	09/28/2013 03:06
SD-118-02	180-25321-10	N0927008.D	09/28/2013 03:32
SD-118-03	180-25321-11	N0927009.D	09/28/2013 03:57
SD-120-SS	180-25321-12	N0927010.D	09/28/2013 04:23
SD-120-01	180-25321-13	N0927011.D	09/28/2013 04:49
SD-120-02	180-25321-14	N0927012.D	09/28/2013 05:15
SD-120-03	180-25321-15	N0927013.D	09/28/2013 05:41
SD-120-03 MS	180-25321-15 MS	N0927014.D	09/28/2013 06:06
SD-120-03 MSD	180-25321-15 MSD	N0927015.D	09/28/2013 06:32
SD-113-SS	180-25321-16	N0927016.D	09/28/2013 06:58
SD-113-01	180-25321-17	N0927017.D	09/28/2013 07:24
SD-113-02	180-25321-18	N0927018.D	09/28/2013 07:50
SD-113-03	180-25321-19	N0927019.D	09/28/2013 08:16
SD-115-SS	180-25321-20	N0927020.D	09/28/2013 08:41

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-84803/1-A

Matrix: Sediment | Lab File ID: N0927001.D

Analysis Method: 8270D LL | Date Collected:

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.0(g) | Date Analyzed: 09/27/2013 23:38

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85121 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	ND		3.4	0.33
56-55-3	Benzo[a]anthracene	ND		3.4	0.42
205-99-2	Benzo[b]fluoranthene	ND		3.4	0.52
207-08-9	Benzo[k]fluoranthene	ND		3.4	0.67
191-24-2	Benzo[g,h,i]perylene	ND		3.4	0.33
50-32-8	Benzo[a]pyrene	ND		3.4	0.33
218-01-9	Chrysene	ND		3.4	0.40
53-70-3	Dibenz(a,h)anthracene	ND		3.4	0.37
206-44-0	Fluoranthene	ND		3.4	0.36
86-73-7	Fluorene	ND		3.4	0.44
193-39-5	Indeno[1,2,3-cd]pyrene	ND		3.4	0.34
85-01-8	Phenanthrene	ND		3.4	0.53
129-00-0	Pyrene	ND		3.4	0.34
83-32-9	Acenaphthene	ND		3.4	0.32
208-96-8	Acenaphthylene	ND		3.4	0.38
91-20-3	Naphthalene	ND		3.4	0.29
91-57-6	2-Methylnaphthalene	ND		3.4	0.30

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	67		27-110
321-60-8	2-Fluorobiphenyl	70		28-108
1718-51-0	Terphenyl-d14 (Surr)	74		21-130

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab File ID: F0523DF1.D DFTPP Injection Date: 05/23/2013

Instrument ID: 722 DFTPP Injection Time: 23:51

Analysis Batch No.: 73137

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	45.1	
68	Less than 2.0 % of mass 69	0.5	(0.8)1
69	Mass 69 relative abundance	59.2	
70	Less than 2.0 % of mass 69	0.0	(0.0)1
127	40.0 - 60.0 % of mass 198	47.2	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.8	
275	10.0 - 30.0 % of mass 198	29.7	
365	Greater than 1.0 % of mass 198	6.3	
441	Present but less than mass 443	8.4	(95.1)3
442	Greater than 40.0 % of mass 198	49.4	
443	17.0 - 23.0 % of mass 442	8.8	(17.8)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-73137/1	F05230C1.D	05/24/2013	00:09
	IC 180-73137/2	F05230C2.D	05/24/2013	00:36
	ICIS 180-73137/3	F05230C3.D	05/24/2013	01:03
	IC 180-73137/4	F05230C4.D	05/24/2013	01:31
	IC 180-73137/5	F05230C5.D	05/24/2013	01:58
	IC 180-73137/6	F05230C6.D	05/24/2013	02:26
	IC 180-73137/7	F05230C7.D	05/24/2013	02:53
	IC 180-73137/8	F05230C8.D	05/24/2013	03:20

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 73137

SDG No.:

Instrument ID: 722 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2013 00:09 Calibration End Date: 05/24/2013 03:20 Calibration ID: 9569

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-73137/1	F05230C1.D
Level 2	IC 180-73137/2	F05230C2.D
Level 3	ICIS 180-73137/3	F05230C3.D
Level 4	IC 180-73137/4	F05230C4.D
Level 5	IC 180-73137/5	F05230C5.D
Level 6	IC 180-73137/6	F05230C6.D
Level 7	IC 180-73137/7	F05230C7.D
Level 8	IC 180-73137/8	F05230C8.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	+++++ 0.8509	0.9958 0.8449	0.9643 0.8428	0.9753	0.9258	Ave		0.9143			0.0100	7.3		20.0			
N-Nitrosodimethylamine	1.0662 1.1759	1.2869 1.1485	1.2786 1.1409	1.2896	1.2474	Ave		1.2043			0.0100	6.9		20.0			
Pyridine	2.0332 2.1479	2.5155 2.0768	2.3118 2.0342	2.3954	2.2660	Ave		2.2226			0.0100	8.0		20.0			
Methyl methanesulfonate	1.0035 0.9757	1.0046 0.8831	1.1482 0.9258	1.1112	1.0208	Ave		1.0091			0.0100	8.7		20.0			
Benzaldehyde	0.4907 0.8783	0.5399 0.7547	0.8175 0.7015	0.9609	0.9809	Qua	0.1439	0.7114	0.0994		0.0100			20.0	0.9992		0.9900
Phenol	1.3809 1.7021	1.5187 1.7094	1.6364 1.7889	1.6656	1.6116	Ave		1.6267			0.8000	7.8		20.0			
Aniline	1.6066 1.7334	1.3607 1.7003	1.6562 1.8130	1.6437	1.6950	Ave		1.6511			0.0100	8.1		20.0			
Bis(2-chloroethyl)ether	1.1671 1.1694	1.1356 1.1608	1.2102 1.2036	1.2526	1.1728	Ave		1.1840			0.7000	3.1		20.0			
2-Chlorophenol	1.1028 1.3286	1.2677 1.3058	1.3214 1.3380	1.3647	1.3351	Ave		1.2955			0.8000	6.4		20.0			
1,3-Dichlorobenzene	1.7296 1.6370	1.5922 1.6173	1.6844 1.6850	1.7152	1.6599	Ave		1.6651			0.0100	2.9		20.0			
1,4-Dichlorobenzene	1.8671 1.6496	1.5821 1.6540	1.7747 1.7242	1.7194	1.6652	Ave		1.7045			0.0100	5.2		20.0			
Benzyl alcohol	0.6417 0.7508	0.6399 0.7503	0.6561 0.7985	0.7339	0.7099	Ave		0.7101			0.0100	8.3		20.0			
1,2-Dichlorobenzene	1.4215 1.5044	1.3994 1.5273	1.4843 1.6049	1.5420	1.4852	Ave		1.4961			0.0100	4.4		20.0			
2-Methylphenol	0.8577 1.1481	0.8799 1.1866	0.9496 1.2830	0.9958	1.0686	Ave		1.0462			0.7000	14.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 73137

SDG No.:

Instrument ID: 722 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2013 00:09 Calibration End Date: 05/24/2013 03:20 Calibration ID: 9569

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Indene	2.0693 2.1474	1.7722 2.2898	1.8968 2.5051	1.9035	1.9795	Ave		2.0704			0.0100	11.5		20.0			
2,2'-oxybis[1-chloropropane]	0.7304 0.5959	0.6154 0.6090	0.5878 0.6594	0.6010	0.5638	Ave		0.6203			0.0100	8.4		20.0			
N-Nitrosopyrrolidine	+++++ 0.4631	0.3921 0.4522	0.3912 0.4618	0.4477	0.4521	Ave		0.4372			0.0100	7.2		20.0			
Acetophenone	1.5371 1.9410	1.6036 1.9887	1.7979 2.1275	1.7583	1.7995	Ave		1.8192			0.0100	10.8		20.0			
Methylphenol, 3 & 4	0.9394 1.2155	0.9793 1.2988	1.0224 +++++	1.0217	1.0929	Ave		1.0814			0.6000	12.1		20.0			
N-Nitrosodi-n-propylamine	0.7317 1.0190	0.7925 1.0509	0.8495 1.1249	0.8878	0.9337	Ave		0.9238			0.5000	14.6		20.0			
Hexachloroethane	0.6013 0.6665	0.5971 0.6577	0.6644 0.7014	0.6478	0.6474	Ave		0.6480			0.3000	5.3		20.0			
Nitrobenzene	0.4215 0.5666	0.5030 0.5851	0.5326 0.6002	0.5631	0.5908	Ave		0.5454			0.2000	10.9		20.0			
Isophorone	+++++ 0.7754	0.6234 0.7888	0.6366 0.8016	0.6864	0.7297	Ave		0.7203			0.4000	10.1		20.0			
2-Nitrophenol	0.1315 0.2288	0.1440 0.2390	0.1819 0.2529	0.1991	0.2171	Qua	0.0675	4.6581	-0.289		0.1000			20.0	1.0000		0.9900
2,4-Dimethylphenol	0.4014 0.4749	0.4090 0.4820	0.4151 0.5042	0.4442	0.4695	Ave		0.4500			0.2000	8.5		20.0			
Benzoic acid	+++++ 0.1810	0.0761 0.2077	0.1180 0.2274	0.1433	0.1751	Qua	0.4206	5.5369	-0.591		0.0100			20.0	0.9991		0.9900
Bis(2-chloroethoxy)methane	0.4327 0.4161	0.3864 0.4401	0.3620 0.4671	0.3753	0.3876	Ave		0.4084			0.3000	8.9		20.0			
2,4-Dichlorophenol	0.2790 0.3656	0.3104 0.3808	0.3069 0.4038	0.3351	0.3648	Ave		0.3433			0.2000	12.4		20.0			
1,2,4-Trichlorobenzene	0.4512 0.5022	0.4836 0.5210	0.4400 0.5520	0.4746	0.5042	Ave		0.4911			0.0100	7.5		20.0			
Naphthalene	1.1204 1.1696	1.0649 1.2182	1.0488 1.2641	1.0742	1.1346	Ave		1.1369			0.7000	6.7		20.0			
4-Chloroaniline	0.3400 0.4382	0.3763 0.4666	0.3535 0.4964	0.3795	0.4177	Ave		0.4085			0.0100	13.6		20.0			
2,6-Dichlorophenol	0.3448 0.4206	0.3395 0.4402	0.3587 0.4768	0.3830	0.4094	Ave		0.3966			0.0100	12.3		20.0			
Hexachlorobutadiene	0.3695 0.4190	0.3745 0.4295	0.3694 0.4589	0.3813	0.4109	Ave		0.4016			0.0100	8.2		20.0			
Caprolactam	+++++ 0.0940	0.0485 0.1000	0.0540 0.1027	0.0795	0.0913	Qua	0.1737	10.620	-1.040		0.0100			20.0	0.9998		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 73137

SDG No.:

Instrument ID: 722 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2013 00:09 Calibration End Date: 05/24/2013 03:20 Calibration ID: 9569

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.2628 0.3362	0.2648 0.3551	0.2800 0.3721	0.2999	0.3278	Ave		0.3123			0.2000	13.3		20.0			
2-Methylnaphthalene	0.6604 0.7705	0.6475 0.8269	0.6443 0.8846	0.6821	0.7575	Ave		0.7342			0.4000	12.3		20.0			
1-Methylnaphthalene	0.7407 0.7135	0.6029 0.7769	0.6167 0.8109	0.6544	0.6988	Ave		0.7018			0.0100	10.6		20.0			
Hexachlorocyclopentadiene	0.3855 0.7947	0.4841 0.8515	0.5344 0.8978	0.5956	0.7151	Qua	0.1335	1.3370	-0.027		0.0500			20.0	0.9996		0.9900
1,2,4,5-Tetrachlorobenzene	0.9675 1.0836	0.9356 1.1563	0.9700 1.2034	0.9545	1.0453	Ave		1.0395			0.0100	9.7		20.0			
2,4,6-Trichlorophenol	0.3700 0.5748	0.4779 0.6034	0.4972 0.5980	0.4901	0.5438	Ave		0.5194			0.2000	15.0		20.0			
2,4,5-Trichlorophenol	+++++ 0.5804	0.4763 0.6084	0.5230 0.6161	0.5138	0.5649	Ave		0.5547			0.2000	9.4		20.0			
1,1'-Biphenyl	1.7730 1.9758	1.7543 2.0485	1.7309 2.1447	1.7295	1.9000	Ave		1.8821			0.0100	8.5		20.0			
2-Chloronaphthalene	1.2106 1.4750	1.3773 1.5362	1.3759 1.5654	1.3473	1.4443	Ave		1.4165			0.8000	8.1		20.0			
2-Nitroaniline	+++++ 0.4325	+++++ 0.4504	0.3143 0.4610	0.3618	0.4217	Ave		0.4070			0.0100	14.0		20.0			
Dimethyl phthalate	1.2459 1.6459	1.4125 1.7620	1.5104 1.7509	1.5425	1.6205	Ave		1.5613			0.0100	11.1		20.0			
2,6-Dinitrotoluene	+++++ 0.3487	0.2269 0.3819	0.2747 0.3829	0.2951	0.3311	Qua	0.1442	2.8701	-0.083		0.2000			20.0	0.9993		0.9900
Acenaphthylene	1.2529 1.9320	1.5869 2.0470	1.5875 2.0168	1.7331	1.8633	Qua	0.0805	0.5153	-0.001	*	0.9000			20.0	0.9995		0.9900
3-Nitroaniline	+++++ 0.3035	+++++ 0.3208	0.2210 0.3157	0.2575	0.2854	Ave		0.2840			0.0100	13.6		20.0			
Acenaphthene	1.1514 1.3998	1.2429 1.4960	1.2643 1.5419	1.2083	1.2976	Ave		1.3253			0.9000	10.5		20.0			
2,4-Dinitrophenol	+++++ 0.2592	+++++ 0.2950	0.1307 0.3282	0.1581	0.2153	Qua	0.9138	3.5324	-0.236		0.0100			20.0	0.9973		0.9900
4-Nitrophenol	+++++ 0.4203	+++++ 0.4424	0.3376 0.4571	0.3775	0.4183	Ave		0.4089			0.0100	10.8		20.0			
2,4-Dinitrotoluene	0.1857 0.4644	0.3352 0.5063	0.3834 0.5259	0.4066	0.4479	Qua	0.0710	2.2561	-0.071		0.2000			20.0	0.9998		0.9900
Dibenzofuran	1.6051 1.9831	1.9767 2.0801	1.8531 2.1080	1.8433	1.9390	Ave		1.9235			0.8000	8.3		20.0			
2,3,5,6-Tetrachlorophenol	0.3723 0.5282	0.3354 0.5716	0.4231 0.5790	0.4335	0.5017	Qua	0.1034	1.9402	-0.042		0.0100			20.0	0.9995		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 73137

SDG No.:

Instrument ID: 722 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2013 00:09 Calibration End Date: 05/24/2013 03:20 Calibration ID: 9569

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	+++++ 0.5230	0.4188 0.5590	0.4196 0.5617	0.4527	0.4898	Ave		0.4892			0.0100	12.5		20.0			
2-Naphthylamine	0.2428 0.3355	0.2798 0.3056	0.3261 +++++	0.3627	0.3632	Ave		0.3165			0.0100	13.9		20.0			
Diethyl phthalate	+++++ 1.6547	1.4058 1.7462	1.4818 1.7748	1.5244	1.6102	Ave		1.5997			0.0100	8.6		20.0			
4-Chlorophenyl phenyl ether	0.8565 1.0304	0.9511 1.1238	0.9241 1.1324	0.9102	0.9928	Ave		0.9902			0.4000	10.1		20.0			
4-Nitroaniline	0.1219 0.3466	0.2243 0.4193	0.2746 0.4434	0.2630	0.3026	Qua	0.1501	3.0387	-0.191		0.0100			20.0	0.9979		0.9900
Fluorene	1.3221 1.5676	1.3454 1.7936	1.2827 +++++	1.3205	1.4849	Ave		1.4453			0.9000	12.8		20.0			
4,6-Dinitro-2-methylphenol	+++++ 0.1876	+++++ 0.1820	0.1411 0.1922	0.1723	0.1798	Ave		0.1758			0.0100	10.4		20.0			
N-Nitrosodiphenylamine	0.6059 0.7125	0.6371 0.6928	0.6096 0.7612	0.6286	0.6731	Ave		0.6651			0.0100	8.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.9130 1.0981	1.0588 1.0266	1.0344 1.0543	1.0628	1.0909	Ave		1.0424			0.0100	5.5		20.0			
4-Bromophenyl phenyl ether	0.2822 0.3276	0.2950 0.3243	0.2881 0.3473	0.3169	0.3210	Ave		0.3128			0.1000	7.1		20.0			
Hexachlorobenzene	0.3407 0.3367	0.2739 0.3273	0.2950 0.3521	0.3005	0.3258	Ave		0.3190			0.1000	8.3		20.0			
Atrazine	+++++ 0.1556	0.1067 0.1471	0.1353 0.1499	0.1565	0.1650	Ave		0.1452			0.0100	13.3		20.0			
Pentachlorophenol	0.1357 0.2185	0.1742 0.2255	0.1972 0.2425	0.2001	0.2121	Qua	0.0732	4.9323	-0.342		0.0500			20.0	0.9999		0.9900
Phenanthrene	1.1179 1.2647	1.1730 1.2537	1.0796 1.3195	1.1208	1.2269	Ave		1.1945			0.7000	7.1		20.0			
Anthracene	0.9757 1.2860	1.0760 1.2668	1.0814 1.3422	1.1090	1.2206	Ave		1.1697			0.7000	10.9		20.0			
Carbazole	0.7702 1.0161	0.8691 0.9732	0.9071 1.0157	0.9682	0.9831	Ave		0.9378			0.0100	9.0		20.0			
Di-n-butyl phthalate	+++++ 1.3601	0.9910 1.3680	1.0536 1.4152	1.1743	1.3074	Ave		1.2385			0.0100	13.5		20.0			
Fluoranthene	1.0339 1.5516	1.2584 1.5167	1.3136 1.5717	1.3937	1.4724	Ave		1.3890			0.6000	13.1		20.0			
Benzidine	0.2567 0.2383	0.1801 0.2459	0.3095 0.2347	0.2611	0.2358	Ave		0.2453			0.0100	14.6		20.0			
Pyrene	1.1691 1.2954	1.1526 1.3225	1.1690 1.1968	1.3096	1.3327	Ave		1.2435			0.6000	6.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 73137

SDG No.:

Instrument ID: 722 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2013 00:09 Calibration End Date: 05/24/2013 03:20 Calibration ID: 9569

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Butyl benzyl phthalate	0.3113 0.5151	0.3248 0.5400	0.3946 0.5052	0.4750	0.4997	Qua	0.1276	1.7849	0.0272		0.0100			20.0	0.9984		0.9900
3,3'-Dichlorobenzidine	0.4128 0.5118	0.3801 0.5054	0.4249 0.4837	0.4656	0.4826	Ave		0.4584			0.0100	10.3		20.0			
Benzo[a]anthracene	1.1602 1.4655	1.2295 1.4819	1.2604 1.3843	1.3902	1.4468	Ave		1.3523			0.8000	8.9		20.0			
Bis(2-ethylhexyl) phthalate	0.3886 0.7582	0.4758 0.8071	0.5455 0.7727	0.5937	0.7045	Qua	0.1582	1.2687	-0.002		0.0100			20.0	0.9984		0.9900
Chrysene	1.2160 1.1893	1.1374 1.1909	1.1824 1.0933	1.1964	1.2009	Ave		1.1758			0.7000	3.4		20.0			
Di-n-octyl phthalate	1.3815 1.2083	1.0286 1.3215	1.0211 1.3662	1.0333	1.2039	Ave		1.1956			0.0100	12.8		20.0			
7,12-Dimethylbenz(a)anthracene	0.5742 0.8376	0.6094 0.9429	0.6519 1.0047	0.6881	0.7508	Qua	0.0955	1.2848	-0.030		0.0100			20.0	0.9994		0.9900
Benzo[b]fluoranthene	2.0070 1.7342	1.5924 1.9647	1.5225 2.0058	1.5492	1.6958	Ave		1.7590			0.7000	11.7		20.0			
Benzo[k]fluoranthene	1.4379 1.4318	1.3139 1.5199	1.3272 1.6964	1.3811	1.4267	Ave		1.4419			0.7000	8.5		20.0			
Benzo[a]pyrene	1.4188 1.3101	1.1332 1.3972	1.1460 1.4573	1.1902	1.2956	Ave		1.2935			0.7000	9.8		20.0			
Indeno[1,2,3-cd]pyrene	0.8577 1.5200	1.1677 1.7249	1.2520 1.8920	1.3607	1.4928	Qua	0.0442	0.7116	-0.010		0.5000			20.0	0.9997		0.9900
Dibenz(a,h)anthracene	0.8843 1.2700	0.8992 1.4298	1.0199 1.6317	1.1124	1.2332	Qua	0.0411	0.8709	-0.016		0.4000			20.0	0.9998		0.9900
Benzo[g,h,i]perylene	0.9405 1.2324	0.9575 1.3793	0.9839 +++++	1.0972	1.2214	Ave		1.1160			0.5000	15.0		20.0			
2-Fluorophenol (Surr)	1.3434 1.4352	1.3460 1.4160	1.4616 1.4024	1.5589	1.4948	Ave		1.4323				5.1		20.0			
Phenol-d5 (Surr)	1.1252 1.4258	1.2128 1.4117	1.3413 1.4459	1.4261	1.3851	Ave		1.3467				8.7		20.0			
Nitrobenzene-d5 (Surr)	0.4770 0.6164	0.4754 0.6160	0.5357 0.6439	0.5742	0.6128	Ave		0.5689				11.6		20.0			
2-Fluorobiphenyl	1.9636 1.9655	1.8958 2.0780	1.8508 2.1233	1.7717	1.9095	Ave		1.9448				5.9		20.0			
2,4,6-Tribromophenol (Surr)	0.0668 0.1167	0.0948 0.1177	0.0863 0.1305	0.1005	0.1093	Qua	0.0362	9.5675	-1.454		0.0100			20.0	0.9995		0.9900
Terphenyl-d14 (Surr)	1.0575 1.0138	0.8732 1.0610	0.9773 0.9690	1.0319	1.0499	Ave		1.0042				6.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab File ID: F0606DF1.D DFTPP Injection Date: 06/05/2013

Instrument ID: 722 DFTPP Injection Time: 22:08

Analysis Batch No.: 74230

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	51.9	
68	Less than 2.0 % of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	53.3	
70	Less than 2.0 % of mass 69	0.2	(0.4)1
127	40.0 - 60.0 % of mass 198	56.8	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	7.1	
275	10.0 - 30.0 % of mass 198	26.0	
365	Greater than 1.0 % of mass 198	3.1	
441	Present but less than mass 443	9.2	(90.8)3
442	Greater than 40.0 % of mass 198	53.4	
443	17.0 - 23.0 % of mass 442	10.1	(18.9)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-74230/15	F06060C1.D	06/05/2013	22:26
	IC 180-74230/16	F06060C2.D	06/05/2013	22:53
	IC 180-74230/17	F06060C3.D	06/05/2013	23:19
	ICIS 180-74230/18	F06060C4.D	06/05/2013	23:46
	IC 180-74230/19	F06060C5.D	06/06/2013	00:13
	IC 180-74230/20	F06060C6.D	06/06/2013	00:40
	IC 180-74230/21	F06060C7.D	06/06/2013	01:07
	IC 180-74230/22	F06060C8.D	06/06/2013	01:33

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 74230

SDG No.:

Instrument ID: 722 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2013 22:26 Calibration End Date: 06/06/2013 01:33 Calibration ID: 9790

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-74230/15	F06060C1.D
Level 2	IC 180-74230/16	F06060C2.D
Level 3	IC 180-74230/17	F06060C3.D
Level 4	ICIS 180-74230/18	F06060C4.D
Level 5	IC 180-74230/19	F06060C5.D
Level 6	IC 180-74230/20	F06060C6.D
Level 7	IC 180-74230/21	F06060C7.D
Level 8	IC 180-74230/22	F06060C8.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.5941 0.5186	0.5332 0.5167	0.5210 0.5204	0.5189	0.5176	Ave		0.5300			0.0100	5.0		20.0			
N-Nitrosodimethylamine	0.5358 0.7009	0.6143 0.7118	0.6370 0.7066	0.6573	0.7013	Ave		0.6581			0.0100	9.3		20.0			
Pyridine	1.1622 1.2909	1.2687 1.2759	1.2653 1.2620	1.2634	1.2968	Ave		1.2607			0.0100	3.3		20.0			
Methyl methanesulfonate	0.6347 0.7136	0.7120 0.7246	0.7199 0.7148	0.7221	0.7370	Ave		0.7098			0.0100	4.4		20.0			
Benzaldehyde	1.0774 1.0292	1.0106 0.8008	1.0539 +++++	1.0824	1.1112	Ave		1.0236			0.0100	10.1		20.0			
Phenol	1.7539 1.8164	1.7931 1.7935	1.8381 1.7450	1.8728	1.8956	Ave		1.8136			0.8000	2.9		20.0			
Aniline	2.0026 2.0860	2.0140 2.0617	2.0795 2.0199	2.1759	2.1563	Ave		2.0745			0.0100	3.1		20.0			
Bis(2-chloroethyl)ether	1.3154 1.3189	1.3422 1.2837	1.3647 1.2793	1.3493	1.3579	Ave		1.3264			0.7000	2.5		20.0			
2-Chlorophenol	1.2998 1.4410	1.3609 1.4020	1.3880 1.3981	1.4335	1.4701	Ave		1.3992			0.8000	3.8		20.0			
n-Decane	1.8687 1.5813	1.5911 1.5318	1.6144 1.5319	1.6191	1.6136	Ave		1.6190				6.6					
1,3-Dichlorobenzene	1.4961 1.5864	1.6324 1.5788	1.6022 1.5562	1.5861	1.6330	Ave		1.5839			0.0100	2.8		20.0			
1,4-Dichlorobenzene	1.6435 1.6178	1.6237 1.5871	1.6527 1.5649	1.6068	1.6216	Ave		1.6148			0.0100	1.8		20.0			
Benzyl alcohol	0.6762 0.8499	0.7700 0.8489	0.7750 0.8466	0.8002	0.8366	Ave		0.8004			0.0100	7.5		20.0			
1,2-Dichlorobenzene	1.5118 1.5223	1.5200 1.4862	1.5358 1.4578	1.5354	1.5513	Ave		1.5151			0.0100	2.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 74230

SDG No.:

Instrument ID: 722 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2013 22:26 Calibration End Date: 06/06/2013 01:33 Calibration ID: 9790

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
2-Methylphenol	1.0641 1.2105	1.1976 1.1714	1.2191 1.1416	1.2211	1.2362	Ave		1.1827			0.7000	4.8		20.0			
Indene	2.4030 2.4287	2.4450 2.4217	2.4242 2.3798	2.4210	2.4643	Ave		2.4235			0.0100	1.0		20.0			
2,2'-oxybis[1-chloropropane]	1.9195 1.7019	1.8532 1.6772	1.8384 1.6591	1.7545	1.7827	Ave		1.7733			0.0100	5.2		20.0			
N-Nitrosopyrrolidine	0.4165 0.5765	0.4746 0.6074	0.5011 0.6151	0.5485	0.5813	Ave		0.5401			0.0100	13.0		20.0			
Acetophenone	1.9550 1.7396	1.7801 1.7264	1.7910 1.6794	1.8175	1.8305	Ave		1.7899			0.0100	4.7		20.0			
N-Nitrosodi-n-propylamine	0.9345 0.8853	0.8857 0.8679	0.9054 0.8424	0.9254	0.9285	Ave		0.8969			0.5000	3.6		20.0			
Methylphenol, 3 & 4	1.2317 1.2383	1.2681 1.2421	1.2935 1.2117	1.2816	1.2973	Ave		1.2580			0.6000	2.5		20.0			
Hexachloroethane	0.5985 0.6307	0.5985 0.6297	0.6042 0.6179	0.6110	0.6297	Ave		0.6150			0.3000	2.3		20.0			
Nitrobenzene	0.3271 0.3675	0.3346 0.3568	0.3509 0.3580	0.3521	0.3645	Ave		0.3514			0.2000	4.0		20.0			
Isophorone	0.5132 0.5877	0.4769 0.6010	0.5032 0.6099	0.5399	0.5839	Ave		0.5520			0.4000	9.1		20.0			
2-Nitrophenol	+++++ 0.1849	0.1302 0.1880	0.1455 0.1885	0.1593	0.1776	Ave		0.1677			0.1000	13.8		20.0			
2,4-Dimethylphenol	0.2978 0.3245	0.3155 0.3253	0.3248 0.3275	0.3162	0.3356	Ave		0.3209			0.2000	3.5		20.0			
Benzoic acid	+++++ 0.1770	+++++ 0.1890	0.0944 0.1984	0.1319	0.1704	Qua	0.5162	5.6238	-0.180		0.0100			20.0	0.9998		0.9900
Bis(2-chloroethoxy)methane	0.3872 0.3844	0.3648 0.3840	0.3917 0.3885	0.3836	0.3955	Ave		0.3850			0.3000	2.4		20.0			
2,4-Dichlorophenol	0.2347 0.2736	0.2436 0.2731	0.2607 0.2720	0.2651	0.2767	Ave		0.2624			0.2000	5.9		20.0			
1,2,4-Trichlorobenzene	0.2957 0.3166	0.3080 0.3051	0.3178 0.3062	0.3042	0.3179	Ave		0.3089			0.0100	2.6		20.0			
Naphthalene	1.0764 1.0673	1.0708 1.0598	1.0722 1.0660	1.0449	1.0590	Ave		1.0646			0.7000	0.9		20.0			
4-Chloroaniline	0.3733 0.4273	0.4232 0.4285	0.4202 0.4319	0.4204	0.4383	Ave		0.4204			0.0100	4.8		20.0			
2,6-Dichlorophenol	0.2531 0.2601	0.2446 0.2612	0.2623 0.2619	0.2619	0.2671	Ave		0.2590			0.0100	2.7		20.0			
Hexachlorobutadiene	0.1607 0.1731	0.1677 0.1695	0.1717 0.1690	0.1656	0.1739	Ave		0.1689			0.0100	2.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 74230

SDG No.:

Instrument ID: 722 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2013 22:26 Calibration End Date: 06/06/2013 01:33 Calibration ID: 9790

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Caprolactam	0.0461 0.0875	0.0482 0.0945	0.0573 0.1021	0.0698	0.0871	Qua	0.1018	12.121	-2.373		0.0100			20.0	0.9996		0.9900
4-Chloro-3-methylphenol	0.2354 0.2867	0.2553 0.2939	0.2636 0.2945	0.2741	0.2942	Ave		0.2747			0.2000	7.9		20.0			
2-Methylnaphthalene	0.6974 0.7183	0.6710 0.7182	0.7018 0.7259	0.6899	0.7154	Ave		0.7047			0.4000	2.6		20.0			
1-Methylnaphthalene	0.6364 0.6467	0.6334 0.6501	0.6425 0.6504	0.6316	0.6567	Ave		0.6435			0.0100	1.4		20.0			
Hexachlorocyclopentadiene	+++++ 0.4218	0.3061 0.4238	0.3255 0.4019	0.3600	0.3877	Ave		0.3753			0.0500	12.3		20.0			
1,2,4,5-Tetrachlorobenzene	0.5647 0.5749	0.5504 0.5696	0.5681 0.5414	0.5566	0.5608	Ave		0.5608			0.0100	2.0		20.0			
2,4,6-Trichlorophenol	0.2411 0.3692	0.3079 0.3679	0.3127 0.3543	0.3326	0.3588	Ave		0.3306			0.2000	13.1		20.0			
2,4,5-Trichlorophenol	0.2559 0.3771	0.3252 0.3794	0.3388 0.3699	0.3706	0.3686	Ave		0.3482			0.2000	12.1		20.0			
1,1'-Biphenyl	1.5137 1.6374	1.6035 1.6190	1.5817 1.5700	1.6009	1.5840	Ave		1.5888			0.0100	2.3		20.0			
2-Chloronaphthalene	1.2328 1.3205	1.3281 1.2789	1.3126 1.2882	1.2997	1.2337	Ave		1.2868			0.8000	2.9		20.0			
2-Nitroaniline	0.2163 0.3503	0.2422 0.3635	0.2609 0.3596	0.3029	0.3317	Qua	0.1079	2.8305	-0.027		0.0100			20.0	0.9996		0.9900
Dimethyl phthalate	1.0739 1.2434	1.1319 1.2885	1.1722 1.2589	1.2009	1.2475	Ave		1.2022			0.0100	6.0		20.0			
1,3-Dinitrobenzene	0.1082 0.2029	0.1214 0.2151	0.1309 0.2170	0.1661	0.1927	Qua	0.1304	4.9733	-0.207		0.0100			20.0	0.9996		0.9900
2,6-Dinitrotoluene	0.1754 0.2897	0.2047 0.2966	0.2312 0.2914	0.2681	0.2802	Qua	0.0880	3.3653	0.0064		0.2000			20.0	0.9998		0.9900
Acenaphthylene	1.5585 1.9804	1.6212 2.0090	1.7339 1.9639	1.8368	1.9087	Ave		1.8265			0.9000	9.4		20.0			
3-Nitroaniline	0.1865 0.3330	0.2259 0.3403	0.2480 0.3357	0.2938	0.3220	Qua	0.1047	2.9327	0.0003		0.0100			20.0	0.9997		0.9900
2,4-Dinitrophenol	+++++ 0.1634	+++++ 0.1738	0.0793 0.1832	0.1006	0.1394	Qua	0.7725	6.0542	-0.222		0.0100			20.0	0.9995		0.9900
Acenaphthene	1.1589 1.2492	1.2160 1.2593	1.2377 1.2189	1.2149	1.2298	Ave		1.2231			0.9000	2.5		20.0			
4-Nitrophenol	+++++ 0.1724	+++++ 0.1809	0.1389 0.1822	0.1532	0.1703	Ave		0.1663			0.0100	10.2		20.0			
2,4-Dinitrotoluene	+++++ 0.3654	0.2179 0.3834	0.2609 0.3803	0.3045	0.3515	Qua	0.1701	2.6521	-0.021		0.2000			20.0	0.9996		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 74230

SDG No.:

Instrument ID: 722 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2013 22:26 Calibration End Date: 06/06/2013 01:33 Calibration ID: 9790

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dibenzofuran	1.6252 1.6320	1.6225 1.6579	1.6508 1.6224	1.6327	1.6313	Ave		1.6344			0.8000	0.8		20.0			
2,3,5,6-Tetrachlorophenol	+++++ 0.3038	0.2095 0.3150	0.2429 0.3109	0.2658	0.2936	Ave		0.2774			0.0100	14.3		20.0			
2,3,4,6-Tetrachlorophenol	+++++ 0.3040	0.2483 0.3151	0.2500 0.3096	0.2821	0.3078	Ave		0.2881			0.0100	9.9		20.0			
2-Naphthylamine	0.9835 0.9601	1.0039 0.7838	1.0566 +++++	1.0858	1.0874	Ave		0.9944			0.0100	10.6		20.0			
Diethyl phthalate	1.0204 1.2201	1.0839 1.2456	1.1299 1.2216	1.1731	1.2291	Ave		1.1655			0.0100	6.9		20.0			
Hexadecane	0.4501 0.4351	0.4129 0.4325	0.4331 0.4320	0.4387	0.4468	Ave		0.4352				2.6					
4-Chlorophenyl phenyl ether	0.5687 0.6236	0.6167 0.6267	0.6060 0.6124	0.6159	0.6247	Ave		0.6118			0.4000	3.1		20.0			
4-Nitroaniline	0.1920 0.3272	0.2179 0.3409	0.2441 0.3403	0.2941	0.3174	Qua	0.0937	3.0456	-0.043		0.0100			20.0	0.9998		0.9900
Fluorene	1.3056 1.3362	1.2634 1.3748	1.3148 1.3518	1.3234	1.3415	Ave		1.3264			0.9000	2.5		20.0			
4,6-Dinitro-2-methylphenol	+++++ 0.1338	0.0518 0.1439	0.0737 0.1508	0.0968	0.1194	Qua	0.4818	7.6378	-0.394		0.0100			20.0	0.9997		0.9900
N-Nitrosodiphenylamine	0.5178 0.6110	0.5421 0.6254	0.5650 0.6277	0.5694	0.5944	Ave		0.5816			0.0100	6.9		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.7262 0.9352	0.7837 0.9524	0.8443 0.9399	0.8725	0.8961	Ave		0.8688			0.0100	9.3		20.0			
4-Bromophenyl phenyl ether	0.1933 0.2312	0.2010 0.2362	0.2117 0.2322	0.2119	0.2195	Ave		0.2171			0.1000	7.1		20.0			
Hexachlorobenzene	0.2069 0.2322	0.2143 0.2370	0.2159 0.2348	0.2175	0.2242	Ave		0.2229			0.1000	4.9		20.0			
Atrazine	+++++ 0.2169	0.1551 0.2177	0.1687 0.2189	0.1867	0.2058	Ave		0.1957			0.0100	13.2		20.0			
Pentachlorophenol	0.1378 0.1570	0.0940 0.1649	0.1073 0.1689	0.1255	0.1448	Qua	0.2403	6.5885	-0.226		0.0500			20.0	0.9996		0.9900
n-Octadecane	1.5157 1.6590	1.5391 1.7105	1.5998 1.7023	1.6600	1.7131	Ave		1.6374				4.7					
Phenanthrene	1.1566 1.2007	1.1391 1.2237	1.1740 1.2339	1.1195	1.1589	Ave		1.1758			0.7000	3.4		20.0			
Anthracene	1.0192 1.2417	1.0576 1.2543	1.0907 1.2627	1.1534	1.1743	Ave		1.1567			0.7000	8.1		20.0			
Carbazole	0.9457 1.1224	0.9571 1.1353	1.0502 1.1754	1.0476	1.0946	Ave		1.0660			0.0100	7.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 74230

SDG No.:

Instrument ID: 722 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2013 22:26 Calibration End Date: 06/06/2013 01:33 Calibration ID: 9790

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Di-n-butyl phthalate	0.9868 1.3788	0.9215 1.4536	1.0070 1.4804	1.1533	1.2681	Qua	0.1055	0.7494	-0.006		0.0100			20.0	0.9997		0.9900
Fluoranthene	0.9250 1.2675	0.9846 1.3156	1.1005 1.3482	1.1302	1.2073	Ave		1.1599			0.6000	13.2		20.0			
Benzidine	+++++ 0.4013	+++++ 0.3609	0.4845 0.3402	0.4879	0.4341	Ave		0.4181			0.0100	14.8		20.0			
Pyrene	1.1102 1.2436	1.1442 1.2148	1.1117 1.1741	1.1690	1.1845	Ave		1.1690			0.6000	4.0		20.0			
Butyl benzyl phthalate	+++++ 0.5745	0.3804 0.5869	0.3960 0.5807	0.4511	0.5104	Qua	0.2025	1.6938	-0.003		0.0100			20.0	0.9993		0.9900
3,3'-Dichlorobenzidine	0.3499 0.4027	0.3285 0.4183	0.3283 0.4323	0.3598	0.3854	Ave		0.3756			0.0100	10.7		20.0			
Benzo[a]anthracene	1.1408 1.2234	1.0315 1.2098	1.0556 1.1992	1.0905	1.1685	Ave		1.1399			0.8000	6.4		20.0			
Bis(2-ethylhexyl) phthalate	0.5484 0.7729	0.4976 0.7925	0.5203 0.7772	0.6061	0.6988	Qua	0.1507	1.2720	-0.002		0.0100			20.0	0.9991		0.9900
Chrysene	1.0131 1.0994	1.0479 1.0770	1.0379 1.0522	1.0233	1.0360	Ave		1.0483			0.7000	2.7		20.0			
Di-n-octyl phthalate	1.0052 1.4491	0.9140 1.5210	0.8714 1.5654	1.0423	1.2828	Qua	0.1577	0.7180	-0.006		0.0100			20.0	0.9992		0.9900
7,12-Dimethylbenz(a)anthracene	0.4693 0.6478	0.5190 0.6651	0.5322 0.6825	0.5658	0.6199	Ave		0.5877			0.0100	13.2		20.0			
Benzo[b]fluoranthene	1.2922 1.4635	1.2987 1.4750	1.3047 1.5019	1.3709	1.4178	Ave		1.3906			0.7000	6.2		20.0			
Benzo[k]fluoranthene	1.2708 1.3511	1.1812 1.3573	1.2567 1.3661	1.2690	1.3701	Ave		1.3028			0.7000	5.3		20.0			
Benzo[a]pyrene	1.1084 1.3050	1.0737 1.3113	1.0964 1.3447	1.1375	1.2687	Ave		1.2057			0.7000	9.3		20.0			
Indeno[1,2,3-cd]pyrene	1.4151 1.4496	1.3249 1.5001	1.3548 1.5525	1.3441	1.4423	Ave		1.4229			0.5000	5.6		20.0			
Dibenz(a,h)anthracene	1.1810 1.2443	1.2000 1.2659	1.1964 1.3069	1.1772	1.2537	Ave		1.2282			0.4000	3.8		20.0			
Benzo[g,h,i]perylene	1.1748 1.2385	1.1209 1.2694	1.1529 1.2882	1.1378	1.2371	Ave		1.2025			0.5000	5.3		20.0			
2-Fluorophenol (Surr)	1.1447 1.3447	1.1814 1.3254	1.2973 1.3131	1.2930	1.3495	Ave		1.2811				5.9		20.0			
Phenol-d5 (Surr)	1.4858 1.6616	1.5673 1.6603	1.5981 1.6294	1.6650	1.7234	Ave		1.6239				4.5		20.0			
Nitrobenzene-d5 (Surr)	0.3074 0.3600	0.3026 0.3571	0.3322 0.3606	0.3360	0.3587	Ave		0.3393				7.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 74230

SDG No.:

Instrument ID: 722 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2013 22:26 Calibration End Date: 06/06/2013 01:33 Calibration ID: 9790

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
2-Fluorobiphenyl	1.3532 1.4330	1.3964 1.4234	1.3886 1.3864	1.3923	1.3847	Ave		1.3947				1.8		20.0			
2,4,6-Tribromophenol (Surr)	0.0518 0.0937	0.0651 0.0989	0.0695 0.0983	0.0765	0.0864	Qua	0.1224	10.739	-0.781		0.0100			20.0	0.9993		0.9900
Terphenyl-d14 (Surr)	0.8541 0.9015	0.8598 0.8843	0.8238 0.8689	0.8415	0.8617	Ave		0.8620				2.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab File ID: F0930DF1.D DFTPP Injection Date: 09/30/2013

Instrument ID: 722 DFTPP Injection Time: 04:18

Analysis Batch No.: 85237

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	53.5	
68	Less than 2.0 % of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	51.7	
70	Less than 2.0 % of mass 69	0.9	(1.8)1
127	40.0 - 60.0 % of mass 198	56.2	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	7.3	
275	10.0 - 30.0 % of mass 198	25.8	
365	Greater than 1.0 % of mass 198	4.6	
441	Present but less than mass 443	13.1	(91.1)3
442	Greater than 40.0 % of mass 198	80.0	
443	17.0 - 23.0 % of mass 442	14.4	(18.0)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-85237/24	F09300C1.D	09/30/2013	04:35
	MB 180-84991/1-A	F0930001.D	09/30/2013	05:12
	LCS 180-84991/2-A	F0930002.D	09/30/2013	05:39
SD-115-01	180-25321-21	F0930013.D	09/30/2013	10:39
SD-115-02	180-25321-22	F0930014.D	09/30/2013	11:07
SD-115-03	180-25321-23	F0930015.D	09/30/2013	11:34
SD-114-SS	180-25321-24	F0930016.D	09/30/2013	12:02
SD-114-01	180-25321-25	F0930017.D	09/30/2013	12:29
SD-114-02	180-25321-26	F0930018.D	09/30/2013	12:57
SD-114-03	180-25321-27	F0930019.D	09/30/2013	13:24
DUP-07	180-25321-28	F0930020.D	09/30/2013	13:51
SD-119-SS	180-25321-29	F0930021.D	09/30/2013	14:19
SD-119-01	180-25321-30	F0930022.D	09/30/2013	14:46
SD-119-02	180-25321-31	F0930023.D	09/30/2013	15:14

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab Sample ID: CCVIS 180-85237/24 Calibration Date: 09/30/2013 04:35

Instrument ID: 722 Calib Start Date: 06/05/2013 22:26

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 06/06/2013 01:33

Lab File ID: F09300C1.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Naphthalene	Ave	1.065	1.030	0.7000	4.84	5.00	-3.2	20.0
2-Methylnaphthalene	Ave	0.7047	0.6910	0.4000	4.90	5.00	-1.9	20.0
1-Methylnaphthalene	Ave	0.6435	0.6330	0.0100	4.92	5.00	-1.6	20.0
Acenaphthylene	Ave	1.827	1.875	0.9000	5.13	5.00	2.7	20.0
Acenaphthene	Ave	1.223	1.258	0.9000	5.14	5.00	2.8	20.0
Dibenzofuran	Ave	1.634	1.619	0.8000	4.95	5.00	-1.0	20.0
Fluorene	Ave	1.326	1.385	0.9000	5.22	5.00	4.4	20.0
Phenanthrene	Ave	1.176	1.124	0.7000	4.78	5.00	-4.4	20.0
Anthracene	Ave	1.157	1.153	0.7000	4.98	5.00	-0.3	20.0
Carbazole	Ave	1.066	1.056	0.0100	4.95	5.00	-1.0	20.0
Fluoranthene	Ave	1.160	1.155	0.6000	4.98	5.00	-0.4	20.0
Pyrene	Ave	1.169	1.326	0.6000	5.67	5.00	13.4	20.0
Benzo[a]anthracene	Ave	1.140	1.117	0.8000	4.90	5.00	-2.0	20.0
Chrysene	Ave	1.048	1.035	0.7000	4.93	5.00	-1.3	20.0
Benzo[b]fluoranthene	Ave	1.391	1.307	0.7000	4.70	5.00	-6.0	20.0
Benzo[k]fluoranthene	Ave	1.303	1.312	0.7000	5.03	5.00	0.7	20.0
Benzo[a]pyrene	Ave	1.206	1.139	0.7000	4.72	5.00	-5.5	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.423	1.179	0.5000	4.14	5.00	-17.1	20.0
Dibenz(a,h)anthracene	Ave	1.228	1.018	0.4000	4.14	5.00	-17.1	20.0
Benzo[g,h,i]perylene	Ave	1.202	0.9794	0.5000	4.07	5.00	-18.6	20.0
2-Fluorophenol (Surr)	Ave	1.281	1.267		4.95	5.00	-1.1	20.0
Phenol-d5 (Surr)	Ave	1.624	1.609		4.95	5.00	-0.9	20.0
Nitrobenzene-d5 (Surr)	Ave	0.3393	0.3724		5.49	5.00	9.7	20.0
2-Fluorobiphenyl	Ave	1.395	1.331		4.77	5.00	-4.6	20.0
2,4,6-Tribromophenol (Surr)	Qua	0.0800	0.1017	0.0100	5.90	5.00	18.0	20.0
Terphenyl-d14 (Surr)	Ave	0.8620	0.9667		5.61	5.00	12.2	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab File ID: F0930001.D Lab Sample ID: MB 180-84991/1-A

Matrix: Sediment Date Extracted: 09/27/2013 13:04

Instrument ID: 722 Date Analyzed: 09/30/2013 05:12

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-84991/2-A	F0930002.D	09/30/2013 05:39
SD-115-01	180-25321-21	F0930013.D	09/30/2013 10:39
SD-115-02	180-25321-22	F0930014.D	09/30/2013 11:07
SD-115-03	180-25321-23	F0930015.D	09/30/2013 11:34
SD-114-SS	180-25321-24	F0930016.D	09/30/2013 12:02
SD-114-01	180-25321-25	F0930017.D	09/30/2013 12:29
SD-114-02	180-25321-26	F0930018.D	09/30/2013 12:57
SD-114-03	180-25321-27	F0930019.D	09/30/2013 13:24
DUP-07	180-25321-28	F0930020.D	09/30/2013 13:51
SD-119-SS	180-25321-29	F0930021.D	09/30/2013 14:19
SD-119-01	180-25321-30	F0930022.D	09/30/2013 14:46
SD-119-02	180-25321-31	F0930023.D	09/30/2013 15:14
SD-119-03	180-25321-32	FN930008.D	10/01/2013 03:47

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-84991/1-A

Matrix: Sediment | Lab File ID: F0930001.D

Analysis Method: 8270D LL | Date Collected:

Extract. Method: 3541 | Date Extracted: 09/27/2013 13:04

Sample wt/vol: 30.0(g) | Date Analyzed: 09/30/2013 05:12

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85237 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	ND		3.4	0.33
56-55-3	Benzo[a]anthracene	ND		3.4	0.42
205-99-2	Benzo[b]fluoranthene	ND		3.4	0.52
207-08-9	Benzo[k]fluoranthene	ND		3.4	0.67
191-24-2	Benzo[g,h,i]perylene	ND		3.4	0.33
50-32-8	Benzo[a]pyrene	ND		3.4	0.33
218-01-9	Chrysene	ND		3.4	0.40
53-70-3	Dibenz(a,h)anthracene	ND		3.4	0.37
206-44-0	Fluoranthene	ND		3.4	0.36
86-73-7	Fluorene	ND		3.4	0.44
193-39-5	Indeno[1,2,3-cd]pyrene	ND		3.4	0.34
85-01-8	Phenanthrene	ND		3.4	0.53
129-00-0	Pyrene	ND		3.4	0.34
83-32-9	Acenaphthene	ND		3.4	0.32
208-96-8	Acenaphthylene	ND		3.4	0.38
91-20-3	Naphthalene	ND		3.4	0.29
91-57-6	2-Methylnaphthalene	ND		3.4	0.30

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	75		27-110
321-60-8	2-Fluorobiphenyl	64		28-108
1718-51-0	Terphenyl-d14 (Surr)	67		21-130

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab File ID: FN930DF1.D DFTPP Injection Date: 09/30/2013

Instrument ID: 722 DFTPP Injection Time: 22:00

Analysis Batch No.: 85401

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	49.1	
68	Less than 2.0 % of mass 69	0.8	(1.6)1
69	Mass 69 relative abundance	47.6	
70	Less than 2.0 % of mass 69	0.3	(0.5)1
127	40.0 - 60.0 % of mass 198	53.7	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	7.0	
275	10.0 - 30.0 % of mass 198	29.4	
365	Greater than 1.0 % of mass 198	3.9	
441	Present but less than mass 443	11.1	(85.9)3
442	Greater than 40.0 % of mass 198	64.5	
443	17.0 - 23.0 % of mass 442	12.9	(20.0)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-85401/19	FN9300C2.D	09/30/2013	22:45
SD-119-03	180-25321-32	FN930008.D	10/01/2013	03:47

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab Sample ID: CCVIS 180-85401/19 Calibration Date: 09/30/2013 22:45

Instrument ID: 722 Calib Start Date: 06/05/2013 22:26

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 06/06/2013 01:33

Lab File ID: FN9300C2.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Naphthalene	Ave	1.065	1.039	0.7000	4.88	5.00	-2.4	20.0
2-Methylnaphthalene	Ave	0.7047	0.6961	0.4000	4.94	5.00	-1.2	20.0
1-Methylnaphthalene	Ave	0.6435	0.6383	0.0100	4.96	5.00	-0.8	20.0
Acenaphthylene	Ave	1.827	1.815	0.9000	4.97	5.00	-0.6	20.0
Acenaphthene	Ave	1.223	1.199	0.9000	4.90	5.00	-2.0	20.0
Dibenzofuran	Ave	1.634	1.578	0.8000	4.83	5.00	-3.4	20.0
Fluorene	Ave	1.326	1.302	0.9000	4.91	5.00	-1.9	20.0
Phenanthrene	Ave	1.176	1.072	0.7000	4.56	5.00	-8.8	20.0
Anthracene	Ave	1.157	1.129	0.7000	4.88	5.00	-2.4	20.0
Carbazole	Ave	1.066	0.9786	0.0100	4.59	5.00	-8.2	20.0
Fluoranthene	Ave	1.160	1.169	0.6000	5.04	5.00	0.8	20.0
Pyrene	Ave	1.169	1.141	0.6000	4.88	5.00	-2.4	20.0
Benzo[a]anthracene	Ave	1.140	1.073	0.8000	4.71	5.00	-5.9	20.0
Chrysene	Ave	1.048	1.007	0.7000	4.80	5.00	-3.9	20.0
Benzo[b]fluoranthene	Ave	1.391	1.315	0.7000	4.73	5.00	-5.4	20.0
Benzo[k]fluoranthene	Ave	1.303	1.201	0.7000	4.61	5.00	-7.8	20.0
Benzo[a]pyrene	Ave	1.206	1.139	0.7000	4.72	5.00	-5.5	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.423	1.161	0.5000	4.08	5.00	-18.4	20.0
Dibenz(a,h)anthracene	Ave	1.228	0.9815	0.4000	4.00	5.00	-20.1*	20.0
Benzo[g,h,i]perylene	Ave	1.202	0.9484	0.5000	3.94	5.00	-21.1*	20.0
2-Fluorophenol (Surr)	Ave	1.281	1.376		5.37	5.00	7.4	20.0
Phenol-d5 (Surr)	Ave	1.624	1.565		4.82	5.00	-3.6	20.0
Nitrobenzene-d5 (Surr)	Ave	0.3393	0.3658		5.39	5.00	7.8	20.0
2-Fluorobiphenyl	Ave	1.395	1.315		4.72	5.00	-5.7	20.0
2,4,6-Tribromophenol (Surr)	Qua	0.0800	0.0710	0.0100	4.28	5.00	-14.5	20.0
Terphenyl-d14 (Surr)	Ave	0.8620	0.8785		5.10	5.00	1.9	20.0

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Sample No.: CCVIS 180-85237/24 Date Analyzed: 09/30/2013 04:35

Instrument ID: 722 GC Column: Rxi-5SilMS ID: 0.32(mm)

Lab File ID (Standard): F09300C1.D Heated Purge: (Y/N) N

Calibration ID: 10700

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		142779	6.15	584721	7.41	322245	9.09
UPPER LIMIT		285558	6.65	1169442	7.91	644490	9.59
LOWER LIMIT		71390	5.65	292361	6.91	161123	8.59
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-84991/1-A		154542	6.16	613239	7.42	356588	9.11
LCS 180-84991/2-A		152561	6.14	600357	7.40	355095	9.08
180-25321-21	SD-115-01	178579	6.14	675307	7.40	342068	9.07
180-25321-22	SD-115-02	203166	6.14	735218	7.40	366861	9.08
180-25321-23	SD-115-03	215096	6.14	779535	7.40	398865	9.08
180-25321-24	SD-114-SS	201563	6.14	747551	7.40	392565	9.08
180-25321-25	SD-114-01	190794	6.14	705577	7.40	374905	9.08
180-25321-26	SD-114-02	186684	6.14	675555	7.40	355577	9.08
180-25321-27	SD-114-03	192049	6.14	691304	7.40	371211	9.08
180-25321-28	DUP-07	212158	6.15	746902	7.40	398851	9.08
180-25321-29	SD-119-SS	176169	6.14	644590	7.40	331031	9.08
180-25321-30	SD-119-01	195657	6.14	729495	7.40	378539	9.08
180-25321-31	SD-119-02	193297	6.16	704105	7.41	380864	9.09

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D LL

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Sample No.: CCVIS 180-85237/24 Date Analyzed: 09/30/2013 04:35

Instrument ID: 722 GC Column: Rxi-5SilMS ID: 0.32(mm)

Lab File ID (Standard): F09300C1.D Heated Purge: (Y/N) N

Calibration ID: 10700

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		530943	10.52	450330	14.28	356735	17.38
UPPER LIMIT		1061886	11.02	900660	14.78	713470	17.88
LOWER LIMIT		265472	10.02	225165	13.78	178368	16.88
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-84991/1-A		614396	10.53	500288	14.32	393455	17.41
LCS 180-84991/2-A		582878	10.51	497027	14.24	387120	17.32
180-25321-21	SD-115-01	460930	10.50	574929	14.23	692912	17.31
180-25321-22	SD-115-02	454273	10.50	518405	14.22	725325*	17.30
180-25321-23	SD-115-03	496842	10.50	456144	14.19	585207	17.26
180-25321-24	SD-114-SS	573203	10.50	548935	14.24	649214	17.32
180-25321-25	SD-114-01	495884	10.50	655224	14.24	798980*	17.34
180-25321-26	SD-114-02	443388	10.50	593084	14.24	792613*	17.33
180-25321-27	SD-114-03	429743	10.49	500203	14.20	673939	17.27
180-25321-28	DUP-07	598415	10.50	528669	14.23	658417	17.31
180-25321-29	SD-119-SS	521461	10.50	610315	14.23	729889*	17.31
180-25321-30	SD-119-01	493326	10.50	690621	14.22	904152*	17.30
180-25321-31	SD-119-02	436141	10.51	534341	14.22	692247	17.28

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D LL

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Sample No.: CCVIS 180-85401/19 Date Analyzed: 09/30/2013 22:45

Instrument ID: 722 GC Column: Rxi-5SilMS ID: 0.32(mm)

Lab File ID (Standard): FN9300C2.D Heated Purge: (Y/N) N

Calibration ID: 10700

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		155259	6.15	594365	7.40	321189	9.09
UPPER LIMIT		310518	6.65	1188730	7.90	642378	9.59
LOWER LIMIT		77630	5.65	297183	6.90	160595	8.59
LAB SAMPLE ID	CLIENT SAMPLE ID						
180-25321-32	SD-119-03	148911	6.16	583015	7.41	359320	9.09

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D LL

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Sample No.: CCVIS 180-85401/19 Date Analyzed: 09/30/2013 22:45

Instrument ID: 722 GC Column: Rxi-5SilMS ID: 0.32(mm)

Lab File ID (Standard): FN9300C2.D Heated Purge: (Y/N) N

Calibration ID: 10700

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		524613	10.54	526200	14.41	453339	17.59
UPPER LIMIT		1049226	11.04	1052400	14.91	906678	18.09
LOWER LIMIT		262307	10.04	263100	13.91	226670	17.09
LAB SAMPLE ID	CLIENT SAMPLE ID						
180-25321-32	SD-119-03	604097	10.53	623155	14.32	562313	17.45

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D LL

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Sample No.: CCVIS 180-85033/8 Date Analyzed: 09/26/2013 11:45

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm)

Lab File ID (Standard): N09260CC.D Heated Purge: (Y/N) N

Calibration ID: 10611

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		138630	6.29	533419	7.53	293627	9.19
UPPER LIMIT		277260	6.79	1066838	8.03	587254	9.69
LOWER LIMIT		69315	5.79	266710	7.03	146814	8.69
LAB SAMPLE ID	CLIENT SAMPLE ID						
180-25321-1	SD-152	156628	6.28	605272	7.52	352220	9.17
180-25321-2	SD-154	155548	6.30	593824	7.53	349311	9.18
180-25321-3	SD-155	155761	6.29	592704	7.53	327887	9.18
180-25321-4	SD-153	155584	6.28	613653	7.52	359254	9.17

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D LL

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Sample No.: CCVIS 180-85033/8 Date Analyzed: 09/26/2013 11:45

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm)

Lab File ID (Standard): N09260CC.D Heated Purge: (Y/N) N

Calibration ID: 10611

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		516962	10.57	529474	14.16	491377	17.12
UPPER LIMIT		1033924	11.07	1058948	14.66	982754	17.62
LOWER LIMIT		258481	10.07	264737	13.66	245689	16.62
LAB SAMPLE ID	CLIENT SAMPLE ID						
180-25321-1	SD-152	616433	10.56	651115	14.14	652669	17.10
180-25321-2	SD-154	598715	10.57	643420	14.16	651943	17.13
180-25321-3	SD-155	541228	10.57	580976	14.16	608680	17.12
180-25321-4	SD-153	598218	10.56	631269	14.14	650644	17.10

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D LL

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Sample No.: CCVIS 180-85121/21 Date Analyzed: 09/27/2013 23:12

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm)

Lab File ID (Standard): N09270CC.D Heated Purge: (Y/N) N

Calibration ID: 10611

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		180129	6.30	675565	7.53	360547	9.17
UPPER LIMIT		360258	6.80	1351130	8.03	721094	9.67
LOWER LIMIT		90065	5.80	337783	7.03	180274	8.67
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-84803/1-A		169867	6.30	657907	7.53	361650	9.17
LCS 180-84803/2-A		158175	6.30	580478	7.53	312543	9.17
180-25321-5	SD-117-SS	156798	6.30	574033	7.53	301262	9.17
180-25321-6	SD-117-01	164631	6.29	584435	7.51	306220	9.16
180-25321-7	SD-117-02	162987	6.30	593517	7.53	302305	9.17
180-25321-8	SD-118-SS	152411	6.30	544111	7.53	282658	9.17
180-25321-9	SD-118-01	159020	6.30	556966	7.52	292475	9.16
180-25321-10	SD-118-02	153803	6.29	538521	7.52	279714	9.16
180-25321-11	SD-118-03	139885	6.30	506143	7.53	263721	9.17
180-25321-12	SD-120-SS	144516	6.29	507872	7.52	267142	9.16
180-25321-13	SD-120-01	143945	6.30	516390	7.52	258369	9.16
180-25321-14	SD-120-02	147671	6.30	524351	7.53	274631	9.16
180-25321-15	SD-120-03	141963	6.30	510291	7.53	262161	9.16
180-25321-15 MS	SD-120-03 MS	155127	6.29	547156	7.51	280128	9.15
180-25321-15 MSD	SD-120-03 MSD	141612	6.29	504885	7.51	259693	9.15
180-25321-16	SD-113-SS	152032	6.30	528513	7.52	266058	9.16
180-25321-17	SD-113-01	149271	6.30	526554	7.53	265621	9.16
180-25321-18	SD-113-02	135512	6.29	492218	7.52	254517	9.16
180-25321-19	SD-113-03	155481	6.30	532574	7.52	271052	9.16
180-25321-20	SD-115-SS	149078	6.30	522818	7.53	271856	9.16

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D LL

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Sample No.: CCVIS 180-85121/21 Date Analyzed: 09/27/2013 23:12

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm)

Lab File ID (Standard): N09270CC.D Heated Purge: (Y/N) N

Calibration ID: 10611

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		590197	10.54	521831	14.10	446358	17.05
UPPER LIMIT		1180394	11.04	1043662	14.60	892716	17.55
LOWER LIMIT		295099	10.04	260916	13.60	223179	16.55
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-84803/1-A		599492	10.55	494518	14.10	439817	17.04
LCS 180-84803/2-A		510261	10.55	453030	14.11	402863	17.04
180-25321-5	SD-117-SS	484170	10.54	470387	14.10	436313	17.04
180-25321-6	SD-117-01	480456	10.53	489318	14.09	497192	17.02
180-25321-7	SD-117-02	494652	10.55	508694	14.11	525921	17.04
180-25321-8	SD-118-SS	480547	10.55	512059	14.10	528909	17.05
180-25321-9	SD-118-01	482935	10.55	525958	14.11	556348	17.05
180-25321-10	SD-118-02	451112	10.53	477674	14.09	487378	17.01
180-25321-11	SD-118-03	424962	10.54	459838	14.10	479302	17.04
180-25321-12	SD-120-SS	435212	10.54	481027	14.09	499003	17.03
180-25321-13	SD-120-01	424774	10.54	465524	14.11	495742	17.04
180-25321-14	SD-120-02	442581	10.55	493415	14.10	514600	17.04
180-25321-15	SD-120-03	436435	10.55	465028	14.10	484143	17.04
180-25321-15 MS	SD-120-03 MS	466906	10.53	490296	14.08	518942	17.02
180-25321-15 MSD	SD-120-03 MSD	427427	10.53	473678	14.07	484710	17.01
180-25321-16	SD-113-SS	442942	10.54	487110	14.09	509560	17.04
180-25321-17	SD-113-01	441797	10.54	478901	14.10	522518	17.04
180-25321-18	SD-113-02	425942	10.54	465935	14.09	487585	17.03
180-25321-19	SD-113-03	428162	10.54	481496	14.09	488384	17.03
180-25321-20	SD-115-SS	421928	10.54	470971	14.10	513089	17.03

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D LL

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Matrix: Sediment Level: Low

GC Column (2): RTX-1701 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	TCX2	#	DCB2	#	
SD-152	180-25321-1	94		376	X	5x
SD-154	180-25321-2	103	D	647 X	D	50x
SD-155	180-25321-3	116	D	455 X	D	50x
SD-153	180-25321-4	84		313	X	5x
SD-117-SS	180-25321-5	85		126		
SD-117-01	180-25321-6	82		153	X	5x
SD-117-02	180-25321-7	91		99		
SD-118-SS	180-25321-8	62		188	X	5x
SD-118-01	180-25321-9	95		403	X	5x
SD-118-02	180-25321-10	63		235	X	5x
SD-118-03	180-25321-11	88		114		
SD-120-SS	180-25321-12	72		143		
SD-120-01	180-25321-13	94		110		
SD-120-02	180-25321-14	66		76		
SD-120-03	180-25321-15	88		91		
SD-113-SS	180-25321-16	75		272	X	10x
SD-113-01	180-25321-17	90		142		
SD-113-02	180-25321-18	92		92		
SD-113-03	180-25321-19	93		97		
SD-115-SS	180-25321-20	83		189	X	10x
SD-115-01	180-25321-21	89		229	X	10x
SD-115-02	180-25321-22	90		322	X	10x
SD-115-03	180-25321-23	95		102		
SD-114-SS	180-25321-24	131		135		
SD-114-01	180-25321-25	58		155	X	10x
SD-114-02	180-25321-26	119		517	X	10x
SD-114-03	180-25321-27	12	X	146		10x
DUP-07	180-25321-28	66		68		
SD-119-SS	180-25321-29	81		184	X	10x
SD-119-01	180-25321-30	55		179	X	10x
SD-119-02	180-25321-31	84		133		
SD-119-03	180-25321-32	93		70		
	MB 180-84645/1-C	76		83		
	MB 180-85041/1-C	78		82		

	QC LIMITS
TCX = Tetrachloro-m-xylene	31-150
DCB = DCB Decachlorobiphenyl (Surr)	31-150

Column to be used to flag recovery values

FORM II 8082A

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Matrix: Sediment Level: Low

GC Column (2): RTX-1701 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	TCX2	#	DCB2	#
	LCS 180-84645/2-C	77		85	
	LCS 180-85041/2-C	79		86	
SD-120-03 MS	180-25321-15 MS	63		65	
SD-115-01 MS	180-25321-21 MS	60		219	X
SD-120-03 MSD	180-25321-15 MSD	63		64	
SD-115-01 MSD	180-25321-21 MSD	195	X	178	X

	QC LIMITS
TCX = Tetrachloro-m-xylene	31-150
DCB = DCB Decachlorobiphenyl (Surr)	31-150

Column to be used to flag recovery values

FORM II 8082A

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: T0930688.D

Lab ID: LCS 180-84645/2-C Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
PCB-1016	33.3	22.0	66	40-115	
PCB-1260	33.3	22.8	68	40-115	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: T0930748.D

Lab ID: LCS 180-85041/2-C Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
PCB-1016	33.3	25.2	75	40-115	
PCB-1260	33.3	25.7	77	40-115	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: T0930684.D

Lab ID: 180-25321-15 MS Client ID: SD-120-03 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
PCB-1016	69.5	ND	44.2	64	40-115	
PCB-1260	69.5	0.81 J	42.8	60	40-115	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: T0930685.D

Lab ID: 180-25321-15 MSD Client ID: SD-120-03 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
PCB-1016	69.5	44.4	64	0	35	40-115	
PCB-1260	69.5	43.2	61	1	29	40-115	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: T0930734.D

Lab ID: 180-25321-21 MS Client ID: SD-115-01 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
PCB-1016	72.3	ND	ND	0	40-115	F
PCB-1260	72.3	1100	951	-191	40-115	4

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: T0930735.D

Lab ID: 180-25321-21 MSD Client ID: SD-115-01 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
PCB-1016	72.3	ND	0	NC	35	40-115	F
PCB-1260	72.3	943	-202	1	29	40-115	4

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Sample No.: CCVRT 180-85122/8 Date Analyzed: 09/27/2013 07:07

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm)

Lab File ID (Standard): T0930668.D Heated Purge: (Y/N) N

Calibration ID: 11476

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB	
				RT #	RT #	
CONTINUING CALIBRATION SURROGATE				5.77	17.90	
UPPER LIMIT				5.82	17.95	
LOWER LIMIT				5.72	17.85	
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 180-85122/8		09/27/2013 07:07	T0930668.D	5.77	17.90	
180-25321-1	SD-152	09/27/2013 07:38	T0930669.D	5.77	17.90	
180-25321-4	SD-153	09/27/2013 09:10	T0930672.D	5.77	17.90	
180-25321-5	SD-117-SS	09/27/2013 09:40	T0930673.D	5.77	17.90	
180-25321-6	SD-117-01	09/27/2013 10:10	T0930674.D	5.77	17.90	
180-25321-7	SD-117-02	09/27/2013 10:44	T0930675.D	5.77	17.90	
180-25321-8	SD-118-SS	09/27/2013 11:15	T0930676.D	5.77	17.91	
180-25321-9	SD-118-01	09/27/2013 11:47	T0930677.D	5.77	17.90	
180-25321-10	SD-118-02	09/27/2013 12:18	T0930678.D	5.77	17.90	
180-25321-11	SD-118-03	09/27/2013 12:50	T0930679.D	5.77	17.90	
180-25321-12	SD-120-SS	09/27/2013 13:22	T0930680.D	5.77	17.90	
180-25321-13	SD-120-01	09/27/2013 13:52	T0930681.D	5.77	17.90	
180-25321-14	SD-120-02	09/27/2013 14:22	T0930682.D	5.77	17.90	
180-25321-15	SD-120-03	09/27/2013 14:52	T0930683.D	5.77	17.90	
180-25321-15 MS	SD-120-03 MS	09/27/2013 15:24	T0930684.D	5.77	17.90	
180-25321-15 MSD	SD-120-03 MSD	09/27/2013 15:55	T0930685.D	5.77	17.90	
MB 180-84645/1-C		09/27/2013 16:58	T0930687.D	5.77	17.90	
LCS 180-84645/2-C		09/27/2013 17:30	T0930688.D	5.77	17.90	
CCV 180-85122/29		09/27/2013 18:01	T0930689.D	5.77	17.90	
180-25321-2	SD-154	09/27/2013 20:36	T0930694.D	5.77	17.90	
180-25321-3	SD-155	09/27/2013 21:07	T0930695.D	5.77	17.89	
CCV 180-85122/37		09/27/2013 22:10	T0930697.D	5.76	17.89	

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

TCX RT Limit = ± 0.05 minutes of surrogate RT
DCB RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Sample No.: CCVRT 180-85278/7 Date Analyzed: 09/30/2013 07:29

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm)

Lab File ID (Standard): T0930714.D Heated Purge: (Y/N) N

Calibration ID: 11476

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB	
				RT #	RT #	
CONTINUING CALIBRATION SURROGATE				5.76	17.89	
UPPER LIMIT				5.81	17.94	
LOWER LIMIT				5.71	17.84	
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 180-85278/7		09/30/2013 07:29	T0930714.D	5.76	17.89	
180-25321-16	SD-113-SS	09/30/2013 12:50	T0930724.D	5.76	17.89	
CCV 180-85278/21		09/30/2013 14:55	T0930728.D	5.76	17.88	
180-25321-17	SD-113-01	09/30/2013 15:26	T0930729.D	5.76	17.89	
180-25321-18	SD-113-02	09/30/2013 15:58	T0930730.D	5.76	17.89	
180-25321-19	SD-113-03	09/30/2013 16:29	T0930731.D	5.76	17.89	
180-25321-20	SD-115-SS	09/30/2013 17:01	T0930732.D	5.76	17.89	
180-25321-21	SD-115-01	09/30/2013 17:32	T0930733.D	5.76	17.89	
180-25321-21 MS	SD-115-01 MS	09/30/2013 18:03	T0930734.D	5.76	17.89	
180-25321-21 MSD	SD-115-01 MSD	09/30/2013 18:35	T0930735.D	5.74	17.89	
180-25321-22	SD-115-02	09/30/2013 19:06	T0930736.D	5.76	17.89	
180-25321-23	SD-115-03	09/30/2013 19:37	T0930737.D	5.76	17.89	
180-25321-24	SD-114-SS	09/30/2013 20:09	T0930738.D	5.76	17.89	
180-25321-25	SD-114-01	09/30/2013 20:40	T0930739.D	5.76	17.89	
180-25321-26	SD-114-02	09/30/2013 21:12	T0930740.D	5.76	17.89	
180-25321-27	SD-114-03	09/30/2013 21:43	T0930741.D	5.76	17.89	
180-25321-28	DUP-07	09/30/2013 22:15	T0930742.D	5.76	17.88	
180-25321-29	SD-119-SS	09/30/2013 22:46	T0930743.D	5.76	17.89	
180-25321-30	SD-119-01	09/30/2013 23:17	T0930744.D	5.76	17.89	
180-25321-31	SD-119-02	09/30/2013 23:49	T0930745.D	5.76	17.89	
180-25321-32	SD-119-03	10/01/2013 00:20	T0930746.D	5.76	17.88	
MB 180-85041/1-C		10/01/2013 00:51	T0930747.D	5.76	17.89	
LCS 180-85041/2-C		10/01/2013 01:23	T0930748.D	5.76	17.89	
CCV 180-85278/42		10/01/2013 01:54	T0930749.D	5.76	17.88	

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

TCX RT Limit = ± 0.05 minutes of surrogate RT
DCB RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Instrument ID: GC10 Start Date: 09/23/2013 11:01

Analysis Batch Number: 84799 End Date: 09/25/2013 03:19

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 180-84799/1		09/23/2013 11:01	1	T0930513.D	RTX-1701 0.53(mm)
IC 180-84799/2		09/23/2013 11:32	1	T0930514.D	RTX-1701 0.53(mm)
IC 180-84799/3		09/23/2013 12:04	1	T0930515.D	RTX-1701 0.53(mm)
IC 180-84799/4		09/23/2013 12:35	1	T0930516.D	RTX-1701 0.53(mm)
IC 180-84799/5		09/23/2013 13:07	1		RTX-1701 0.53(mm)
IC 180-84799/6		09/23/2013 13:38	1		RTX-1701 0.53(mm)
IC 180-84799/7		09/23/2013 14:10	1	T0930519.D	RTX-1701 0.53(mm)
IC 180-84799/8		09/23/2013 14:41	1	T0930520.D	RTX-1701 0.53(mm)
IC 180-84799/9		09/23/2013 15:13	1	T0930521.D	RTX-1701 0.53(mm)
ICRT 180-84799/10		09/23/2013 15:44	1	T0930522.D	RTX-1701 0.53(mm)
IC 180-84799/11		09/23/2013 16:16	1	T0930523.D	RTX-1701 0.53(mm)
IC 180-84799/12		09/23/2013 16:47	1	T0930524.D	RTX-1701 0.53(mm)
IC 180-84799/13		09/23/2013 17:19	1	T0930525.D	RTX-1701 0.53(mm)
ICV 180-84799/14		09/23/2013 17:50	1		RTX-1701 0.53(mm)
ICV 180-84799/15		09/23/2013 18:22	1		RTX-1701 0.53(mm)
ICV 180-84799/16		09/23/2013 18:54	1		RTX-1701 0.53(mm)
ICV 180-84799/17		09/23/2013 19:25	1		RTX-1701 0.53(mm)
ICV 180-84799/18		09/23/2013 19:56	1		RTX-1701 0.53(mm)
ICV 180-84799/19		09/23/2013 20:28	1		RTX-1701 0.53(mm)
ICV 180-84799/20		09/23/2013 20:59	1		RTX-1701 0.53(mm)
CCVRT 180-84799/21		09/24/2013 12:45	1		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 13:16	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 13:48	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 14:20	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 14:51	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 15:23	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 15:53	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 16:23	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 16:53	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 17:25	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 17:56	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 18:27	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 18:56	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 19:28	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 20:00	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 20:31	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 21:03	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 21:34	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 22:05	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 22:37	1		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 23:08	1		RTX-1701 0.53(mm)
CCV 180-84799/42		09/24/2013 23:40	1		RTX-1701 0.53(mm)
ZZZZZ		09/25/2013 00:11	10		RTX-1701 0.53(mm)
ZZZZZ		09/25/2013 00:42	10		RTX-1701 0.53(mm)
ZZZZZ		09/25/2013 01:14	10		RTX-1701 0.53(mm)

8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Instrument ID: GC10 Start Date: 09/23/2013 11:01

Analysis Batch Number: 84799 End Date: 09/25/2013 03:19

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		09/25/2013 01:45	10		RTX-1701 0.53(mm)
ZZZZZ		09/25/2013 02:16	1		RTX-1701 0.53(mm)
ZZZZZ		09/25/2013 02:48	1		RTX-1701 0.53(mm)
CCV 180-84799/49		09/25/2013 03:19	1		RTX-1701 0.53(mm)

8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Instrument ID: GC10 Start Date: 09/26/2013 10:39

Analysis Batch Number: 85122 End Date: 09/27/2013 22:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 180-85122/1		09/26/2013 10:39	1	T0930626.D	RTX-1701 0.53(mm)
CCV 180-85122/2		09/26/2013 11:10	1	T0930627.D	RTX-1701 0.53(mm)
CCV 180-85122/3		09/26/2013 11:42	1	T0930628.D	RTX-1701 0.53(mm)
CCV 180-85122/4		09/26/2013 12:13	1	T0930629.D	RTX-1701 0.53(mm)
CCV 180-85122/5		09/26/2013 12:45	1		RTX-1701 0.53(mm)
CCV 180-85122/6		09/26/2013 13:17	1		RTX-1701 0.53(mm)
CCVRT 180-85122/7		09/26/2013 13:48	1		RTX-1701 0.53(mm)
CCVRT 180-85122/8		09/27/2013 07:07	1	T0930668.D	RTX-1701 0.53(mm)
180-25321-1	SD-152	09/27/2013 07:38	5	T0930669.D	RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 08:10	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 08:40	5		RTX-1701 0.53(mm)
180-25321-4	SD-153	09/27/2013 09:10	5	T0930672.D	RTX-1701 0.53(mm)
180-25321-5	SD-117-SS	09/27/2013 09:40	5	T0930673.D	RTX-1701 0.53(mm)
180-25321-6	SD-117-01	09/27/2013 10:10	5	T0930674.D	RTX-1701 0.53(mm)
180-25321-7	SD-117-02	09/27/2013 10:44	5	T0930675.D	RTX-1701 0.53(mm)
180-25321-8	SD-118-SS	09/27/2013 11:15	5	T0930676.D	RTX-1701 0.53(mm)
180-25321-9	SD-118-01	09/27/2013 11:47	5	T0930677.D	RTX-1701 0.53(mm)
180-25321-10	SD-118-02	09/27/2013 12:18	5	T0930678.D	RTX-1701 0.53(mm)
180-25321-11	SD-118-03	09/27/2013 12:50	5	T0930679.D	RTX-1701 0.53(mm)
180-25321-12	SD-120-SS	09/27/2013 13:22	5	T0930680.D	RTX-1701 0.53(mm)
180-25321-13	SD-120-01	09/27/2013 13:52	5	T0930681.D	RTX-1701 0.53(mm)
180-25321-14	SD-120-02	09/27/2013 14:22	5	T0930682.D	RTX-1701 0.53(mm)
180-25321-15	SD-120-03	09/27/2013 14:52	5	T0930683.D	RTX-1701 0.53(mm)
180-25321-15 MS	SD-120-03 MS	09/27/2013 15:24	5	T0930684.D	RTX-1701 0.53(mm)
180-25321-15 MSD	SD-120-03 MSD	09/27/2013 15:55	5	T0930685.D	RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 16:27	5		RTX-1701 0.53(mm)
MB 180-84645/1-C		09/27/2013 16:58	1	T0930687.D	RTX-1701 0.53(mm)
LCS 180-84645/2-C		09/27/2013 17:30	1	T0930688.D	RTX-1701 0.53(mm)
CCV 180-85122/29		09/27/2013 18:01	1	T0930689.D	RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 18:31	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 19:02	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 19:33	5		RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 20:04	5		RTX-1701 0.53(mm)
180-25321-2	SD-154	09/27/2013 20:36	50	T0930694.D	RTX-1701 0.53(mm)
180-25321-3	SD-155	09/27/2013 21:07	50	T0930695.D	RTX-1701 0.53(mm)
ZZZZZ		09/27/2013 21:39	1		RTX-1701 0.53(mm)
CCV 180-85122/37		09/27/2013 22:10	1	T0930697.D	RTX-1701 0.53(mm)

8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Instrument ID: GC10 Start Date: 09/30/2013 04:20

Analysis Batch Number: 85278 End Date: 10/01/2013 01:54

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 180-85278/1		09/30/2013 04:20	1	T0930708.D	RTX-1701 0.53(mm)
CCV 180-85278/2		09/30/2013 04:52	1	T0930709.D	RTX-1701 0.53(mm)
CCV 180-85278/3		09/30/2013 05:23	1	T0930710.D	RTX-1701 0.53(mm)
CCV 180-85278/4		09/30/2013 05:55	1	T0930711.D	RTX-1701 0.53(mm)
CCV 180-85278/5		09/30/2013 06:26	1		RTX-1701 0.53(mm)
CCV 180-85278/6		09/30/2013 06:58	1		RTX-1701 0.53(mm)
CCVRT 180-85278/7		09/30/2013 07:29	1	T0930714.D	RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 08:01	50		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 08:33	50		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 09:05	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 09:37	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 10:12	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 10:44	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 11:15	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 11:47	10		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 12:18	250		RTX-1701 0.53(mm)
180-25321-16	SD-113-SS	09/30/2013 12:50	10	T0930724.D	RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 13:21	1		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 13:53	1		RTX-1701 0.53(mm)
ZZZZZ		09/30/2013 14:24	1		RTX-1701 0.53(mm)
CCV 180-85278/21		09/30/2013 14:55	1	T0930728.D	RTX-1701 0.53(mm)
180-25321-17	SD-113-01	09/30/2013 15:26	10	T0930729.D	RTX-1701 0.53(mm)
180-25321-18	SD-113-02	09/30/2013 15:58	10	T0930730.D	RTX-1701 0.53(mm)
180-25321-19	SD-113-03	09/30/2013 16:29	10	T0930731.D	RTX-1701 0.53(mm)
180-25321-20	SD-115-SS	09/30/2013 17:01	10	T0930732.D	RTX-1701 0.53(mm)
180-25321-21	SD-115-01	09/30/2013 17:32	10	T0930733.D	RTX-1701 0.53(mm)
180-25321-21 MS	SD-115-01 MS	09/30/2013 18:03	10	T0930734.D	RTX-1701 0.53(mm)
180-25321-21 MSD	SD-115-01 MSD	09/30/2013 18:35	10	T0930735.D	RTX-1701 0.53(mm)
180-25321-22	SD-115-02	09/30/2013 19:06	10	T0930736.D	RTX-1701 0.53(mm)
180-25321-23	SD-115-03	09/30/2013 19:37	10	T0930737.D	RTX-1701 0.53(mm)
180-25321-24	SD-114-SS	09/30/2013 20:09	10	T0930738.D	RTX-1701 0.53(mm)
180-25321-25	SD-114-01	09/30/2013 20:40	10	T0930739.D	RTX-1701 0.53(mm)
180-25321-26	SD-114-02	09/30/2013 21:12	10	T0930740.D	RTX-1701 0.53(mm)
180-25321-27	SD-114-03	09/30/2013 21:43	10	T0930741.D	RTX-1701 0.53(mm)
180-25321-28	DUP-07	09/30/2013 22:15	10	T0930742.D	RTX-1701 0.53(mm)
180-25321-29	SD-119-SS	09/30/2013 22:46	10	T0930743.D	RTX-1701 0.53(mm)
180-25321-30	SD-119-01	09/30/2013 23:17	10	T0930744.D	RTX-1701 0.53(mm)
180-25321-31	SD-119-02	09/30/2013 23:49	10	T0930745.D	RTX-1701 0.53(mm)
180-25321-32	SD-119-03	10/01/2013 00:20	10	T0930746.D	RTX-1701 0.53(mm)
MB 180-85041/1-C		10/01/2013 00:51	1	T0930747.D	RTX-1701 0.53(mm)
LCS 180-85041/2-C		10/01/2013 01:23	1	T0930748.D	RTX-1701 0.53(mm)
CCV 180-85278/42		10/01/2013 01:54	1	T0930749.D	RTX-1701 0.53(mm)

8082A

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 11:01 Calibration End Date: 09/23/2013 11:01 Calibration ID: 11470

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/1	T0930513.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1221 Peak 1	166838				Ave		166838.000						20.0			
PCB-1221 Peak 2	104272				Ave		104272.000						20.0			
PCB-1221 Peak 3	329624				Ave		329624.000						20.0			
PCB-1254 Peak 1	225388				Ave		225388.000						20.0			
PCB-1254 Peak 2	337660				Ave		337660.000						20.0			
PCB-1254 Peak 3	162344				Ave		162344.000						20.0			
PCB-1254 Peak 4	499968				Ave		499968.000						20.0			
PCB-1254 Peak 5	323028				Ave		323028.000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 11:32 Calibration End Date: 09/23/2013 11:32 Calibration ID: 11471

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/2	T0930514.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1232 Peak 1	92670				Ave		92670.0000						20.0			
PCB-1232 Peak 2	67010				Ave		67010.0000						20.0			
PCB-1232 Peak 3	94874				Ave		94874.0000						20.0			
PCB-1232 Peak 4	49462				Ave		49462.0000						20.0			
PCB-1232 Peak 5	104848				Ave		104848.000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 12:04 Calibration End Date: 09/23/2013 12:04 Calibration ID: 11472

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/3	T0930515.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1242 Peak 1	384688				Ave		384688.000						20.0			
PCB-1242 Peak 2	149334				Ave		149334.000						20.0			
PCB-1242 Peak 3	179020				Ave		179020.000						20.0			
PCB-1242 Peak 4	217298				Ave		217298.000						20.0			
PCB-1242 Peak 5	118344				Ave		118344.000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 12:35 Calibration End Date: 09/23/2013 12:35 Calibration ID: 11473

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/4	T0930516.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1248 Peak 1	339916				Ave		339916.000						20.0			
PCB-1248 Peak 2	123720				Ave		123720.000						20.0			
PCB-1248 Peak 3	352358				Ave		352358.000						20.0			
PCB-1248 Peak 4	327462				Ave		327462.000						20.0			
PCB-1248 Peak 5	165020				Ave		165020.000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 14:10 Calibration End Date: 09/23/2013 17:19 Calibration ID: 11476

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/7	T0930519.D
Level 2	IC 180-84799/8	T0930520.D
Level 3	IC 180-84799/9	T0930521.D
Level 4	ICRT 180-84799/10	T0930522.D
Level 5	IC 180-84799/11	T0930523.D
Level 6	IC 180-84799/12	T0930524.D
Level 7	IC 180-84799/13	T0930525.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
PCB-1016 Peak 1	310300 246993	271100 250661	279405 241612	261666	Ave		265962.357				8.9		20.0			
PCB-1016 Peak 2	592700 486048	522780 483484	539680 466854	505710	Ave		513893.643				8.3		20.0			
PCB-1016 Peak 3	791600 710868	713900 738408	756520 725823	717158	Ave		736325.250				4.0		20.0			
PCB-1016 Peak 4	341500 290709	310080 300127	318500 286570	299104	Ave		306655.750				6.1		20.0			
PCB-1016 Peak 5	251200 220874	228300 233547	246640 221215	228264	Ave		232862.821				5.1		20.0			
PCB-1260 Peak 1	433300 361551	399040 362315	409150 348679	381990	Ave		385146.357				7.9		20.0			
PCB-1260 Peak 2	525600 423986	476560 428835	481395 407784	450368	Ave		456361.071				9.0		20.0			
PCB-1260 Peak 3	408500 315920	345860 310527	351850 299516	336998	Ave		338452.857				10.8		20.0			
PCB-1260 Peak 4	732100 661608	679240 663017	724700 659505	687726	Ave		686842.214				4.4		20.0			
PCB-1260 Peak 5	558600 486302	508880 486202	540195 477103	502112	Ave		508484.893				6.0		20.0			
Tetrachloro-m-xylene	23400000 19924880	19295600 20367230	20787200 20138305	20402120	Ave		20616476.4				6.4		20.0			
DCB Decachlorobiphenyl (Surr)	8240000 7568420	7833600 7609710	8455700 7339395	8070720	Ave		7873935.00				5.1		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab Sample ID: CCVRT 180-85122/8 Calibration Date: 09/27/2013 07:07

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T0930668.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	265962	274664		0.516	0.500	3.3	20.0
PCB-1016 Peak 2	Ave	513894	538438		0.524	0.500	4.8	20.0
PCB-1016 Peak 3	Ave	736325	774808		0.526	0.500	5.2	20.0
PCB-1016 Peak 4	Ave	306656	327048		0.533	0.500	6.6	20.0
PCB-1016 Peak 5	Ave	232863	251756		0.541	0.500	8.1	20.0
PCB-1260 Peak 1	Ave	385146	413740		0.537	0.500	7.4	20.0
PCB-1260 Peak 2	Ave	456361	486278		0.533	0.500	6.6	20.0
PCB-1260 Peak 3	Ave	338453	362894		0.536	0.500	7.2	20.0
PCB-1260 Peak 4	Ave	686842	749040		0.545	0.500	9.1	20.0
PCB-1260 Peak 5	Ave	508485	555022		0.546	0.500	9.2	20.0
Tetrachloro-m-xylene	Ave	20616476	21629080		0.0262	0.0250	4.9	20.0
DCB Decachlorobiphenyl (Surr)	Ave	7873935	8581160		0.0272	0.0250	9.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab Sample ID: CCV 180-85122/29 Calibration Date: 09/27/2013 18:01

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T0930689.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	265962	274248		0.516	0.500	3.1	20.0
PCB-1016 Peak 2	Ave	513894	542854		0.528	0.500	5.6	20.0
PCB-1016 Peak 3	Ave	736325	782986		0.532	0.500	6.3	20.0
PCB-1016 Peak 4	Ave	306656	327656		0.534	0.500	6.8	20.0
PCB-1016 Peak 5	Ave	232863	254100		0.546	0.500	9.1	20.0
PCB-1260 Peak 1	Ave	385146	417612		0.542	0.500	8.4	20.0
PCB-1260 Peak 2	Ave	456361	493284		0.540	0.500	8.1	20.0
PCB-1260 Peak 3	Ave	338453	363666		0.537	0.500	7.4	20.0
PCB-1260 Peak 4	Ave	686842	765486		0.557	0.500	11.5	20.0
PCB-1260 Peak 5	Ave	508485	560540		0.551	0.500	10.2	20.0
Tetrachloro-m-xylene	Ave	20616476	21587080		0.0262	0.0250	4.7	20.0
DCB Decachlorobiphenyl (Surr)	Ave	7873935	8602880		0.0273	0.0250	9.3	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab Sample ID: CCV 180-85122/37 Calibration Date: 09/27/2013 22:10

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T0930697.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	265962	280360		0.527	0.500	5.4	20.0
PCB-1016 Peak 2	Ave	513894	550454		0.536	0.500	7.1	20.0
PCB-1016 Peak 3	Ave	736325	796458		0.541	0.500	8.2	20.0
PCB-1016 Peak 4	Ave	306656	337094		0.550	0.500	9.9	20.0
PCB-1016 Peak 5	Ave	232863	259364		0.557	0.500	11.4	20.0
PCB-1260 Peak 1	Ave	385146	428088		0.556	0.500	11.1	20.0
PCB-1260 Peak 2	Ave	456361	496472		0.544	0.500	8.8	20.0
PCB-1260 Peak 3	Ave	338453	370320		0.547	0.500	9.4	20.0
PCB-1260 Peak 4	Ave	686842	764430		0.556	0.500	11.3	20.0
PCB-1260 Peak 5	Ave	508485	568274		0.559	0.500	11.8	20.0
Tetrachloro-m-xylene	Ave	20616476	22101320		0.0268	0.0250	7.2	20.0
DCB Decachlorobiphenyl (Surr)	Ave	7873935	8578720		0.0272	0.0250	9.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab Sample ID: CCVRT 180-85278/7 Calibration Date: 09/30/2013 07:29

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T0930714.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	265962	249468		0.469	0.500	-6.2	20.0
PCB-1016 Peak 2	Ave	513894	496602		0.483	0.500	-3.4	20.0
PCB-1016 Peak 3	Ave	736325	691880		0.470	0.500	-6.0	20.0
PCB-1016 Peak 4	Ave	306656	298192		0.486	0.500	-2.8	20.0
PCB-1016 Peak 5	Ave	232863	231838		0.498	0.500	-0.4	20.0
PCB-1260 Peak 1	Ave	385146	378482		0.491	0.500	-1.7	20.0
PCB-1260 Peak 2	Ave	456361	439526		0.482	0.500	-3.7	20.0
PCB-1260 Peak 3	Ave	338453	331278		0.489	0.500	-2.1	20.0
PCB-1260 Peak 4	Ave	686842	677106		0.493	0.500	-1.4	20.0
PCB-1260 Peak 5	Ave	508485	499278		0.491	0.500	-1.8	20.0
Tetrachloro-m-xylene	Ave	20616476	19618320		0.0238	0.0250	-4.8	20.0
DCB Decachlorobiphenyl (Surr)	Ave	7873935	7855280		0.0249	0.0250	-0.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab Sample ID: CCV 180-85278/21 Calibration Date: 09/30/2013 14:55

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T0930728.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	265962	250446		0.471	0.500	-5.8	20.0
PCB-1016 Peak 2	Ave	513894	493330		0.480	0.500	-4.0	20.0
PCB-1016 Peak 3	Ave	736325	700226		0.475	0.500	-4.9	20.0
PCB-1016 Peak 4	Ave	306656	297938		0.486	0.500	-2.8	20.0
PCB-1016 Peak 5	Ave	232863	230416		0.495	0.500	-1.1	20.0
PCB-1260 Peak 1	Ave	385146	376716		0.489	0.500	-2.2	20.0
PCB-1260 Peak 2	Ave	456361	445700		0.488	0.500	-2.3	20.0
PCB-1260 Peak 3	Ave	338453	332070		0.491	0.500	-1.9	20.0
PCB-1260 Peak 4	Ave	686842	678382		0.494	0.500	-1.2	20.0
PCB-1260 Peak 5	Ave	508485	501652		0.493	0.500	-1.3	20.0
Tetrachloro-m-xylene	Ave	20616476	19742400		0.0239	0.0250	-4.2	20.0
DCB Decachlorobiphenyl (Surr)	Ave	7873935	7895280		0.0251	0.0250	0.3	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab Sample ID: CCV 180-85278/42 Calibration Date: 10/01/2013 01:54

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T0930749.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	265962	255312		0.480	0.500	-4.0	20.0
PCB-1016 Peak 2	Ave	513894	500490		0.487	0.500	-2.6	20.0
PCB-1016 Peak 3	Ave	736325	705292		0.479	0.500	-4.2	20.0
PCB-1016 Peak 4	Ave	306656	299484		0.488	0.500	-2.3	20.0
PCB-1016 Peak 5	Ave	232863	233478		0.501	0.500	0.3	20.0
PCB-1260 Peak 1	Ave	385146	383458		0.498	0.500	-0.4	20.0
PCB-1260 Peak 2	Ave	456361	444906		0.487	0.500	-2.5	20.0
PCB-1260 Peak 3	Ave	338453	331710		0.490	0.500	-2.0	20.0
PCB-1260 Peak 4	Ave	686842	675696		0.492	0.500	-1.6	20.0
PCB-1260 Peak 5	Ave	508485	499356		0.491	0.500	-1.8	20.0
Tetrachloro-m-xylene	Ave	20616476	20036680		0.0243	0.0250	-2.8	20.0
DCB Decachlorobiphenyl (Surr)	Ave	7873935	7767920		0.0247	0.0250	-1.3	20.0

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab Sample ID: MB 180-84645/1-C

Matrix: Sediment Date Extracted: 09/25/2013 04:10

Lab File ID:(1) Lab File ID:(2) T0930687.D

Date Analyzed:(1) Date Analyzed:(2) 09/27/2013 16:58

Instrument ID:(1) Instrument ID:(2) GC10

GC Column:(1) ID: GC Column:(2) RTX-1701 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
SD-152	180-25321-1		09/27/2013 07:38
SD-153	180-25321-4		09/27/2013 09:10
SD-117-SS	180-25321-5		09/27/2013 09:40
SD-117-01	180-25321-6		09/27/2013 10:10
SD-117-02	180-25321-7		09/27/2013 10:44
SD-118-SS	180-25321-8		09/27/2013 11:15
SD-118-01	180-25321-9		09/27/2013 11:47
SD-118-02	180-25321-10		09/27/2013 12:18
SD-118-03	180-25321-11		09/27/2013 12:50
SD-120-SS	180-25321-12		09/27/2013 13:22
SD-120-01	180-25321-13		09/27/2013 13:52
SD-120-02	180-25321-14		09/27/2013 14:22
SD-120-03	180-25321-15		09/27/2013 14:52
SD-120-03 MS	180-25321-15 MS		09/27/2013 15:24
SD-120-03 MSD	180-25321-15 MSD		09/27/2013 15:55
	LCS 180-84645/2-C		09/27/2013 17:30
SD-154	180-25321-2		09/27/2013 20:36
SD-155	180-25321-3		09/27/2013 21:07

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh
Job No.: 180-25321-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 180-84645/1-C
Matrix: Sediment
Lab File ID: T0930687.D
Analysis Method: 8082A
Date Collected:
Extraction Method: 3541
Date Extracted: 09/25/2013 04:10
Sample wt/vol: 30.0(g)
Date Analyzed: 09/27/2013 16:58
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: RTX-1701 ID: 0.53(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 85122
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.42	0.062
11104-28-2	PCB-1221	ND		0.42	0.080
11141-16-5	PCB-1232	ND		0.42	0.071
53469-21-9	PCB-1242	ND		0.42	0.068
12672-29-6	PCB-1248	ND		0.42	0.039
11097-69-1	PCB-1254	ND		0.42	0.059
11096-82-5	PCB-1260	ND		0.42	0.059

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	83		31-150
877-09-8	Tetrachloro-m-xylene	76		31-150

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Lab Sample ID: MB 180-85041/1-C

Matrix: Sediment Date Extracted: 09/28/2013 05:45

Lab File ID:(1) Lab File ID:(2) T0930747.D

Date Analyzed:(1) Date Analyzed:(2) 10/01/2013 00:51

Instrument ID:(1) Instrument ID:(2) GC10

GC Column:(1) ID: GC Column:(2) RTX-1701 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
SD-113-SS	180-25321-16		09/30/2013 12:50
SD-113-01	180-25321-17		09/30/2013 15:26
SD-113-02	180-25321-18		09/30/2013 15:58
SD-113-03	180-25321-19		09/30/2013 16:29
SD-115-SS	180-25321-20		09/30/2013 17:01
SD-115-01	180-25321-21		09/30/2013 17:32
SD-115-01 MS	180-25321-21 MS		09/30/2013 18:03
SD-115-01 MSD	180-25321-21 MSD		09/30/2013 18:35
SD-115-02	180-25321-22		09/30/2013 19:06
SD-115-03	180-25321-23		09/30/2013 19:37
SD-114-SS	180-25321-24		09/30/2013 20:09
SD-114-01	180-25321-25		09/30/2013 20:40
SD-114-02	180-25321-26		09/30/2013 21:12
SD-114-03	180-25321-27		09/30/2013 21:43
DUP-07	180-25321-28		09/30/2013 22:15
SD-119-SS	180-25321-29		09/30/2013 22:46
SD-119-01	180-25321-30		09/30/2013 23:17
SD-119-02	180-25321-31		09/30/2013 23:49
SD-119-03	180-25321-32		10/01/2013 00:20
	LCS 180-85041/2-C		10/01/2013 01:23

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh
Job No.: 180-25321-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 180-85041/1-C
Matrix: Sediment
Lab File ID: T0930747.D
Analysis Method: 8082A
Date Collected:
Extraction Method: 3541
Date Extracted: 09/28/2013 05:45
Sample wt/vol: 30.0(g)
Date Analyzed: 10/01/2013 00:51
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: RTX-1701 ID: 0.53(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 85278
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.42	0.062
11104-28-2	PCB-1221	ND		0.42	0.080
11141-16-5	PCB-1232	ND		0.42	0.071
53469-21-9	PCB-1242	ND		0.42	0.068
12672-29-6	PCB-1248	ND		0.42	0.039
11097-69-1	PCB-1254	ND		0.42	0.059
11096-82-5	PCB-1260	ND		0.42	0.059

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	82		31-150
877-09-8	Tetrachloro-m-xylene	78		31-150

Sample Calculation

TestAmerica Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\PITSVR06\D\chem\733.i\TN092613D.b\N0926026.D
Lab Smp Id: 180-25321-A-3-B Client Smp ID: SD-155
Inj Date : 26-SEP-2013 22:54
Operator : 3200 Inst ID: 733.i
Smp Info : 180-25321-A-3-B,30
Misc Info : 180-25321-A-3-B
Comment :
Method : \\PITSVR06\D\chem\733.i\TN092613D.b\T8270d.m
Meth Date : 26-Sep-2013 12:59 piccolinov Quant Type: ISTD
Cal Date : 06-AUG-2013 09:41 Cal File: N0806IC8.D
Als bottle: 28
Dil Factor: 30.00000
Integrator: HP RTE Compound Sublist: pah.sub
Target Version: 4.14
Processing Host: PITPC-502

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ng)
* 1 1,4-Dichlorobenzene-d4	152	6.294	6.289	(1.000)	155761	8.00000	
* 2 Naphthalene-d8	136	7.528	7.529	(1.000)	592704	8.00000	
* 3 Acenaphthene-d10	164	9.184	9.185	(1.000)	327887	8.00000	
* 4 Phenanthrene-d10	188	10.567	10.574	(1.000)	541228	8.00000	
* 5 Chrysene-d12	240	14.157	14.164	(1.000)	580976	8.00000	
* 6 Perylene-d12	264	17.117	17.123	(1.000)	608680	8.00000	
51 Naphthalene	128	7.549	7.550	(1.003)	14456	0.19117	5.7352
62 2-Methylnaphthalene	142	8.201	8.202	(1.089)	6892	0.13740	4.1220
63 1-Methylnaphthalene	142	8.292	8.298	(1.101)	3624	0.07784	2.3352
79 Acenaphthylene	152	9.050	9.051	(0.985)	14906	0.20124	6.0373
82 Acenaphthene	153	9.216	9.211	(1.003)	4805	0.10381	3.1142
86 Dibenzofuran	168	9.371	9.372	(1.020)	5452	0.08224	2.4672
94 Fluorene	166	9.686	9.692	(1.055)	8280	0.16379	4.9136
115 Phenanthrene	178	10.594	10.595	(1.003)	57069	0.75369	22.611
116 Anthracene	178	10.642	10.643	(1.007)	29076	0.39000	11.700
119 Carbazole	167	10.786	10.787	(1.021)	7343	0.11207	3.3621
123 Fluoranthene	202	11.914	11.915	(1.127)	161364	2.27474	68.242
125 Pyrene	202	12.218	12.219	(0.863)	165002	1.78358	53.507
136 Benzo(a)Anthracene	228	14.141	14.142	(0.999)	80716	1.03735	31.120
137 Chrysene	228	14.205	14.217	(1.003)	95208	1.32008	39.602
141 Benzo(b)fluoranthene 56	252	16.310	16.316	(0.953)	149154	1.53112	45.934
142 Benzo(k)fluoranthene	252	16.353	16.370	(0.955)	47708	0.49524	14.857
146 Benzo(a)pyrene	252	16.994	17.006	(0.993)	92632	1.13884	34.165
149 Indeno(1,2,3-cd)pyrene	276	19.366	19.378	(1.131)	70244	1.38650	41.595
150 Dibenz(a,h)anthracene	278	19.377	19.399	(1.132)	19792	0.87724	26.317(M)
151 Benzo(g,h,i)perylene	276	19.975	19.997	(1.167)	88622	1.60851	48.255
$ 154 Nitrobenzene-d5	82	6.833	6.829	(0.908)	18163	0.74926	22.478
$ 155 2-Fluorobiphenyl	172	8.532	8.533	(0.929)	48106	0.85598	25.680

Data File: T0930742.D

Date: 30-SEP-2013 22:15

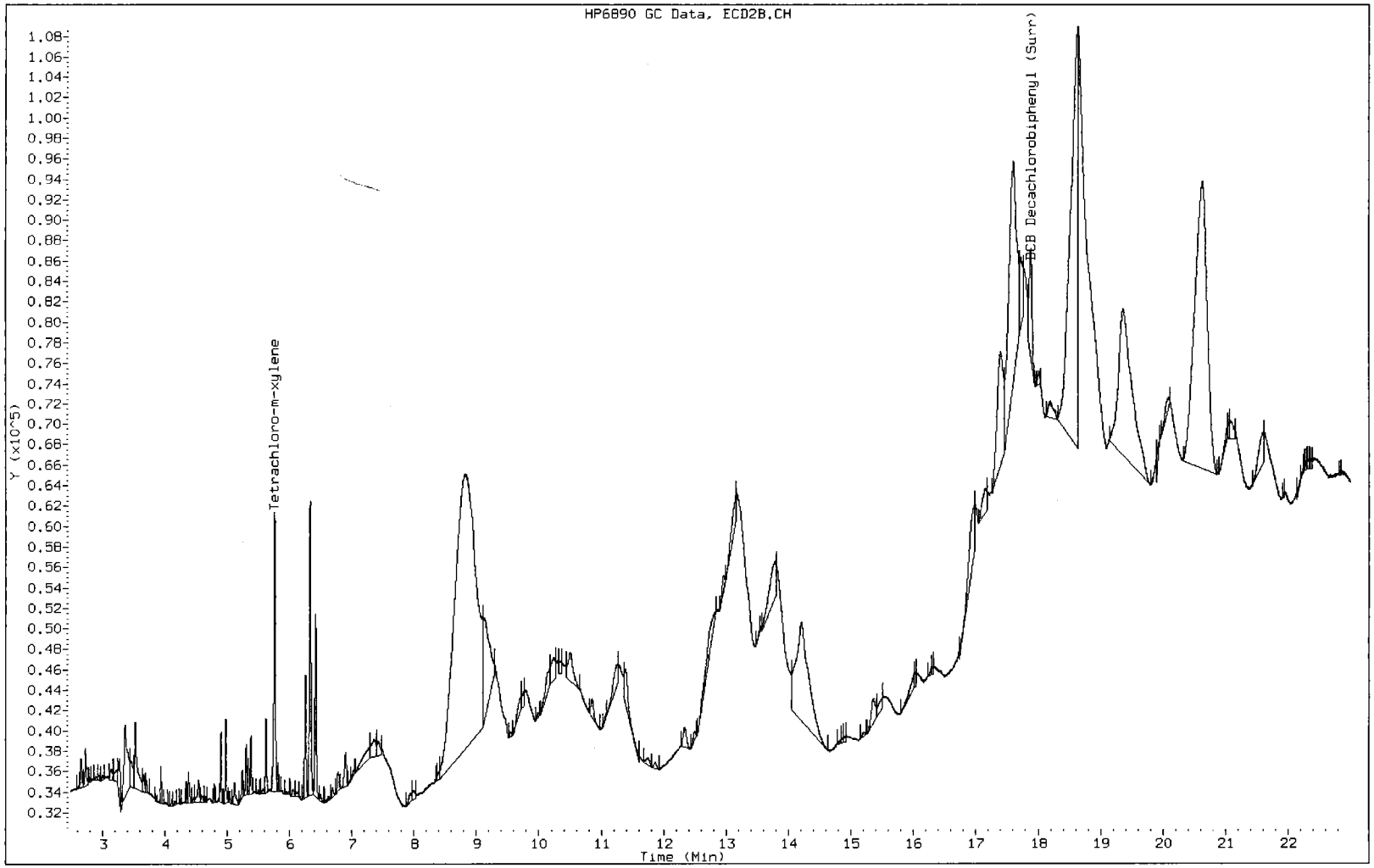
Client ID:

Instrument: gc10.i

Sample Info: 09303B8082ALL.b

Operator: 402331

DUP-07
All ND



Data File: T0930729.D

Date: 30-SEP-2013 15:26

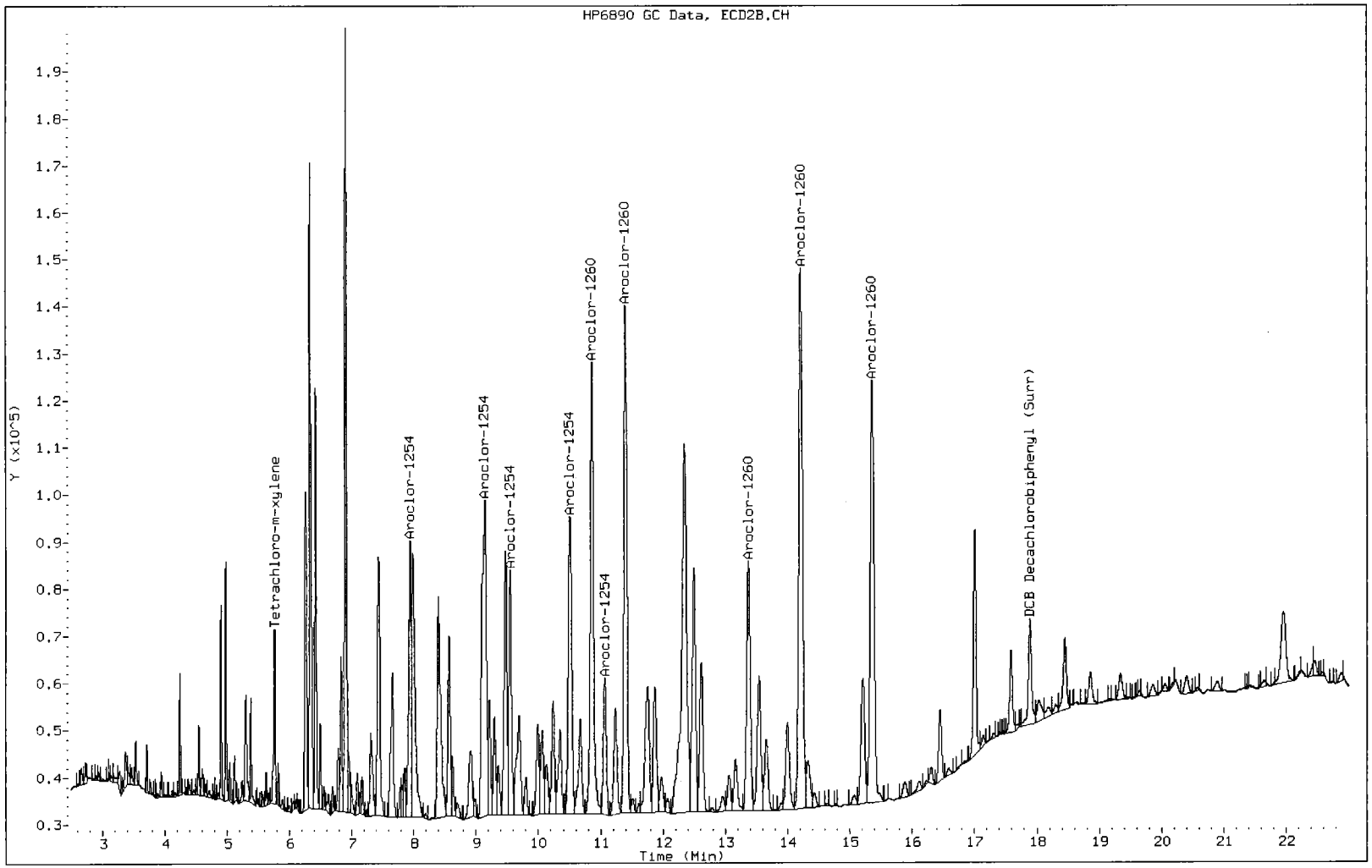
Client ID:

Instrument: gc10.i

Sample Info: 09303B8082ALL.b

Operator: 402331

SD-113-01



Data File: T0930730.D

Date: 30-SEP-2013 15:58

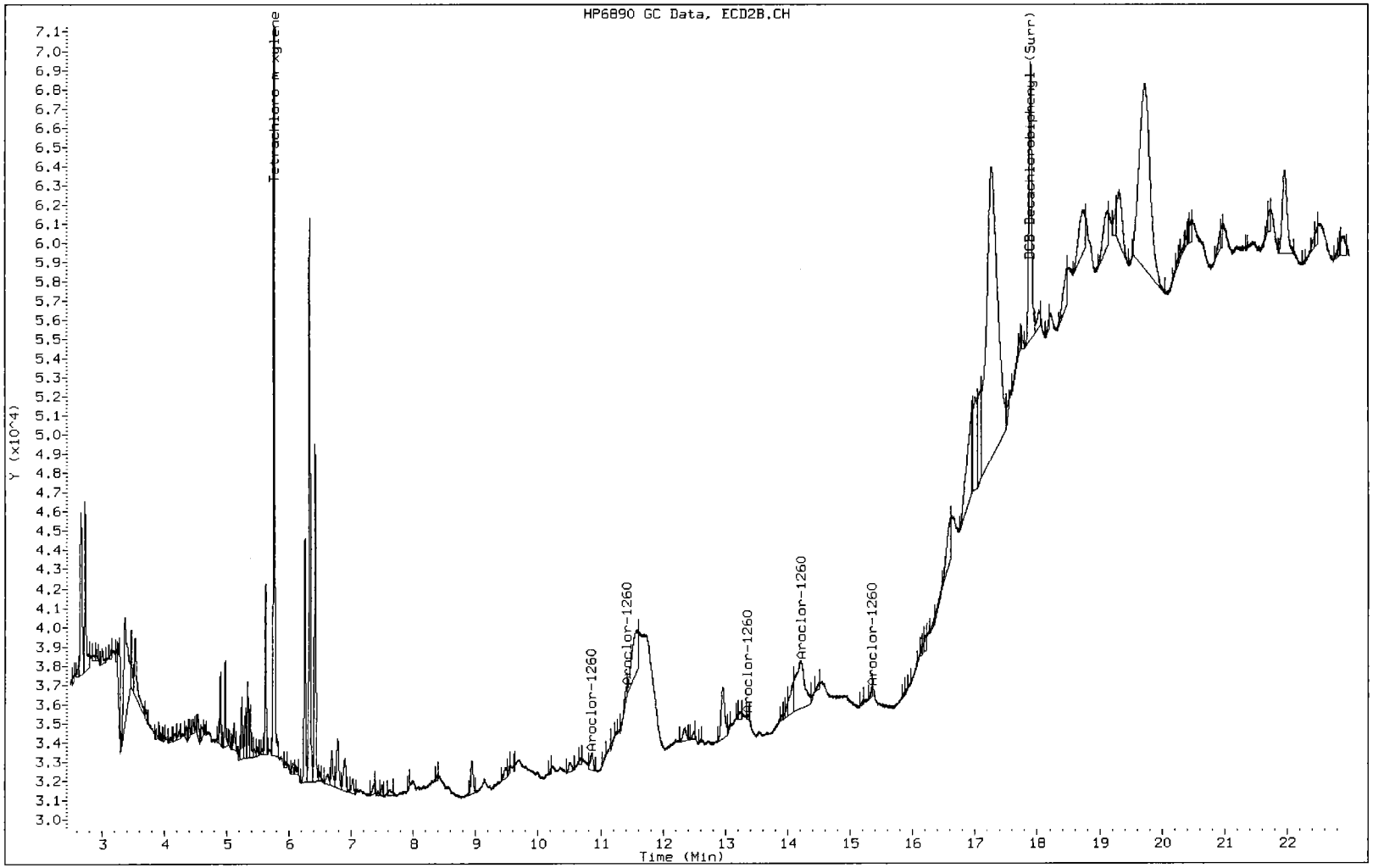
Client ID:

Instrument: gc10.i

Sample Info: 09303B8082ALL.b

Operator: 402331

SD-113-02
All ND



Data File: T0930731.D

Date: 30-SEP-2013 16:29

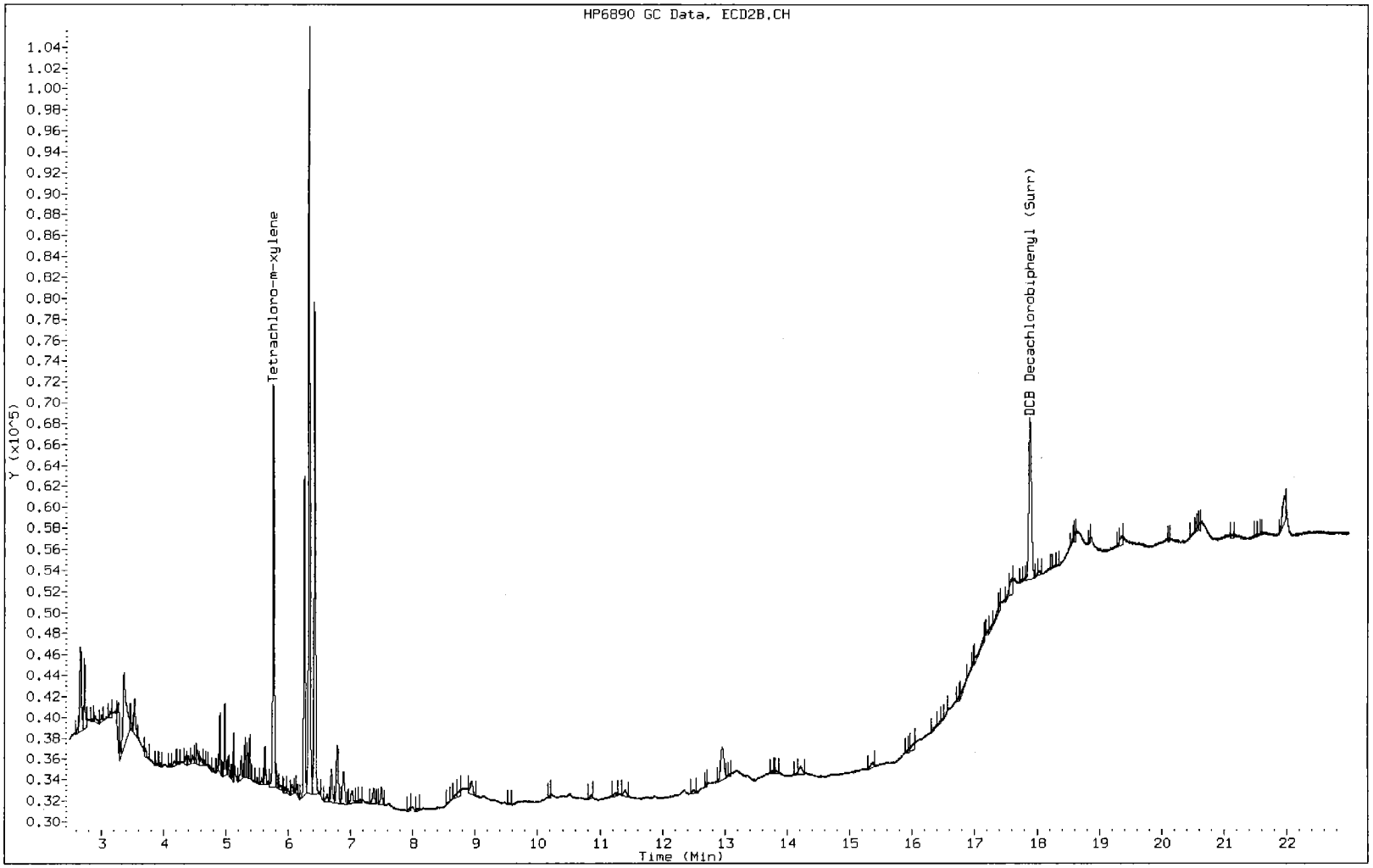
Client ID:

Instrument: gc10.i

Sample Info: 09303B8082ALL.b

Operator: 402331

SD-113-03
All ND



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Date: 30-SEP-2013 12:50

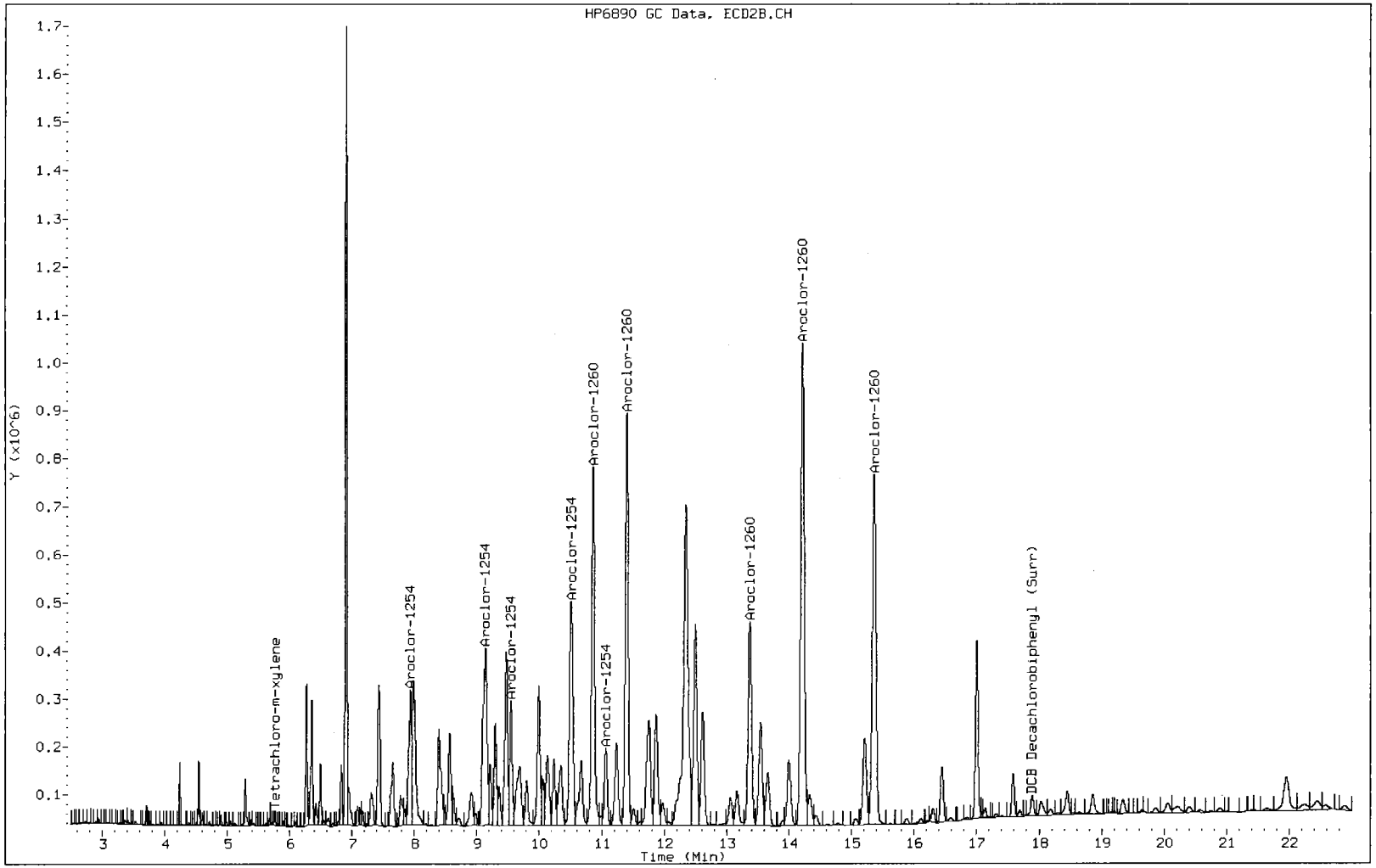
Client ID:

Instrument: gc10.i

Sample Info: 09303B8082ALL.b

Operator: 402331

SD-173-SS



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Date: 30-SEP-2013 20:40

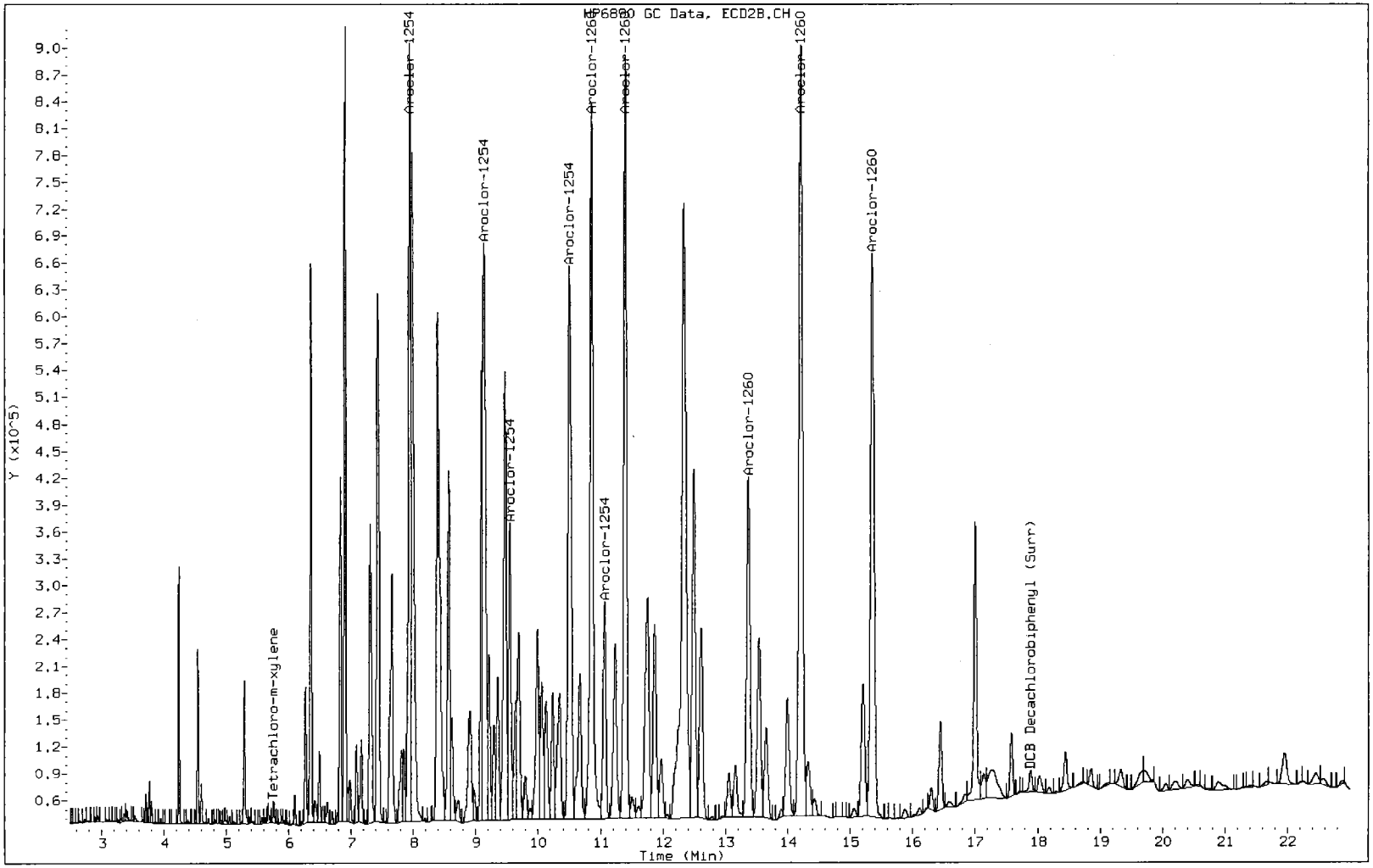
Client ID:

Instrument: gc10.i

Sample Info: 09303B8082ALL.b

Operator: 402331

SD-114-01



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Date: 30-SEP-2013 21:12

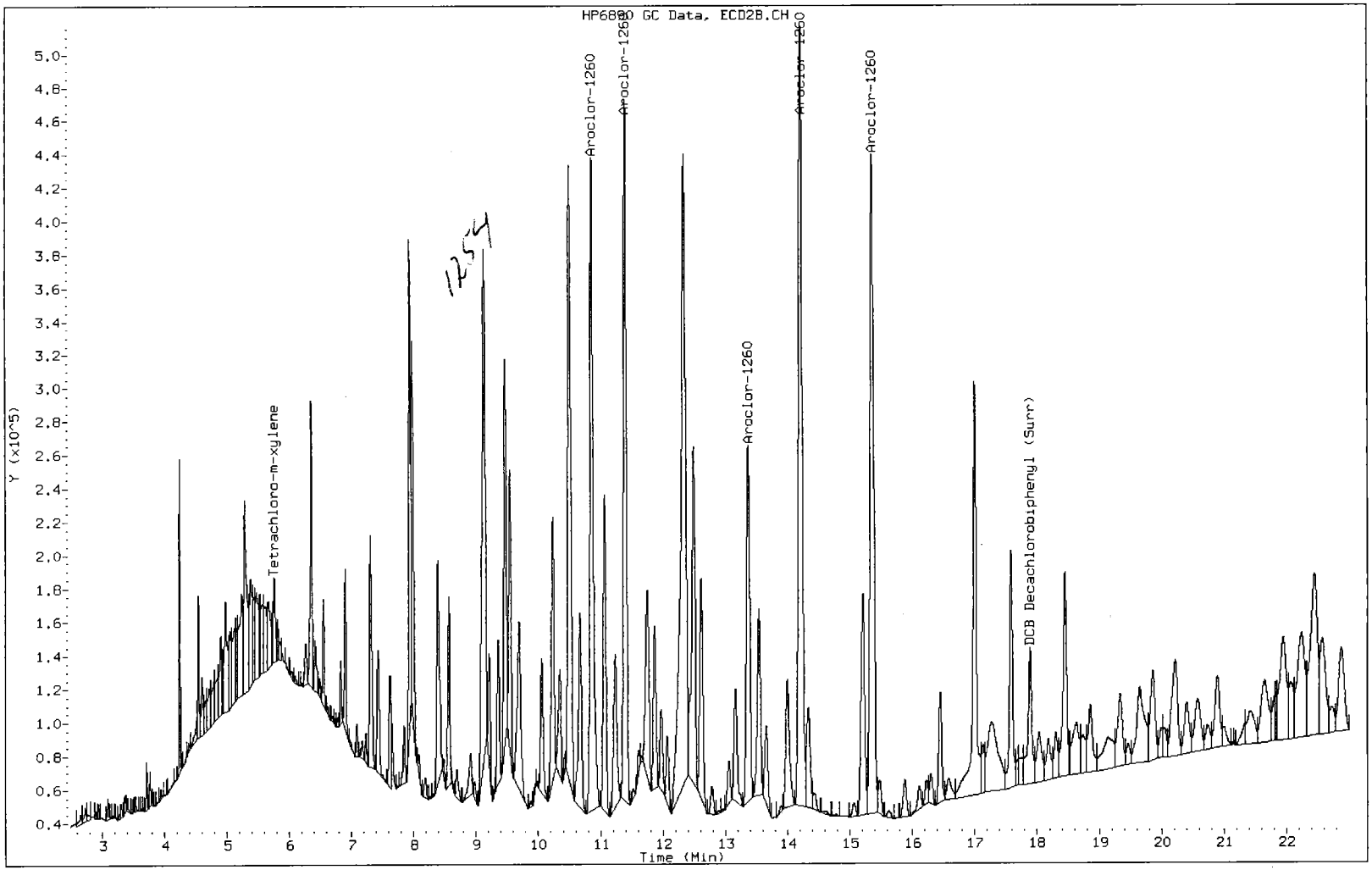
Client ID:

Instrument: gc10.i

Sample Info: 09303B8082ALL.b

Operator: 402331

SD-114-02



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Date: 30-SEP-2013 21:43

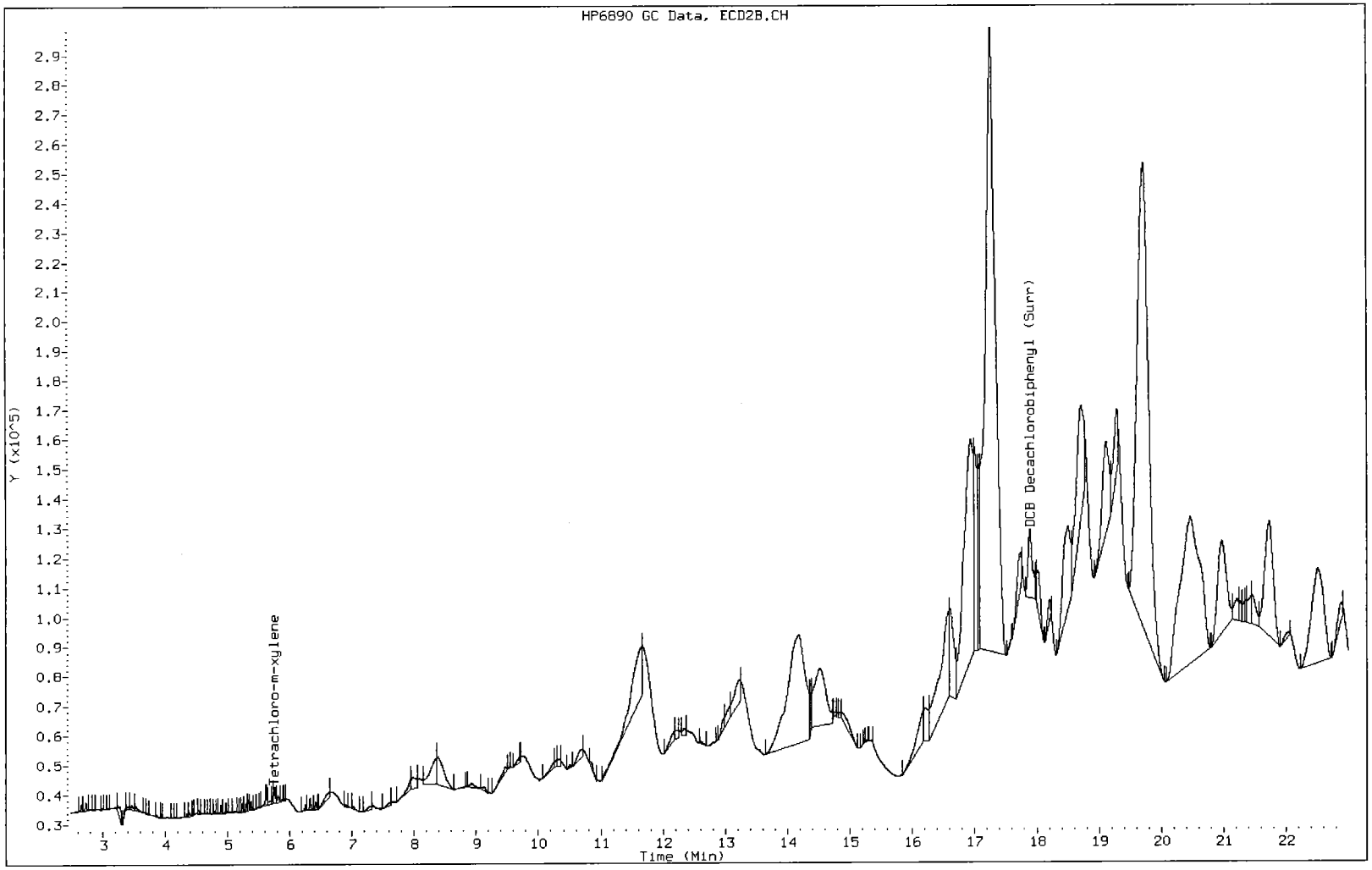
Client ID:

Instrument: gc10.i

Sample Info: 09303B8082ALL.b

Operator: 402331

SD-114-03
All ND



Data File: T0930738.D

Date: 30-SEP-2013 20:09

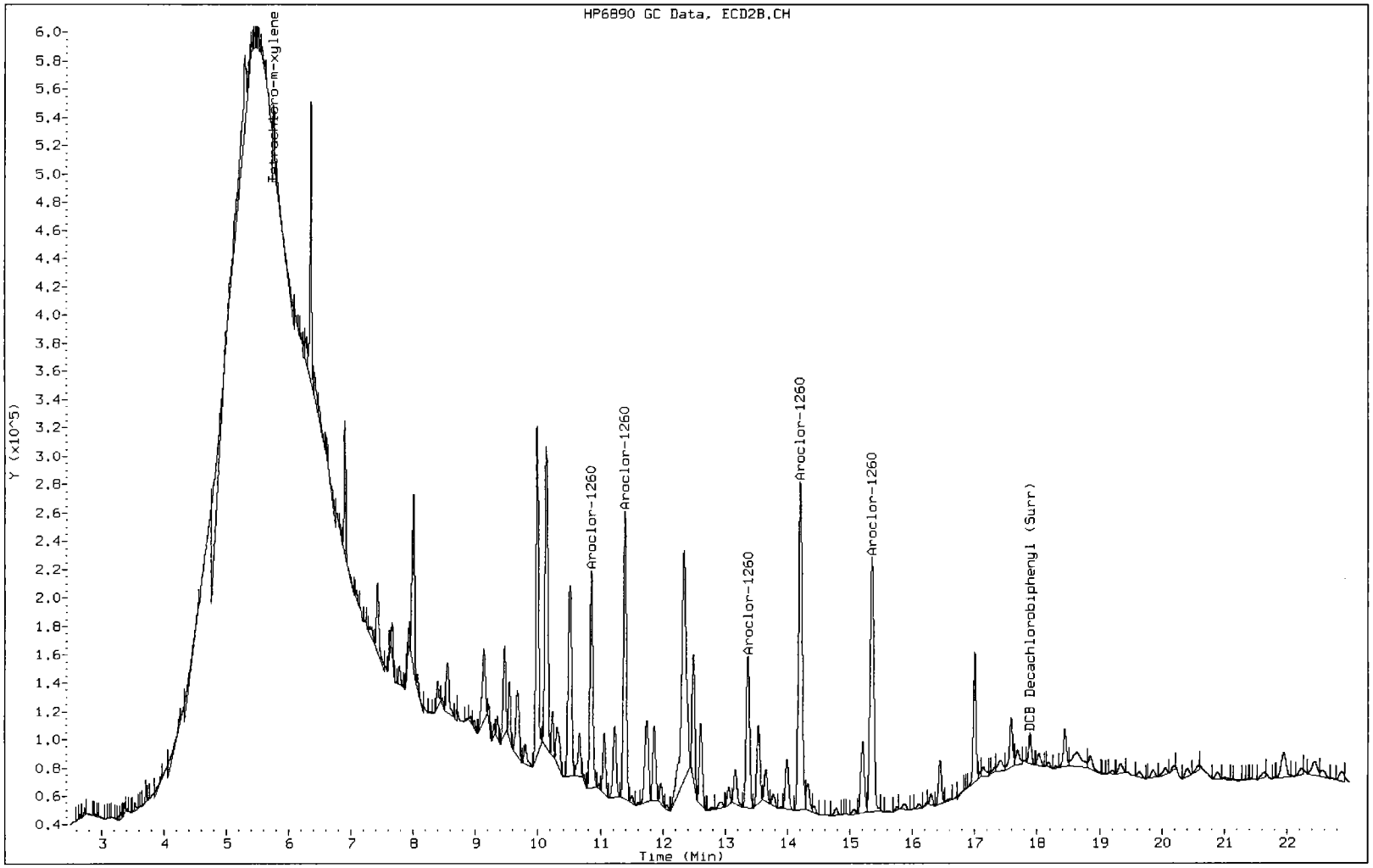
Client ID:

Instrument: gc10.i

Sample Info: 09303B8082ALL.b

Operator: 402331

SD-114-55



Data File: T0930733.D

Date: 30-SEP-2013 17:32

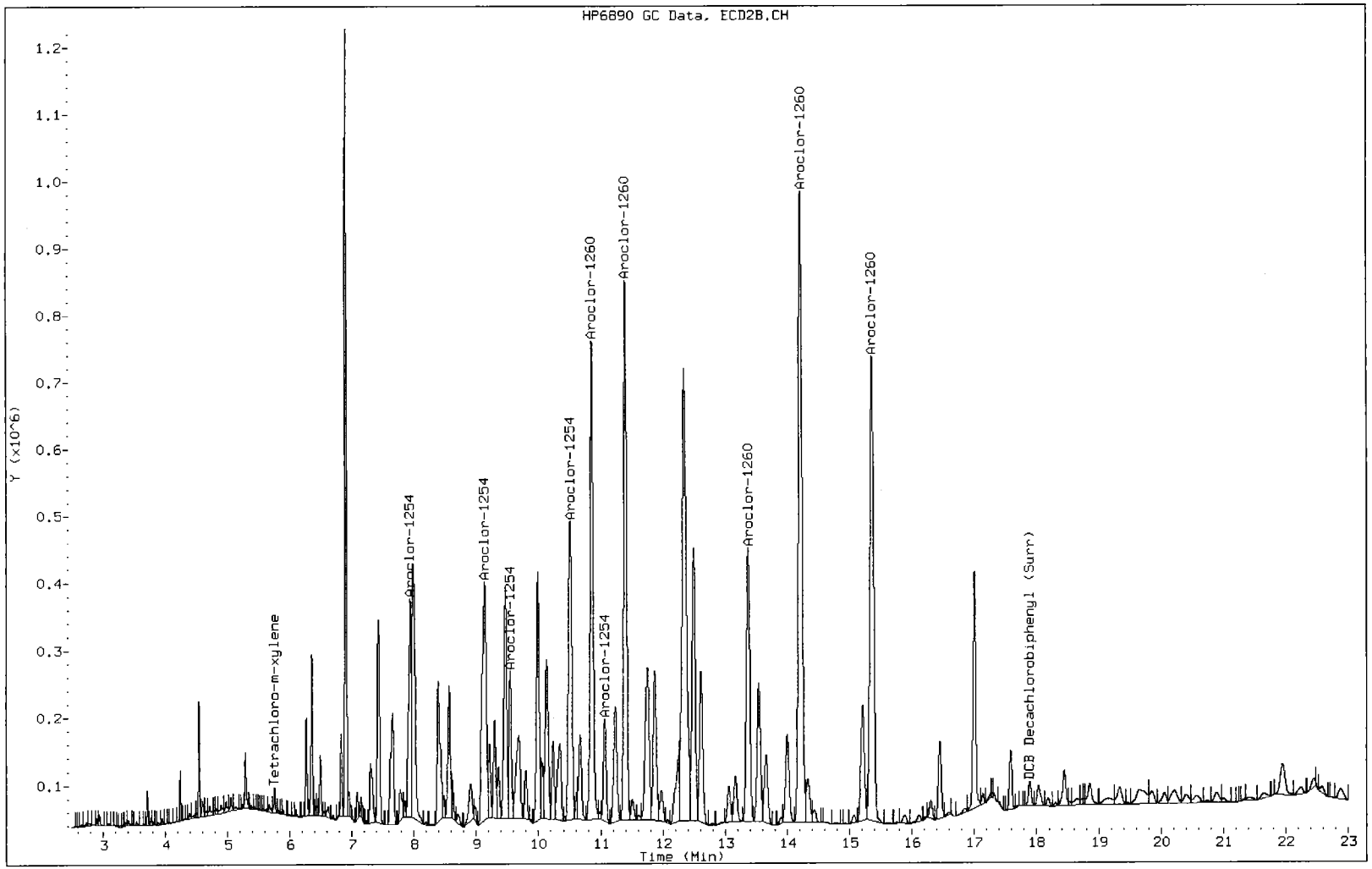
SD-115-01

Client ID:

Instrument: gc10.i

Sample Info: 09303B8082ALL.b

Operator: 402331



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Date: 30-SEP-2013 19:06

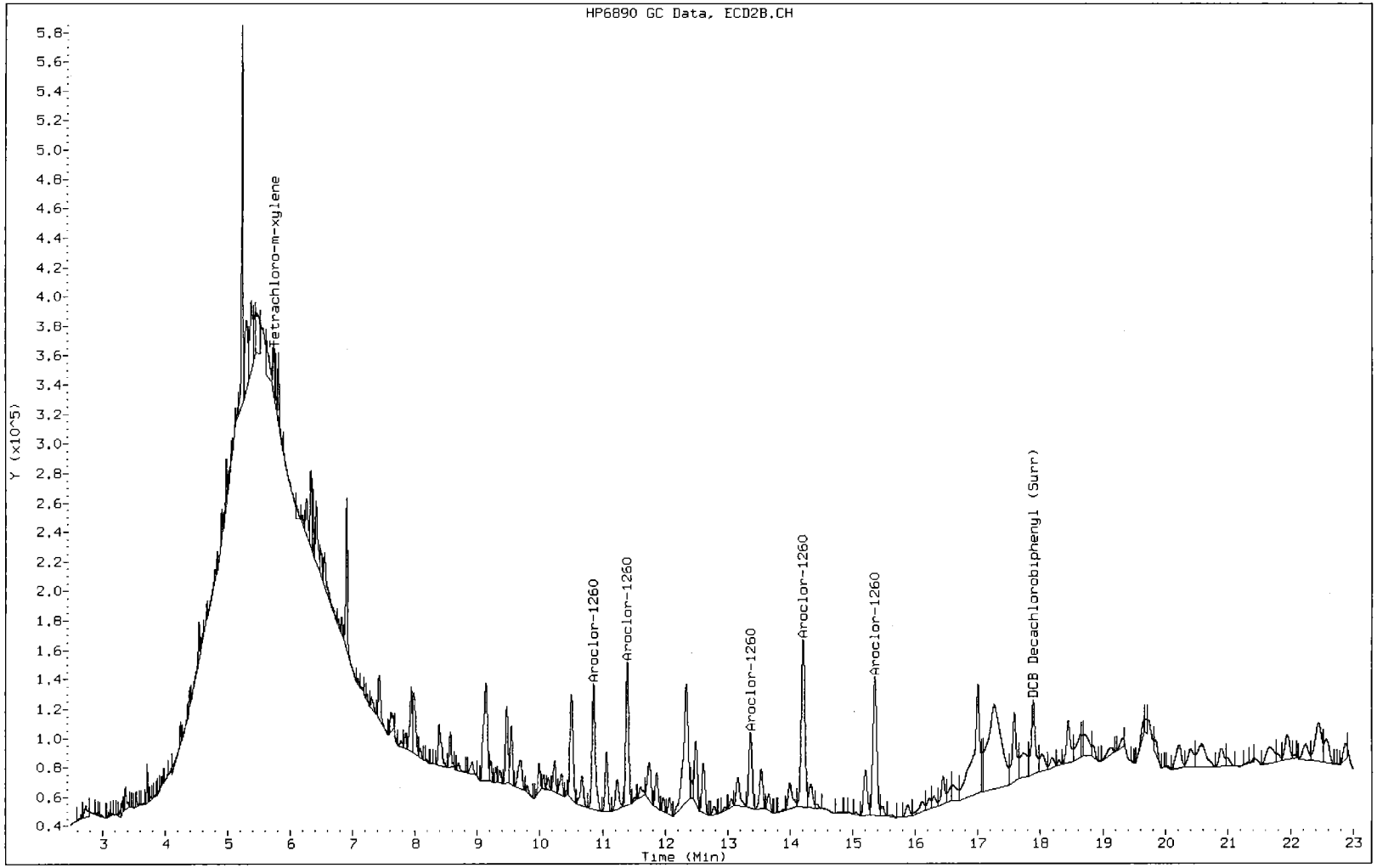
Client ID:

Instrument: gc10.i

Sample Info: 09303B8082ALL.b

Operator: 402331

SD-115-02



Data File: T0930737.D

Date: 30-SEP-2013 19:37

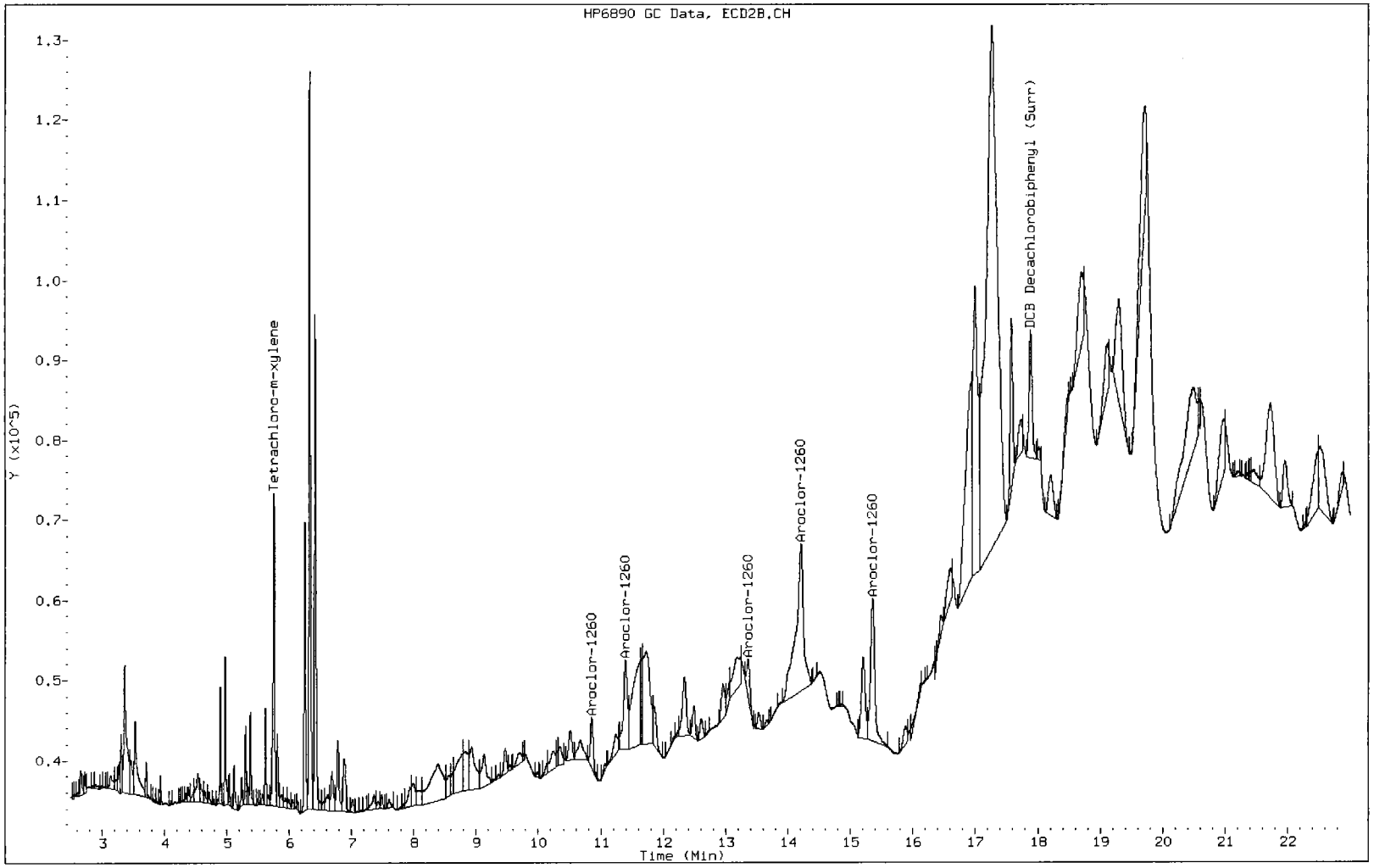
Client ID:

Instrument: gc10.i

Sample Info: 09303B8082ALL.b

Operator: 402331

SD-115-03



Data File: T0930732.D

Date: 30-SEP-2013 17:01

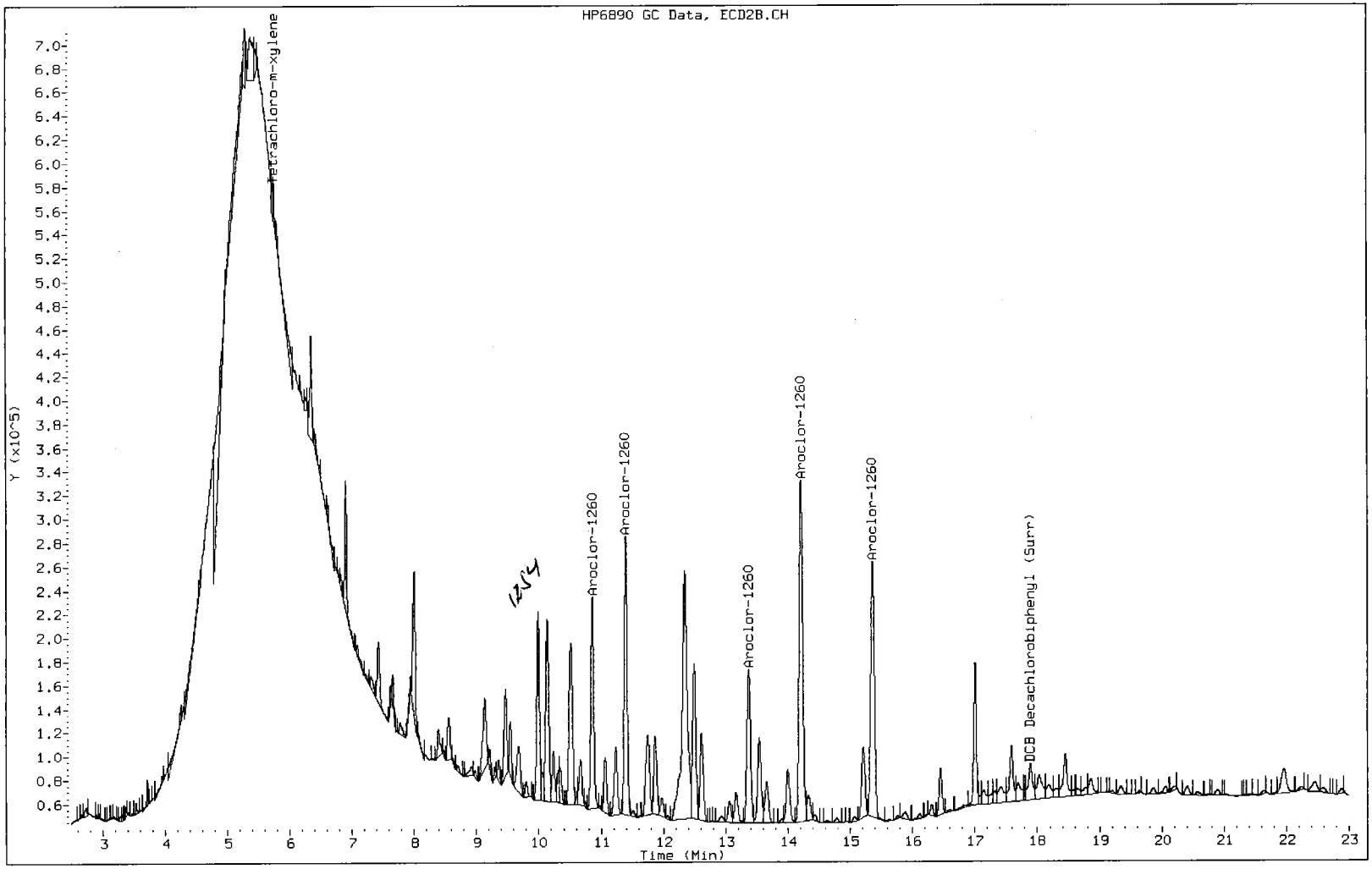
SD-115-05

Client ID:

Instrument: gc10.i

Sample Info: 09303B8082ALL.b

Operator: 402331



10/15/2013

Data File: T0930674.D

Date: 27-SEP-2013 10:10

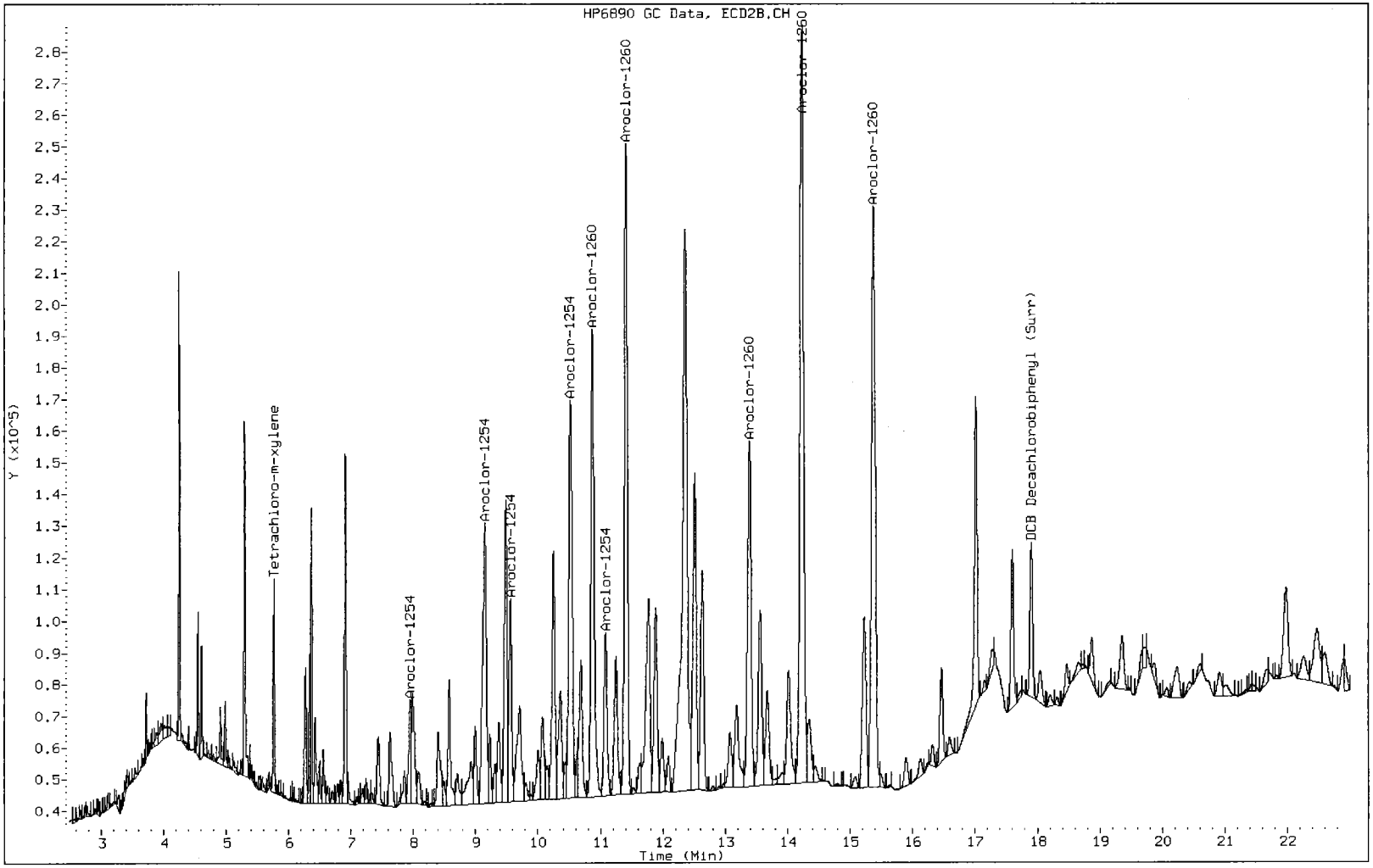
Client ID:

Instrument: gc10.i

Sample Info: 09273B8082ALL.b

Operator: 402331

SD-117-01



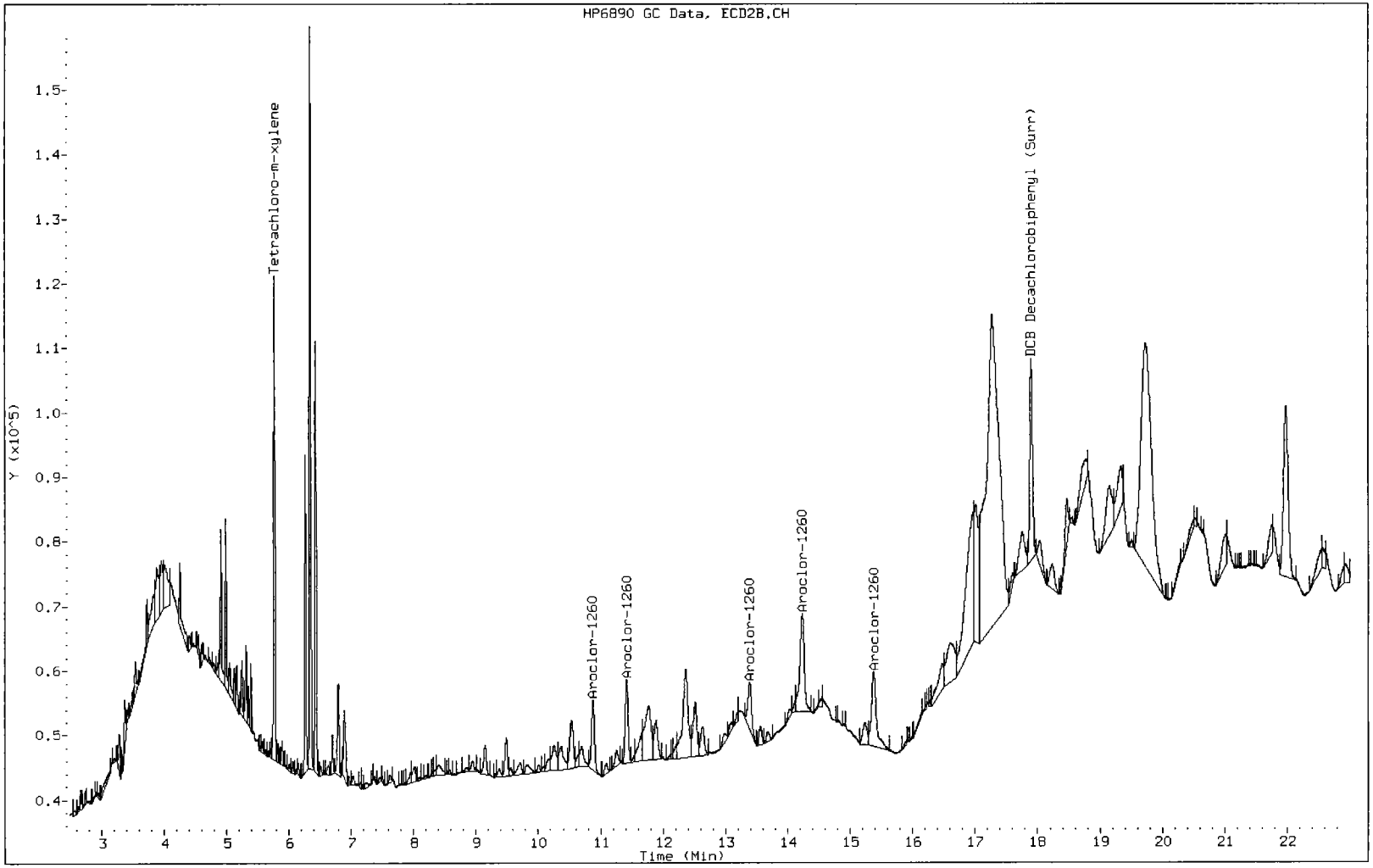
Data File: T0930675.D

Date: 27-SEP-2013 10:44

SD-117-02

Client ID: Instrument: gc10.i

Sample Info: 09273B8082ALL.b Operator: 402331



Data File: T0930673.D

Date: 27-SEP-2013 09:40

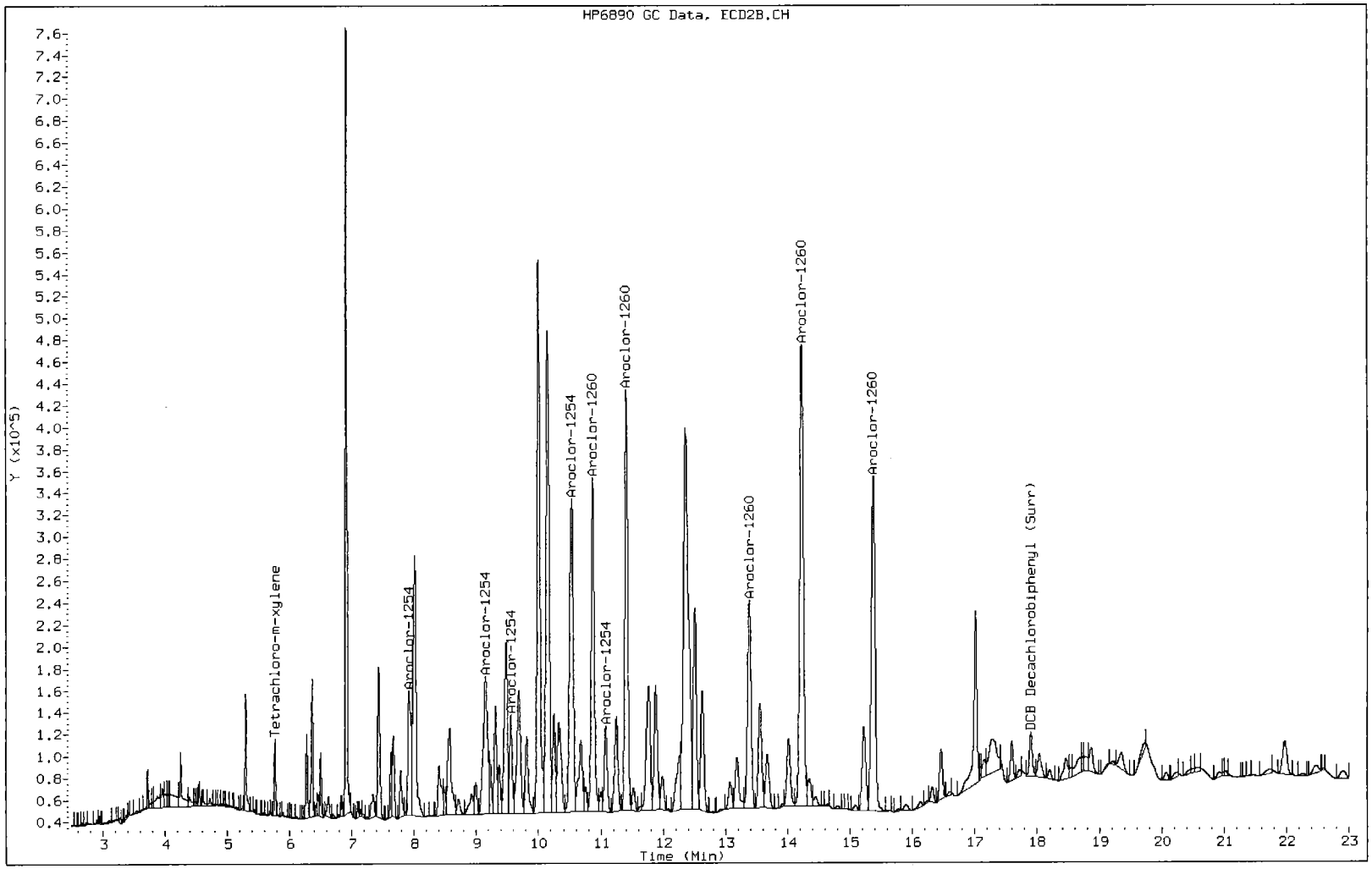
Client ID:

Instrument: gc10.i

SD-117-SS

Sample Info: 09273B8082ALL.b

Operator: 402331



Data File: T0930677.D

Date: 27-SEP-2013 11:47

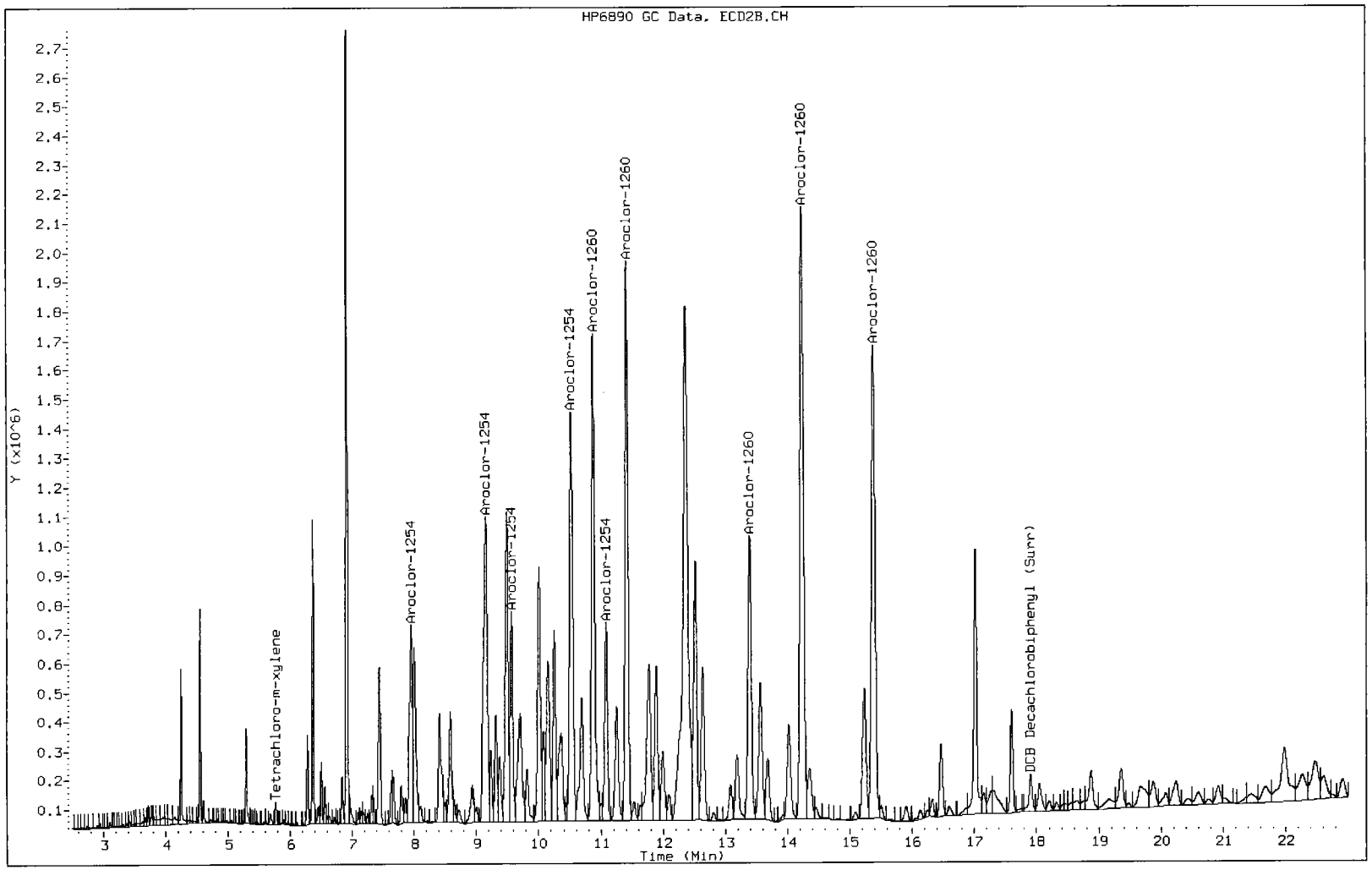
SD-118-01

Client ID:

Instrument: gc10.i

Sample Info: 09273B8082ALL.b

Operator: 402331



10/15/2013

Data File: T0930678.D

Date: 27-SEP-2013 12:18

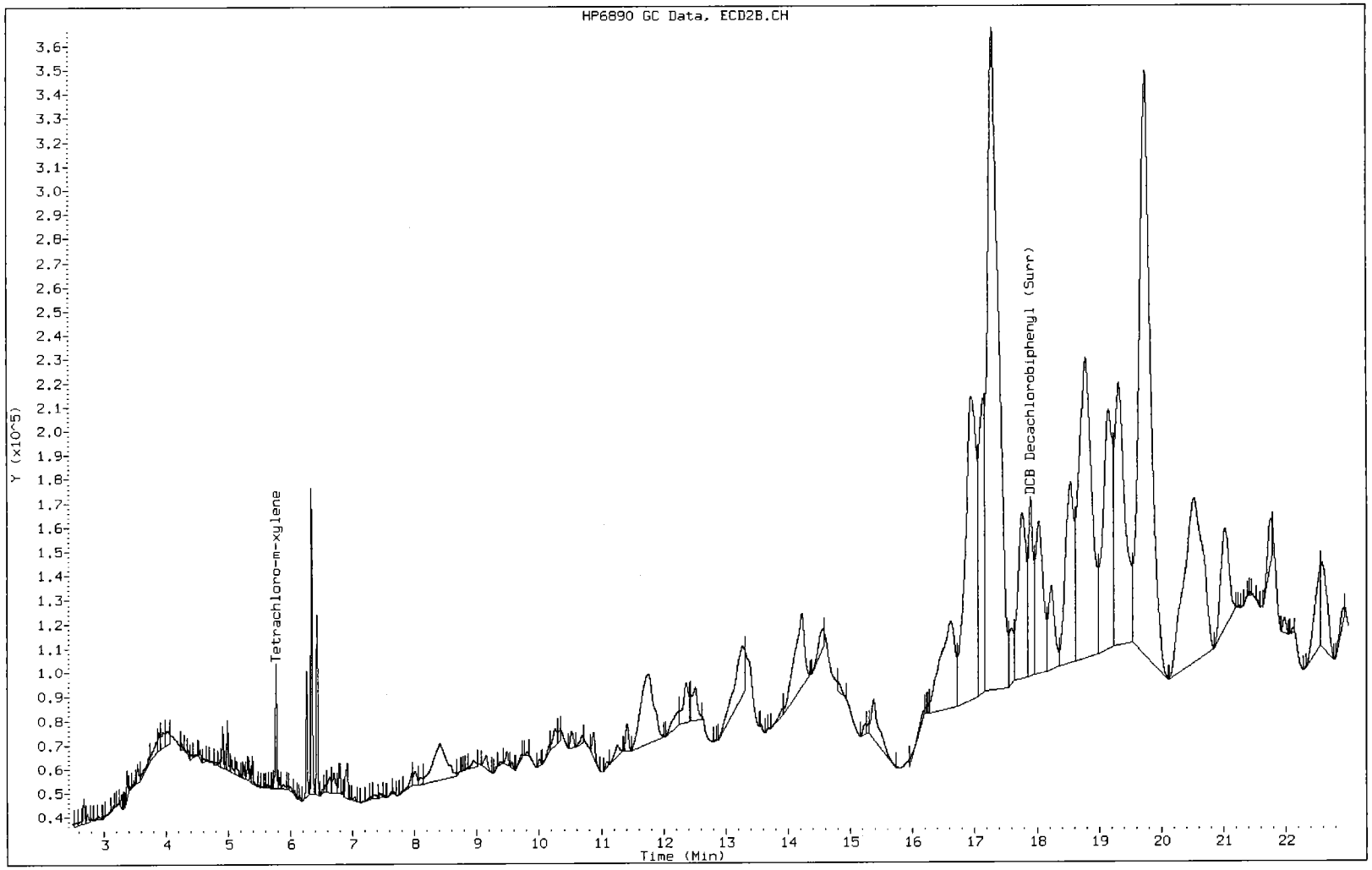
Client ID:

Instrument: gc10.i

Sample Info: 09273B8082ALL.b

Operator: 402331

SD-118-02
All ND



Data File: T0930679.D

Date: 27-SEP-2013 12:50

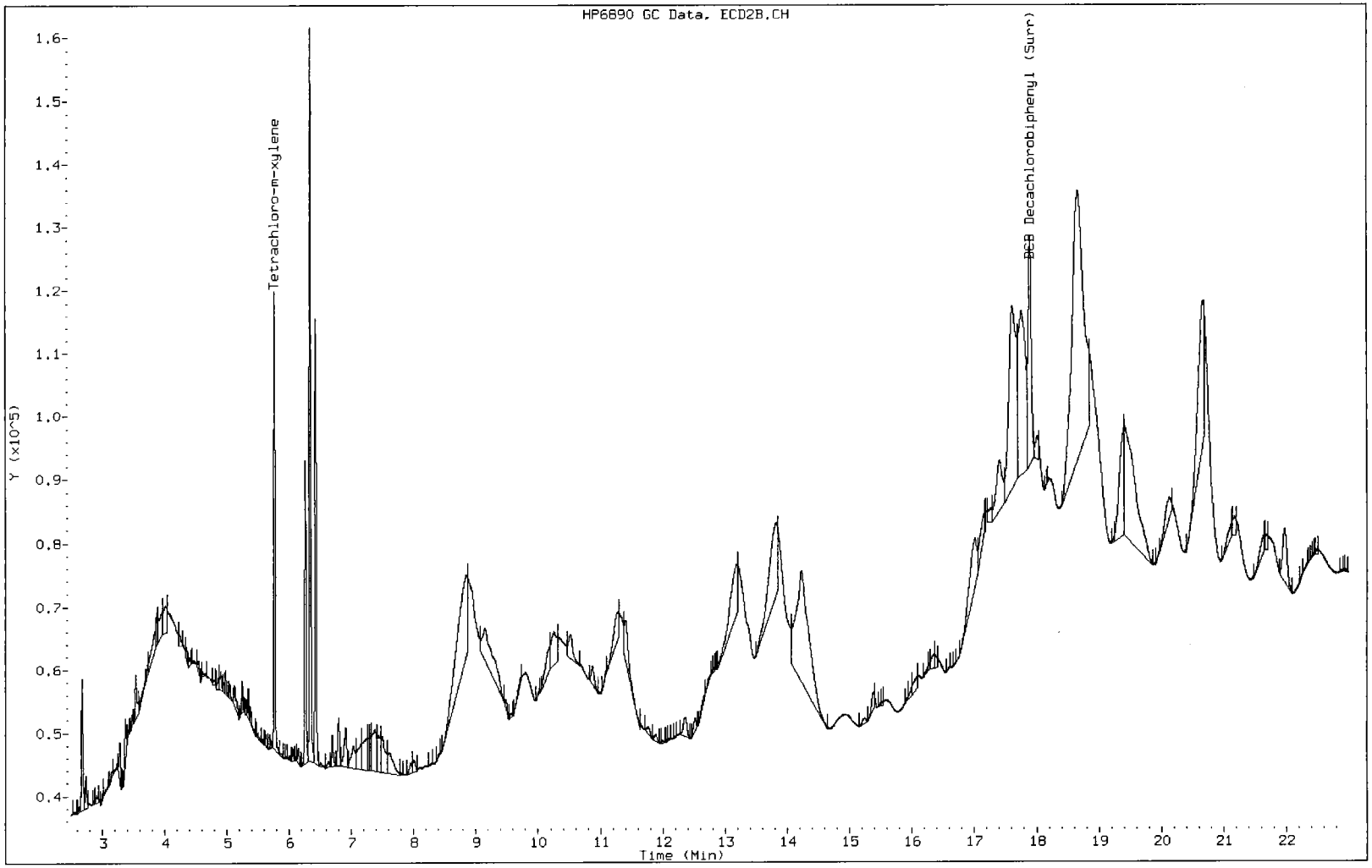
Client ID:

Instrument: gc10.i

Sample Info: 09273B8082ALL.b

Operator: 402331

SD-118-03
All ND



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Date: 27-SEP-2013 11:15

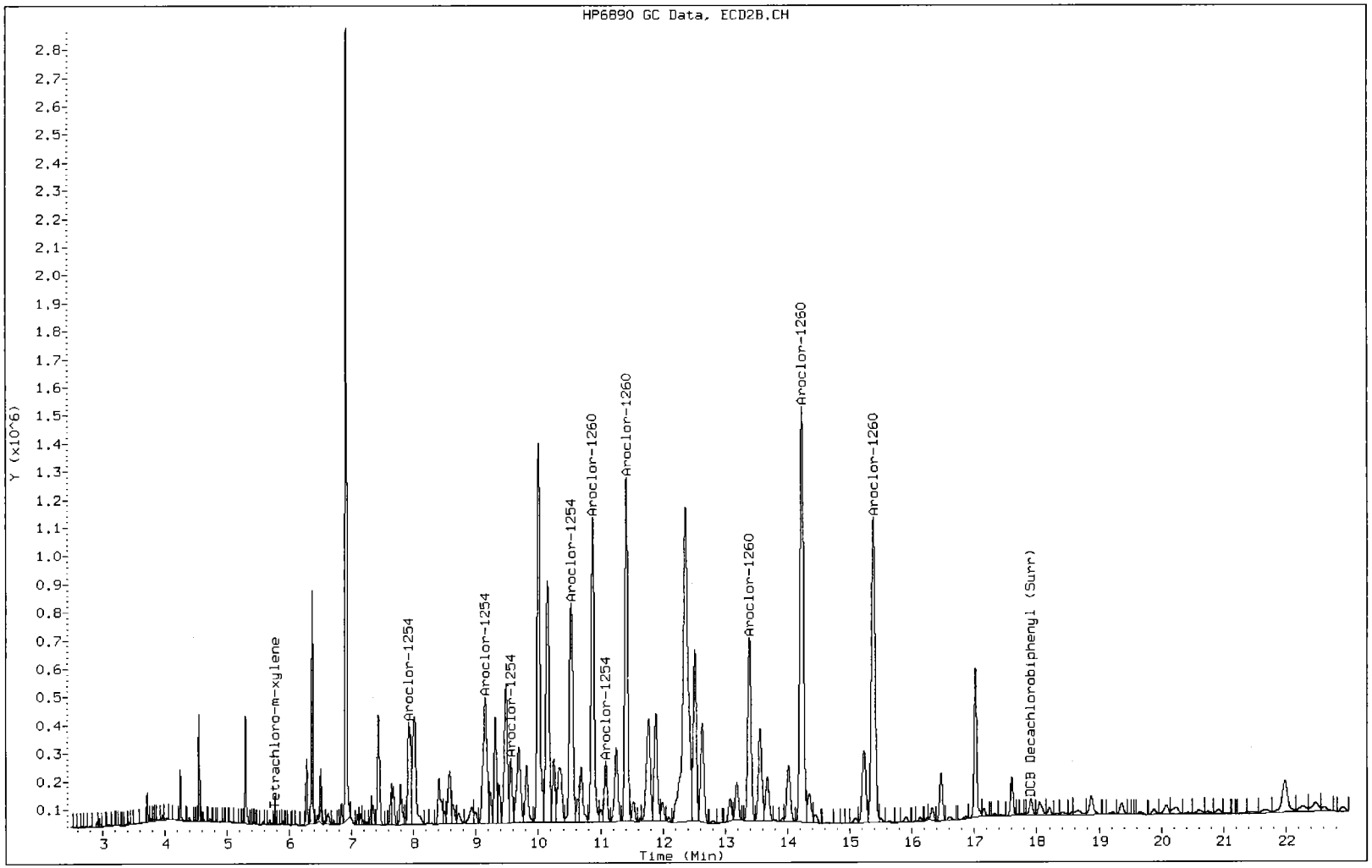
Client ID:

Instrument: gc10.i

Sample Info: 09273B8082ALL.b

Operator: 402331

SD-118-55



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Date: 30-SEP-2013 23:17

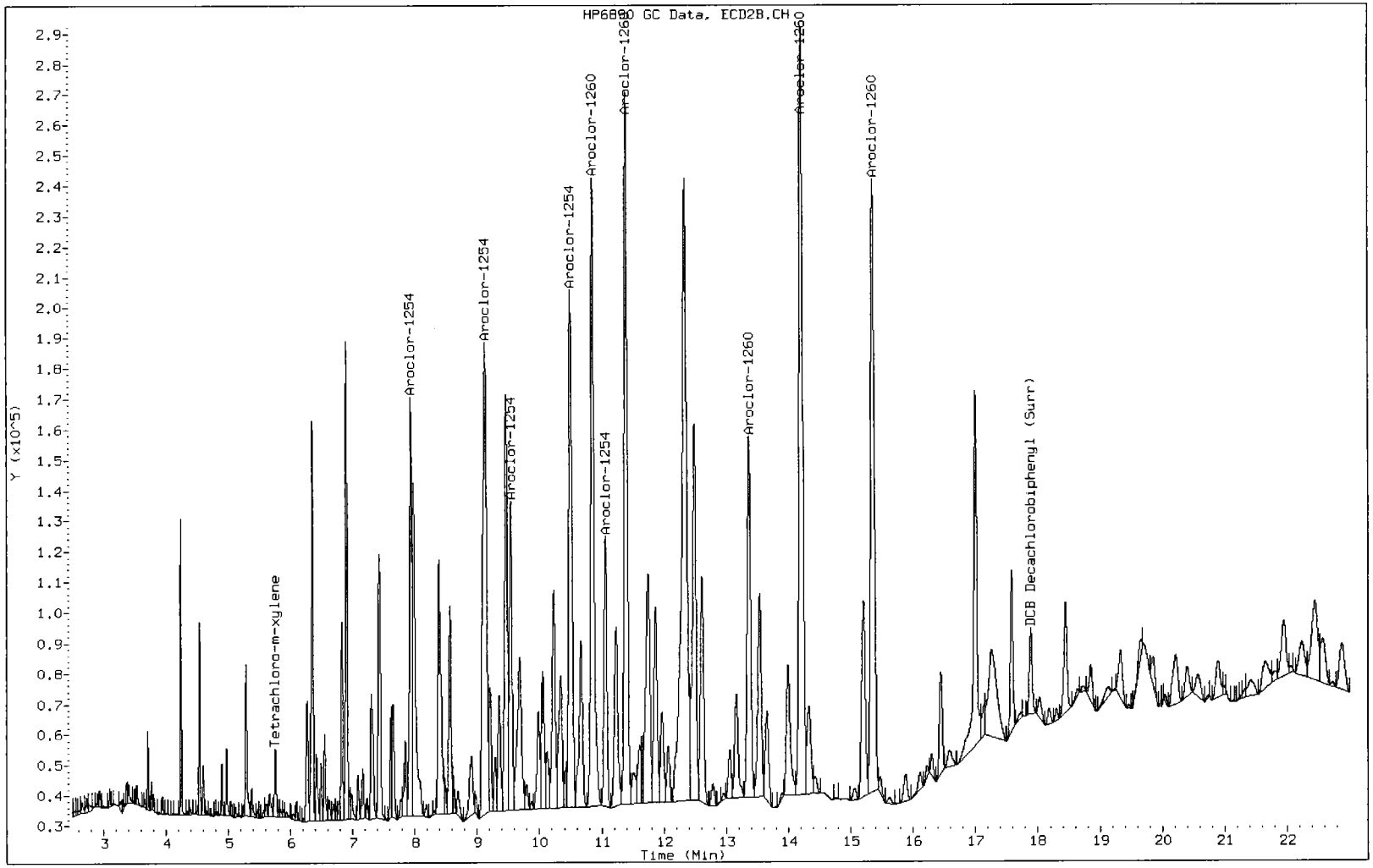
SD-119-01

Client ID:

Instrument: gc10.i

Sample Info: 09303B8082ALL.b

Operator: 402331



10/15/2013

Data File: T0930745.D

Date: 30-SEP-2013 23:49

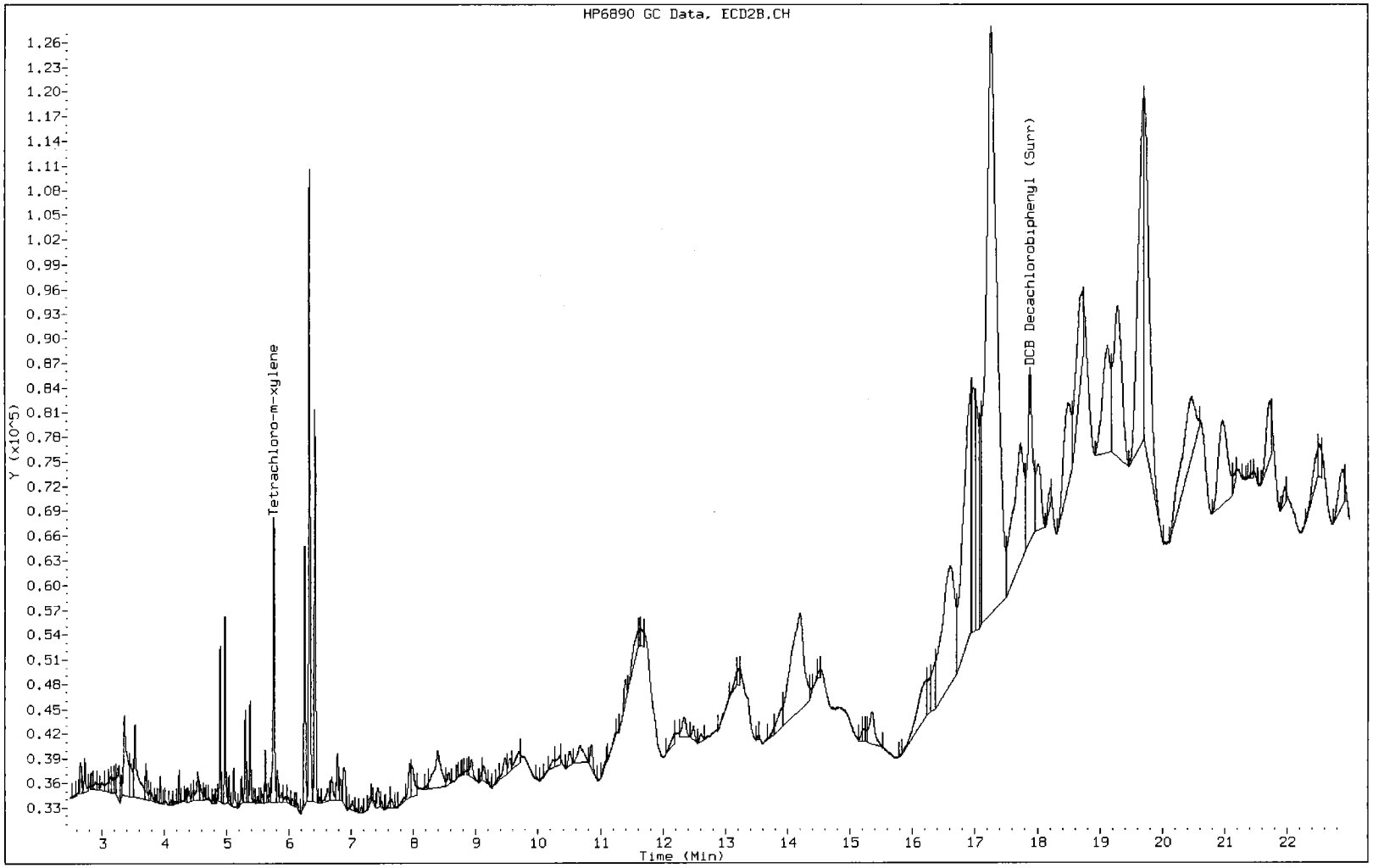
Client ID:

Instrument: gc10.i

Sample Info: 09303B8082ALL.b

Operator: 402331

SD-119-02
All ND



Data File: T0930746.D

Date: 01-OCT-2013 00:20

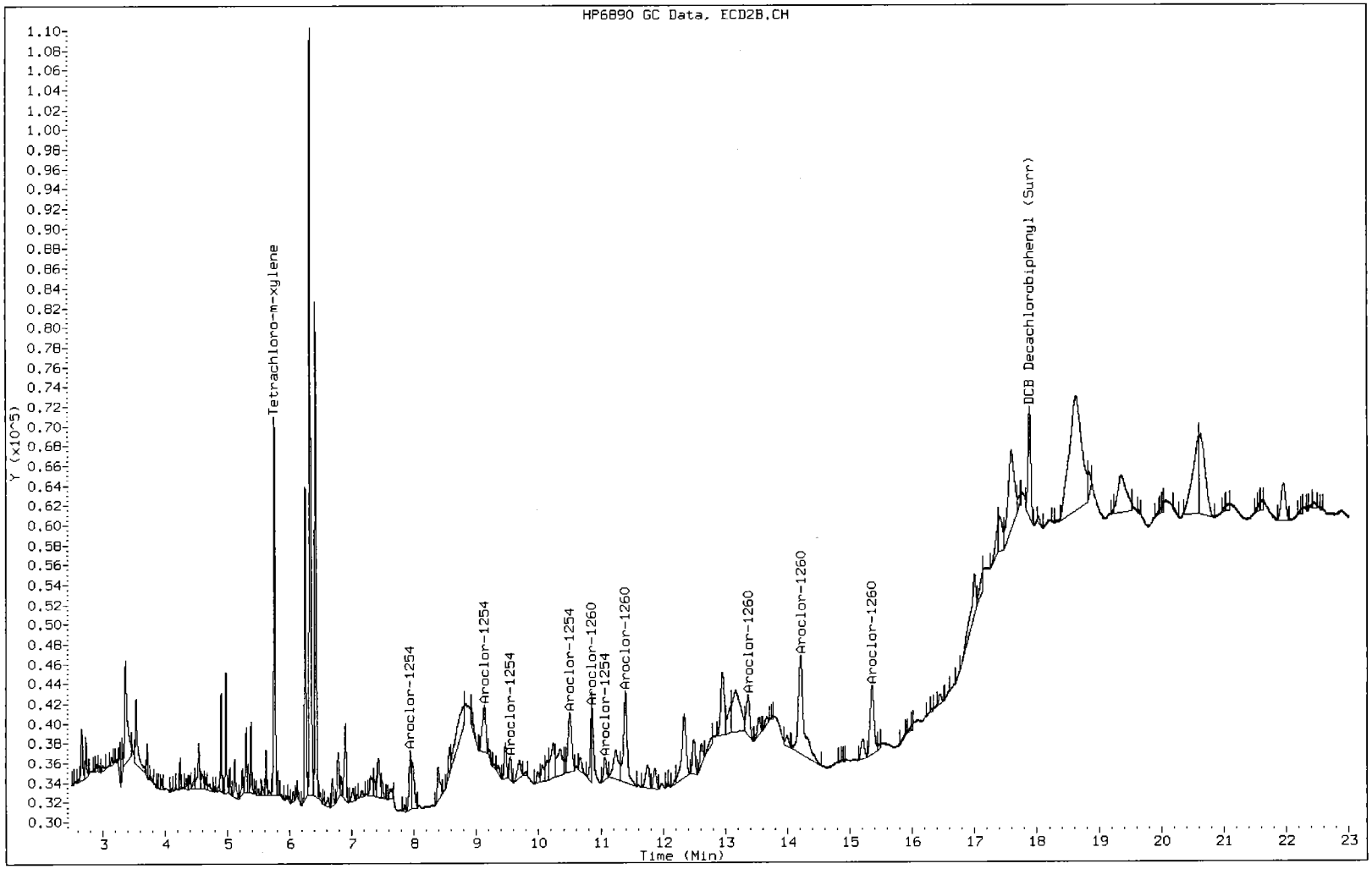
SD-119-03

Client ID:

Instrument: gc10.i

Sample Info: 09303B8082ALL.b

Operator: 402331



Data File: T0930743.D

Date: 30-SEP-2013 22:46

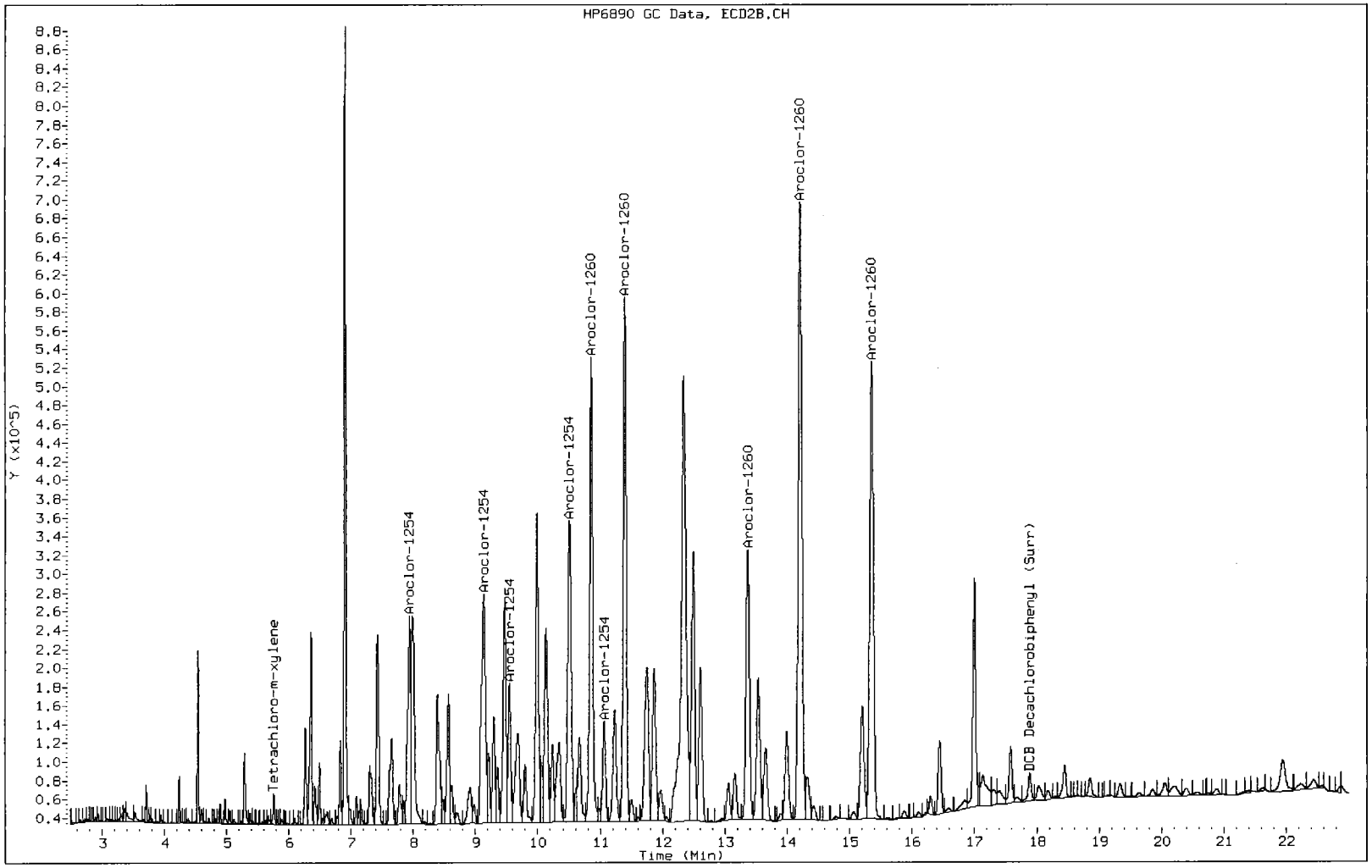
SD-119-55

Client ID:

Instrument: gc10.i

Sample Info: 09303B8082ALL.b

Operator: 402331



Data File: T0930681.D

Date: 27-SEP-2013 13:52

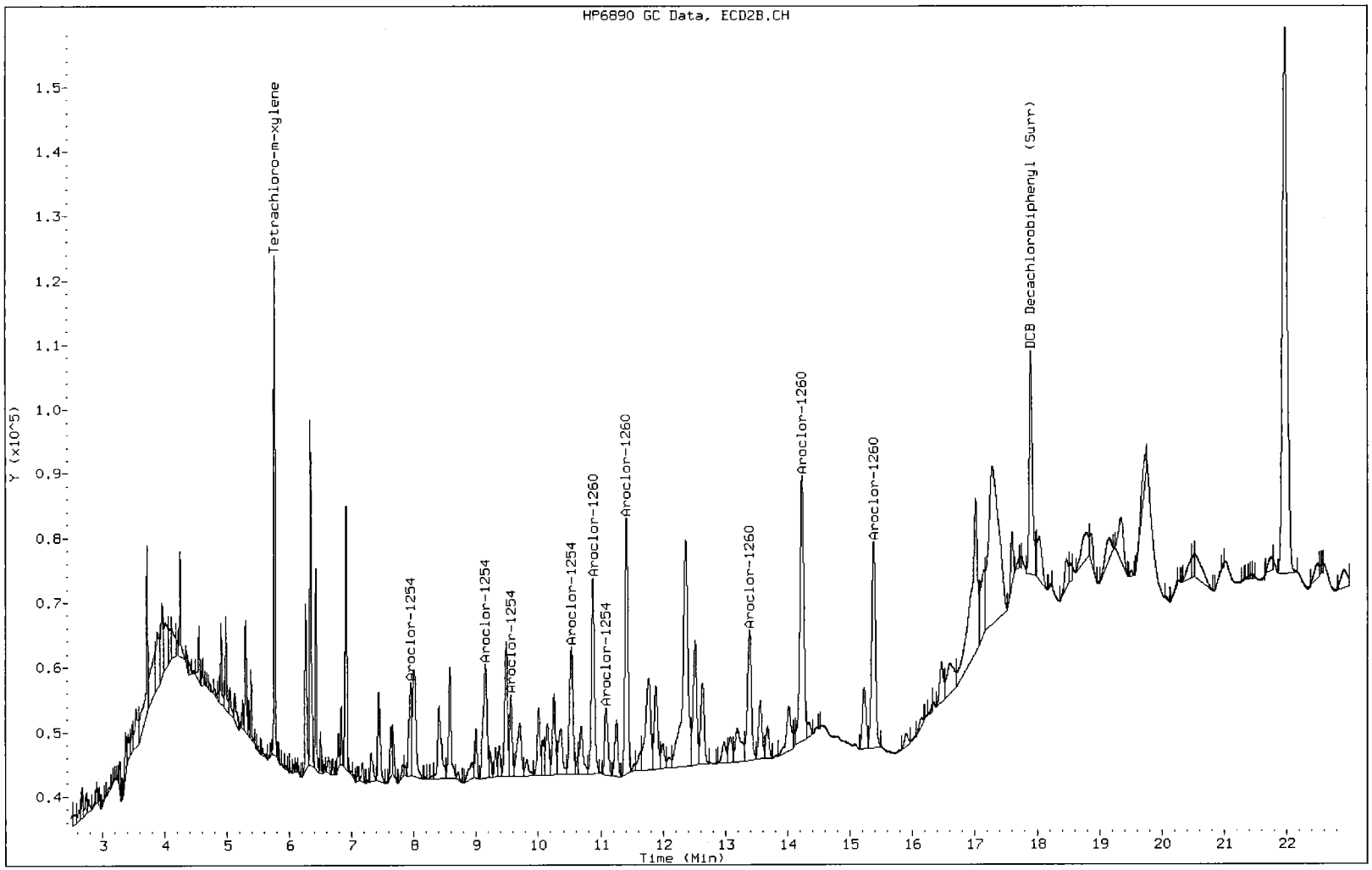
Client ID:

Instrument: gc10.i

Sample Info: 09273B8082ALL.b

Operator: 402331

SD-120-01



Data File: T0930682.D

Date: 27-SEP-2013 14:22

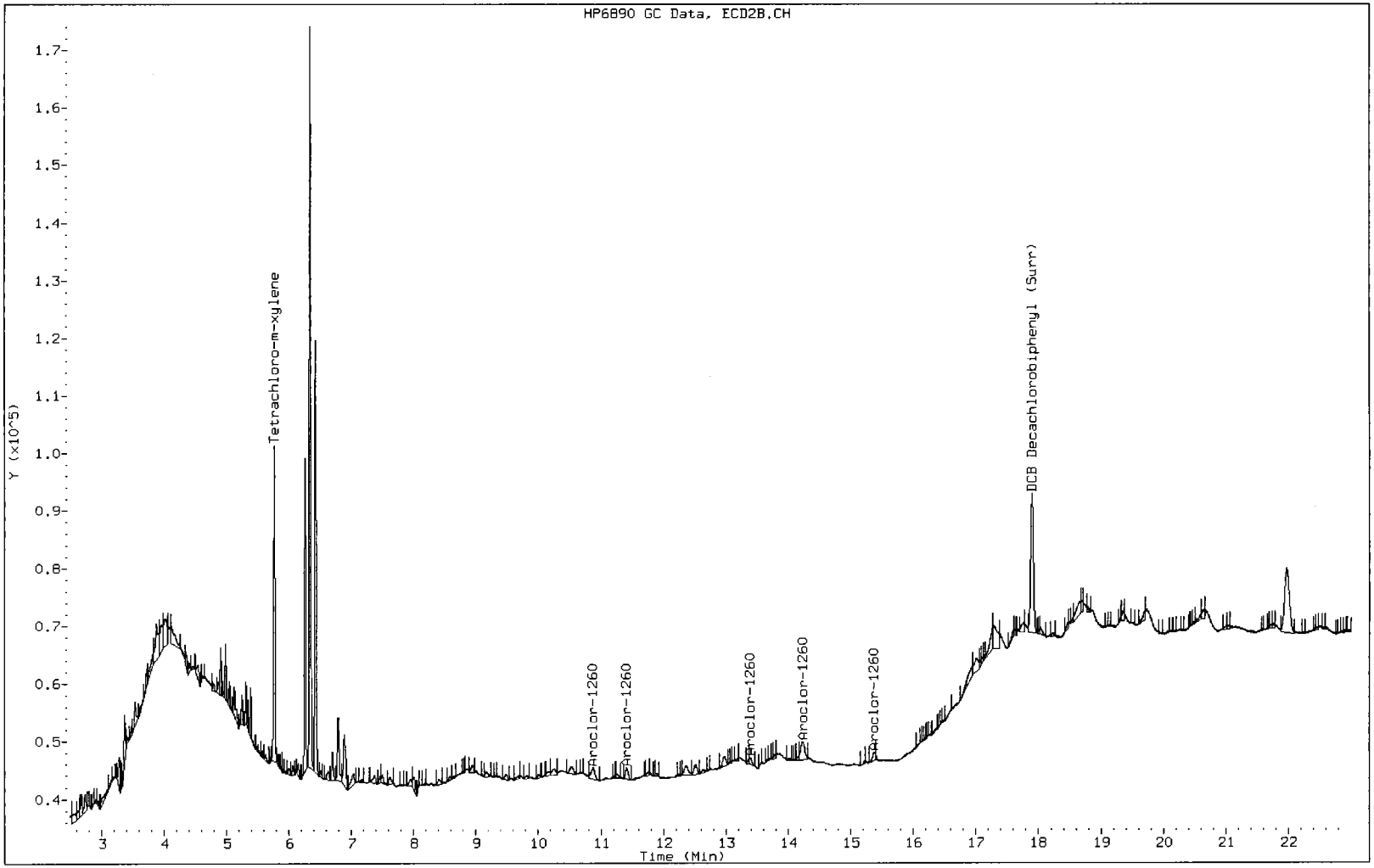
Client ID:

Instrument: gc10.i

Sample Info: 09273B8082ALL.b

Operator: 402331

SD-120-02



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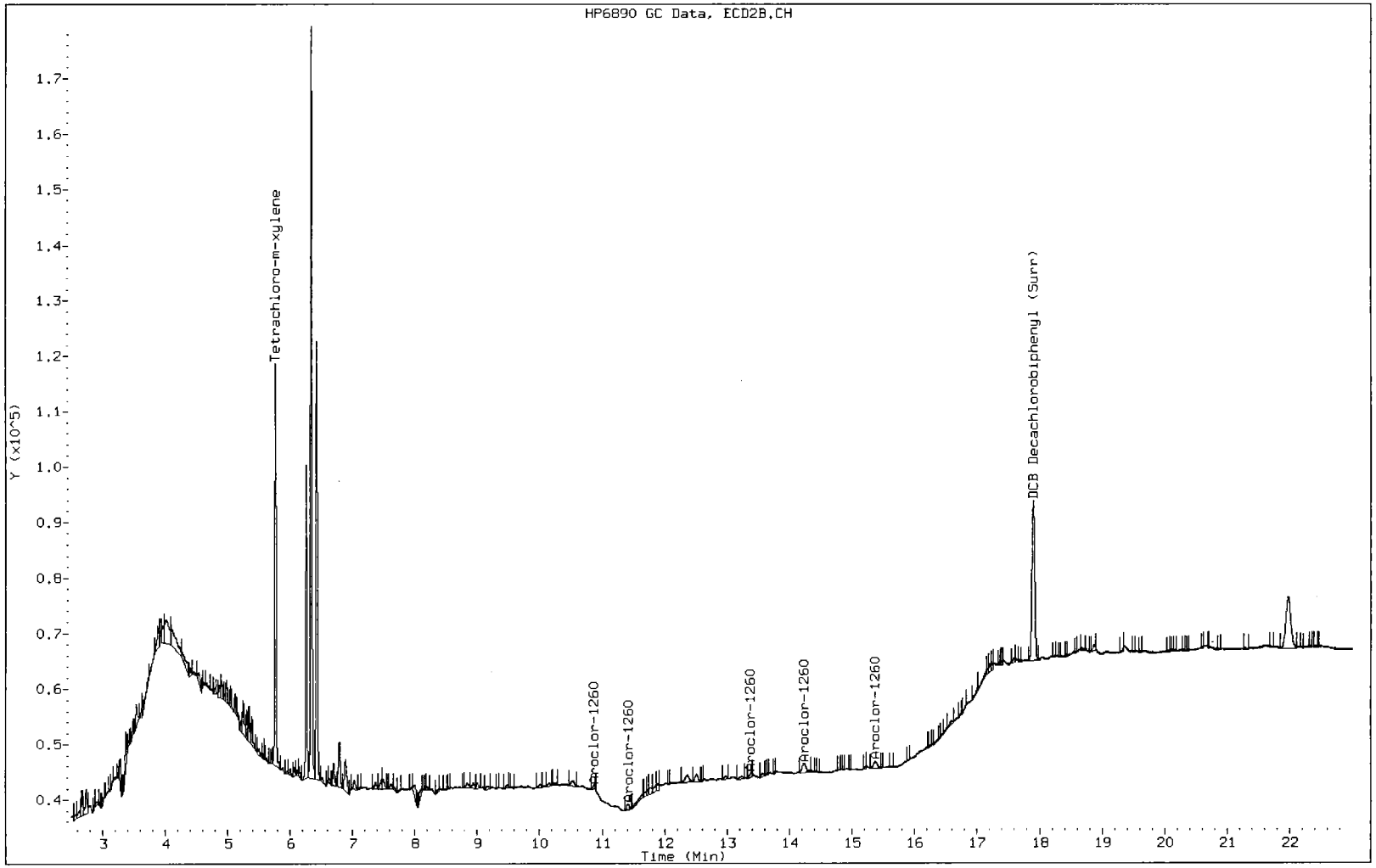
Client ID:

Instrument: gc10.i

SD-120-03

Sample Info: 09273B8082ALL.b

Operator: 402331



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Date: 27-SEP-2013 13:22

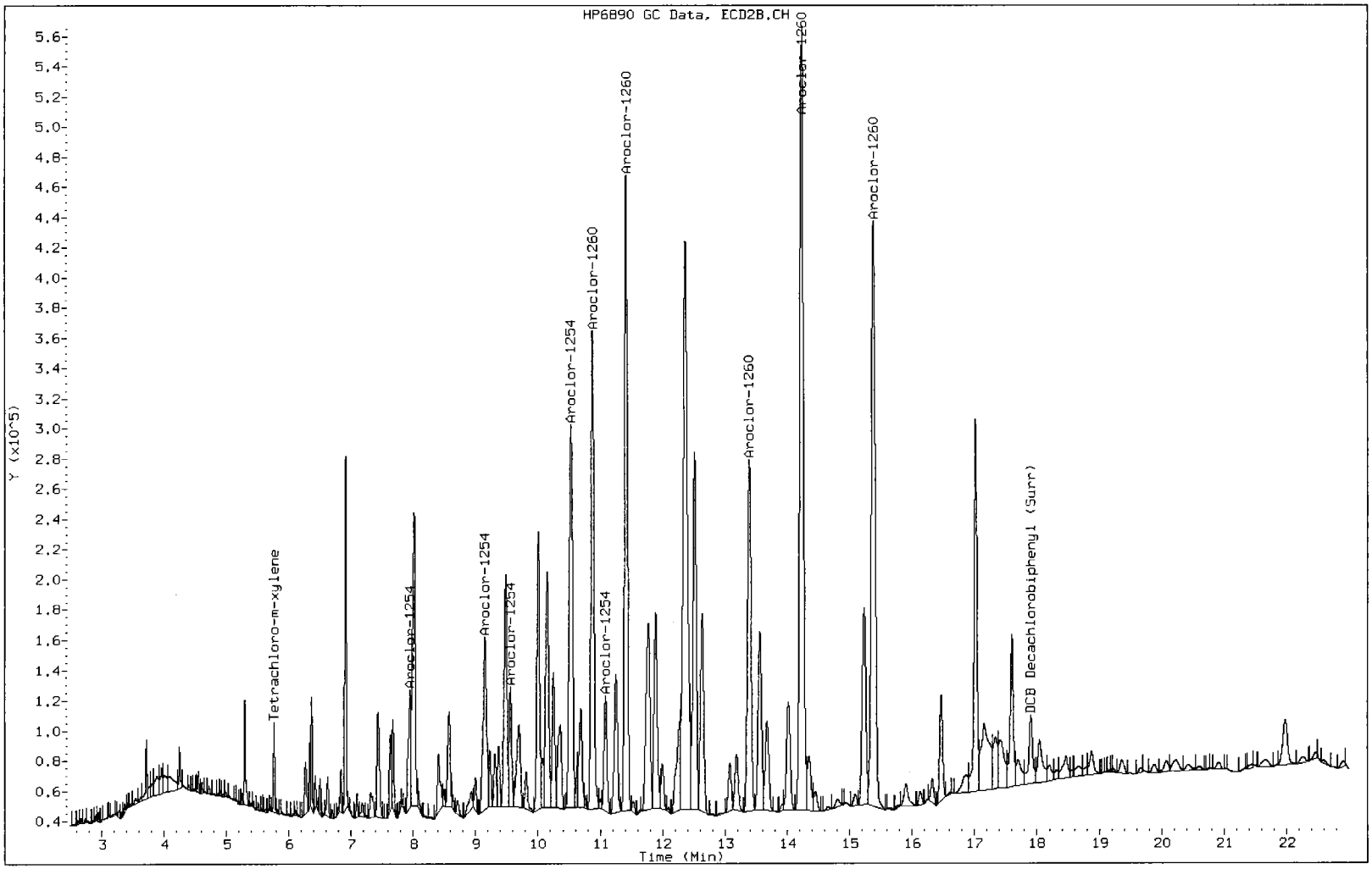
SD-120-55

Client ID:

Instrument: gc10.i

Sample Info: 09273B8082ALL.b

Operator: 402331



1. SD-155; Aroclor 1260

$\frac{522951}{385146.357} = 1.3578$

$\frac{481813}{456361.071} = 1.05588$

$\frac{165580}{338452.857} = 0.4892$

$\frac{432810}{686842.214} = 0.6301$

$\frac{438278}{508484.893} = 0.8619$

$= \frac{1.3578 + 1.0558 + 0.4892 + 0.6301 + 0.8619}{5}$

$= 0.8790 * 50 * \frac{1mL}{30.1g} * \frac{1}{0.313} * 1000$

$= 4665$

2. SD-154; Aroclor 1260

$\frac{597891}{385146.357} = 1.5524$

$\frac{578677}{456361.071} = 1.2680$

$\frac{205988}{338452.857} = 0.6086$

$\frac{554454}{686842.214} = 0.8073$

$\frac{562705}{508484.893} = 1.1066$

$= \frac{1.5524 + 1.2680 + 0.6086 + 0.8073 + 1.1066}{5}$

$= 1.0686 * 50 * \frac{1mL}{30.0g} * \frac{1}{0.323} * 1000 =$

$= 5514 \mu g/kg$

5. SD-152, Aroclor 1260

$$\frac{243459}{385146.357} = 0.6321$$

$$\frac{259396}{456361.071} = 0.5684$$

$$\frac{100615}{338452.857} = 0.2973$$

$$\frac{221115}{686842.214} = 0.3219$$

$$\frac{184704}{508484.893} = 0.3632$$

$$= \frac{0.6321 + 0.5684 + 0.2973 + 0.3219 + 0.363}{5}$$

$$= 0.4366 * 5 * \frac{1mL}{30.0g} * 1000 * \frac{1}{0.373}$$

$$= 195.1 \, ug/kg$$

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 14:10 Calibration End Date: 09/23/2013 17:19 Calibration ID: 11476

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/7	T0930519.D
Level 2	IC 180-84799/8	T0930520.D
Level 3	IC 180-84799/9	T0930521.D
Level 4	ICRT 180-84799/10	T0930522.D
Level 5	IC 180-84799/11	T0930523.D
Level 6	IC 180-84799/12	T0930524.D
Level 7	IC 180-84799/13	T0930525.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
PCB-1016 Peak 1	310300 246993	271100 250661	279405 241612	261666	Ave		265962.357				8.9		20.0			
PCB-1016 Peak 2	592700 486048	522780 483484	539680 466854	505710	Ave		513893.643				8.3		20.0			
PCB-1016 Peak 3	791600 710868	713900 738408	756520 725823	717158	Ave		736325.250				4.0		20.0			
PCB-1016 Peak 4	341500 290709	310080 300127	318500 286570	299104	Ave		306655.750				6.1		20.0			
PCB-1016 Peak 5	251200 220874	228300 233547	246640 221215	228264	Ave		232862.821				5.1		20.0			
PCB-1260 Peak 1	433300 361551	399040 362315	409150 348679	381990	Ave		385146.357				7.9		20.0			
PCB-1260 Peak 2	525600 423986	476560 428835	481395 407784	450368	Ave		456361.071				9.0		20.0			
PCB-1260 Peak 3	408500 315920	345860 310527	351850 299516	336998	Ave		338452.857				10.8		20.0			
PCB-1260 Peak 4	732100 661608	679240 663017	724700 659505	687726	Ave		686842.214				4.4		20.0			
PCB-1260 Peak 5	558600 486302	508880 486202	540195 477103	502112	Ave		508484.893				6.0		20.0			
Tetrachloro-m-xylene	23400000 19924880	19295600 20367230	20787200 20138305	20402120	Ave		20616476.4				6.4		20.0			
DCB Decachlorobiphenyl (Surr)	8240000 7568420	7833600 7609710	8455700 7339395	8070720	Ave		7873935.00				5.1		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 11:01 Calibration End Date: 09/23/2013 11:01 Calibration ID: 11470

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/1	T0930513.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1221 Peak 1	166838				Ave		166838.000						20.0			
PCB-1221 Peak 2	104272				Ave		104272.000						20.0			
PCB-1221 Peak 3	329624				Ave		329624.000						20.0			
PCB-1254 Peak 1	225388				Ave		225388.000						20.0			
PCB-1254 Peak 2	337660				Ave		337660.000						20.0			
PCB-1254 Peak 3	162344				Ave		162344.000						20.0			
PCB-1254 Peak 4	499968				Ave		499968.000						20.0			
PCB-1254 Peak 5	323028				Ave		323028.000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1

SDG No.:

Batch Number: 84645 Batch Start Date: 09/25/13 04:10 Batch Analyst: Geehring, Kevin

Batch Method: 3541 Batch End Date: 09/25/13 11:08

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	InitialAmount	GCMATRIXWORKS 00008	op-p/pcb sur 00009		
MB 180-84645/1		3541, 3665A, 3660B, 8082A		1.0 mL	30.0 g		25 uL		
LCS 180-84645/2		3541, 3665A, 3660B, 8082A		1.0 mL	30.0 g	25 uL	25 uL		
180-25321-A-15 MS	SD-120-03	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g	25 uL	25 uL		
180-25321-A-15 MSD	SD-120-03	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g	25 uL	25 uL		
180-25321-A-1	SD-152	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25321-A-2	SD-154	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25321-A-3	SD-155	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		25 uL		
180-25321-A-4	SD-153	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		25 uL		
180-25321-A-5	SD-117-SS	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		25 uL		
180-25321-A-6	SD-117-01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25321-A-7	SD-117-02	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25321-A-8	SD-118-SS	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25321-A-9	SD-118-01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		25 uL		
180-25321-A-10	SD-118-02	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25321-A-11	SD-118-03	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		25 uL		
180-25321-A-12	SD-120-SS	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25321-A-13	SD-120-01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.2 g		25 uL		
180-25321-A-14	SD-120-02	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25321-A-15	SD-120-03	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-152 | Lab Sample ID: 180-25321-1

Matrix: Sediment | Lab File ID: T0930669.D

Analysis Method: 8082A | Date Collected: 09/17/2013 11:03

Extraction Method: 3541 | Date Extracted: 09/25/2013 04:10

Sample wt/vol: 30.0(g) | Date Analyzed: 09/27/2013 07:38

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 62.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85122 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		5.6	0.83
11104-28-2	PCB-1221	ND		5.6	1.1
11141-16-5	PCB-1232	ND		5.6	0.96
53469-21-9	PCB-1242	ND		5.6	0.91
12672-29-6	PCB-1248	ND		5.6	0.53
11097-69-1	PCB-1254	180		5.6	0.79
11096-82-5	PCB-1260	190		5.6	0.79

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	376	X	31-150
877-09-8	Tetrachloro-m-xylene	94		31-150

Data File: \\PITSVR06\D\chem\gc10.i\09273B8082ALL.b\T0930669.D
Report Date: 27-Sep-2013 08:54

TestAmerica Pittsburgh

Data file : \\PITSVR06\D\chem\gc10.i\09273B8082ALL.b\T0930669.D
Lab Smp Id: 180-25321-a-1-d
Inj Date : 27-SEP-2013 07:38
Operator : 402331 Inst ID: gc10.i
Smp Info : 09273B8082ALL.b
Misc Info : 180-25321-a-1-d
Comment : 8082 PCB ANALYSIS
Method : \\PITSVR06\D\chem\gc10.i\09273B8082ALL.b\PCBBB_LL.m
Meth Date : 27-Sep-2013 08:53 oravecj Quant Type: ESTD
Cal Date : 23-SEP-2013 17:19 Cal File: T0930525.D
Als bottle: 51
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: PITPC-113

Concentration Formula: Amt * DF * Vt/Vo/Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	40000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
$ 2 Tetrachloro-m-xylene					CAS #: 877-09-8		
5.767	5.766	0.001	77627	0.00377	0.15061		(R)
3 Aroclor-1232					CAS #: 11141-16-5		
Operator disabled compound identification.							
1 Aroclor-1221					CAS #: 11104-28-2		
Operator disabled compound identification.							
4 Aroclor-1016					CAS #: 12674-11-2		
Operator disabled compound identification.							

Data File: \\PITSVR06\D\chem\gc10.i\09273B8082ALL.b\T0930669.D
Report Date: 27-Sep-2013 08:54

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1242					CAS #: 53469-21-9		
Operator disabled compound identification.							
6 Aroclor-1248					CAS #: 12672-29-6		
Operator disabled compound identification.							
7 Aroclor-1254					CAS #: 11097-69-1		
7.949	7.956	-0.007	127080	0.56383	22.553	0.00- 0.00	0.00
9.144	9.151	-0.007	163758	0.48498	19.399	112.23- 112.23	0.00
9.566	9.566	0.000	0	0.00000	0.00000	97.40- 97.40	0.00
10.514	10.523	-0.009	145814	0.29165	11.666	71.09- 71.09	0.00
11.078	11.090	-0.012	81257	0.25155	10.062	85.01- 85.01	0.00
Average of Peak Concentrations =					15.920		
8 Aroclor-1260					CAS #: 11096-82-5		
10.872	10.871	0.001	243459	0.63212	25.285	0.00- 0.00	0.00
11.409	11.409	0.000	259396	0.56840	22.736	115.86- 115.86	0.00
13.384	13.382	0.002	100615	0.29728	11.891	136.91- 136.91	0.00
14.223	14.225	-0.002	221115	0.32193	12.877	140.00- 140.00	0.00
15.373	15.372	0.001	184704	0.36324	14.530	128.33- 128.33	0.00
Average of Peak Concentrations =					17.464		
9 Aroclor-1262					CAS #: 37324-23-5		
Operator disabled compound identification.							
10 Aroclor-1268					CAS #: 11100-14-4		
Operator disabled compound identification.							
$ 11 DCB Decachlorobiphenyl (Surr)					CAS #: 2051-24-3		
17.898	17.898	0.000	119043	0.01512	0.60474		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh
Job No.: 180-25321-1
SDG No.:
Client Sample ID: SD-153
Lab Sample ID: 180-25321-4
Matrix: Sediment
Lab File ID: T0930672.D
Analysis Method: 8082A
Date Collected: 09/18/2013 07:42
Extraction Method: 3541
Date Extracted: 09/25/2013 04:10
Sample wt/vol: 30.1(g)
Date Analyzed: 09/27/2013 09:10
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 5
Injection Volume: 1(uL)
GC Column: RTX-1701 ID: 0.53(mm)
% Moisture: 67.0
GPC Cleanup:(Y/N) N
Analysis Batch No.: 85122
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		6.3	0.93
11104-28-2	PCB-1221	ND		6.3	1.2
11141-16-5	PCB-1232	ND		6.3	1.1
53469-21-9	PCB-1242	ND		6.3	1.0
12672-29-6	PCB-1248	ND		6.3	0.59
11097-69-1	PCB-1254	ND		6.3	0.89
11096-82-5	PCB-1260	1700		6.3	0.89

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	313	X	31-150
877-09-8	Tetrachloro-m-xylene	84		31-150

Data File: \\PITSVR06\D\chem\gc10.i\09273B8082ALL.b\T0930672.D
Report Date: 27-Sep-2013 12:23

TestAmerica Pittsburgh

Data file : \\PITSVR06\D\chem\gc10.i\09273B8082ALL.b\T0930672.D
Lab Smp Id: 180-25321-a-4-d
Inj Date : 27-SEP-2013 09:10
Operator : 402331 Inst ID: gc10.i
Smp Info : 09273B8082ALL.b
Misc Info : 180-25321-a-4-d
Comment : 8082 PCB ANALYSIS
Method : \\PITSVR06\D\chem\gc10.i\09273B8082ALL.b\PCBBB_LL.m
Meth Date : 27-Sep-2013 08:53 oravecj Quant Type: ESTD
Cal Date : 23-SEP-2013 17:19 Cal File: T0930525.D
Als bottle: 54
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: PITPC-113

Concentration Formula: Amt * DF * Vt/Vo/Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	40000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 2 Tetrachloro-m-xylene					CAS #: 877-09-8		
5.768	5.766	0.002	69270	0.00336	0.13440		(R)
3 Aroclor-1232					CAS #: 11141-16-5		
Operator disabled compound identification.							
1 Aroclor-1221					CAS #: 11104-28-2		
Operator disabled compound identification.							
4 Aroclor-1016					CAS #: 12674-11-2		
Operator disabled compound identification.							

Data File: \\PITSVR06\D\chem\gc10.i\09273B8082ALL.b\T0930672.D
Report Date: 27-Sep-2013 12:23

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1242					CAS #: 53469-21-9		

Peaks not detected for Quant. or Qual. signal(s).

---

6 Aroclor-1248					CAS #: 12672-29-6		

Operator disabled compound identification.

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7 Aroclor-1254					CAS #: 11097-69-1		

Operator disabled compound identification.

---

8 Aroclor-1260					CAS #: 11096-82-5		
10.871	10.871	0.000	2305322	5.98557	239.42	0.00- 0.00	0.00
11.408	11.409	-0.001	1798192	3.94028	157.61	115.86- 115.86	0.00
13.385	13.382	0.003	583070	1.72275	68.910	136.91- 136.91	0.00
14.223	14.225	-0.002	1791811	2.60877	104.35	140.00- 140.00	0.00
15.372	15.372	0.000	1461632	2.87448	114.98	128.33- 128.33	0.00
		Average of Peak Concentrations =			137.05		

---

9 Aroclor-1262					CAS #: 37324-23-5		

Operator disabled compound identification.

---

10 Aroclor-1268					CAS #: 11100-14-4		

Operator disabled compound identification.

$ 11 DCB Decachlorobiphenyl (Surr)					CAS #: 2051-24-3		
17.898	17.898	0.000	98867	0.01256	0.50225		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-154 | Lab Sample ID: 180-25321-2

Matrix: Sediment | Lab File ID: T0930694.D

Analysis Method: 8082A | Date Collected: 09/17/2013 13:40

Extraction Method: 3541 | Date Extracted: 09/25/2013 04:10

Sample wt/vol: 30.0(g) | Date Analyzed: 09/27/2013 20:36

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 50

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 67.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85122 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		65	9.6
11104-28-2	PCB-1221	ND		65	12
11141-16-5	PCB-1232	ND		65	11
53469-21-9	PCB-1242	ND		65	11
12672-29-6	PCB-1248	ND		65	6.1
11097-69-1	PCB-1254	ND		65	9.2
11096-82-5	PCB-1260	5500		65	9.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	647	X D	31-150
877-09-8	Tetrachloro-m-xylene	103	D	31-150

Data File: \\PITSVR06\D\chem\gc10.i\09273B8082ALL.b\T0930694.D
Report Date: 30-Sep-2013 03:06

TestAmerica Pittsburgh

Data file : \\PITSVR06\D\chem\gc10.i\09273B8082ALL.b\T0930694.D
Lab Smp Id: 180-25321-a-2-d
Inj Date : 27-SEP-2013 20:36
Operator : 402331 Inst ID: gc10.i
Smp Info : 09273B8082ALL.b
Misc Info : 180-25321-a-2-d
Comment : 8082 PCB ANALYSIS
Method : \\PITSVR06\D\chem\gc10.i\09273B8082ALL.b\PCBBB_LL.m
Meth Date : 30-Sep-2013 02:50 oravecj Quant Type: ESTD
Cal Date : 23-SEP-2013 17:19 Cal File: T0930525.D
Als bottle: 76
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: PITPC-113

Concentration Formula: Amt * DF * Vt/Vo/Vi * CpndVariable

Name	Value	Description
DF	50.000	Dilution Factor
Vt	40000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 2 Tetrachloro-m-xylene					CAS #: 877-09-8		
5.765	5.764	0.001	8516	4e-004	0.016523		(R)
3 Aroclor-1232					CAS #: 11141-16-5		
Operator disabled compound identification.							
1 Aroclor-1221					CAS #: 11104-28-2		
Operator disabled compound identification.							
4 Aroclor-1016					CAS #: 12674-11-2		
Operator disabled compound identification.							

Data File: \\PITSVR06\D\chem\gc10.i\09273B8082ALL.b\T0930694.D
Report Date: 30-Sep-2013 03:06

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1242					CAS #: 53469-21-9		

Peaks not detected for Quant. or Qual. signal(s).

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6 Aroclor-1248 CAS #: 12672-29-6

Operator disabled compound identification.

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7 Aroclor-1254 CAS #: 11097-69-1

Operator disabled compound identification.

---

8 Aroclor-1260 CAS #: 11096-82-5

10.869	10.866	0.003	597891	1.55237	3104.7	0.00- 0.00	0.00
11.405	11.402	0.003	578677	1.26802	2536.0	115.86- 115.86	0.00
13.382	13.377	0.005	205988	0.60862	1217.2	136.91- 136.91	0.00
14.218	14.216	0.002	554454	0.80725	1614.5	140.00- 140.00	0.00
15.369	15.363	0.006	562705	1.10663	2213.3	128.33- 128.33	0.00

Average of Peak Concentrations = 2137.2

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9 Aroclor-1262 CAS #: 37324-23-5

Operator disabled compound identification.

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10 Aroclor-1268 CAS #: 11100-14-4

Operator disabled compound identification.

$ 11 DCB Decachlorobiphenyl (Surr) CAS #: 2051-24-3

17.895	17.891	0.004	20462	0.00260	0.10395	(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-155 | Lab Sample ID: 180-25321-3

Matrix: Sediment | Lab File ID: T0930695.D

Analysis Method: 8082A | Date Collected: 09/17/2013 14:30

Extraction Method: 3541 | Date Extracted: 09/25/2013 04:10

Sample wt/vol: 30.1(g) | Date Analyzed: 09/27/2013 21:07

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 50

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: 68.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85122 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		66	9.9
11104-28-2	PCB-1221	ND		66	13
11141-16-5	PCB-1232	ND		66	11
53469-21-9	PCB-1242	ND		66	11
12672-29-6	PCB-1248	ND		66	6.3
11097-69-1	PCB-1254	ND		66	9.4
11096-82-5	PCB-1260	4700		66	9.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	455	X D	31-150
877-09-8	Tetrachloro-m-xylene	116	D	31-150

Data File: \\PITSVR06\D\chem\gc10.i\09273B8082ALL.b\T0930695.D
Report Date: 30-Sep-2013 03:06

TestAmerica Pittsburgh

Data file : \\PITSVR06\D\chem\gc10.i\09273B8082ALL.b\T0930695.D
Lab Smp Id: 180-25321-a-3-d
Inj Date : 27-SEP-2013 21:07
Operator : 402331 Inst ID: gc10.i
Smp Info : 09273B8082ALL.b
Misc Info : 180-25321-a-3-d
Comment : 8082 PCB ANALYSIS
Method : \\PITSVR06\D\chem\gc10.i\09273B8082ALL.b\PCBBB_LL.m
Meth Date : 30-Sep-2013 02:50 oravecj Quant Type: ESTD
Cal Date : 23-SEP-2013 17:19 Cal File: T0930525.D
Als bottle: 77
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: PITPC-113

Concentration Formula: Amt * DF * Vt/Vo/Vi * CpndVariable

Name	Value	Description
DF	50.000	Dilution Factor
Vt	40000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 2 Tetrachloro-m-xylene					CAS #: 877-09-8		
5.766	5.764	0.002	9599	5e-004	0.018624		(R)
3 Aroclor-1232					CAS #: 11141-16-5		
Operator disabled compound identification.							
1 Aroclor-1221					CAS #: 11104-28-2		
Operator disabled compound identification.							
4 Aroclor-1016					CAS #: 12674-11-2		
Operator disabled compound identification.							

Data File: \\PITSVR06\D\chem\gc10.i\09273B8082ALL.b\T0930695.D
Report Date: 30-Sep-2013 03:06

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1242					CAS #: 53469-21-9		
Peaks not detected for Quant. or Qual. signal(s).							
6 Aroclor-1248					CAS #: 12672-29-6		
Operator disabled compound identification.							
7 Aroclor-1254					CAS #: 11097-69-1		
Operator disabled compound identification.							
8 Aroclor-1260					CAS #: 11096-82-5		
10.867	10.866	0.001	522951	1.35780	2715.6	0.00- 0.00	0.00
11.404	11.402	0.002	481813	1.05577	2111.5	115.86- 115.86	0.00
13.380	13.377	0.003	165580	0.48923	978.45	136.91- 136.91	0.00
14.219	14.216	0.003	432810	0.63014	1260.3	140.00- 140.00	0.00
15.367	15.363	0.004	438278	0.86193	1723.8	128.33- 128.33	0.00
Average of Peak Concentrations =					1757.9		
9 Aroclor-1262					CAS #: 37324-23-5		
Operator disabled compound identification.							
10 Aroclor-1268					CAS #: 11100-14-4		
Operator disabled compound identification.							
$ 11 DCB Decachlorobiphenyl (Surr)					CAS #: 2051-24-3		
17.892	17.891	0.001	14394	0.00183	0.073122		(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

SAMPLE ID SD-155

SAMPLE CALC for pyrene

IS AREA	DILUTION	COMPOUND OF INTEREST AREA	IS AMOUNT (ng/uL)	Final Extract Volume (mL)	AVE RRF	CONCENTRATION PPB
580976	30	165002	8	0.5	1.2739	1424.56

Sample Volume (g)
30

Percent Solids
31.3

Injection Volume (uL)
2

Sample Calculation

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25321-1

SDG No.:

Client Sample ID: SD-155 | Lab Sample ID: 180-25321-3

Matrix: Sediment | Lab File ID: N0926026.D

Analysis Method: 8270D LL | Date Collected: 09/17/2013 14:30

Extract. Method: 3541 | Date Extracted: 09/26/2013 03:45

Sample wt/vol: 30.0(g) | Date Analyzed: 09/26/2013 22:54

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 30

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 68.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85033 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	310	J	320	31
56-55-3	Benzo[a]anthracene	830		320	40
205-99-2	Benzo[b]fluoranthene	1200		320	50
207-08-9	Benzo[k]fluoranthene	400		320	65
191-24-2	Benzo[g,h,i]perylene	1300		320	32
50-32-8	Benzo[a]pyrene	910		320	32
218-01-9	Chrysene	1100		320	38
53-70-3	Dibenz(a,h)anthracene	700		320	36
206-44-0	Fluoranthene	1800		320	34
86-73-7	Fluorene	130	J	320	42
193-39-5	Indeno[1,2,3-cd]pyrene	1100		320	33
85-01-8	Phenanthrene	600		320	51
129-00-0	Pyrene	1400		320	32
83-32-9	Acenaphthene	83	J	320	31
208-96-8	Acenaphthylene	160	J	320	37
91-20-3	Naphthalene	150	J	320	28
91-57-6	2-Methylnaphthalene	110	J	320	29

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	56	D	27-110
321-60-8	2-Fluorobiphenyl	64	D	28-108
1718-51-0	Terphenyl-d14 (Surr)	70	D	21-130

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25321-1 Analy Batch No.: 79656

SDG No.:

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/06/2013 06:33 Calibration End Date: 08/06/2013 09:41 Calibration ID: 10611

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Di-n-butyl phthalate	0.7762 1.2134	0.9270 1.1890	1.0179 1.1770	1.1128	1.2027	Ave		1.0770			0.0100	14.7		20.0			
Fluoranthene	0.9146 1.1223	0.9803 1.1066	1.0184 1.1065	1.0410	1.0984	Ave		1.0485			0.6000	7.0		20.0			
Benzidine	+++++ 0.2322	0.2303 0.2498	0.2871 0.2781	0.2609	0.2694	Ave		0.2583			0.0100	8.5		20.0			
Pyrene	1.2649 1.2709	1.2782 1.2196	1.3097 1.2119	1.3311	1.3048	Ave		1.2739			0.6000	3.3		20.0			
Butyl benzyl phthalate	0.3352 0.5263	0.3518 0.5244	0.3842 0.5302	0.4570	0.5127	Qua	0.0929	1.8948	-0.005		0.0100			20.0	0.9998		0.9900
3,3'-Dichlorobenzidine	+++++ 0.3827	0.1956 0.4035	0.2267 0.4193	0.2921	0.3496	Qua	0.2020	2.6654	-0.080		0.0100			20.0	0.9998		0.9900
Bis(2-ethylhexyl) phthalate	0.3735 0.6978	0.3992 0.7052	0.4677 0.7102	0.6021	0.6730	Qua	0.1149	1.4232	-0.005		0.0100			20.0	0.9998		0.9900
Benzo[a]anthracene	1.0059 1.0963	1.0122 1.1040	1.0487 1.1230	1.0757	1.1058	Ave		1.0714			0.8000	4.2		20.0			
Chrysene	0.9389 1.0204	0.9617 1.0104	0.9867 1.0240	0.9958	1.0072	Ave		0.9931			0.7000	3.0		20.0			
Di-n-octyl phthalate	1.4148 1.3168	0.9540 1.3193	0.7424 1.3024	1.0140	1.2109	Qua	0.1525	0.7417	0.0008		0.0100			20.0	0.9992		0.9900
7,12-Dimethylbenz(a)anthracene	+++++ 0.6157	0.4456 0.6150	0.4912 0.6143	0.5331	0.5919	Ave		0.5581			0.0100	12.4		20.0			
Benzo[b]fluoranthene	1.0073 1.3811	1.1800 1.3047	1.3165 1.3539	1.3377	1.3616	Ave		1.2803			0.7000	9.9		20.0			
Benzo[k]fluoranthene	1.0777 1.3110	1.2109 1.3170	1.2830 1.2361	1.3436	1.3497	Ave		1.2661			0.7000	7.1		20.0			
Benzo[a]pyrene	0.8307 1.2041	0.8805 1.1938	0.9730 1.1889	1.0991	1.1824	Ave		1.0691			0.7000	14.3		20.0			
Indeno[1,2,3-cd]pyrene	0.9039 1.4234	1.0299 1.4184	1.1508 1.4039	1.2356	1.3718	Qua	0.0942	0.6858	0.0013		0.5000			20.0	0.9998		0.9900
Dibenz(a,h)anthracene	0.7674 1.1841	0.8730 1.1984	0.9777 1.1929	1.0429	1.1484	Qua	0.0825	0.8357	-0.001		0.4000			20.0	0.9999		0.9900
Benzo[g,h,i]perylene	0.7712 1.2042	0.9123 1.2027	0.9863 1.2034	1.0455	1.1721	Qua	0.0813	0.8228	0		0.5000			20.0	0.9998		0.9900
2-Fluorophenol (Surr)	0.8776 1.1102	0.9604 1.0863	0.9964 1.1032	1.0679	1.1010	Ave		1.0379				8.2		20.0			
Phenol-d5 (Surr)	1.2849 1.3812	1.3643 1.3267	1.4072 1.3151	1.4335	1.4087	Ave		1.3652				3.8		20.0			
Nitrobenzene-d5 (Surr)	0.3137 0.3254	0.3351 0.3164	0.3417 0.3112	0.3356	0.3385	Ave		0.3272				3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Tetra Tech, Inc. **INTERNAL CORRESPONDENCE**

TO:	**E. SAMUELS**	**DATE:**	**NOVEMBER 12, 2013**
FROM:	**MICHELLE L. ALLEN**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC & INORGANIC DATA VALIDATION – PAH/PCB**
LOCKHEED MARTIN CORPORATION (LMC) – SEDIMENT INVESTIGATION
SDG 180-25423-1

SAMPLES: 34/Sediment/PAH

DUP 08	SD-110-01	SD-110-02
SD-110-03	SD-110-SS	SD-111-01
SD-111-SS	SD-116-01	SD-116-02
SD-116-SS	SD-148-01	SD-148-02
SD-148-03	SD-148-SS	SD-149-01
SD-149-02	SD-149-03	SD-149-SS
SD-150-01	SD-150-02	SD-150-03
SD-150-SS	SD-151-01	SD-151-02
SD-151-03	SD-151-SS	SD-161-01
SD-161-02	SD-161-03	SD-161-SS
SD-162-01	SD-162-02	SD-162-03
SD-162-SS		

38/Sediment/PCB

DUP 08	SD-110-01	SD-110-02
SD-110-03	SD-110-SS	SD-111-01
SD-111-SS	SD-116-01	SD-116-02
SD-116-SS	SD-138-01	SD-138-SS
SD-139-01	SD-139-SS	SD-148-01
SD-148-02	SD-148-03	SD-148-SS
SD-149-01	SD-149-02	SD-149-03
SD-149-SS	SD-150-01	SD-150-02
SD-150-03	SD-150-SS	SD-151-01
SD-151-02	SD-151-03	SD-151-SS
SD-161-01	SD-161-02	SD-161-03
SD-161-SS	SD-162-01	SD-162-02
SD-162-03	SD-162-SS	

Overview

The sample set for LMC-MSA Dump Road source areas, SDG 180-25423-1 consisted of thirty-eight (38) sediment environmental samples. All thirty-eight (38) sediment samples were analyzed for polychlorinated biphenyls (PCB). Thirty-four (34) of the sediment samples were additionally analyzed for polynuclear aromatic hydrocarbons. One field duplicate sample pair was included in this SDG: DUP 08/SD-148-SS.

The samples were collected by Tetra Tech, Inc. on September 19-20, 2013 and analyzed by TestAmerica, Inc. All analyses were conducted in accordance with SW-846 Methods 8270D and 8082A analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times/sample preservation, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, blank spike results, matrix spike/matrix spike duplicate results, internal standard areas and recoveries, chromatographic resolution, compound identification, and detection limits. Areas of concern are listed below.

Major

No major issues were identified.

Minor

- The Percent Solids (% Solids) was less than 30% in the following samples:

Sample	% Solids
DUP 08	79.8
SD-148-01	70.4
SD-148-SS	78
SD-149-SS	74.7
SD-150-SS	77
SD-151-SS	80.2
SD-162-01	75.6
SD-162-SS	79.7

  The detected and non-detected results reported for the PAH target compounds and PCBs in these samples were qualified as estimated, (J) and (UJ), respectively.

- The Relative Percent Differences (RPDs) for benzo(g,h,i)perylene and indeno(1,2,3-cd)pyrene exceeded the 50% quality control limit in the field duplicate pair DUP 08/SD-148-SS. In addition, the difference between the detected result for dibenzo(a,h)anthracene reported above the Reporting Limit (RL) in sample SD-148-SS and below the RL in the duplicate sample was greater than 2X the RL. The detected results for these compounds were qualified as estimated, (J), in the field duplicate pair due to field duplicate imprecision.

- The Aroclor analyses appear not to have accounted for all of the PCB congeners, resulting in underestimates of total chlorinated biphenyl (CB) concentrations in some samples. Separate congener analyses of four split samples revealed detections of comparatively low molecular weight (LMW) PCB congeners that were not included in the Aroclor-based total PCB quantitations. The presence of LMW congeners appears to be the result of dechlorination of higher molecular weight components of the Aroclors. The Aroclor patterns thus appear to have been altered by this presumed dechlorination and the Aroclor-based quantitations were therefore biased low. These LMW congeners are eluting approximately between 7 and 10 minutes in the PCB analyses and the peaks representing LMW congeners were excluded from PCB quantitation by the laboratory because they are not part of a recognizable Aroclor pattern. Dechlorination of PCBs has been most prevalent in sediment samples as evidenced by the presence of peaks between 7 and 10 minutes but these peaks were not observed in surface and subsurface soil samples with similar or greater PCB concentrations at other site locations. Site conditions associated with sediment samples appear to favor the dechlorination process. Given the evidence from the congener analyses, the data reviewer has qualified the detected results in the following samples based on chromatographic appearance, as estimated, (J), because the

reported Aroclor-based total PCB concentrations are likely to be biased low.

Affected samples: DUP 08, SD-110-01, SD-110-01, SD-110-SS, SD-111-01, SD-116-SS, SD-139-01, SD-139-SS, SD-148-01, SD-148-02, SD-148-SS, SD-149-01, SD-149-02, SD-149-02, SD-149-03, SD-149-SS, SD-150-01, SD-150-02, SD-151-01, SD-151-SS, SD-161-01, SD-161-02, SD-161-SS, SD-162-01, SD-162-02, and SD-162-SS.

- Detected results reported below the RL limit but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

The sample DUP 08 was received by the laboratory but not listed on the sample Chain of Custody (COC).

The following Aroclor was detected in the laboratory method blank at the following maximum concentration:

Compound	Maximum Concentration (µg/Kg)	Action Level (µg/Kg)
Aroclor 1260 (1)	0.349	1.745

(1) - Maximum concentration detected in the laboratory method blank, 180-85546/1-C, from analytical batch #85914 affecting samples associated with this batch.

An action level of 5X the maximum concentration was established to evaluate for laboratory blank contamination. Percent moisture, dilution factor, and sample aliquot, if necessary, were taken into consideration during the application of the action level. No action was taken for the detected result below the action level (taking into account the percent moisture (77%) and 10X dilution factor) because upon review of the sample and laboratory method blank chromatograms Aroclor 1260 was present in the sample and not attributed to blank contamination. No action was taken for the remaining samples because this PCB was not detected in these samples below the established action level.

The PCB surrogate spike compound, decachlorobiphenyl, had Percent Recoveries (%Rs) greater than the upper quality control limit (31-150) in several samples. No action was taken because the samples were diluted 10X or greater and surrogate spike compound %Rs are compromised at large dilutions.

The PAH Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses of sample SD-151-SS had a MS Percent Recovery (%R) for fluoranthene above the upper quality control limit. No action was taken in the parent sample because the MSD and blank spike %Rs were acceptable.

The %Rs for Aroclor 1016 in the MS/MSD analyses of sample SD-110-01 were above the upper quality control limit. No action was taken because Aroclor 1016 was not detected in the parent sample.

Second column confirmation was not performed on the samples that had PCB detections.

As stated in the case narrative by the laboratory and upon review of the sample chromatograms, the majority of the samples in this SDG had the presence of weathered PCBs.

All the PAH and PCB samples were initially analyzed at dilutions with the exception of sample SD-111-01,

which was not diluted in the PAH fraction. The reporting limits of the non-detected PAH and PCBs were elevated.

Fluoranthene exceeded the calibration range of the instrument in the original (10X dilution) analysis of sample, SD-161-01. The sample was further diluted (100X). The result for fluoranthene from the 100X dilution was used for the data validation.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: The %Solids exceeded 30% in several samples. Second column confirmation was not performed in the PCB fraction.

Other Factors Affecting Data Quality: All samples were diluted in the PAH and PCB fractions with the exception of one PAH sample. The PAH and PCB MS/MSD analyses had noncompliant %Rs. The PCB surrogate spike %Rs were high in several samples. Results below the RL were estimated.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994) and SW-846 Methods 8270D and 8082A analytical and reporting protocols. The text of this report has been formulated to address only those areas affecting data quality.

Tetra Tech, Inc.
Michelle L. Allen
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 05220	NSAMPLE	DUP 08			SD-110-01			SD-110-02			SD-110-03		
SDG: 180-25423-1	LAB_ID	180-25423-38			180-25423-2			180-25423-3			180-25423-4		
FRACTION: PAH	SAMP_DATE	9/19/2013			9/19/2013			9/19/2013			9/19/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	20.2			66.8			57.5			62.2		
	DUP_OF	SD-148-SS											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		60	J	PY	6.8	J	P	23	J	P	41	J	P
ACENAPHTHENE		27	J	PY	18	J	P	120			270		
ACENAPHTHYLENE		96	J	PY	18	J	P	75			76		
ANTHRACENE		150	J	PY	65			380			740		
BENZO(A)ANTHRACENE		340	J	Y	280			1400			2800		
BENZO(A)PYRENE		430	J	Y	240			1200			2300		
BENZO(B)FLUORANTHENE		660	J	Y	290			1400			2600		
BENZO(G,H,I)PERYLENE		530	J	GY	200			900			1500		
BENZO(K)FLUORANTHENE		260	J	Y	110			550			1200		
CHRYSENE		520	J	Y	280			1400			2700		
DIBENZO(A,H)ANTHRACENE		110	J	GPY	76			280			430		
FLUORANTHENE		760	J	Y	600			3200			6800		
FLUORENE		48	J	PY	20	J	P	130			260		
INDENO(1,2,3-CD)PYRENE		390	J	GY	180			770			1400		
NAPHTHALENE		14	UJ	Y	8.8	J	P	34	J	P	66		
PHENANTHRENE		250	J	Y	170			1100			2300		
PYRENE		650	J	Y	390			2000			4200		

PROJ_NO: 05220	NSAMPLE	SD-110-SS			SD-111-01			SD-111-SS			SD-116-01		
SDG: 180-25423-1	LAB_ID	180-25423-1			180-25423-25			180-25423-24			180-25423-6		
FRACTION: PAH	SAMP_DATE	9/19/2013			9/20/2013			9/20/2013			9/19/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	52.5			79.6			71.7			58.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		17	J	P	0.38	U		0.83	U		25	J	P
ACENAPHTHENE		18	J	P	0.4	U		0.89	U		45	J	P
ACENAPHTHYLENE		55	J	P	0.48	U		1.1	U		120	J	P
ANTHRACENE		91			0.41	U		6.2	J	P	190		
BENZO(A)ANTHRACENE		310			0.52	U		33			630		
BENZO(A)PYRENE		320			0.42	U		33			720		
BENZO(B)FLUORANTHENE		410			0.66	U		40			610		
BENZO(G,H,I)PERYLENE		370			0.42	U		39			800		
BENZO(K)FLUORANTHENE		210			0.84	U		18			550		
CHRYSENE		390			0.5	U		39			740		
DIBENZO(A,H)ANTHRACENE		180			0.46	U		20			360		
FLUORANTHENE		590			1.7	J	P	73			1400		
FLUORENE		28	J	P	0.55	U		1.2	U		52	J	P
INDENO(1,2,3-CD)PYRENE		330			0.43	U		38			700		
NAPHTHALENE		22	J	P	0.36	U		0.8	U		31	J	P
PHENANTHRENE		150			0.66	U		17			440		
PYRENE		490			1.2	J	P	50			1000		

PROJ_NO: 05220	NSAMPLE	SD-116-02			SD-116-SS			SD-148-01			SD-148-02		
SDG: 180-25423-1	LAB_ID	180-25423-7			180-25423-5			180-25423-9			180-25423-10		
FRACTION: PAH	SAMP_DATE	9/19/2013			9/19/2013			9/19/2013			9/19/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	60.9			42.0			29.6			30.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		2.5	U		44	J	P	78	J	PY	180	J	P
ACENAPHTHENE		2.6	U		30	J	P	170	J	PY	340		
ACENAPHTHYLENE		9.6	J	P	180	J	P	110	J	PY	200	J	P
ANTHRACENE		11	J	P	240			410	J	Y	770		
BENZO(A)ANTHRACENE		38			760			1100	J	Y	2700		
BENZO(A)PYRENE		43			890			1100	J	Y	2400		
BENZO(B)FLUORANTHENE		48			970			1300	J	Y	3200		
BENZO(G,H,I)PERYLENE		91			1100			1200	J	Y	2000		
BENZO(K)FLUORANTHENE		23	J	P	480			520	J	Y	940		
CHRYSENE		43			1000			1200	J	Y	2700		
DIBENZO(A,H)ANTHRACENE		57			520			540	J	Y	740		
FLUORANTHENE		68			1500			2600	J	Y	5600		
FLUORENE		3.6	U		56	J	P	170	J	PY	300		
INDENO(1,2,3-CD)PYRENE		83			990			1000	J	Y	1700		
NAPHTHALENE		2.4	U		17	U		85	J	PY	240		
PHENANTHRENE		20	J	P	390			1000	J	Y	2200		
PYRENE		62			1200			1600	J	Y	3700		

PROJ_NO: 05220	NSAMPLE	SD-148-03			SD-148-SS			SD-149-01			SD-149-02		
SDG: 180-25423-1	LAB_ID	180-25423-11			180-25423-8			180-25423-13			180-25423-14		
FRACTION: PAH	SAMP_DATE	9/19/2013			9/19/2013			9/19/2013			9/19/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	36.2			22.0			35.6			36.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		130	J	P	59	J	PY	53	J	P	200	J	P
ACENAPHTHENE		860			35	J	PY	88	J	P	450		
ACENAPHTHYLENE		180			100	J	PY	95	J	P	220	J	P
ANTHRACENE		2300			130	J	PY	170	J	P	950		
BENZO(A)ANTHRACENE		12000			360	J	GY	620			3500		
BENZO(A)PYRENE		10000			430	J	Y	710			3200		
BENZO(B)FLUORANTHENE		12000			560	J	Y	720			3800		
BENZO(G,H,I)PERYLENE		5800			900	J	Y	810			2500		
BENZO(K)FLUORANTHENE		2900			230	J	GPY	460			1500		
CHRYSENE		11000			520	J	Y	840			3800		
DIBENZO(A,H)ANTHRACENE		1800			630	J	GY	420			920		
FLUORANTHENE		24000			760	J	Y	1400			7600		
FLUORENE		840			40	UJ	Y	73	J	P	390		
INDENO(1,2,3-CD)PYRENE		5100			900	J	Y	770			2200		
NAPHTHALENE		230			26	UJ	Y	77	J	P	270		
PHENANTHRENE		7900			220	J	PY	560			2900		
PYRENE		15000			570	J	Y	1100			5000		

PROJ_NO: 05220	NSAMPLE	SD-149-03			SD-149-SS			SD-150-01			SD-150-02		
SDG: 180-25423-1	LAB_ID	180-25423-15			180-25423-12			180-25423-17			180-25423-18		
FRACTION: PAH	SAMP_DATE	9/19/2013			9/19/2013			9/19/2013			9/19/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	55.8			25.3			36.8			36.6		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		19	J	P	71	J	PY	45	J	P	46	J	P
ACENAPHTHENE		59			38	J	PY	98	J	P	120	J	P
ACENAPHTHYLENE		17	J	P	110	J	PY	70	J	P	110	J	P
ANTHRACENE		110			200	J	PY	200			350		
BENZO(A)ANTHRACENE		460			520	J	Y	630			1000		
BENZO(A)PYRENE		390			670	J	Y	600			950		
BENZO(B)FLUORANTHENE		490			1000	J	Y	800			1400		
BENZO(G,H,I)PERYLENE		280			1100	J	Y	550			880		
BENZO(K)FLUORANTHENE		170			320	J	Y	360			380		
CHRYSENE		470			770	J	Y	820			1100		
DIBENZO(A,H)ANTHRACENE		110			550	J	Y	120	J	P	210		
FLUORANTHENE		960			1100	J	Y	1300			2000		
FLUORENE		55			62	J	PY	74	J	P	110	J	P
INDENO(1,2,3-CD)PYRENE		250			990	J	Y	430			710		
NAPHTHALENE		27	J	P	75	J	PY	66	J	P	56	J	P
PHENANTHRENE		410			340	J	Y	520			870		
PYRENE		660			820	J	Y	1000			1500		

PROJ_NO: 05220	NSAMPLE	SD-150-03			SD-150-SS			SD-151-01			SD-151-02		
SDG: 180-25423-1	LAB_ID	180-25423-19			180-25423-16			180-25423-21			180-25423-22		
FRACTION: PAH	SAMP_DATE	9/19/2013			9/19/2013			9/20/2013			9/20/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	38.1			23.0			31.2			42.2		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		54	J	P	51	J	PY	110	J	P	190		
ACENAPHTHENE		380			36	J	PY	280			1500		
ACENAPHTHYLENE		62	J	P	56	J	PY	120	J	P	150	J	P
ANTHRACENE		900			130	J	PY	650			2600		
BENZO(A)ANTHRACENE		3000			410	J	Y	2100			10000		
BENZO(A)PYRENE		2700			460	J	Y	1800			8100		
BENZO(B)FLUORANTHENE		3200			770	J	Y	2200			10000		
BENZO(G,H,I)PERYLENE		2000			510	J	Y	1600			4700		
BENZO(K)FLUORANTHENE		1300			240	J	Y	990			3200		
CHRYSENE		3300			610	J	Y	2100			9800		
DIBENZO(A,H)ANTHRACENE		420			81	J	PY	680			1400		
FLUORANTHENE		6700			850	J	Y	4500			23000		
FLUORENE		320			45	J	PY	230	J	P	1200		
INDENO(1,2,3-CD)PYRENE		1700			440	J	Y	1500			4300		
NAPHTHALENE		75	J	P	71	J	PY	140	J	P	340		
PHENANTHRENE		3100			280	J	Y	1900			9400		
PYRENE		4600			780	J	Y	3100			15000		

PROJ_NO: 05220	NSAMPLE	SD-151-03			SD-151-SS			SD-161-01			SD-161-01DL		
SDG: 180-25423-1	LAB_ID	180-25423-23			180-25423-20			180-25423-35			180-25423-35		
FRACTION: PAH	SAMP_DATE	9/20/2013			9/20/2013			9/20/2013			9/20/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	43.2			19.8			53.1			53.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		12	J	P	51	J	PY	67	J	P			
ACENAPHTHENE		3.7	U		24	UJ	Y	1300					
ACENAPHTHYLENE		4.4	U		55	J	PY	150	J	P			
ANTHRACENE		8.5	J	P	100	J	PY	3300					
BENZO(A)ANTHRACENE		19	J	P	310	J	Y	19000					
BENZO(A)PYRENE		18	J	P	380	J	Y	15000					
BENZO(B)FLUORANTHENE		18	J	P	520	J	Y	19000					
BENZO(G,H,I)PERYLENE		79			760	J	Y	8100					
BENZO(K)FLUORANTHENE		13	J	P	260	J	Y	7300					
CHRYSENE		24	J	P	510	J	Y	20000					
DIBENZO(A,H)ANTHRACENE		4.3	U		490	J	Y	2700					
FLUORANTHENE		42			1000	J	Y				39000		
FLUORENE		5.1	U		33	UJ	Y	1400					
INDENO(1,2,3-CD)PYRENE		87			760	J	Y	7400					
NAPHTHALENE		15	J	P	75	J	PY	140	J	P			
PHENANTHRENE		27	J	P	180	J	PY	16000					
PYRENE		28	J	P	810	J	Y	27000					

PROJ_NO: 05220	NSAMPLE	SD-161-02			SD-161-03			SD-161-SS			SD-162-01		
SDG: 180-25423-1	LAB_ID	180-25423-36			180-25423-37			180-25423-34			180-25423-31		
FRACTION: PAH	SAMP_DATE	9/20/2013			9/20/2013			9/20/2013			9/20/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	57.7			54.6			38.8			24.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		36	J	P	24	J	P	54	J	P	76	J	PY
ACENAPHTHENE		720			160			21	U		30	J	PY
ACENAPHTHYLENE		80	J	P	17	J	P	110	J	P	72	J	PY
ANTHRACENE		1300			210			190	J	P	130	J	PY
BENZO(A)ANTHRACENE		4600			660			660			370	J	Y
BENZO(A)PYRENE		3700			500			840			460	J	Y
BENZO(B)FLUORANTHENE		4800			620			1300			710	J	Y
BENZO(G,H,I)PERYLENE		2400			320			1200			640	J	Y
BENZO(K)FLUORANTHENE		1500			220			520			220	J	Y
CHRYSENE		4800			660			1300			590	J	Y
DIBENZO(A,H)ANTHRACENE		730			120			570			300	J	Y
FLUORANTHENE		11000			1500			1400			850	J	Y
FLUORENE		460			160			28	U		62	J	PY
INDENO(1,2,3-CD)PYRENE		2200			300			1000			570	J	Y
NAPHTHALENE		76	J	P	31			72	J	P	95	J	PY
PHENANTHRENE		3400			960			400			280	J	Y
PYRENE		7000			1000			1100			710	J	Y

PROJ_NO: 05220	NSAMPLE	SD-162-02			SD-162-03			SD-162-SS		
SDG: 180-25423-1	LAB_ID	180-25423-32			180-25423-33			180-25423-30		
FRACTION: PAH	SAMP_DATE	9/20/2013			9/20/2013			9/20/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	36.1			44.3			20.3		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		28	J	P	2	U		71	J	PY
ACENAPHTHENE		13	J	P	2.2	U		27	J	PY
ACENAPHTHYLENE		29	J	P	2.6	U		28	UJ	Y
ANTHRACENE		56			2.2	U		120	J	PY
BENZO(A)ANTHRACENE		140			2.8	U		300	J	Y
BENZO(A)PYRENE		150			2.3	U		470	J	Y
BENZO(B)FLUORANTHENE		210			3.5	U		600	J	Y
BENZO(G,H,I)PERYLENE		210			2.2	U		810	J	Y
BENZO(K)FLUORANTHENE		84			4.6	U		320	J	Y
CHRYSENE		180			2.7	U		500	J	Y
DIBENZO(A,H)ANTHRACENE		110			2.5	U		510	J	Y
FLUORANTHENE		290			2.4	U		830	J	Y
FLUORENE		22	J	P	3	U		54	J	PY
INDENO(1,2,3-CD)PYRENE		190			2.3	U		780	J	Y
NAPHTHALENE		33	J	P	1.9	U		98	J	PY
PHENANTHRENE		110			3.6	U		280	J	Y
PYRENE		250			2.3	U		680	J	Y

PROJ_NO: 05220	NSAMPLE	DUP 08			SD-110-01			SD-110-02			SD-110-03		
SDG: 180-25423-1	LAB_ID	180-25423-38			180-25423-2			180-25423-3			180-25423-4		
FRACTION: PCB	SAMP_DATE	9/19/2013			9/19/2013			9/19/2013			9/19/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	20.2			66.8			57.5			62.2		
	DUP_OF	SD-148-SS											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		3.1	UJ	Y	0.93	U		1.1	U		0.99	U	
AROCLOR-1221		3.9	UJ	Y	1.2	U		1.4	U		1.3	U	
AROCLOR-1232		3.5	UJ	Y	1.1	U		1.2	U		1.1	U	
AROCLOR-1242		3.4	UJ	Y	1	U		1.2	U		1.1	U	
AROCLOR-1248		1.9	UJ	Y	0.59	U		580			0.63	U	
AROCLOR-1254		2.9	UJ	Y	100	J	Q	1	U		0.94	U	
AROCLOR-1260		1500	J	QY	140	J	Q	420			67		

PROJ_NO: 05220	NSAMPLE	SD-110-SS			SD-111-01			SD-111-SS			SD-116-01		
SDG: 180-25423-1	LAB_ID	180-25423-1			180-25423-25			180-25423-24			180-25423-6		
FRACTION: PCB	SAMP_DATE	9/19/2013			9/20/2013			9/20/2013			9/19/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	52.5			79.6			71.7			58.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		1.2	U		0.39	U		0.86	U		1.1	U	
AROCLOR-1221		1.5	U		0.5	U		1.1	U		1.4	U	
AROCLOR-1232		1.4	U		0.45	U		0.99	U		1.2	U	
AROCLOR-1242		1.3	U		0.43	U		0.95	U		1.2	U	
AROCLOR-1248		0.75	U		0.25	U		0.55	U		900		
AROCLOR-1254		1.1	U		0.37	U		0.83	U		1	U	
AROCLOR-1260		260	J	Q	12	J	Q	67			800		

PROJ_NO: 05220	NSAMPLE	SD-116-02			SD-116-SS			SD-138-01			SD-138-SS		
SDG: 180-25423-1	LAB_ID	180-25423-7			180-25423-5			180-25423-27			180-25423-26		
FRACTION: PCB	SAMP_DATE	9/19/2013			9/19/2013			9/20/2013			9/20/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	60.9			42.0			40.9			38.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		1	U		1.5	U		15000	U		4000	U	
AROCLOR-1221		1.3	U		1.9	U		19000	U		5200	U	
AROCLOR-1232		1.2	U		1.7	U		17000	U		4600	U	
AROCLOR-1242		1.1	U		1.6	U		17000	U		4400	U	
AROCLOR-1248		0.65	U		0.93	U		9600	U		2600	U	
AROCLOR-1254		20			1.4	U		14000	U		3800	U	
AROCLOR-1260		38			390	J	Q	3600000			1800000		

PROJ_NO: 05220	NSAMPLE	SD-139-01			SD-139-SS			SD-148-01			SD-148-02		
SDG: 180-25423-1	LAB_ID	180-25423-29			180-25423-28			180-25423-9			180-25423-10		
FRACTION: PCB	SAMP_DATE	9/20/2013			9/20/2013			9/19/2013			9/19/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	52.3			44.8			29.6			30.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		5900	U		280	U		21	UJ	Y	2	U	
AROCLOR-1221		7600	U		350	U		27	UJ	Y	2.6	U	
AROCLOR-1232		6800	U		320	U		24	UJ	Y	2.3	U	
AROCLOR-1242		6500	U		300	U		23	UJ	Y	2.2	U	
AROCLOR-1248		3800	U		180	U		13	UJ	Y	1.3	U	
AROCLOR-1254		5600	U		260	U		20	UJ	Y	1.9	U	
AROCLOR-1260		2100000	J	Q	140000	J	Q	14000	J	QY	1600	J	Q

PROJ_NO: 05220	NSAMPLE	SD-148-03			SD-148-SS			SD-149-01			SD-149-02		
SDG: 180-25423-1	LAB_ID	180-25423-11			180-25423-8			180-25423-13			180-25423-14		
FRACTION: PCB	SAMP_DATE	9/19/2013			9/19/2013			9/19/2013			9/19/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	36.2			22.0			35.6			36.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		1.7	U		2.8	UJ	Y	17	U		1.7	U	
AROCLOR-1221		2.2	U		3.6	UJ	Y	22	U		2.2	U	
AROCLOR-1232		2	U		3.2	UJ	Y	20	U		2	U	
AROCLOR-1242		1.9	U		3.1	UJ	Y	19	U		1.9	U	
AROCLOR-1248		1.1	U		1.8	UJ	Y	11	U		1.1	U	
AROCLOR-1254		250			2.7	UJ	Y	17	U		650	J	Q
AROCLOR-1260		110			1200	J	QY	20000	J	Q	530	J	Q

PROJ_NO: 05220	NSAMPLE	SD-149-03			SD-149-SS			SD-150-01			SD-150-02		
SDG: 180-25423-1	LAB_ID	180-25423-15			180-25423-12			180-25423-17			180-25423-18		
FRACTION: PCB	SAMP_DATE	9/19/2013			9/19/2013			9/19/2013			9/19/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	55.8			25.3			36.8			36.6		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		110	U		2.4	UJ	Y	17	U		1.7	U	
AROCLOR-1221		140	U		3.1	UJ	Y	21	U		2.2	U	
AROCLOR-1232		130	U		2.8	UJ	Y	19	U		1.9	U	
AROCLOR-1242		120	U		2.7	UJ	Y	18	U		1.8	U	
AROCLOR-1248		70	U		1.5	UJ	Y	11	U		1.1	U	
AROCLOR-1254		110	U		2.3	UJ	Y	16	U		1.6	U	
AROCLOR-1260		27000	J	Q	4900	J	QY	14000	J	Q	1900	J	Q

PROJ_NO: 05220	NSAMPLE	SD-150-03			SD-150-SS			SD-151-01			SD-151-02		
SDG: 180-25423-1	LAB_ID	180-25423-19			180-25423-16			180-25423-21			180-25423-22		
FRACTION: PCB	SAMP_DATE	9/19/2013			9/19/2013			9/20/2013			9/20/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	38.1			23.0			31.2			42.2		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		1.6	U		2.7	UJ	Y	20	U		1.5	U	
AROCLOR-1221		2.1	U		3.4	UJ	Y	26	U		1.9	U	
AROCLOR-1232		1.9	U		3.1	UJ	Y	23	U		1.7	U	
AROCLOR-1242		1.8	U		2.9	UJ	Y	22	U		1.6	U	
AROCLOR-1248		1	U		1.7	UJ	Y	13	U		0.93	U	
AROCLOR-1254		640			110	J	Y	19	U		310		
AROCLOR-1260		290			53	J	Y	7000	J	Q	190		

PROJ_NO: 05220	NSAMPLE	SD-151-03			SD-151-SS			SD-161-01			SD-161-02		
SDG: 180-25423-1	LAB_ID	180-25423-23			180-25423-20			180-25423-35			180-25423-36		
FRACTION: PCB	SAMP_DATE	9/20/2013			9/20/2013			9/20/2013			9/20/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	43.2			19.8			53.1			57.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		1.4	U		3.1	UJ	Y	580	U		540	U	
AROCLOR-1221		1.8	U		4	UJ	Y	740	U		690	U	
AROCLOR-1232		1.7	U		3.6	UJ	Y	670	U		620	U	
AROCLOR-1242		1.6	U		3.4	UJ	Y	630	U		590	U	
AROCLOR-1248		0.91	U		2	UJ	Y	370	U		340	U	
AROCLOR-1254		1.4	U		3	UJ	Y	550	U		510	U	
AROCLOR-1260		1.4	U		2100	J	QY	1000000	J	Q	480000	J	Q

PROJ_NO: 05220	NSAMPLE	SD-161-03			SD-161-SS			SD-162-01			SD-162-02		
SDG: 180-25423-1	LAB_ID	180-25423-37			180-25423-34			180-25423-31			180-25423-32		
FRACTION: PCB	SAMP_DATE	9/20/2013			9/20/2013			9/20/2013			9/20/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	54.6			38.8			24.4			36.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		56	U		32	U		2.5	UJ	Y	1.7	U	
AROCLOR-1221		72	U		41	U		3.2	UJ	Y	2.2	U	
AROCLOR-1232		65	U		37	U		2.9	UJ	Y	2	U	
AROCLOR-1242		62	U		35	U		2.8	UJ	Y	1.9	U	
AROCLOR-1248		36	U		20	U		1.6	UJ	Y	1.1	U	
AROCLOR-1254		54	U		31	U		2.4	UJ	Y	1.6	U	
AROCLOR-1260		20000			13000	J	Q	2300	J	QY	1400	J	Q

PROJ_NO: 05220	NSAMPLE	SD-162-03			SD-162-SS		
SDG: 180-25423-1	LAB_ID	180-25423-33			180-25423-30		
FRACTION: PCB	SAMP_DATE	9/20/2013			9/20/2013		
MEDIA: SEDIMENT	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	44.3			20.3		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		1.4	U		3.1	UJ	Y
AROCLOR-1221		1.8	U		3.9	UJ	Y
AROCLOR-1232		1.6	U		3.5	UJ	Y
AROCLOR-1242		1.5	U		3.3	UJ	Y
AROCLOR-1248		0.89	U		1.9	UJ	Y
AROCLOR-1254		1.3	U		2.9	UJ	Y
AROCLOR-1260		520			2200	J	QY

Appendix B

Results as Reported by the Laboratory

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **DUP O8**

Lab Sample ID: 180-25423-38 Date Sampled: 09/19/2013 1635
Client Matrix: Sediment % Moisture: 79.8 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-86264	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85545	Lab File ID:	N1009N06.D
Dilution:	10			Initial Weight/Volume:	30.2 g
Analysis Date:	10/09/2013 1805			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2338			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		150	J	16	160
Benzo[a]anthracene		340		21	160
Benzo[b]fluoranthene		660		26	160
Benzo[k]fluoranthene		260		33	160
Benzo[g,h,i]perylene		530		16	160
Benzo[a]pyrene		430		16	160
Chrysene		520		20	160
Dibenz(a,h)anthracene		110	J	18	160
Fluoranthene		760		18	160
Fluorene		48	J	22	160
Indeno[1,2,3-cd]pyrene		390		17	160
Phenanthrene		250		26	160
Pyrene		650		17	160
Acenaphthene		27	J	16	160
Acenaphthylene		96	J	19	160
Naphthalene		ND		14	160
2-Methylnaphthalene		60	J	15	160

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	81		27 - 110
2-Fluorobiphenyl	89		28 - 108
Terphenyl-d14 (Surr)	64		21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-110-01**

Lab Sample ID: 180-25423-2 Date Sampled: 09/19/2013 1617
Client Matrix: Sediment % Moisture: 33.2 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85545	Lab File ID:	N1004014.D
Dilution:	5.0			Initial Weight/Volume:	30.1 g
Analysis Date:	10/04/2013 1456			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2338			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		65		2.4	25
Benzo[a]anthracene		280		3.1	25
Benzo[b]fluoranthene		290		3.9	25
Benzo[k]fluoranthene		110		5.0	25
Benzo[g,h,i]perylene		200		2.5	25
Benzo[a]pyrene		240		2.5	25
Chrysene		280		3.0	25
Dibenz(a,h)anthracene		76		2.8	25
Fluoranthene		600		2.7	25
Fluorene		20	J	3.3	25
Indeno[1,2,3-cd]pyrene		180		2.6	25
Phenanthrene		170		4.0	25
Pyrene		390		2.5	25
Acenaphthene		18	J	2.4	25
Acenaphthylene		18	J	2.8	25
Naphthalene		8.8	J	2.1	25
2-Methylnaphthalene		6.8	J	2.2	25

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	73		27 - 110
2-Fluorobiphenyl	82		28 - 108
Terphenyl-d14 (Surr)	64		21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-110-02**

Lab Sample ID: 180-25423-3 Date Sampled: 09/19/2013 1617
Client Matrix: Sediment % Moisture: 42.5 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85545	Lab File ID:	N1004015.D
Dilution:	10			Initial Weight/Volume:	30.3 g
Analysis Date:	10/04/2013 1522			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2338			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		380		5.6	58
Benzo[a]anthracene		1400		7.2	58
Benzo[b]fluoranthene		1400		9.0	58
Benzo[k]fluoranthene		550		12	58
Benzo[g,h,i]perylene		900		5.7	58
Benzo[a]pyrene		1200		5.7	58
Chrysene		1400		6.8	58
Dibenz(a,h)anthracene		280		6.4	58
Fluoranthene		3200		6.1	58
Fluorene		130		7.6	58
Indeno[1,2,3-cd]pyrene		770		5.9	58
Phenanthrene		1100		9.1	58
Pyrene		2000		5.8	58
Acenaphthene		120		5.5	58
Acenaphthylene		75		6.6	58
Naphthalene		34	J	5.0	58
2-Methylnaphthalene		23	J	5.2	58

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	47		27 - 110
2-Fluorobiphenyl	50		28 - 108
Terphenyl-d14 (Surr)	43		21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-110-03**

Lab Sample ID: 180-25423-4 Date Sampled: 09/19/2013 1617
Client Matrix: Sediment % Moisture: 37.8 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85545	Lab File ID:	N1004016.D
Dilution:	10			Initial Weight/Volume:	30.2 g
Analysis Date:	10/04/2013 1548			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2338			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		740		5.2	53
Benzo[a]anthracene		2800		6.7	53
Benzo[b]fluoranthene		2600		8.4	53
Benzo[k]fluoranthene		1200		11	53
Benzo[g,h,i]perylene		1500		5.3	53
Benzo[a]pyrene		2300		5.3	53
Chrysene		2700		6.3	53
Dibenz(a,h)anthracene		430		5.9	53
Fluoranthene		6800		5.7	53
Fluorene		260		7.0	53
Indeno[1,2,3-cd]pyrene		1400		5.5	53
Phenanthrene		2300		8.5	53
Pyrene		4200		5.4	53
Acenaphthene		270		5.1	53
Acenaphthylene		76		6.1	53
Naphthalene		66		4.6	53
2-Methylnaphthalene		41	J	4.8	53

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	64		27 - 110
2-Fluorobiphenyl	74		28 - 108
Terphenyl-d14 (Surr)	58		21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-110-SS**

Lab Sample ID: 180-25423-1 Date Sampled: 09/19/2013 1617
Client Matrix: Sediment % Moisture: 47.5 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85545	Lab File ID:	N1004011.D
Dilution:	10			Initial Weight/Volume:	30.1 g
Analysis Date:	10/04/2013 1337			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2338			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		91		6.2	64
Benzo[a]anthracene		310		7.9	64
Benzo[b]fluoranthene		410		10	64
Benzo[k]fluoranthene		210		13	64
Benzo[g,h,i]perylene		370		6.3	64
Benzo[a]pyrene		320		6.3	64
Chrysene		390		7.5	64
Dibenz(a,h)anthracene		180		7.0	64
Fluoranthene		590		6.8	64
Fluorene		28	J	8.3	64
Indeno[1,2,3-cd]pyrene		330		6.5	64
Phenanthrene		150		10	64
Pyrene		490		6.4	64
Acenaphthene		18	J	6.1	64
Acenaphthylene		55	J	7.2	64
Naphthalene		22	J	5.5	64
2-Methylnaphthalene		17	J	5.7	64

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	70		27 - 110
2-Fluorobiphenyl	86		28 - 108
Terphenyl-d14 (Surr)	69		21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-111-01**

Lab Sample ID: 180-25423-25 Date Sampled: 09/20/2013 0930
Client Matrix: Sediment % Moisture: 20.4 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85707	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85543	Lab File ID:	N1003027.D
Dilution:	1.0			Initial Weight/Volume:	30.1 g
Analysis Date:	10/03/2013 2251			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2330			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		ND		0.41	4.2
Benzo[a]anthracene		ND		0.52	4.2
Benzo[b]fluoranthene		ND		0.66	4.2
Benzo[k]fluoranthene		ND		0.84	4.2
Benzo[g,h,i]perylene		ND		0.42	4.2
Benzo[a]pyrene		ND		0.42	4.2
Chrysene		ND		0.50	4.2
Dibenz(a,h)anthracene		ND		0.46	4.2
Fluoranthene		1.7	J	0.45	4.2
Fluorene		ND		0.55	4.2
Indeno[1,2,3-cd]pyrene		ND		0.43	4.2
Phenanthrene		ND		0.66	4.2
Pyrene		1.2	J	0.42	4.2
Acenaphthene		ND		0.40	4.2
Acenaphthylene		ND		0.48	4.2
Naphthalene		ND		0.36	4.2
2-Methylnaphthalene		ND		0.38	4.2

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	72		27 - 110
2-Fluorobiphenyl	79		28 - 108
Terphenyl-d14 (Surr)	60		21 - 130

Client: Tetra Tech, Inc.

Job Number: 180-25423-1

Client Sample ID: **SD-111-SS**

Lab Sample ID: 180-25423-24

Client Matrix: Sediment

% Moisture: 28.3

Date Sampled: 09/20/2013 0930

Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85707	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85543	Lab File ID:	N1003026.D
Dilution:	2.0			Initial Weight/Volume:	30.2 g
Analysis Date:	10/03/2013 2225			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2330			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		6.2	J	0.90	9.3
Benzo[a]anthracene		33		1.2	9.3
Benzo[b]fluoranthene		40		1.5	9.3
Benzo[k]fluoranthene		18		1.9	9.3
Benzo[g,h,i]perylene		39		0.92	9.3
Benzo[a]pyrene		33		0.92	9.3
Chrysene		39		1.1	9.3
Dibenz(a,h)anthracene		20		1.0	9.3
Fluoranthene		73		0.99	9.3
Fluorene		ND		1.2	9.3
Indeno[1,2,3-cd]pyrene		38		0.95	9.3
Phenanthrene		17		1.5	9.3
Pyrene		50		0.93	9.3
Acenaphthene		ND		0.89	9.3
Acenaphthylene		ND		1.1	9.3
Naphthalene		ND		0.80	9.3
2-Methylnaphthalene		ND		0.83	9.3

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	80		27 - 110
2-Fluorobiphenyl	85		28 - 108
Terphenyl-d14 (Surr)	63		21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-116-01**

Lab Sample ID: 180-25423-6 Date Sampled: 09/19/2013 1556
Client Matrix: Sediment % Moisture: 41.2 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85545	Lab File ID:	N1004018.D
Dilution:	25			Initial Weight/Volume:	30.1 g
Analysis Date:	10/04/2013 1641			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2338			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		190		14	140
Benzo[a]anthracene		630		18	140
Benzo[b]fluoranthene		610		22	140
Benzo[k]fluoranthene		550		29	140
Benzo[g,h,i]perylene		800		14	140
Benzo[a]pyrene		720		14	140
Chrysene		740		17	140
Dibenz(a,h)anthracene		360		16	140
Fluoranthene		1400		15	140
Fluorene		52	J	19	140
Indeno[1,2,3-cd]pyrene		700		15	140
Phenanthrene		440		22	140
Pyrene		1000		14	140
Acenaphthene		45	J	14	140
Acenaphthylene		120	J	16	140
Naphthalene		31	J	12	140
2-Methylnaphthalene		25	J	13	140

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	85	D	27 - 110
2-Fluorobiphenyl	92	D	28 - 108
Terphenyl-d14 (Surr)	64	D	21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-116-02**

Lab Sample ID: 180-25423-7 Date Sampled: 09/19/2013 1556
Client Matrix: Sediment % Moisture: 39.1 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85545	Lab File ID:	N1004019.D
Dilution:	5.0			Initial Weight/Volume:	30.0 g
Analysis Date:	10/04/2013 1707			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2338			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		11	J	2.7	28
Benzo[a]anthracene		38		3.4	28
Benzo[b]fluoranthene		48		4.3	28
Benzo[k]fluoranthene		23	J	5.5	28
Benzo[g,h,i]perylene		91		2.7	28
Benzo[a]pyrene		43		2.7	28
Chrysene		43		3.3	28
Dibenz(a,h)anthracene		57		3.0	28
Fluoranthene		68		2.9	28
Fluorene		ND		3.6	28
Indeno[1,2,3-cd]pyrene		83		2.8	28
Phenanthrene		20	J	4.4	28
Pyrene		62		2.8	28
Acenaphthene		ND		2.6	28
Acenaphthylene		9.6	J	3.1	28
Naphthalene		ND		2.4	28
2-Methylnaphthalene		ND		2.5	28

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	68		27 - 110
2-Fluorobiphenyl	79		28 - 108
Terphenyl-d14 (Surr)	59		21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-116-SS**

Lab Sample ID: 180-25423-5 Date Sampled: 09/19/2013 1556
Client Matrix: Sediment % Moisture: 58.0 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85545	Lab File ID:	N1004017.D
Dilution:	25			Initial Weight/Volume:	30.0 g
Analysis Date:	10/04/2013 1615			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2338			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		240		19	200
Benzo[a]anthracene		760		25	200
Benzo[b]fluoranthene		970		31	200
Benzo[k]fluoranthene		480		40	200
Benzo[g,h,i]perylene		1100		20	200
Benzo[a]pyrene		890		20	200
Chrysene		1000		24	200
Dibenz(a,h)anthracene		520		22	200
Fluoranthene		1500		21	200
Fluorene		56	J	26	200
Indeno[1,2,3-cd]pyrene		990		20	200
Phenanthrene		390		32	200
Pyrene		1200		20	200
Acenaphthene		30	J	19	200
Acenaphthylene		180	J	23	200
Naphthalene		ND		17	200
2-Methylnaphthalene		44	J	18	200

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	64	D	27 - 110
2-Fluorobiphenyl	74	D	28 - 108
Terphenyl-d14 (Surr)	59	D	21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-148-01**

Lab Sample ID: 180-25423-9 Date Sampled: 09/19/2013 1635
Client Matrix: Sediment % Moisture: 70.4 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85545	Lab File ID:	N1004021.D
Dilution:	20			Initial Weight/Volume:	30.2 g
Analysis Date:	10/04/2013 1759			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2338			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		410		22	220
Benzo[a]anthracene		1100		28	220
Benzo[b]fluoranthene		1300		35	220
Benzo[k]fluoranthene		520		45	220
Benzo[g,h,i]perylene		1200		22	220
Benzo[a]pyrene		1100		22	220
Chrysene		1200		27	220
Dibenz(a,h)anthracene		540		25	220
Fluoranthene		2600		24	220
Fluorene		170	J	29	220
Indeno[1,2,3-cd]pyrene		1000		23	220
Phenanthrene		1000		36	220
Pyrene		1600		23	220
Acenaphthene		170	J	21	220
Acenaphthylene		110	J	26	220
Naphthalene		85	J	19	220
2-Methylnaphthalene		78	J	20	220

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	54	D	27 - 110
2-Fluorobiphenyl	66	D	28 - 108
Terphenyl-d14 (Surr)	53	D	21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-148-02**

Lab Sample ID: 180-25423-10 Date Sampled: 09/19/2013 1635
Client Matrix: Sediment % Moisture: 69.1 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85545	Lab File ID:	N1004022.D
Dilution:	20			Initial Weight/Volume:	30.0 g
Analysis Date:	10/04/2013 1825			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2338			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		770		21	220
Benzo[a]anthracene		2700		27	220
Benzo[b]fluoranthene		3200		34	220
Benzo[k]fluoranthene		940		44	220
Benzo[g,h,i]perylene		2000		21	220
Benzo[a]pyrene		2400		22	220
Chrysene		2700		26	220
Dibenz(a,h)anthracene		740		24	220
Fluoranthene		5600		23	220
Fluorene		300		28	220
Indeno[1,2,3-cd]pyrene		1700		22	220
Phenanthrene		2200		34	220
Pyrene		3700		22	220
Acenaphthene		340		21	220
Acenaphthylene		200	J	25	220
Naphthalene		240		19	220
2-Methylnaphthalene		180	J	19	220

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	74	D	27 - 110
2-Fluorobiphenyl	87	D	28 - 108
Terphenyl-d14 (Surr)	62	D	21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-148-03**

Lab Sample ID: 180-25423-11 Date Sampled: 09/19/2013 1635
Client Matrix: Sediment % Moisture: 63.8 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85545	Lab File ID:	N1004023.D
Dilution:	15			Initial Weight/Volume:	30.0 g
Analysis Date:	10/04/2013 1852			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2338			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		2300		14	140
Benzo[a]anthracene		12000		17	140
Benzo[b]fluoranthene		12000		22	140
Benzo[k]fluoranthene		2900		28	140
Benzo[g,h,i]perylene		5800		14	140
Benzo[a]pyrene		10000		14	140
Chrysene		11000		16	140
Dibenz(a,h)anthracene		1800		15	140
Fluoranthene		24000		15	140
Fluorene		840		18	140
Indeno[1,2,3-cd]pyrene		5100		14	140
Phenanthrene		7900		22	140
Pyrene		15000		14	140
Acenaphthene		860		13	140
Acenaphthylene		180		16	140
Naphthalene		230		12	140
2-Methylnaphthalene		130	J	12	140

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	86	D	27 - 110
2-Fluorobiphenyl	88	D	28 - 108
Terphenyl-d14 (Surr)	64	D	21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-148-SS**

Lab Sample ID: 180-25423-8 Date Sampled: 09/19/2013 1635
Client Matrix: Sediment % Moisture: 78.0 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85545	Lab File ID:	N1004020.D
Dilution:	20			Initial Weight/Volume:	30.0 g
Analysis Date:	10/04/2013 1733			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2338			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		130	J	30	300
Benzo[a]anthracene		360		38	300
Benzo[b]fluoranthene		560		48	300
Benzo[k]fluoranthene		230	J	61	300
Benzo[g,h,i]perylene		900		30	300
Benzo[a]pyrene		430		30	300
Chrysene		520		36	300
Dibenz(a,h)anthracene		630		34	300
Fluoranthene		760		32	300
Fluorene		ND		40	300
Indeno[1,2,3-cd]pyrene		900		31	300
Phenanthrene		220	J	48	300
Pyrene		570		31	300
Acenaphthene		35	J	29	300
Acenaphthylene		100	J	35	300
Naphthalene		ND		26	300
2-Methylnaphthalene		59	J	27	300

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	65	D	27 - 110
2-Fluorobiphenyl	69	D	28 - 108
Terphenyl-d14 (Surr)	54	D	21 - 130

Client: Tetra Tech, Inc.

Job Number: 180-25423-1

Client Sample ID: **SD-149-01**

Lab Sample ID: 180-25423-13

Client Matrix: Sediment

% Moisture: 64.4

Date Sampled: 09/19/2013 1705

Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85545	Lab File ID:	N1004025.D
Dilution:	20			Initial Weight/Volume:	30.0 g
Analysis Date:	10/04/2013 1944			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2338			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		170	J	18	190
Benzo[a]anthracene		620		23	190
Benzo[b]fluoranthene		720		29	190
Benzo[k]fluoranthene		460		38	190
Benzo[g,h,i]perylene		810		19	190
Benzo[a]pyrene		710		19	190
Chrysene		840		22	190
Dibenz(a,h)anthracene		420		21	190
Fluoranthene		1400		20	190
Fluorene		73	J	25	190
Indeno[1,2,3-cd]pyrene		770		19	190
Phenanthrene		560		30	190
Pyrene		1100		19	190
Acenaphthene		88	J	18	190
Acenaphthylene		95	J	21	190
Naphthalene		77	J	16	190
2-Methylnaphthalene		53	J	17	190

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	65	D	27 - 110
2-Fluorobiphenyl	76	D	28 - 108
Terphenyl-d14 (Surr)	72	D	21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-149-02**

Lab Sample ID: 180-25423-14 Date Sampled: 09/19/2013 1705
Client Matrix: Sediment % Moisture: 64.0 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85545	Lab File ID:	N1004026.D
Dilution:	25			Initial Weight/Volume:	30.1 g
Analysis Date:	10/04/2013 2010			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2338			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		950		23	230
Benzo[a]anthracene		3500		29	230
Benzo[b]fluoranthene		3800		36	230
Benzo[k]fluoranthene		1500		47	230
Benzo[g,h,i]perylene		2500		23	230
Benzo[a]pyrene		3200		23	230
Chrysene		3800		28	230
Dibenz(a,h)anthracene		920		26	230
Fluoranthene		7600		25	230
Fluorene		390		30	230
Indeno[1,2,3-cd]pyrene		2200		24	230
Phenanthrene		2900		37	230
Pyrene		5000		23	230
Acenaphthene		450		22	230
Acenaphthylene		220	J	26	230
Naphthalene		270		20	230
2-Methylnaphthalene		200	J	21	230

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	71	D	27 - 110
2-Fluorobiphenyl	89	D	28 - 108
Terphenyl-d14 (Surr)	68	D	21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-149-03**

Lab Sample ID: 180-25423-15 Date Sampled: 09/19/2013 1705
Client Matrix: Sediment % Moisture: 44.2 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85545	Lab File ID:	N1004027.D
Dilution:	5.0			Initial Weight/Volume:	30.1 g
Analysis Date:	10/04/2013 2036			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2338			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		110		2.9	30
Benzo[a]anthracene		460		3.7	30
Benzo[b]fluoranthene		490		4.7	30
Benzo[k]fluoranthene		170		6.0	30
Benzo[g,h,i]perylene		280		3.0	30
Benzo[a]pyrene		390		3.0	30
Chrysene		470		3.5	30
Dibenz(a,h)anthracene		110		3.3	30
Fluoranthene		960		3.2	30
Fluorene		55		3.9	30
Indeno[1,2,3-cd]pyrene		250		3.1	30
Phenanthrene		410		4.7	30
Pyrene		660		3.0	30
Acenaphthene		59		2.9	30
Acenaphthylene		17	J	3.4	30
Naphthalene		27	J	2.6	30
2-Methylnaphthalene		19	J	2.7	30

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	66		27 - 110
2-Fluorobiphenyl	80		28 - 108
Terphenyl-d14 (Surr)	61		21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-149-SS**

Lab Sample ID: 180-25423-12 Date Sampled: 09/19/2013 1705
Client Matrix: Sediment % Moisture: 74.7 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85545	Lab File ID:	N1004024.D
Dilution:	20			Initial Weight/Volume:	30.1 g
Analysis Date:	10/04/2013 1918			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2338			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		200	J	26	260
Benzo[a]anthracene		520		33	260
Benzo[b]fluoranthene		1000		41	260
Benzo[k]fluoranthene		320		53	260
Benzo[g,h,i]perylene		1100		26	260
Benzo[a]pyrene		670		26	260
Chrysene		770		31	260
Dibenz(a,h)anthracene		550		29	260
Fluoranthene		1100		28	260
Fluorene		62	J	35	260
Indeno[1,2,3-cd]pyrene		990		27	260
Phenanthrene		340		42	260
Pyrene		820		27	260
Acenaphthene		38	J	25	260
Acenaphthylene		110	J	30	260
Naphthalene		75	J	23	260
2-Methylnaphthalene		71	J	24	260

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	64	D	27 - 110
2-Fluorobiphenyl	77	D	28 - 108
Terphenyl-d14 (Surr)	61	D	21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-150-01**

Lab Sample ID: 180-25423-17 Date Sampled: 09/19/2013 1727
Client Matrix: Sediment % Moisture: 63.2 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-86264	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85545	Lab File ID:	N1009N03.D
Dilution:	15			Initial Weight/Volume:	30.2 g
Analysis Date:	10/09/2013 1646			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2338			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		200		13	140
Benzo[a]anthracene		630		17	140
Benzo[b]fluoranthene		800		21	140
Benzo[k]fluoranthene		360		27	140
Benzo[g,h,i]perylene		550		13	140
Benzo[a]pyrene		600		14	140
Chrysene		820		16	140
Dibenz(a,h)anthracene		120	J	15	140
Fluoranthene		1300		14	140
Fluorene		74	J	18	140
Indeno[1,2,3-cd]pyrene		430		14	140
Phenanthrene		520		22	140
Pyrene		1000		14	140
Acenaphthene		98	J	13	140
Acenaphthylene		70	J	15	140
Naphthalene		66	J	12	140
2-Methylnaphthalene		45	J	12	140

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	78	D	27 - 110
2-Fluorobiphenyl	89	D	28 - 108
Terphenyl-d14 (Surr)	70	D	21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-150-02**

Lab Sample ID: 180-25423-18 Date Sampled: 09/19/2013 1727
Client Matrix: Sediment % Moisture: 63.4 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-86264	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85545	Lab File ID:	N1009N04.D
Dilution:	20			Initial Weight/Volume:	30.3 g
Analysis Date:	10/09/2013 1712			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2338			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		350		18	180
Benzo[a]anthracene		1000		23	180
Benzo[b]fluoranthene		1400		28	180
Benzo[k]fluoranthene		380		36	180
Benzo[g,h,i]perylene		880		18	180
Benzo[a]pyrene		950		18	180
Chrysene		1100		21	180
Dibenz(a,h)anthracene		210		20	180
Fluoranthene		2000		19	180
Fluorene		110	J	24	180
Indeno[1,2,3-cd]pyrene		710		19	180
Phenanthrene		870		29	180
Pyrene		1500		18	180
Acenaphthene		120	J	17	180
Acenaphthylene		110	J	21	180
Naphthalene		56	J	16	180
2-Methylnaphthalene		46	J	16	180

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	65	D	27 - 110
2-Fluorobiphenyl	84	D	28 - 108
Terphenyl-d14 (Surr)	79	D	21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-150-03**

Lab Sample ID: 180-25423-19 Date Sampled: 09/19/2013 1727
Client Matrix: Sediment % Moisture: 61.9 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-86264	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85545	Lab File ID:	N1009N05.D
Dilution:	20			Initial Weight/Volume:	30.3 g
Analysis Date:	10/09/2013 1739			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2338			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		900		17	170
Benzo[a]anthracene		3000		22	170
Benzo[b]fluoranthene		3200		27	170
Benzo[k]fluoranthene		1300		35	170
Benzo[g,h,i]perylene		2000		17	170
Benzo[a]pyrene		2700		17	170
Chrysene		3300		21	170
Dibenz(a,h)anthracene		420		19	170
Fluoranthene		6700		19	170
Fluorene		320		23	170
Indeno[1,2,3-cd]pyrene		1700		18	170
Phenanthrene		3100		28	170
Pyrene		4600		18	170
Acenaphthene		380		17	170
Acenaphthylene		62	J	20	170
Naphthalene		75	J	15	170
2-Methylnaphthalene		54	J	16	170

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	80	D	27 - 110
2-Fluorobiphenyl	96	D	28 - 108
Terphenyl-d14 (Surr)	81	D	21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-150-SS**

Lab Sample ID: 180-25423-16 Date Sampled: 09/19/2013 1727
Client Matrix: Sediment % Moisture: 77.0 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-86264	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85545	Lab File ID:	N1009N02.D
Dilution:	10			Initial Weight/Volume:	30.1 g
Analysis Date:	10/09/2013 1620			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2338			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		130	J	14	140
Benzo[a]anthracene		410		18	140
Benzo[b]fluoranthene		770		23	140
Benzo[k]fluoranthene		240		29	140
Benzo[g,h,i]perylene		510		14	140
Benzo[a]pyrene		460		14	140
Chrysene		610		17	140
Dibenz(a,h)anthracene		81	J	16	140
Fluoranthene		850		15	140
Fluorene		45	J	19	140
Indeno[1,2,3-cd]pyrene		440		15	140
Phenanthrene		280		23	140
Pyrene		780		15	140
Acenaphthene		36	J	14	140
Acenaphthylene		56	J	17	140
Naphthalene		71	J	12	140
2-Methylnaphthalene		51	J	13	140

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	35		27 - 110
2-Fluorobiphenyl	45		28 - 108
Terphenyl-d14 (Surr)	45		21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-151-01**

Lab Sample ID: 180-25423-21 Date Sampled: 09/20/2013 0757
Client Matrix: Sediment % Moisture: 68.8 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85707	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85543	Lab File ID:	N1003023.D
Dilution:	25			Initial Weight/Volume:	30.0 g
Analysis Date:	10/03/2013 2107			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2330			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		650		26	270
Benzo[a]anthracene		2100		34	270
Benzo[b]fluoranthene		2200		42	270
Benzo[k]fluoranthene		990		54	270
Benzo[g,h,i]perylene		1600		27	270
Benzo[a]pyrene		1800		27	270
Chrysene		2100		32	270
Dibenz(a,h)anthracene		680		30	270
Fluoranthene		4500		29	270
Fluorene		230	J	35	270
Indeno[1,2,3-cd]pyrene		1500		28	270
Phenanthrene		1900		43	270
Pyrene		3100		27	270
Acenaphthene		280		26	270
Acenaphthylene		120	J	31	270
Naphthalene		140	J	23	270
2-Methylnaphthalene		110	J	24	270

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	60	D	27 - 110
2-Fluorobiphenyl	73	D	28 - 108
Terphenyl-d14 (Surr)	56	D	21 - 130

Client: Tetra Tech, Inc.

Job Number: 180-25423-1

Client Sample ID: **SD-151-02**

Lab Sample ID: 180-25423-22

Client Matrix: Sediment

% Moisture: 57.8

Date Sampled: 09/20/2013 0757

Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85707	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85543	Lab File ID:	N1003024.D
Dilution:	20			Initial Weight/Volume:	30.1 g
Analysis Date:	10/03/2013 2133			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2330			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		2600		15	160
Benzo[a]anthracene		10000		20	160
Benzo[b]fluoranthene		10000		25	160
Benzo[k]fluoranthene		3200		32	160
Benzo[g,h,i]perylene		4700		16	160
Benzo[a]pyrene		8100		16	160
Chrysene		9800		19	160
Dibenz(a,h)anthracene		1400		18	160
Fluoranthene		23000		17	160
Fluorene		1200		21	160
Indeno[1,2,3-cd]pyrene		4300		16	160
Phenanthrene		9400		25	160
Pyrene		15000		16	160
Acenaphthene		1500		15	160
Acenaphthylene		150	J	18	160
Naphthalene		340		14	160
2-Methylnaphthalene		190		14	160

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	89	D	27 - 110
2-Fluorobiphenyl	100	D	28 - 108
Terphenyl-d14 (Surr)	71	D	21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-151-03**

Lab Sample ID: 180-25423-23 Date Sampled: 09/20/2013 0757
Client Matrix: Sediment % Moisture: 56.8 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85707	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85543	Lab File ID:	N1003025.D
Dilution:	5.0			Initial Weight/Volume:	30.0 g
Analysis Date:	10/03/2013 2159			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2330			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		8.5	J	3.8	39
Benzo[a]anthracene		19	J	4.8	39
Benzo[b]fluoranthene		18	J	6.1	39
Benzo[k]fluoranthene		13	J	7.8	39
Benzo[g,h,i]perylene		79		3.8	39
Benzo[a]pyrene		18	J	3.9	39
Chrysene		24	J	4.6	39
Dibenz(a,h)anthracene		ND		4.3	39
Fluoranthene		42		4.1	39
Fluorene		ND		5.1	39
Indeno[1,2,3-cd]pyrene		87		4.0	39
Phenanthrene		27	J	6.1	39
Pyrene		28	J	3.9	39
Acenaphthene		ND		3.7	39
Acenaphthylene		ND		4.4	39
Naphthalene		15	J	3.3	39
2-Methylnaphthalene		12	J	3.5	39

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	75		27 - 110
2-Fluorobiphenyl	83		28 - 108
Terphenyl-d14 (Surr)	62		21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-151-SS**

Lab Sample ID: 180-25423-20 Date Sampled: 09/20/2013 0757
Client Matrix: Sediment % Moisture: 80.2 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85707	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85543	Lab File ID:	N1003020.D
Dilution:	15			Initial Weight/Volume:	30.1 g
Analysis Date:	10/03/2013 1948			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2330			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		100	J	25	250
Benzo[a]anthracene		310		32	250
Benzo[b]fluoranthene		520		40	250
Benzo[k]fluoranthene		260		51	250
Benzo[g,h,i]perylene		760		25	250
Benzo[a]pyrene		380		25	250
Chrysene		510		30	250
Dibenz(a,h)anthracene		490		28	250
Fluoranthene		1000		27	250
Fluorene		ND		33	250
Indeno[1,2,3-cd]pyrene		760		26	250
Phenanthrene		180	J	40	250
Pyrene		810		25	250
Acenaphthene		ND		24	250
Acenaphthylene		55	J	29	250
Naphthalene		75	J	22	250
2-Methylnaphthalene		51	J	23	250

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	54	D	27 - 110
2-Fluorobiphenyl	60	D	28 - 108
Terphenyl-d14 (Surr)	51	D	21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-161-01**

Lab Sample ID: 180-25423-35 Date Sampled: 09/20/2013 1145
Client Matrix: Sediment % Moisture: 46.9 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85543	Lab File ID:	N1004006.D
Dilution:	25			Initial Weight/Volume:	30.2 g
Analysis Date:	10/04/2013 1218			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2330			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		3300		15	160
Benzo[a]anthracene		19000		20	160
Benzo[b]fluoranthene		19000		25	160
Benzo[k]fluoranthene		7300		32	160
Benzo[g,h,i]perylene		8100		16	160
Benzo[a]pyrene		15000		16	160
Chrysene		20000		19	160
Dibenz(a,h)anthracene		2700		17	160
Fluoranthene		43000	E	17	160
Fluorene		1400		21	160
Indeno[1,2,3-cd]pyrene		7400		16	160
Phenanthrene		16000		25	160
Pyrene		27000		16	160
Acenaphthene		1300		15	160
Acenaphthylene		150	J	18	160
Naphthalene		140	J	13	160
2-Methylnaphthalene		67	J	14	160

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	70	D	27 - 110
2-Fluorobiphenyl	80	D	28 - 108
Terphenyl-d14 (Surr)	65	D	21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-161-01**

Lab Sample ID: 180-25423-35 Date Sampled: 09/20/2013 1145
Client Matrix: Sediment % Moisture: 46.9 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-86264	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85543	Lab File ID:	N1009N01.D
Dilution:	100			Initial Weight/Volume:	30.2 g
Analysis Date:	10/09/2013 1554	Run Type:	DL	Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2330			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		4000		61	630
Benzo[a]anthracene		19000		78	630
Benzo[b]fluoranthene		19000		98	630
Benzo[k]fluoranthene		8000		130	630
Benzo[g,h,i]perylene		9000		62	630
Benzo[a]pyrene		15000		62	630
Chrysene		19000		74	630
Dibenz(a,h)anthracene		2100		69	630
Fluoranthene		39000		67	630
Fluorene		1300		82	630
Indeno[1,2,3-cd]pyrene		8400		64	630
Phenanthrene		18000		99	630
Pyrene		29000		63	630
Acenaphthene		1400		60	630
Acenaphthylene		100	J	72	630
Naphthalene		ND		54	630
2-Methylnaphthalene		85	J	56	630

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	0	D X	27 - 110
2-Fluorobiphenyl	0	D X	28 - 108
Terphenyl-d14 (Surr)	0	D X	21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-161-02**

Lab Sample ID: 180-25423-36 Date Sampled: 09/20/2013 1145
Client Matrix: Sediment % Moisture: 42.3 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85543	Lab File ID:	N1004007.D
Dilution:	25			Initial Weight/Volume:	30.0 g
Analysis Date:	10/04/2013 1245			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2334			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		1300		14	150
Benzo[a]anthracene		4600		18	150
Benzo[b]fluoranthene		4800		23	150
Benzo[k]fluoranthene		1500		29	150
Benzo[g,h,i]perylene		2400		14	150
Benzo[a]pyrene		3700		14	150
Chrysene		4800		17	150
Dibenz(a,h)anthracene		730		16	150
Fluoranthene		11000		15	150
Fluorene		460		19	150
Indeno[1,2,3-cd]pyrene		2200		15	150
Phenanthrene		3400		23	150
Pyrene		7000		15	150
Acenaphthene		720		14	150
Acenaphthylene		80	J	17	150
Naphthalene		76	J	12	150
2-Methylnaphthalene		36	J	13	150

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	67	D	27 - 110
2-Fluorobiphenyl	80	D	28 - 108
Terphenyl-d14 (Surr)	67	D	21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-161-03**

Lab Sample ID: 180-25423-37 Date Sampled: 09/20/2013 1145
Client Matrix: Sediment % Moisture: 45.4 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85543	Lab File ID:	N1004008.D
Dilution:	5.0			Initial Weight/Volume:	30.2 g
Analysis Date:	10/04/2013 1311			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2334			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		210		3.0	30
Benzo[a]anthracene		660		3.8	30
Benzo[b]fluoranthene		620		4.8	30
Benzo[k]fluoranthene		220		6.1	30
Benzo[g,h,i]perylene		320		3.0	30
Benzo[a]pyrene		500		3.0	30
Chrysene		660		3.6	30
Dibenz(a,h)anthracene		120		3.4	30
Fluoranthene		1500		3.2	30
Fluorene		160		4.0	30
Indeno[1,2,3-cd]pyrene		300		3.1	30
Phenanthrene		960		4.8	30
Pyrene		1000		3.1	30
Acenaphthene		160		2.9	30
Acenaphthylene		17	J	3.5	30
Naphthalene		31		2.6	30
2-Methylnaphthalene		24	J	2.7	30

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	72		27 - 110
2-Fluorobiphenyl	83		28 - 108
Terphenyl-d14 (Surr)	64		21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-161-SS**

Lab Sample ID: 180-25423-34 Date Sampled: 09/20/2013 1145
Client Matrix: Sediment % Moisture: 61.2 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85543	Lab File ID:	N1004005.D
Dilution:	25			Initial Weight/Volume:	30.1 g
Analysis Date:	10/04/2013 1152			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2330			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		190	J	21	220
Benzo[a]anthracene		660		27	220
Benzo[b]fluoranthene		1300		34	220
Benzo[k]fluoranthene		520		43	220
Benzo[g,h,i]perylene		1200		21	220
Benzo[a]pyrene		840		21	220
Chrysene		1300		26	220
Dibenz(a,h)anthracene		570		24	220
Fluoranthene		1400		23	220
Fluorene		ND		28	220
Indeno[1,2,3-cd]pyrene		1000		22	220
Phenanthrene		400		34	220
Pyrene		1100		22	220
Acenaphthene		ND		21	220
Acenaphthylene		110	J	25	220
Naphthalene		72	J	18	220
2-Methylnaphthalene		54	J	19	220

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	66	D	27 - 110
2-Fluorobiphenyl	84	D	28 - 108
Terphenyl-d14 (Surr)	65	D	21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-162-01**

Lab Sample ID: 180-25423-31 Date Sampled: 09/20/2013 1128
Client Matrix: Sediment % Moisture: 75.6 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85543	Lab File ID:	N1004002.D
Dilution:	10			Initial Weight/Volume:	30.3 g
Analysis Date:	10/04/2013 1034			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2330			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		130	J	13	140
Benzo[a]anthracene		370		17	140
Benzo[b]fluoranthene		710		21	140
Benzo[k]fluoranthene		220		27	140
Benzo[g,h,i]perylene		640		13	140
Benzo[a]pyrene		460		14	140
Chrysene		590		16	140
Dibenz(a,h)anthracene		300		15	140
Fluoranthene		850		14	140
Fluorene		62	J	18	140
Indeno[1,2,3-cd]pyrene		570		14	140
Phenanthrene		280		21	140
Pyrene		710		14	140
Acenaphthene		30	J	13	140
Acenaphthylene		72	J	15	140
Naphthalene		95	J	12	140
2-Methylnaphthalene		76	J	12	140

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	63		27 - 110
2-Fluorobiphenyl	77		28 - 108
Terphenyl-d14 (Surr)	57		21 - 130

Client: Tetra Tech, Inc.

Job Number: 180-25423-1

Client Sample ID: **SD-162-02**

Lab Sample ID: 180-25423-32

Client Matrix: Sediment

% Moisture: 63.9

Date Sampled: 09/20/2013 1128

Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85543	Lab File ID:	N1004003.D
Dilution:	5.0			Initial Weight/Volume:	30.1 g
Analysis Date:	10/04/2013 1100			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2330			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		56		4.5	46
Benzo[a]anthracene		140		5.8	46
Benzo[b]fluoranthene		210		7.2	46
Benzo[k]fluoranthene		84		9.3	46
Benzo[g,h,i]perylene		210		4.6	46
Benzo[a]pyrene		150		4.6	46
Chrysene		180		5.5	46
Dibenz(a,h)anthracene		110		5.1	46
Fluoranthene		290		4.9	46
Fluorene		22	J	6.1	46
Indeno[1,2,3-cd]pyrene		190		4.7	46
Phenanthrene		110		7.3	46
Pyrene		250		4.7	46
Acenaphthene		13	J	4.4	46
Acenaphthylene		29	J	5.3	46
Naphthalene		33	J	4.0	46
2-Methylnaphthalene		28	J	4.1	46

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	61		27 - 110
2-Fluorobiphenyl	79		28 - 108
Terphenyl-d14 (Surr)	64		21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-162-03**

Lab Sample ID: 180-25423-33 Date Sampled: 09/20/2013 1128
Client Matrix: Sediment % Moisture: 55.7 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85543	Lab File ID:	N1004004.D
Dilution:	3.0			Initial Weight/Volume:	30.1 g
Analysis Date:	10/04/2013 1126			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2330			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		ND		2.2	23
Benzo[a]anthracene		ND		2.8	23
Benzo[b]fluoranthene		ND		3.5	23
Benzo[k]fluoranthene		ND		4.6	23
Benzo[g,h,i]perylene		ND		2.2	23
Benzo[a]pyrene		ND		2.3	23
Chrysene		ND		2.7	23
Dibenz(a,h)anthracene		ND		2.5	23
Fluoranthene		ND		2.4	23
Fluorene		ND		3.0	23
Indeno[1,2,3-cd]pyrene		ND		2.3	23
Phenanthrene		ND		3.6	23
Pyrene		ND		2.3	23
Acenaphthene		ND		2.2	23
Acenaphthylene		ND		2.6	23
Naphthalene		ND		1.9	23
2-Methylnaphthalene		ND		2.0	23

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	75		27 - 110
2-Fluorobiphenyl	85		28 - 108
Terphenyl-d14 (Surr)	65		21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-162-SS**

Lab Sample ID: 180-25423-30 Date Sampled: 09/20/2013 1128
Client Matrix: Sediment % Moisture: 79.7 Date Received: 09/24/2013 1643

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-85843	Instrument ID:	733
Prep Method:	3541	Prep Batch:	180-85543	Lab File ID:	N1004001.D
Dilution:	15			Initial Weight/Volume:	30.0 g
Analysis Date:	10/04/2013 1008			Final Weight/Volume:	0.5 mL
Prep Date:	10/02/2013 2330			Injection Volume:	2 uL

Analyte DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene	120	J	24	250
Benzo[a]anthracene	300		31	250
Benzo[b]fluoranthene	600		39	250
Benzo[k]fluoranthene	320		50	250
Benzo[g,h,i]perylene	810		25	250
Benzo[a]pyrene	470		25	250
Chrysene	500		29	250
Dibenz(a,h)anthracene	510		27	250
Fluoranthene	830		26	250
Fluorene	54	J	33	250
Indeno[1,2,3-cd]pyrene	780		25	250
Phenanthrene	280		39	250
Pyrene	680		25	250
Acenaphthene	27	J	24	250
Acenaphthylene	ND		28	250
Naphthalene	98	J	21	250
2-Methylnaphthalene	71	J	22	250

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	61	D	27 - 110
2-Fluorobiphenyl	70	D	28 - 108
Terphenyl-d14 (Surr)	59	D	21 - 130

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **DUP O8**

Lab Sample ID: 180-25423-38 Date Sampled: 09/19/2013 1635
Client Matrix: Sediment % Moisture: 79.8 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85914	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-85546	Initial Weight/Volume:	30.0 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 2206			Injection Volume:	1 uL
Prep Date:	10/02/2013 2342			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		3.1	21
PCB-1221		ND		3.9	21
PCB-1232		ND		3.5	21
PCB-1242		ND		3.4	21
PCB-1248		ND		1.9	21
PCB-1254		ND		2.9	21
PCB-1260		1500	B	2.9	21

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	180	X	31 - 150
Tetrachloro-m-xylene	71		31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-110-01**

Lab Sample ID: 180-25423-2 Date Sampled: 09/19/2013 1617
Client Matrix: Sediment % Moisture: 33.2 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85914	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-85546	Initial Weight/Volume:	30.0 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 0958			Injection Volume:	1 uL
Prep Date:	10/02/2013 2342			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		0.93	6.2
PCB-1221		ND		1.2	6.2
PCB-1232		ND		1.1	6.2
PCB-1242		ND		1.0	6.2
PCB-1248		ND		0.59	6.2
PCB-1254		100		0.89	6.2
PCB-1260		140	B	0.89	6.2

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	144		31 - 150
Tetrachloro-m-xylene	74		31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-110-02**

Lab Sample ID: 180-25423-3 Date Sampled: 09/19/2013 1617
Client Matrix: Sediment % Moisture: 42.5 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85914	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-85546	Initial Weight/Volume:	30.2 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 1133			Injection Volume:	1 uL
Prep Date:	10/02/2013 2342			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		1.1	7.2
PCB-1221		ND		1.4	7.2
PCB-1232		ND		1.2	7.2
PCB-1242		ND		1.2	7.2
PCB-1248		580		0.68	7.2
PCB-1254		ND		1.0	7.2
PCB-1260		420	B	1.0	7.2

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	285	X	31 - 150
Tetrachloro-m-xylene	100		31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-110-03**

Lab Sample ID: 180-25423-4 Date Sampled: 09/19/2013 1617
Client Matrix: Sediment % Moisture: 37.8 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85914	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-85546	Initial Weight/Volume:	30.3 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 1205			Injection Volume:	1 uL
Prep Date:	10/02/2013 2342			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		0.99	6.6
PCB-1221		ND		1.3	6.6
PCB-1232		ND		1.1	6.6
PCB-1242		ND		1.1	6.6
PCB-1248		ND		0.63	6.6
PCB-1254		ND		0.94	6.6
PCB-1260		67	B	0.94	6.6

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	187	X	31 - 150
Tetrachloro-m-xylene	89		31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-110-SS**

Lab Sample ID: 180-25423-1 Date Sampled: 09/19/2013 1617
Client Matrix: Sediment % Moisture: 47.5 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85914	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-85546	Initial Weight/Volume:	30.0 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 0926			Injection Volume:	1 uL
Prep Date:	10/02/2013 2342			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		1.2	7.9
PCB-1221		ND		1.5	7.9
PCB-1232		ND		1.4	7.9
PCB-1242		ND		1.3	7.9
PCB-1248		ND		0.75	7.9
PCB-1254		ND		1.1	7.9
PCB-1260		260	B	1.1	7.9

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	111		31 - 150
Tetrachloro-m-xylene	79		31 - 150

Client: Tetra Tech, Inc.

Job Number: 180-25423-1

Client Sample ID: **SD-111-01**

Lab Sample ID: 180-25423-25

Client Matrix: Sediment

% Moisture: 20.4

Date Sampled: 09/20/2013 0930

Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85741	Instrument ID:	GC8
Prep Method:	3541	Prep Batch:	180-85557	Initial Weight/Volume:	30.1 g
Dilution:	5.0			Final Weight/Volume:	1.0 mL
Analysis Date:	10/03/2013 2227			Injection Volume:	1 uL
Prep Date:	10/03/2013 0600			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		0.39	2.6
PCB-1221		ND		0.50	2.6
PCB-1232		ND		0.45	2.6
PCB-1242		ND		0.43	2.6
PCB-1248		ND		0.25	2.6
PCB-1254		ND		0.37	2.6
PCB-1260		12		0.37	2.6

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	87		31 - 150
Tetrachloro-m-xylene	90		31 - 150

Client: Tetra Tech, Inc.

Job Number: 180-25423-1

Client Sample ID: **SD-111-SS**

Lab Sample ID: 180-25423-24

Client Matrix: Sediment

% Moisture: 28.3

Date Sampled: 09/20/2013 0930

Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85741	Instrument ID:	GC8
Prep Method:	3541	Prep Batch:	180-85557	Initial Weight/Volume:	30.0 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/03/2013 2158			Injection Volume:	1 uL
Prep Date:	10/03/2013 0600			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		0.86	5.8
PCB-1221		ND		1.1	5.8
PCB-1232		ND		0.99	5.8
PCB-1242		ND		0.95	5.8
PCB-1248		ND		0.55	5.8
PCB-1254		ND		0.83	5.8
PCB-1260		67		0.83	5.8

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	110		31 - 150
Tetrachloro-m-xylene	79		31 - 150

Client: Tetra Tech, Inc.

Job Number: 180-25423-1

Client Sample ID: **SD-116-01**

Lab Sample ID: 180-25423-6

Client Matrix: Sediment

% Moisture: 41.2

Date Sampled: 09/19/2013 1556

Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85914	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-85546	Initial Weight/Volume:	30.0 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 1308			Injection Volume:	1 uL
Prep Date:	10/02/2013 2342			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		1.1	7.1
PCB-1221		ND		1.4	7.1
PCB-1232		ND		1.2	7.1
PCB-1242		ND		1.2	7.1
PCB-1248		900		0.67	7.1
PCB-1254		ND		1.0	7.1
PCB-1260		800	B	1.0	7.1

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	348	X	31 - 150
Tetrachloro-m-xylene	79		31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-116-02**

Lab Sample ID: 180-25423-7 Date Sampled: 09/19/2013 1556
Client Matrix: Sediment % Moisture: 39.1 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85914	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-85546	Initial Weight/Volume:	30.0 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 1340			Injection Volume:	1 uL
Prep Date:	10/02/2013 2342			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		1.0	6.8
PCB-1221		ND		1.3	6.8
PCB-1232		ND		1.2	6.8
PCB-1242		ND		1.1	6.8
PCB-1248		ND		0.65	6.8
PCB-1254		20		0.97	6.8
PCB-1260		38	B	0.97	6.8

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	114		31 - 150
Tetrachloro-m-xylene	88		31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-116-SS**

Lab Sample ID: 180-25423-5 Date Sampled: 09/19/2013 1556
Client Matrix: Sediment % Moisture: 58.0 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85914	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-85546	Initial Weight/Volume:	30.1 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 1237			Injection Volume:	1 uL
Prep Date:	10/02/2013 2342			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		1.5	9.9
PCB-1221		ND		1.9	9.9
PCB-1232		ND		1.7	9.9
PCB-1242		ND		1.6	9.9
PCB-1248		ND		0.93	9.9
PCB-1254		ND		1.4	9.9
PCB-1260		390	B	1.4	9.9

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	156	X	31 - 150
Tetrachloro-m-xylene	86		31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-138-01**

Lab Sample ID: 180-25423-27 Date Sampled: 09/20/2013 1025
Client Matrix: Sediment % Moisture: 59.1 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85741	Instrument ID:	GC8
Prep Method:	3541	Prep Batch:	180-85557	Initial Weight/Volume:	30.0 g
Dilution:	100000			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 1046			Injection Volume:	1 uL
Prep Date:	10/03/2013 0600			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		15000	100000
PCB-1221		ND		19000	100000
PCB-1232		ND		17000	100000
PCB-1242		ND		17000	100000
PCB-1248		ND		9600	100000
PCB-1254		ND		14000	100000
PCB-1260		3600000		14000	100000

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	0	X D	31 - 150
Tetrachloro-m-xylene	0	X D	31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-138-SS**

Lab Sample ID: 180-25423-26 Date Sampled: 09/20/2013 1025
Client Matrix: Sediment % Moisture: 61.6 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85741	Instrument ID:	GC8
Prep Method:	3541	Prep Batch:	180-85557	Initial Weight/Volume:	30.1 g
Dilution:	25000			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 1017			Injection Volume:	1 uL
Prep Date:	10/03/2013 0600			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		4000	27000
PCB-1221		ND		5200	27000
PCB-1232		ND		4600	27000
PCB-1242		ND		4400	27000
PCB-1248		ND		2600	27000
PCB-1254		ND		3800	27000
PCB-1260		1800000		3800	27000

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	0	X D	31 - 150
Tetrachloro-m-xylene	0	X D	31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-139-01**

Lab Sample ID: 180-25423-29 Date Sampled: 09/20/2013 1030
Client Matrix: Sediment % Moisture: 47.7 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85741	Instrument ID:	GC8
Prep Method:	3541	Prep Batch:	180-85557	Initial Weight/Volume:	30.1 g
Dilution:	50000			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 1116			Injection Volume:	1 uL
Prep Date:	10/03/2013 0600			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		5900	40000
PCB-1221		ND		7600	40000
PCB-1232		ND		6800	40000
PCB-1242		ND		6500	40000
PCB-1248		ND		3800	40000
PCB-1254		ND		5600	40000
PCB-1260		2100000		5600	40000

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	0	X D	31 - 150
Tetrachloro-m-xylene	0	X D	31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-139-SS**

Lab Sample ID: 180-25423-28 Date Sampled: 09/20/2013 1030
Client Matrix: Sediment % Moisture: 55.2 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85741	Instrument ID:	GC8
Prep Method:	3541	Prep Batch:	180-85557	Initial Weight/Volume:	30.1 g
Dilution:	2000			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 0821			Injection Volume:	1 uL
Prep Date:	10/03/2013 0600			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		280	1900
PCB-1221		ND		350	1900
PCB-1232		ND		320	1900
PCB-1242		ND		300	1900
PCB-1248		ND		180	1900
PCB-1254		ND		260	1900
PCB-1260		140000		260	1900

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	0	X D	31 - 150
Tetrachloro-m-xylene	0	X D	31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-148-01**

Lab Sample ID: 180-25423-9 Date Sampled: 09/19/2013 1635
Client Matrix: Sediment % Moisture: 70.4 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-86069	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-85546	Initial Weight/Volume:	30.1 g
Dilution:	100			Final Weight/Volume:	1.0 mL
Analysis Date:	10/07/2013 1854			Injection Volume:	1 uL
Prep Date:	10/02/2013 2342			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		21	140
PCB-1221		ND		27	140
PCB-1232		ND		24	140
PCB-1242		ND		23	140
PCB-1248		ND		13	140
PCB-1254		ND		20	140
PCB-1260		14000	B	20	140

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	657	X D	31 - 150
Tetrachloro-m-xylene	130	D	31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-148-02**

Lab Sample ID: 180-25423-10 Date Sampled: 09/19/2013 1635
Client Matrix: Sediment % Moisture: 69.1 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85914	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-85546	Initial Weight/Volume:	30.1 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 1516			Injection Volume:	1 uL
Prep Date:	10/02/2013 2342			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		2.0	13
PCB-1221		ND		2.6	13
PCB-1232		ND		2.3	13
PCB-1242		ND		2.2	13
PCB-1248		ND		1.3	13
PCB-1254		ND		1.9	13
PCB-1260		1600	B	1.9	13

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	535	X	31 - 150
Tetrachloro-m-xylene	118		31 - 150

Client: Tetra Tech, Inc.

Job Number: 180-25423-1

Client Sample ID: **SD-148-03**

Lab Sample ID: 180-25423-11

Client Matrix: Sediment

% Moisture: 63.8

Date Sampled: 09/19/2013 1635

Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85914	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-85546	Initial Weight/Volume:	30.0 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 1548			Injection Volume:	1 uL
Prep Date:	10/02/2013 2342			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		1.7	12
PCB-1221		ND		2.2	12
PCB-1232		ND		2.0	12
PCB-1242		ND		1.9	12
PCB-1248		ND		1.1	12
PCB-1254		250		1.6	12
PCB-1260		110	B	1.6	12

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	312	X	31 - 150
Tetrachloro-m-xylene	76		31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-148-SS**

Lab Sample ID: 180-25423-8 Date Sampled: 09/19/2013 1635
Client Matrix: Sediment % Moisture: 78.0 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85914	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-85546	Initial Weight/Volume:	30.0 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 1412			Injection Volume:	1 uL
Prep Date:	10/02/2013 2342			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		2.8	19
PCB-1221		ND		3.6	19
PCB-1232		ND		3.2	19
PCB-1242		ND		3.1	19
PCB-1248		ND		1.8	19
PCB-1254		ND		2.7	19
PCB-1260		1200	B	2.7	19

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	111		31 - 150
Tetrachloro-m-xylene	642	X	31 - 150

Client: Tetra Tech, Inc.

Job Number: 180-25423-1

Client Sample ID: **SD-149-01**

Lab Sample ID: 180-25423-13

Client Matrix: Sediment

% Moisture: 64.4

Date Sampled: 09/19/2013 1705

Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-86069	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-85546	Initial Weight/Volume:	30.0 g
Dilution:	100			Final Weight/Volume:	1.0 mL
Analysis Date:	10/07/2013 1926			Injection Volume:	1 uL
Prep Date:	10/02/2013 2342			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		17	120
PCB-1221		ND		22	120
PCB-1232		ND		20	120
PCB-1242		ND		19	120
PCB-1248		ND		11	120
PCB-1254		ND		17	120
PCB-1260		20000	B	17	120

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	874	X D	31 - 150
Tetrachloro-m-xylene	125	D	31 - 150

Client: Tetra Tech, Inc.

Job Number: 180-25423-1

Client Sample ID: **SD-149-02**

Lab Sample ID: 180-25423-14

Client Matrix: Sediment

% Moisture: 64.0

Date Sampled: 09/19/2013 1705

Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85914	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-85546	Initial Weight/Volume:	30.3 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 1723			Injection Volume:	1 uL
Prep Date:	10/02/2013 2342			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		1.7	11
PCB-1221		ND		2.2	11
PCB-1232		ND		2.0	11
PCB-1242		ND		1.9	11
PCB-1248		ND		1.1	11
PCB-1254		650		1.6	11
PCB-1260		530	B	1.6	11

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	373	X	31 - 150
Tetrachloro-m-xylene	117		31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-149-03**

Lab Sample ID: 180-25423-15 Date Sampled: 09/19/2013 1705
Client Matrix: Sediment % Moisture: 44.2 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-86069	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-85546	Initial Weight/Volume:	30.3 g
Dilution:	1000			Final Weight/Volume:	1.0 mL
Analysis Date:	10/07/2013 1957			Injection Volume:	1 uL
Prep Date:	10/02/2013 2342			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		110	740
PCB-1221		ND		140	740
PCB-1232		ND		130	740
PCB-1242		ND		120	740
PCB-1248		ND		70	740
PCB-1254		ND		110	740
PCB-1260		27000	B	110	740

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	1095	X D	31 - 150
Tetrachloro-m-xylene	151	X D	31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-149-SS**

Lab Sample ID: 180-25423-12 Date Sampled: 09/19/2013 1705
Client Matrix: Sediment % Moisture: 74.7 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85914	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-85546	Initial Weight/Volume:	30.3 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 1619			Injection Volume:	1 uL
Prep Date:	10/02/2013 2342			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		2.4	16
PCB-1221		ND		3.1	16
PCB-1232		ND		2.8	16
PCB-1242		ND		2.7	16
PCB-1248		ND		1.5	16
PCB-1254		ND		2.3	16
PCB-1260		4900	B	2.3	16

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	227	X	31 - 150
Tetrachloro-m-xylene	108		31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-150-01**

Lab Sample ID: 180-25423-17 Date Sampled: 09/19/2013 1727
Client Matrix: Sediment % Moisture: 63.2 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-86069	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-85546	Initial Weight/Volume:	30.3 g
Dilution:	100			Final Weight/Volume:	1.0 mL
Analysis Date:	10/07/2013 2029			Injection Volume:	1 uL
Prep Date:	10/02/2013 2342			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		17	110
PCB-1221		ND		21	110
PCB-1232		ND		19	110
PCB-1242		ND		18	110
PCB-1248		ND		11	110
PCB-1254		ND		16	110
PCB-1260		14000	B	16	110

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	1059	X D	31 - 150
Tetrachloro-m-xylene	152	X D	31 - 150

Client: Tetra Tech, Inc.

Job Number: 180-25423-1

Client Sample ID: **SD-150-02**

Lab Sample ID: 180-25423-18

Client Matrix: Sediment

% Moisture: 63.4

Date Sampled: 09/19/2013 1727

Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85914	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-85546	Initial Weight/Volume:	30.1 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 2103			Injection Volume:	1 uL
Prep Date:	10/02/2013 2342			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		1.7	11
PCB-1221		ND		2.2	11
PCB-1232		ND		1.9	11
PCB-1242		ND		1.8	11
PCB-1248		ND		1.1	11
PCB-1254		ND		1.6	11
PCB-1260		1900	B	1.6	11

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	359	X	31 - 150
Tetrachloro-m-xylene	144		31 - 150

Client: Tetra Tech, Inc.

Job Number: 180-25423-1

Client Sample ID: **SD-150-03**

Lab Sample ID: 180-25423-19

Client Matrix: Sediment

% Moisture: 61.9

Date Sampled: 09/19/2013 1727

Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85914	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-85546	Initial Weight/Volume:	30.0 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 2134			Injection Volume:	1 uL
Prep Date:	10/02/2013 2342			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		1.6	11
PCB-1221		ND		2.1	11
PCB-1232		ND		1.9	11
PCB-1242		ND		1.8	11
PCB-1248		ND		1.0	11
PCB-1254		640		1.6	11
PCB-1260		290	B	1.6	11

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	685	X	31 - 150
Tetrachloro-m-xylene	73		31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-150-SS**

Lab Sample ID: 180-25423-16 Date Sampled: 09/19/2013 1727
Client Matrix: Sediment % Moisture: 77.0 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85914	Instrument ID:	GC10
Prep Method:	3541	Prep Batch:	180-85546	Initial Weight/Volume:	30.3 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 1826			Injection Volume:	1 uL
Prep Date:	10/02/2013 2342			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		2.7	18
PCB-1221		ND		3.4	18
PCB-1232		ND		3.1	18
PCB-1242		ND		2.9	18
PCB-1248		ND		1.7	18
PCB-1254		110		2.5	18
PCB-1260		53	B	2.5	18

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	145		31 - 150
Tetrachloro-m-xylene	79		31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-151-01**

Lab Sample ID: 180-25423-21 Date Sampled: 09/20/2013 0757
Client Matrix: Sediment % Moisture: 68.8 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85741	Instrument ID:	GC8
Prep Method:	3541	Prep Batch:	180-85557	Initial Weight/Volume:	30.0 g
Dilution:	100			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 0948			Injection Volume:	1 uL
Prep Date:	10/03/2013 0600			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		20	130
PCB-1221		ND		26	130
PCB-1232		ND		23	130
PCB-1242		ND		22	130
PCB-1248		ND		13	130
PCB-1254		ND		19	130
PCB-1260		7000		19	130

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	0	X D	31 - 150
Tetrachloro-m-xylene	0	X D	31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-151-02**

Lab Sample ID: 180-25423-22 Date Sampled: 09/20/2013 0757
Client Matrix: Sediment % Moisture: 57.8 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85741	Instrument ID:	GC8
Prep Method:	3541	Prep Batch:	180-85557	Initial Weight/Volume:	30.1 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/03/2013 2059			Injection Volume:	1 uL
Prep Date:	10/03/2013 0600			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		1.5	9.8
PCB-1221		ND		1.9	9.8
PCB-1232		ND		1.7	9.8
PCB-1242		ND		1.6	9.8
PCB-1248		ND		0.93	9.8
PCB-1254		310		1.4	9.8
PCB-1260		190		1.4	9.8

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	447	X	31 - 150
Tetrachloro-m-xylene	70		31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-151-03**

Lab Sample ID: 180-25423-23 Date Sampled: 09/20/2013 0757
Client Matrix: Sediment % Moisture: 56.8 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85741	Instrument ID:	GC8
Prep Method:	3541	Prep Batch:	180-85557	Initial Weight/Volume:	30.0 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/03/2013 2129			Injection Volume:	1 uL
Prep Date:	10/03/2013 0600			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		1.4	9.7
PCB-1221		ND		1.8	9.7
PCB-1232		ND		1.7	9.7
PCB-1242		ND		1.6	9.7
PCB-1248		ND		0.91	9.7
PCB-1254		ND		1.4	9.7
PCB-1260		ND		1.4	9.7

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	248	X	31 - 150
Tetrachloro-m-xylene	100		31 - 150

Client: Tetra Tech, Inc.

Job Number: 180-25423-1

Client Sample ID: **SD-151-SS**

Lab Sample ID: 180-25423-20

Client Matrix: Sediment

% Moisture: 80.2

Date Sampled: 09/20/2013 0757

Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85741	Instrument ID:	GC8
Prep Method:	3541	Prep Batch:	180-85557	Initial Weight/Volume:	30.1 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/03/2013 2001			Injection Volume:	1 uL
Prep Date:	10/03/2013 0600			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		3.1	21
PCB-1221		ND		4.0	21
PCB-1232		ND		3.6	21
PCB-1242		ND		3.4	21
PCB-1248		ND		2.0	21
PCB-1254		ND		3.0	21
PCB-1260		2100		3.0	21

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	146		31 - 150
Tetrachloro-m-xylene	70		31 - 150

Client: Tetra Tech, Inc.

Job Number: 180-25423-1

Client Sample ID: **SD-161-01**

Lab Sample ID: 180-25423-35

Client Matrix: Sediment

% Moisture: 46.9

Date Sampled: 09/20/2013 1145

Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-86576	Instrument ID:	GC8
Prep Method:	3541	Prep Batch:	180-85695	Initial Weight/Volume:	30.3 g
Dilution:	5000			Final Weight/Volume:	1.0 mL
Analysis Date:	10/12/2013 1740			Injection Volume:	1 uL
Prep Date:	10/03/2013 2208			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		580	3900
PCB-1221		ND		740	3900
PCB-1232		ND		670	3900
PCB-1242		ND		630	3900
PCB-1248		ND		370	3900
PCB-1254		ND		550	3900
PCB-1260		1000000		550	3900

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	18816	X D	31 - 150
Tetrachloro-m-xylene	288	X D	31 - 150

Client: Tetra Tech, Inc.

Job Number: 180-25423-1

Client Sample ID: **SD-161-02**

Lab Sample ID: 180-25423-36

Client Matrix: Sediment

% Moisture: 42.3

Date Sampled: 09/20/2013 1145

Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-86576	Instrument ID:	GC8
Prep Method:	3541	Prep Batch:	180-85695	Initial Weight/Volume:	30.0 g
Dilution:	5000			Final Weight/Volume:	1.0 mL
Analysis Date:	10/12/2013 1809			Injection Volume:	1 uL
Prep Date:	10/03/2013 2208			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		540	3600
PCB-1221		ND		690	3600
PCB-1232		ND		620	3600
PCB-1242		ND		590	3600
PCB-1248		ND		340	3600
PCB-1254		ND		510	3600
PCB-1260		480000		510	3600

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	7886	X D	31 - 150
Tetrachloro-m-xylene	0	X D	31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-161-03**

Lab Sample ID: 180-25423-37 Date Sampled: 09/20/2013 1145
Client Matrix: Sediment % Moisture: 45.4 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-86576	Instrument ID:	GC8
Prep Method:	3541	Prep Batch:	180-85695	Initial Weight/Volume:	30.3 g
Dilution:	500			Final Weight/Volume:	1.0 mL
Analysis Date:	10/12/2013 1839			Injection Volume:	1 uL
Prep Date:	10/03/2013 2208			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		56	380
PCB-1221		ND		72	380
PCB-1232		ND		65	380
PCB-1242		ND		62	380
PCB-1248		ND		36	380
PCB-1254		ND		54	380
PCB-1260		20000		54	380

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	1160	X D	31 - 150
Tetrachloro-m-xylene	91	D	31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-161-SS**

Lab Sample ID: 180-25423-34 Date Sampled: 09/20/2013 1145
Client Matrix: Sediment % Moisture: 61.2 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85741	Instrument ID:	GC8
Prep Method:	3541	Prep Batch:	180-85557	Initial Weight/Volume:	30.0 g
Dilution:	200			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 0919			Injection Volume:	1 uL
Prep Date:	10/03/2013 0600			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		32	220
PCB-1221		ND		41	220
PCB-1232		ND		37	220
PCB-1242		ND		35	220
PCB-1248		ND		20	220
PCB-1254		ND		31	220
PCB-1260		13000		31	220

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	0	X D	31 - 150
Tetrachloro-m-xylene	0	X D	31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-162-01**

Lab Sample ID: 180-25423-31 Date Sampled: 09/20/2013 1128
Client Matrix: Sediment % Moisture: 75.6 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85741	Instrument ID:	GC8
Prep Method:	3541	Prep Batch:	180-85557	Initial Weight/Volume:	30.1 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 0122			Injection Volume:	1 uL
Prep Date:	10/03/2013 0600			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		2.5	17
PCB-1221		ND		3.2	17
PCB-1232		ND		2.9	17
PCB-1242		ND		2.8	17
PCB-1248		ND		1.6	17
PCB-1254		ND		2.4	17
PCB-1260		2300		2.4	17

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	82		31 - 150
Tetrachloro-m-xylene	77		31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-162-02**

Lab Sample ID: 180-25423-32 Date Sampled: 09/20/2013 1128
Client Matrix: Sediment % Moisture: 63.9 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85741	Instrument ID:	GC8
Prep Method:	3541	Prep Batch:	180-85557	Initial Weight/Volume:	30.1 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 0151			Injection Volume:	1 uL
Prep Date:	10/03/2013 0600			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		1.7	12
PCB-1221		ND		2.2	12
PCB-1232		ND		2.0	12
PCB-1242		ND		1.9	12
PCB-1248		ND		1.1	12
PCB-1254		ND		1.6	12
PCB-1260		1400		1.6	12

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	124		31 - 150
Tetrachloro-m-xylene	85		31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-162-03**

Lab Sample ID: 180-25423-33 Date Sampled: 09/20/2013 1128
Client Matrix: Sediment % Moisture: 55.7 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85741	Instrument ID:	GC8
Prep Method:	3541	Prep Batch:	180-85557	Initial Weight/Volume:	30.0 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 0220			Injection Volume:	1 uL
Prep Date:	10/03/2013 1136			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		1.4	9.4
PCB-1221		ND		1.8	9.4
PCB-1232		ND		1.6	9.4
PCB-1242		ND		1.5	9.4
PCB-1248		ND		0.89	9.4
PCB-1254		ND		1.3	9.4
PCB-1260		520		1.3	9.4

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	83		31 - 150
Tetrachloro-m-xylene	106		31 - 150

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Client Sample ID: **SD-162-SS**

Lab Sample ID: 180-25423-30 Date Sampled: 09/20/2013 1128
Client Matrix: Sediment % Moisture: 79.7 Date Received: 09/24/2013 1643

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-85741	Instrument ID:	GC8
Prep Method:	3541	Prep Batch:	180-85557	Initial Weight/Volume:	30.0 g
Dilution:	10			Final Weight/Volume:	1.0 mL
Analysis Date:	10/04/2013 0053			Injection Volume:	1 uL
Prep Date:	10/03/2013 0600			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		3.1	21
PCB-1221		ND		3.9	21
PCB-1232		ND		3.5	21
PCB-1242		ND		3.3	21
PCB-1248		ND		1.9	21
PCB-1254		ND		2.9	21
PCB-1260		2200		2.9	21

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	655	X	31 - 150
Tetrachloro-m-xylene	62		31 - 150

Appendix C

Support Documentation

LMC - MRC
SDG 180-25423-1

SAMPLE IDENTIFICATION	SD-138-01
COMPOUND	AROCLOR 1260
AVERAGE CONCENTRATION	0.4477
DILUTION FACTOR	100000
VOLUME FINAL EXTRACT (ml)	1
WEIGHT OF SAMPLE (g)	30
INJECTION VOLUME (µl)	1
PERCENT SOLIDS	0.4090
CONCENTRATION =	3648835.963 µg/Kg

GC COLUMN 1

RESPONSE 1	197919
RESPONSE 2	252631
RESPONSE 3	130031
RESPONSE 4	139640
RESPONSE 5	318192
RESPONSE FACTOR 1	425671
RESPONSE FACTOR 2	482946
RESPONSE FACTOR 3	332781
RESPONSE FACTOR 4	324375
RESPONSE FACTOR 5	741241
CONCENTRATION 1	0.4650
CONCENTRATION 2	0.5231
CONCENTRATION 3	0.3907
CONCENTRATION 4	0.4305
CONCENTRATION 5	0.4293
AVERAGE (ng)	0.4477

Data File: \\pitsvr06\d\chem\gc8.i\10033A8082ALL.b\O1030048.D
Report Date: 04-Oct-2013 11:53

TA Pittsburgh

Data file : \\pitsvr06\d\chem\gc8.i\10033A8082ALL.b\O1030048.D
Lab Smp Id: 180-25423-a-27-c 1
Inj Date : 04-OCT-2013 10:46
Operator : 402360 Inst ID: gc8.i
Smp Info : 10033A8082ALL.b
Misc Info : 180-25423-a-27-c 100000x
Comment : 8082 PCB ANALYSIS
Method : \\pitsvr06\d\chem\gc8.i\10033A8082ALL.b\PCBAALL.m
Meth Date : 04-Oct-2013 10:11 guptaa Quant Type: ESTD
Cal Date : 27-SEP-2013 22:24 Cal File: O0930824.D
Als bottle: 8
Dil Factor: 100000.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: PITPC-126

SD-138-01
% solids = 40.9
30g/1ml

Concentration Formula: Amt * DF * Vt/Vo/Vi * CpndVariable

Name	Value	Description
DF	100000.000	Dilution Factor
Vt	40000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/L)	TARGET RANGE	RATIO

$ 2 Tetrachloro-m-xylene CAS #: 877-09-8

Operator disabled compound identification.

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1 Aroclor-1221 CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

---

4 Aroclor-1016 CAS #: 12674-11-2

Peaks not detected for Quant. or Qual. signal(s).

---

5 Aroclor-1242 CAS #: 53469-21-9

Peaks not detected for Quant. or Qual. signal(s).

Data File: \\pitsvr06\d\chem\gc8.i\10033A8082ALL.b\O1030048.D
Report Date: 04-Oct-2013 11:53

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1248						CAS #: 12672-29-6	

Operator disabled compound identification.

---

3 Aroclor-1232						CAS #: 11141-16-5	

Peaks not detected for Quant. or Qual. signal(s).

---

7 Aroclor-1254						CAS #: 11097-69-1	

Operator disabled compound identification.

---

9 Aroclor-1262						CAS #: 37324-23-5	

Operator disabled compound identification.

---

8 Aroclor-1260						CAS #: 11096-82-5	
12.443	12.455	-0.012	197919	0.46496	1859800	0.00- 0.00	0.00
12.770	12.780	-0.010	252631	0.52310	2092400	115.86- 115.86	0.00
14.241	14.249	-0.008	130031	0.39074	1563000	136.91- 136.91	0.00
15.350	15.360	-0.010	139640	0.43049	1722000	140.00- 140.00	0.00
15.916	15.928	-0.012	318192	0.42927	1717100	128.33- 128.33	0.00
		Average of Peak Concentrations =			1790800		

---

10 Aroclor-1268						CAS #: 11100-14-4	

Operator disabled compound identification.

$ 11 DCB Decachlorobiphenyl (Surr)						CAS #: 2051-24-3	

Operator disabled compound identification.

LMC - MRC
SDG 180-25423-1

SAMPLE IDENTIFICATION	SD-161-01
COMPOUND	FLUORANTHENE
COMPOUND AREA	1886633
INTERNAL STANDARD AMOUNT (ng)	8
DILUTION FACTOR	100
INTERNAL STANDARD AREA	484289
AVERAGE RRF	1.2444
% SOLIDS	0.531
WEIGHT OF SAMPLE (g)	30.2
VOLUME EXTRACT (µl)	500
VOLUME INJECTED (µl)	2
ng to µg	1000
g to Kg	1000
CONCENTRATION =	39043.73 ng/g OR µg/Kg

1886633*8ng*500µl*100*1µg*1000g/(484289*1.2444*30.2g*2µl*0.531*1000ng*1Kg)

TestAmerica Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\PITSVR06\D\chem\733.i\TN100913DN.b\N1009N01.D
Lab Smp Id: 180-25423-A-35-A Client Smp ID: SD-161-01 DL
Inj Date : 09-OCT-2013 15:54
Operator : 3200 Inst ID: 733.i
Smp Info : 180-25423-A-35-A,100
Misc Info : 180-25423-A-35-A
Comment :
Method : \\PITSVR06\D\chem\733.i\TN100913DN.b\T8270d.m
Meth Date : 10-Oct-2013 06:27 733.i Quant Type: ISTD
Cal Date : 09-OCT-2013 08:22 Cal File: N1009IC8.D
Als bottle: 3
Dil Factor: 100.00000
Integrator: HP RTE Compound Sublist: pah.sub
Target Version: 4.14
Processing Host: PITPC-502

% solid = 53.1%
RRF = 1.2444
DF = 100x
30.2g / 0.5ml

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ng)
* 1 1,4-Dichlorobenzene-d4	152	6.247	6.250	(1.000)	179109	8.00000	
* 2 Naphthalene-d8	136	7.471	7.473	(1.000)	604108	8.00000	
* 3 Acenaphthene-d10	164	9.127	9.129	(1.000)	325906	8.00000	
* 4 Phenanthrene-d10	188	10.526	10.523	(1.000)	484289	8.00000	
* 5 Chrysene-d12	240	14.122	14.119	(1.000)	495305	8.00000	
* 6 Perylene-d12	264	17.081	17.073	(1.000)	423331	8.00000	
51 Naphthalene	128	Compound Not Detected.					
62 2-Methylnaphthalene	142	8.144	8.146	(1.090)	3046	0.05454	5.4541
63 1-Methylnaphthalene	142	8.240	8.242	(1.103)	3839	0.07514	7.5144
79 Acenaphthylene	152	8.993	8.996	(0.985)	4921	0.06524	6.5242
82 Acenaphthene	153	9.153	9.156	(1.003)	43986	0.89075	89.075
86 Dibenzofuran	168	9.314	9.316	(1.020)	27675	0.41003	41.003
94 Fluorene	166	9.639	9.642	(1.056)	43685	0.80499	80.499
115 Phenanthrene	178	10.548	10.550	(1.002)	777937	11.4690	1146.9
116 Anthracene	178	10.601	10.598	(1.007)	170463	2.53593	253.59
119 Carbazole	167	10.745	10.742	(1.021)	65726	1.12971	112.97
123 Fluoranthene	202	11.872	11.870	(1.128)	1886633	25.0451	2504.5
125 Pyrene	202	12.177	12.174	(0.862)	1469814	18.6992	1869.9
136 Benzo(a)Anthracene	228	14.111	14.097	(0.999)	845489	11.8580	1185.8
137 Chrysene	228	14.175	14.167	(1.004)	792403	12.4145	1241.4
141 Benzo(b)fluoranthene	252	16.274	16.272	(0.953)	913576	12.3994	1239.9
142 Benzo(k)fluoranthene	252	16.317	16.325	(0.955)	379003	5.15828	515.83
146 Benzo(a)pyrene	252	16.964	16.955	(0.993)	627468	9.66808	966.81
149 Indeno(1,2,3-cd)pyrene	276	19.314	19.317	(1.131)	359984	5.38722	538.72
150 Dibenz(a,h)anthracene	278	19.341	19.338	(1.132)	75162	1.33485	133.48
151 Benzo(g,h,i)perylene	276	19.923	19.915	(1.166)	320637	5.77607	577.61
$ 154 Nitrobenzene-d5	82	Compound Not Detected.					
$ 155 2-Fluorobiphenyl	172	Compound Not Detected.					

MRC SEDIMENT INVESTIGATION
SEDIMENT DATA
180-25423-1

FRACTION	CHEMICAL	SD-148-SS	UNITS	DUP 08	RPD	D
PAH	2-METHYLNAPHTHALENE	59 J	UG/KG	60 J	1.68	1.00
PAH	ACENAPHTHENE	35 J	UG/KG	27 J	25.81	8.00
PAH	ACENAPHTHYLENE	100 J	UG/KG	96 J	4.08	4.00
PAH	ANTHRACENE	130 J	UG/KG	150 J	14.29	20.00
PAH	BENZO(A)ANTHRACENE	360 J	UG/KG	340 J	5.71	20.00
PAH	BENZO(A)PYRENE	430 J	UG/KG	430 J	0.00	0.00
PAH	BENZO(B)FLUORANTHENE	560 J	UG/KG	660 J	16.39	100.00
PAH	BENZO(G,H,I)PERYLENE	900 J	UG/KG	530 J	51.75	370.00
PAH	BENZO(K)FLUORANTHENE	230 J	UG/KG	260 J	12.24	30.00
PAH	CHRYSENE	520 J	UG/KG	520 J	0.00	0.00
PAH	DIBENZO(A,H)ANTHRACENE	630 J	UG/KG	110 J RL= 160	140.54	520.00 > 2x
PAH	FLUORANTHENE	760 J	UG/KG	760 J	0.00	0.00
PAH	FLUORENE RL 160	ND	UG/KG	48 J	200.00	48.00 ✓
PAH	INDENO(1,2,3-CD)PYRENE	900 J	UG/KG	390 J	79.07	510.00
PAH	PHENANTHRENE	220 J	UG/KG	250 J	12.77	30.00
PAH	PYRENE	570 J	UG/KG	650 J	13.11	80.00
PCB	AROCLOR-1260	1200 J	UG/KG	1500 J	22.22	300.00

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Ch

180-25423 Chain of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Client Contact: Eric Samuels	Site Contact: Stu Cameron	Date: 9/20/13	COC No:
Tetra Tech	Tel/Fax: 770-596-0959 (cell)	Lab Contact:	Carrier: Fedex	1 of 4 COCs
2171 West Park Court Suite E	Analysis Turnaround Time			Job No.
Stone Mountain GA, 30087	Calendar (C) or Work Days (W) _____			112IC05220
	TAT if different from Below: Standard			SDG No.
	☐ 2 weeks			
Project Name: Middle River Sediments	☐ 1 week			
Site: MRC	☐ 2 days			Sampler:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	PAHs, PCBs, Metals, TOC, Moisture	PCBs, Metals, TOC, Moisture	Uranium, Thorium	Sample Specific Notes:
SD-110-SS	9-19-13	1617	C	S	1		X			
SD-110-01	↓	1617	↓	↓	↓		X			
SD-110-02		1617					X			
SD-110-03		1617					X			
SD-116-SS		1556					X			
SD-116-01		1556					X			
SD-116-02		1556					X			
SD-148-SS		1635					X			
SD-148-01		1635					X			
SD-148-02		1635					X			
SD-148-03		1635					X			
SD-149-SS	↓	1705	↓	↓	↓		X			

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	9-20-13/1230	[signature]	TestAmerica	9/20/13 1230
Relinquished by: [signature]	Company: TestAmerica	Date/Time: 9/20/13 1400	Received by: Darlene Walton	Company: TAP	Date/Time: 9-24-13 8:50
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

10/18/2013
Page 216 of 372

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Client Contact: Eric Samuels	Site Contact: Stu Cameron	Date: 9-20-13	COC No:
Tetra Tech	Tel/Fax: 770-596-0959 (cell)	Lab Contact:	Carrier: Fedex	2 of 4 COCs
2171 West Park Court Suite E	Analysis Turnaround Time			Job No.
Stone Mountain GA, 30087	Calendar (C) or Work Days (W) _____			112IC05220
	TAT if different from Below: Standard			SDG No.
	☐ 2 weeks			
Project Name: Middle River Sediments	☐ 1 week			
Site: MRC	☐ 2 days			Sampler:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	PAHs, PCBs, Metals, TOC, Moisture	PCBs, Metals, TOC, Moisture	Uranium, Thorium	Sample Specific Notes:
SD-149-01	9-19-13	1705	C	S	1		X			
SD-149-02	↓	1705	↓	↓	↓		X			
SD-149-03		1705					X			
SD-150-SS		1727					X			
SD-150-01		1727					X			
SD-150-02		1727					X			
SD-150-03	↓	1727					X			
SD-151-SS	9-20-13	0757					X			
SD-151-01		0757					X			
SD-151-02		0757					X			
SD-151-03		0757					X			
SD-111-SS	↓	0930	↓	↓	↓		X			

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	9-20-13/1230	[signature]	TestAmerica	9/20/13 /1230
[signature]	TestAmerica	9/20/13/1400	[signature]	TestAmerica	9-24-13 8:50

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

10/18/2013
Page 3717 of 3721

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Client Contact: Eric Samuels	Site Contact: Stu Cameron	Date: 9-20-13	COC No:
Tetra Tech	Tel/Fax: 770-596-0959 (cell)	Lab Contact:	Carrier: Fedex	3 of 4 COCs
2171 West Park Court Suite E	Analysis Turnaround Time			Job No.
Stone Mountain GA, 30087	Calendar (C) or Work Days (W) _____			112IC05220
	TAT if different from Below: Standard			SDG No.
Project Name: Middle River Sediments	☐ 2 weeks			
Site: MRC	☐ 1 week			
P O #	☐ 2 days			Sampler:
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	PAHs, PCBs, Metals, TOC, Moisture	PCBs, [redacted]	Uranium, Thorium	Sample Specific Notes:
SD-111-01	9-20-13	0930	C	S	1		X			
SD-138-SS		1025	C	S	1			X		
SD-138-01		1025	C	S	1			X		
SD-139-SS		1030	C	S	1			X		
SD-139-01		1030	C	S	1			X		
SD-162-SS		1148	C	S	1		X			
SD-162-01		1148	C	S	1		X			
SD-162-02		1148	C	S	1		X			
SD-162-03		1148	C	S	1		X			
SD-161-SS		1145	C	S	1		X			
SD-161-01		1145	C	S	1		X			
SD-161-02	↓	1145	C	S	1		X			

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	9-20-13/1230	[signature]	TestAmerica	9/20/13 / 1230
Relinquished by: [signature]	Company: TestAmerica	Date/Time: 9/20/13/1400	Received by: [signature]	Company: TAP	Date/Time: 9-24-13 8:50
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

10/18/2013
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Chain of Custody Record

TestAmerica

Client Information	Sampler:	Lab PM:	Carrier Tracking No(s):	COC No: 180-13768-3657.10
Client Contact: Eric Samuels	Phone:	E-Mail:		Page: ~~Page 18 of 14~~ Page 4 of 4
Company: Tetra Tech, Inc.				Job #:
Address: 2171 West Park Court Suite E	Due Date Requested:			
City: Stone Mountain	TAT Requested (days):			
State, Zip: GA, 30087				
Phone:	PO #:			
Email: Eric.Samuels@tetratech.com	WO #:			
Project Name: Middle River Sediments	Project #: 112IC05220			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PAHs, PCBs, Metals, TOC, Moisture											Total Number of containers	Special Instructions/Note:
			Preservation Code:																
SD-161-03	9-20-13	1145	C	S			X												

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	9-20-13/1230	Tetra Tech	[signature]	9/20/13/1230	TestAmerica
[signature]	9/20/13/1400	TestAmerica	Debbie Watson	9-24-13 8:50	TAP

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

10/18/2013

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FedEx®

ORIGIN ID:PHDA
AL HAIDET
TEST AMERICA
4101 SHUFFEL DR

NORTH CANTON, OH 44720
UNITED STATES US

SHIP DATE: 23SEP13
ACTWGT: 45.7 LB
CAD: 507102/CAFE2704

BILL RECIPIENT

TO ENVIRONMENTAL SAMPLE RECEIPT
TESTAMERICA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058 REF: S240-16846
DEPT: AL HAIDET

RT 197
FZ 197

FedEx Express

2 of 2
MPS# 0263 9784 4685 7473
Mstr# 9784 4685 7462 0201

TUE - 24 SEP AA
STANDARD OVERNIGHT

65 AGCA

15238
PA-US PIT

Uncorrected temp 2.3 °C
Thermometer ID #3
CF -.4 Initials CMK
PT-WI-SR-001 effective 7/26/13

ORIGIN ID:PHDA
AL HAIDET
TEST AMERICA
4101 SHUFFEL DR

NORTH CANTON, OH 44720
UNITED STATES US

SHIP DATE: 23SEP13
ACTWGT: 45.7 LB
CAD: 507102/CAFE2704

BILL RECIPIENT

ENVIRONMENTAL SAMPLE RECEIPT
TESTAMERICA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058 REF: S240-16846
DEPT: AL HAIDET

FedEx Express

180-25423 Waybill

721

1 of 2
TRK# 0201 9784 4685 7462
MASTER

TUE - 24 SEP AA
STANDARD OVERNIGHT

65 AGCA

15238
PA-US PIT

Uncorrected temp 1.1 °C
Thermometer ID #3
CF -.4 Initials CMK
PT-WI-SR-001 effective 7/26/13

Coun RT 197 1 A
7462
09.24
Label Here
FZ 197

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 180-25423-1

Login Number: 25423

List Number: 1

Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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 containers received and the COC.	False	Received extra samples not listed on COC.
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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Sediment Remedy Design Investigation

Report Number: 180-25423-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 09/24/2013. The samples arrived in good condition. The temperatures of the 2 coolers at receipt time were 0.3° C and 1.9° C.

Sample DUP 08 was received but was not listed on the chain of custody (COC). The sample was logged in and submitted for analysis.

SEMIVOLATILE ORGANIC COMPOUNDS (GC)
Several samples were analyzed at a dilution due to the abundance of target analytes and/or matrix interference. Several samples were extremely viscous and the samples were analyzed at the lowest possible dilutions. The reporting limits have been adjusted accordingly.

The surrogate recoveries of several diluted samples are considered diluted out.

Fluoranthene failed the recovery criteria for the MS of sample SD-151-SS (180-25423-20).

POLYCHLORINATED BIPHENYLS (PCBs)
Several samples were analyzed at a dilution due to the abundance of target analytes and/or matrix interference. Several samples were extremely viscous and the samples were analyzed at the lowest possible dilutions. The reporting limits have been adjusted accordingly. Also, weathered PCBs are present in the samples.

The surrogate recoveries of several diluted samples are considered diluted out.

Several samples had one of the surrogate compounds recover outside control limits. As the other surrogate compound recovered within acceptable QC limits, the data are reported.

PCB-1260 was detected in method blank MB 180-85546 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

PCB-1016 failed the recovery criteria for the MS/MSD of sample SD-110-01 (180-25423-2).

METALS
Samples SD-149-02 (180-25423-14) and SD-150-03 (180-25423-19) were analyzed at a dilution due to the abundance of mercury. The reporting limits have been adjusted accordingly.

Chromium and Lead were detected in method blanks MB 180-85575 and method blank MB 180-85642 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Several analytes failed the recovery criteria for the MS/MSD of sample SD-110-SS (180-25423-1). The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Several analytes failed the recovery criteria for the MS and/or MSD of sample SD-151-01 (180-25423-21). The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

GENERAL CHEMISTRY

Please note that the reporting limit for Lloyd Kahn TOC analysis is a nominal value and does not reflect adjustments in sample mass processed on an individual basis.

The laboratory did analyze each sample in duplicate, and the results of the two individual determinations were averaged in deriving a final result for a particular sample. In those instances when the two values yielded a relative percent difference greater than 50 percent, as was the case in the analysis of samples SD-161-03 (180-25423-37), the laboratory did provide for additional determinations, and applied the "Dixon" outlier test to the total population of determinations. The results of that assessment are provided in this submittal.

Total Organic Carbon - Duplicates exceeded the RPD limit for the duplicate of sample SD-149-01 (180-25423-13).

SAMPLE SUMMARY

Client: Tetra Tech, Inc.

Job Number: 180-25423-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
180-25423-1	SD-110-SS	Sediment	09/19/2013 1617	09/24/2013 1643
180-25423-2	SD-110-01	Sediment	09/19/2013 1617	09/24/2013 1643
180-25423-3	SD-110-02	Sediment	09/19/2013 1617	09/24/2013 1643
180-25423-4	SD-110-03	Sediment	09/19/2013 1617	09/24/2013 1643
180-25423-5	SD-116-SS	Sediment	09/19/2013 1556	09/24/2013 1643
180-25423-6	SD-116-01	Sediment	09/19/2013 1556	09/24/2013 1643
180-25423-7	SD-116-02	Sediment	09/19/2013 1556	09/24/2013 1643
180-25423-8	SD-148-SS	Sediment	09/19/2013 1635	09/24/2013 1643
180-25423-9	SD-148-01	Sediment	09/19/2013 1635	09/24/2013 1643
180-25423-10	SD-148-02	Sediment	09/19/2013 1635	09/24/2013 1643
180-25423-11	SD-148-03	Sediment	09/19/2013 1635	09/24/2013 1643
180-25423-12	SD-149-SS	Sediment	09/19/2013 1705	09/24/2013 1643
180-25423-13	SD-149-01	Sediment	09/19/2013 1705	09/24/2013 1643
180-25423-14	SD-149-02	Sediment	09/19/2013 1705	09/24/2013 1643
180-25423-15	SD-149-03	Sediment	09/19/2013 1705	09/24/2013 1643
180-25423-16	SD-150-SS	Sediment	09/19/2013 1727	09/24/2013 1643
180-25423-17	SD-150-01	Sediment	09/19/2013 1727	09/24/2013 1643
180-25423-18	SD-150-02	Sediment	09/19/2013 1727	09/24/2013 1643
180-25423-19	SD-150-03	Sediment	09/19/2013 1727	09/24/2013 1643
180-25423-20	SD-151-SS	Sediment	09/20/2013 0757	09/24/2013 1643
180-25423-21	SD-151-01	Sediment	09/20/2013 0757	09/24/2013 1643
180-25423-22	SD-151-02	Sediment	09/20/2013 0757	09/24/2013 1643
180-25423-23	SD-151-03	Sediment	09/20/2013 0757	09/24/2013 1643
180-25423-24	SD-111-SS	Sediment	09/20/2013 0930	09/24/2013 1643
180-25423-25	SD-111-01	Sediment	09/20/2013 0930	09/24/2013 1643
180-25423-26	SD-138-SS	Sediment	09/20/2013 1025	09/24/2013 1643
180-25423-27	SD-138-01	Sediment	09/20/2013 1025	09/24/2013 1643
180-25423-28	SD-139-SS	Sediment	09/20/2013 1030	09/24/2013 1643
180-25423-29	SD-139-01	Sediment	09/20/2013 1030	09/24/2013 1643
180-25423-30	SD-162-SS	Sediment	09/20/2013 1128	09/24/2013 1643
180-25423-31	SD-162-01	Sediment	09/20/2013 1128	09/24/2013 1643
180-25423-32	SD-162-02	Sediment	09/20/2013 1128	09/24/2013 1643
180-25423-33	SD-162-03	Sediment	09/20/2013 1128	09/24/2013 1643
180-25423-34	SD-161-SS	Sediment	09/20/2013 1145	09/24/2013 1643
180-25423-35	SD-161-01	Sediment	09/20/2013 1145	09/24/2013 1643
180-25423-36	SD-161-02	Sediment	09/20/2013 1145	09/24/2013 1643
180-25423-37	SD-161-03	Sediment	09/20/2013 1145	09/24/2013 1643
180-25423-38	DUP O8	Sediment	09/19/2013 1635	09/24/2013 1643

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Matrix: Sediment Level: Low

GC Column (1): Rxi-5SilMS ID: 0.32 (mm)

Client Sample ID	Lab Sample ID	NBZ	#	FBP	#	TPH	#
SD-110-SS	180-25423-1	70		86		69	
SD-110-01	180-25423-2	73		82		64	
SD-110-02	180-25423-3	47		50		43	
SD-110-03	180-25423-4	64		74		58	
SD-116-SS	180-25423-5	64	D	74	D	59	D
SD-116-01	180-25423-6	85	D	92	D	64	D
SD-116-02	180-25423-7	68		79		59	
SD-148-SS	180-25423-8	65	D	69	D	54	D
SD-148-01	180-25423-9	54	D	66	D	53	D
SD-148-02	180-25423-10	74	D	87	D	62	D
SD-148-03	180-25423-11	86	D	88	D	64	D
SD-149-SS	180-25423-12	64	D	77	D	61	D
SD-149-01	180-25423-13	65	D	76	D	72	D
SD-149-02	180-25423-14	71	D	89	D	68	D
SD-149-03	180-25423-15	66		80		61	
SD-150-SS	180-25423-16	35		45		45	
SD-150-01	180-25423-17	78	D	89	D	70	D
SD-150-02	180-25423-18	65	D	84	D	79	D
SD-150-03	180-25423-19	80	D	96	D	81	D
SD-151-SS	180-25423-20	54	D	60	D	51	D
SD-151-01	180-25423-21	60	D	73	D	56	D
SD-151-02	180-25423-22	89	D	100	D	71	D
SD-151-03	180-25423-23	75		83		62	
SD-111-SS	180-25423-24	80		85		63	
SD-111-01	180-25423-25	72		79		60	
SD-162-SS	180-25423-30	61	D	70	D	59	D
SD-162-01	180-25423-31	63		77		57	
SD-162-02	180-25423-32	61		79		64	
SD-162-03	180-25423-33	75		85		65	
SD-161-SS	180-25423-34	66	D	84	D	65	D
SD-161-01	180-25423-35	70	D	80	D	65	D
SD-161-01 DL	180-25423-35 DL	0	D X	0	D X	0	D X
SD-161-02	180-25423-36	67	D	80	D	67	D
SD-161-03	180-25423-37	72		83		64	
DUP 08	180-25423-38	81		89		64	

- 100X DF

	QC LIMITS
NBZ = Nitrobenzene-d5 (Surr)	27-110
FBP = 2-Fluorobiphenyl	28-108
TPH = Terphenyl-d14 (Surr)	21-130

Column to be used to flag recovery values

FORM II 8270D LL

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Matrix: Sediment Level: Low

GC Column (1): Rxi-5SilMS ID: 0.32 (mm)

Client Sample ID	Lab Sample ID	NBZ	#	FBP	#	TPH	#
	MB 180-85543/1-A	64		66		70	
	MB 180-85545/1-A	60		63		66	
	LCS 180-85543/2-A	79		83		74	
	LCS 180-85545/2-A	75		81		75	
SD-110-SS MS	180-25423-1 MS	80		88		71	
SD-151-SS MS	180-25423-20 MS	74	D	79	D	62	D
SD-110-SS MSD	180-25423-1 MSD	77		84		65	
SD-151-SS MSD	180-25423-20 MSD	68	D	79	D	55	D

	QC LIMITS
NBZ = Nitrobenzene-d5 (Surr)	27-110
FBP = 2-Fluorobiphenyl	28-108
TPH = Terphenyl-d14 (Surr)	21-130

Column to be used to flag recovery values

FORM II 8270D LL

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Sample No.: CCVIS 180-85707/13 Date Analyzed: 10/03/2013 11:05

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm)

Lab File ID (Standard): N10030CC.D Heated Purge: (Y/N) N

Calibration ID: 10611

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		159502	6.27	571963	7.49	308169	9.14
UPPER LIMIT		319004	6.77	1143926	7.99	616338	9.64
LOWER LIMIT		79751	5.77	285982	6.99	154085	8.64
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-85543/1-A		136263	6.27	484768	7.50	269438	9.14
LCS 180-85543/2-A		120869	6.28	429335	7.51	233128	9.15
180-25423-20	SD-151-SS	155137	6.27	531512	7.49	270398	9.14
180-25423-20 MS	SD-151-SS MS	145785	6.27	513062	7.49	263027	9.14
180-25423-20 MSD	SD-151-SS MSD	146075	6.28	506399	7.50	250333	9.15
180-25423-21	SD-151-01	144624	6.27	493130	7.50	242389	9.15
180-25423-22	SD-151-02	134838	6.27	464283	7.49	224946	9.14
180-25423-23	SD-151-03	146808	6.27	513390	7.49	262145	9.14
180-25423-24	SD-111-SS	134683	6.26	467968	7.49	241604	9.14
180-25423-25	SD-111-01	145087	6.28	502936	7.50	253463	9.15

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D LL

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Sample No.: CCVIS 180-85707/13 Date Analyzed: 10/03/2013 11:05

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm)

Lab File ID (Standard): N10030CC.D Heated Purge: (Y/N) N

Calibration ID: 10611

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		471210	10.53	440501	14.10	353102	17.06
UPPER LIMIT		942420	11.03	881002	14.60	706204	17.56
LOWER LIMIT		235605	10.03	220251	13.60	176551	16.56
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-85543/1-A		451456	10.53	372962	14.10	291770	17.07
LCS 180-85543/2-A		371024	10.55	342148	14.13	286080	17.10
180-25423-20	SD-151-SS	416461	10.53	379253	14.14	378784	17.11
180-25423-20 MS	SD-151-SS MS	390601	10.53	369831	14.14	371005	17.11
180-25423-20 MSD	SD-151-SS MSD	377122	10.55	372880	14.16	373425	17.14
180-25423-21	SD-151-01	350457	10.55	372286	14.16	380785	17.15
180-25423-22	SD-151-02	338367	10.53	354051	14.13	365643	17.11
180-25423-23	SD-151-03	394366	10.53	405082	14.13	399618	17.12
180-25423-24	SD-111-SS	363069	10.54	377439	14.14	394720	17.12
180-25423-25	SD-111-01	392634	10.54	394273	14.16	406871	17.14

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D LL

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Sample No.: CCVIS 180-85843/28 Date Analyzed: 10/04/2013 08:51

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm)

Lab File ID (Standard): N10040CC.D Heated Purge: (Y/N) N

Calibration ID: 10611

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		144613	6.30	512523	7.53	279156	9.17
UPPER LIMIT		289226	6.80	1025046	8.03	558312	9.67
LOWER LIMIT		72307	5.80	256262	7.03	139578	8.67
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-85545/1-A		134663	6.31	509087	7.53	273763	9.17
LCS 180-85545/2-A		120907	6.30	428251	7.53	236460	9.17
180-25423-30	SD-162-SS	130780	6.31	475809	7.54	248655	9.18
180-25423-31	SD-162-01	117760	6.31	422184	7.54	214995	9.18
180-25423-32	SD-162-02	129887	6.30	444975	7.53	224400	9.17
180-25423-33	SD-162-03	124954	6.31	459534	7.54	236563	9.18
180-25423-34	SD-161-SS	124951	6.30	437615	7.53	229259	9.17
180-25423-35	SD-161-01	123608	6.31	429262	7.53	222143	9.18
180-25423-36	SD-161-02	119603	6.31	424858	7.54	210774	9.18
180-25423-37	SD-161-03	132878	6.31	468012	7.54	231337	9.18
180-25423-1	SD-110-SS	129390	6.31	449574	7.53	228584	9.18
180-25423-1 MS	SD-110-SS MS	127797	6.31	431871	7.54	222621	9.18
180-25423-1 MSD	SD-110-SS MSD	114318	6.31	396743	7.53	200705	9.18
180-25423-2	SD-110-01	124302	6.30	431293	7.53	213841	9.17
180-25423-3	SD-110-02	119686	6.31	415196	7.54	218478	9.18
180-25423-4	SD-110-03	119266	6.31	409429	7.54	207692	9.18
180-25423-5	SD-116-SS	111115	6.31	371922	7.53	198705	9.17
180-25423-6	SD-116-01	113803	6.31	400555	7.54	206583	9.18
180-25423-7	SD-116-02	123721	6.31	433678	7.53	213852	9.18
180-25423-8	SD-148-SS	109287	6.30	375273	7.53	191236	9.17
180-25423-9	SD-148-01	114777	6.31	399806	7.54	208842	9.18
180-25423-10	SD-148-02	126027	6.30	443980	7.52	230688	9.16
180-25423-11	SD-148-03	112192	6.30	376304	7.52	195821	9.17
180-25423-12	SD-149-SS	115724	6.31	399399	7.53	207663	9.18
180-25423-13	SD-149-01	128427	6.31	429698	7.53	233081	9.17
180-25423-14	SD-149-02	128871	6.29	437577	7.52	226729	9.16
180-25423-15	SD-149-03	133525	6.31	458746	7.53	232703	9.17

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D LL

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Sample No.: CCVIS 180-85843/28 Date Analyzed: 10/04/2013 08:51

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm)

Lab File ID (Standard): N10040CC.D Heated Purge: (Y/N) N

Calibration ID: 10611

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		442802	10.55	376173	14.12	319837	17.07
UPPER LIMIT		885604	11.05	752346	14.62	639674	17.57
LOWER LIMIT		221401	10.05	188087	13.62	159919	16.57
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-85545/1-A		459138	10.55	365756	14.11	289600	17.07
LCS 180-85545/2-A		381673	10.55	339915	14.11	288458	17.07
180-25423-30	SD-162-SS	378126	10.56	349356	14.14	318236	17.10
180-25423-31	SD-162-01	326950	10.56	328447	14.15	320255	17.10
180-25423-32	SD-162-02	338126	10.55	330058	14.12	322779	17.08
180-25423-33	SD-162-03	350737	10.56	356789	14.15	345010	17.10
180-25423-34	SD-161-SS	342753	10.55	336863	14.13	340446	17.08
180-25423-35	SD-161-01	343664	10.56	355631	14.15	356285	17.10
180-25423-36	SD-161-02	317996	10.56	339452	14.15	354203	17.11
180-25423-37	SD-161-03	355118	10.57	351675	14.16	382100	17.12
180-25423-1	SD-110-SS	345734	10.56	352696	14.15	364824	17.12
180-25423-1 MS	SD-110-SS MS	334991	10.56	335166	14.16	371953	17.12
180-25423-1 MSD	SD-110-SS MSD	314306	10.56	355041	14.15	368428	17.12
180-25423-2	SD-110-01	334059	10.55	361383	14.13	389171	17.09
180-25423-3	SD-110-02	322024	10.56	361068	14.15	382511	17.11
180-25423-4	SD-110-03	317841	10.56	358633	14.15	409676	17.12
180-25423-5	SD-116-SS	301191	10.56	353557	14.15	370015	17.12
180-25423-6	SD-116-01	321935	10.56	371058	14.15	377294	17.13
180-25423-7	SD-116-02	341092	10.56	364815	14.16	397860	17.13
180-25423-8	SD-148-SS	302193	10.56	334626	14.15	370166	17.11
180-25423-9	SD-148-01	313583	10.57	346339	14.16	365982	17.13
180-25423-10	SD-148-02	347447	10.55	372823	14.14	393863	17.10
180-25423-11	SD-148-03	314397	10.55	353723	14.14	372006	17.12
180-25423-12	SD-149-SS	309312	10.56	349075	14.16	374297	17.14
180-25423-13	SD-149-01	358950	10.56	358392	14.16	373041	17.12
180-25423-14	SD-149-02	346222	10.55	365765	14.14	393422	17.10
180-25423-15	SD-149-03	361575	10.56	373876	14.16	387760	17.13

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D LL

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Sample No.: CCVIS 180-86264/7 Date Analyzed: 10/09/2013 10:13

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm)

Lab File ID (Standard): N1009NCC.D Heated Purge: (Y/N) N

Calibration ID: 11737

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		191218	6.25	688799	7.47	388037	9.13
UPPER LIMIT		382436	6.75	1377598	7.97	776074	9.63
LOWER LIMIT		95609	5.75	344400	6.97	194019	8.63
LAB SAMPLE ID	CLIENT SAMPLE ID						
180-25423-35 DL	SD-161-01 DL	179109	6.25	604108	7.47	325906	9.13
180-25423-16	SD-150-SS	180025	6.25	607367	7.47	319736	9.13
180-25423-17	SD-150-01	145940	6.25	485116	7.47	265961	9.13
180-25423-18	SD-150-02	154709	6.24	496572	7.47	258173	9.12
180-25423-19	SD-150-03	155836	6.24	500238	7.47	258124	9.13
180-25423-38	DUP 08	137270	6.24	454611	7.46	237754	9.12

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D LL

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Sample No.: CCVIS 180-86264/7 Date Analyzed: 10/09/2013 10:13

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm)

Lab File ID (Standard): N1009NCC.D Heated Purge: (Y/N) N

Calibration ID: 11737

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		643291	10.52	610782	14.12	466194	17.07
UPPER LIMIT		1286582	11.02	1221564	14.62	932388	17.57
LOWER LIMIT		321646	10.02	305391	13.62	233097	16.57
LAB SAMPLE ID	CLIENT SAMPLE ID						
180-25423-35 DL	SD-161-01 DL	484289	10.53	495305	14.12	423331	17.08
180-25423-16	SD-150-SS	482347	10.52	478097	14.12	439716	17.08
180-25423-17	SD-150-01	406763	10.52	446653	14.12	439164	17.08
180-25423-18	SD-150-02	409792	10.52	470273	14.13	456256	17.09
180-25423-19	SD-150-03	392139	10.53	457703	14.13	449491	17.09
180-25423-38	DUP 08	379585	10.51	451027	14.11	453168	17.07

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D LL

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab File ID: N1003016.D Lab Sample ID: MB 180-85543/1-A

Matrix: Sediment Date Extracted: 10/02/2013 23:30

Instrument ID: 733 Date Analyzed: 10/03/2013 12:23

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-85543/2-A	N1003017.D	10/03/2013 13:15
SD-151-SS	180-25423-20	N1003020.D	10/03/2013 19:48
SD-151-SS MS	180-25423-20 MS	N1003021.D	10/03/2013 20:14
SD-151-SS MSD	180-25423-20 MSD	N1003022.D	10/03/2013 20:40
SD-151-01	180-25423-21	N1003023.D	10/03/2013 21:07
SD-151-02	180-25423-22	N1003024.D	10/03/2013 21:33
SD-151-03	180-25423-23	N1003025.D	10/03/2013 21:59
SD-111-SS	180-25423-24	N1003026.D	10/03/2013 22:25
SD-111-01	180-25423-25	N1003027.D	10/03/2013 22:51
SD-162-SS	180-25423-30	N1004001.D	10/04/2013 10:08
SD-162-01	180-25423-31	N1004002.D	10/04/2013 10:34
SD-162-02	180-25423-32	N1004003.D	10/04/2013 11:00
SD-162-03	180-25423-33	N1004004.D	10/04/2013 11:26
SD-161-SS	180-25423-34	N1004005.D	10/04/2013 11:52
SD-161-01	180-25423-35	N1004006.D	10/04/2013 12:18
SD-161-02	180-25423-36	N1004007.D	10/04/2013 12:45
SD-161-03	180-25423-37	N1004008.D	10/04/2013 13:11
SD-161-01 DL	180-25423-35 DL	N1009N01.D	10/09/2013 15:54

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25423-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-85543/1-A

Matrix: Sediment | Lab File ID: N1003016.D

Analysis Method: 8270D LL | Date Collected:

Extract. Method: 3541 | Date Extracted: 10/02/2013 23:30

Sample wt/vol: 30.0(g) | Date Analyzed: 10/03/2013 12:23

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85707 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	ND		3.4	0.33
56-55-3	Benzo[a]anthracene	ND		3.4	0.42
205-99-2	Benzo[b]fluoranthene	ND		3.4	0.52
207-08-9	Benzo[k]fluoranthene	ND		3.4	0.67
191-24-2	Benzo[g,h,i]perylene	ND		3.4	0.33
50-32-8	Benzo[a]pyrene	ND		3.4	0.33
218-01-9	Chrysene	ND		3.4	0.40
53-70-3	Dibenz(a,h)anthracene	ND		3.4	0.37
206-44-0	Fluoranthene	ND		3.4	0.36
86-73-7	Fluorene	ND		3.4	0.44
193-39-5	Indeno[1,2,3-cd]pyrene	ND		3.4	0.34
85-01-8	Phenanthrene	ND		3.4	0.53
129-00-0	Pyrene	ND		3.4	0.34
83-32-9	Acenaphthene	ND		3.4	0.32
208-96-8	Acenaphthylene	ND		3.4	0.38
91-20-3	Naphthalene	ND		3.4	0.29
91-57-6	2-Methylnaphthalene	ND		3.4	0.30

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	64		27-110
321-60-8	2-Fluorobiphenyl	66		28-108
1718-51-0	Terphenyl-d14 (Surr)	70		21-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: N1003017.D

Lab ID: LCS 180-85543/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Anthracene	333	277	83	43-111	
Benzo[a]anthracene	333	308	92	45-110	
Benzo[b]fluoranthene	333	279	84	37-108	
Benzo[k]fluoranthene	333	285	86	39-115	
Benzo[g,h,i]perylene	333	255	76	35-127	
Benzo[a]pyrene	333	307	92	42-114	
Chrysene	333	314	94	44-108	
Dibenz(a,h)anthracene	333	258	77	34-131	
Fluoranthene	333	327	98	40-118	
Fluorene	333	286	86	43-110	
Indeno[1,2,3-cd]pyrene	333	244	73	34-130	
Phenanthrene	333	268	80	41-107	
Pyrene	333	286	86	39-113	
Acenaphthene	333	289	87	42-104	
Acenaphthylene	333	267	80	43-117	
Naphthalene	333	256	77	42-104	
2-Methylnaphthalene	333	261	78	43-105	

Column to be used to flag recovery and RPD values

FORM III 8270D LL

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: N1003021.D

Lab ID: 180-25423-20 MS Client ID: SD-151-SS MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Anthracene	1670	100 J	1400	77	43-111	
Benzo[a]anthracene	1670	310	1840	92	45-110	
Benzo[b]fluoranthene	1670	520	1630	66	37-108	
Benzo[k]fluoranthene	1670	260	1620	81	39-115	
Benzo[g,h,i]perylene	1670	760	2070	78	35-127	
Benzo[a]pyrene	1670	380	1820	86	42-114	
Chrysene	1670	510	2200	101	44-108	
Dibenz(a,h)anthracene	1670	490	1720	74	34-131	
Fluoranthene	1670	1000	3010	120	40-118	F
Fluorene	1670	ND	1380	82	43-110	
Indeno[1,2,3-cd]pyrene	1670	760	1940	71	34-130	
Phenanthrene	1670	180 J	1640	88	41-107	
Pyrene	1670	810	2320	90	39-113	
Acenaphthene	1670	ND	1320	79	42-104	
Acenaphthylene	1670	55 J	1240	71	43-117	
Naphthalene	1670	75 J	1220	69	42-104	
2-Methylnaphthalene	1670	51 J	1200	69	43-105	

Column to be used to flag recovery and RPD values

FORM III 8270D LL

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: N1003022.D

Lab ID: 180-25423-20 MSD Client ID: SD-151-SS MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Anthracene	1680	1320	73	5	35	43-111	
Benzo[a]anthracene	1680	1850	92	1	31	45-110	
Benzo[b]fluoranthene	1680	1750	73	7	28	37-108	
Benzo[k]fluoranthene	1680	1540	76	5	42	39-115	
Benzo[g,h,i]perylene	1680	2070	78	0	21	35-127	
Benzo[a]pyrene	1680	1670	77	8	31	42-114	
Chrysene	1680	1980	88	11	31	44-108	
Dibenz(a,h)anthracene	1680	1510	61	13	32	34-131	
Fluoranthene	1680	2940	116	2	23	40-118	
Fluorene	1680	1310	78	5	37	43-110	
Indeno[1,2,3-cd]pyrene	1680	1950	71	1	30	34-130	
Phenanthrene	1680	1660	88	1	20	41-107	
Pyrene	1680	2260	86	3	28	39-113	
Acenaphthene	1680	1280	77	3	34	42-104	
Acenaphthylene	1680	1300	74	5	36	43-117	
Naphthalene	1680	1200	67	2	25	42-104	
2-Methylnaphthalene	1680	1190	68	2	34	43-105	

Column to be used to flag recovery and RPD values

FORM III 8270D LL

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab File ID: N1004009.D Lab Sample ID: MB 180-85545/1-A

Matrix: Sediment Date Extracted: 10/02/2013 23:38

Instrument ID: 733 Date Analyzed: 10/04/2013 09:17

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-85545/2-A	N1004010.D	10/04/2013 09:43
SD-110-SS	180-25423-1	N1004011.D	10/04/2013 13:37
SD-110-SS MS	180-25423-1 MS	N1004012.D	10/04/2013 14:03
SD-110-SS MSD	180-25423-1 MSD	N1004013.D	10/04/2013 14:30
SD-110-01	180-25423-2	N1004014.D	10/04/2013 14:56
SD-110-02	180-25423-3	N1004015.D	10/04/2013 15:22
SD-110-03	180-25423-4	N1004016.D	10/04/2013 15:48
SD-116-SS	180-25423-5	N1004017.D	10/04/2013 16:15
SD-116-01	180-25423-6	N1004018.D	10/04/2013 16:41
SD-116-02	180-25423-7	N1004019.D	10/04/2013 17:07
SD-148-SS	180-25423-8	N1004020.D	10/04/2013 17:33
SD-148-01	180-25423-9	N1004021.D	10/04/2013 17:59
SD-148-02	180-25423-10	N1004022.D	10/04/2013 18:25
SD-148-03	180-25423-11	N1004023.D	10/04/2013 18:52
SD-149-SS	180-25423-12	N1004024.D	10/04/2013 19:18
SD-149-01	180-25423-13	N1004025.D	10/04/2013 19:44
SD-149-02	180-25423-14	N1004026.D	10/04/2013 20:10
SD-149-03	180-25423-15	N1004027.D	10/04/2013 20:36
SD-150-SS	180-25423-16	N1009N02.D	10/09/2013 16:20
SD-150-01	180-25423-17	N1009N03.D	10/09/2013 16:46
SD-150-02	180-25423-18	N1009N04.D	10/09/2013 17:12
SD-150-03	180-25423-19	N1009N05.D	10/09/2013 17:39
DUP 08	180-25423-38	N1009N06.D	10/09/2013 18:05

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25423-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-85545/1-A

Matrix: Sediment | Lab File ID: N1004009.D

Analysis Method: 8270D LL | Date Collected:

Extract. Method: 3541 | Date Extracted: 10/02/2013 23:38

Sample wt/vol: 30.0(g) | Date Analyzed: 10/04/2013 09:17

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 85843 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	ND		3.4	0.33
56-55-3	Benzo[a]anthracene	ND		3.4	0.42
205-99-2	Benzo[b]fluoranthene	ND		3.4	0.52
207-08-9	Benzo[k]fluoranthene	ND		3.4	0.67
191-24-2	Benzo[g,h,i]perylene	ND		3.4	0.33
50-32-8	Benzo[a]pyrene	ND		3.4	0.33
218-01-9	Chrysene	ND		3.4	0.40
53-70-3	Dibenz(a,h)anthracene	ND		3.4	0.37
206-44-0	Fluoranthene	ND		3.4	0.36
86-73-7	Fluorene	ND		3.4	0.44
193-39-5	Indeno[1,2,3-cd]pyrene	ND		3.4	0.34
85-01-8	Phenanthrene	ND		3.4	0.53
129-00-0	Pyrene	ND		3.4	0.34
83-32-9	Acenaphthene	ND		3.4	0.32
208-96-8	Acenaphthylene	ND		3.4	0.38
91-20-3	Naphthalene	ND		3.4	0.29
91-57-6	2-Methylnaphthalene	ND		3.4	0.30

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	60		27-110
321-60-8	2-Fluorobiphenyl	63		28-108
1718-51-0	Terphenyl-d14 (Surr)	66		21-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: N1004010.D

Lab ID: LCS 180-85545/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Anthracene	333	268	80	43-111	
Benzo[a]anthracene	333	297	89	45-110	
Benzo[b]fluoranthene	333	252	76	37-108	
Benzo[k]fluoranthene	333	269	81	39-115	
Benzo[g,h,i]perylene	333	237	71	35-127	
Benzo[a]pyrene	333	283	85	42-114	
Chrysene	333	306	92	44-108	
Dibenz(a,h)anthracene	333	247	74	34-131	
Fluoranthene	333	309	93	40-118	
Fluorene	333	280	84	43-110	
Indeno[1,2,3-cd]pyrene	333	232	69	34-130	
Phenanthrene	333	260	78	41-107	
Pyrene	333	283	85	39-113	
Acenaphthene	333	271	81	42-104	
Acenaphthylene	333	261	78	43-117	
Naphthalene	333	244	73	42-104	
2-Methylnaphthalene	333	249	75	43-105	

Column to be used to flag recovery and RPD values

FORM III 8270D LL

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: N1004012.D

Lab ID: 180-25423-1 MS Client ID: SD-110-SS MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Anthracene	633	91	622	84	43-111	
Benzo[a]anthracene	633	310	932	99	45-110	
Benzo[b]fluoranthene	633	410	764	56	37-108	
Benzo[k]fluoranthene	633	210	683	75	39-115	
Benzo[g,h,i]perylene	633	370	877	80	35-127	
Benzo[a]pyrene	633	320	849	84	42-114	
Chrysene	633	390	985	94	44-108	
Dibenz(a,h)anthracene	633	180	676	78	34-131	
Fluoranthene	633	590	1210	99	40-118	
Fluorene	633	28 J	586	88	43-110	
Indeno[1,2,3-cd]pyrene	633	330	798	74	34-130	
Phenanthrene	633	150	740	93	41-107	
Pyrene	633	490	971	75	39-113	
Acenaphthene	633	18 J	546	83	42-104	
Acenaphthylene	633	55 J	558	80	43-117	
Naphthalene	633	22 J	473	71	42-104	
2-Methylnaphthalene	633	17 J	479	73	43-105	

Column to be used to flag recovery and RPD values

FORM III 8270D LL

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: N1004013.D

Lab ID: 180-25423-1 MSD Client ID: SD-110-SS MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Anthracene	633	650	88	4	35	43-111	
Benzo[a]anthracene	633	881	91	6	31	45-110	
Benzo[b]fluoranthene	633	910	79	17	28	37-108	
Benzo[k]fluoranthene	633	654	71	4	42	39-115	
Benzo[g,h,i]perylene	633	883	81	1	21	35-127	
Benzo[a]pyrene	633	913	94	7	31	42-114	
Chrysene	633	1010	99	3	31	44-108	
Dibenz(a,h)anthracene	633	667	77	1	32	34-131	
Fluoranthene	633	1300	113	7	23	40-118	
Fluorene	633	566	85	3	37	43-110	
Indeno[1,2,3-cd]pyrene	633	839	80	5	30	34-130	
Phenanthrene	633	740	93	0	20	41-107	
Pyrene	633	965	74	1	28	39-113	
Acenaphthene	633	563	86	3	34	42-104	
Acenaphthylene	633	562	80	1	36	43-117	
Naphthalene	633	483	73	2	25	42-104	
2-Methylnaphthalene	633	483	74	1	34	43-105	

Column to be used to flag recovery and RPD values

FORM III 8270D LL

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab File ID: N0806DF1.D DFTPP Injection Date: 08/06/2013

Instrument ID: 733 DFTPP Injection Time: 06:17

Analysis Batch No.: 79656

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	42.3	
68	Less than 2.0 % of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	48.0	
70	Less than 2.0 % of mass 69	0.4	(0.9)1
127	40.0 - 60.0 % of mass 198	52.8	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	7.3	
275	10.0 - 30.0 % of mass 198	24.6	
365	Greater than 1.0 % of mass 198	3.4	
441	Present but less than mass 443	10.8	(78.3)3
442	Greater than 40.0 % of mass 198	71.6	
443	17.0 - 23.0 % of mass 442	13.9	(19.4)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-79656/2	N0806IC1.D	08/06/2013	06:33
	IC 180-79656/3	N0806IC2.D	08/06/2013	07:00
	IC 180-79656/4	N0806IC3.D	08/06/2013	07:27
	ICIS 180-79656/5	N0806IC4.D	08/06/2013	07:53
	IC 180-79656/6	N0806IC5.D	08/06/2013	08:20
	IC 180-79656/7	N0806IC6.D	08/06/2013	08:47
	IC 180-79656/8	N0806IC7.D	08/06/2013	09:14
	IC 180-79656/9	N0806IC8.D	08/06/2013	09:41

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 79656

SDG No.:

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/06/2013 06:33 Calibration End Date: 08/06/2013 09:41 Calibration ID: 10611

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
2-Methylphenol	1.0676 1.0680	1.1012 1.0017	1.1148 0.9845	1.1440	1.0926	Ave		1.0718			0.7000	5.1		20.0			
Indene	2.2813 2.0464	2.3148 1.9207	2.2852 1.8837	2.1920	2.1236	Ave		2.1310			0.0100	7.9		20.0			
2,2'-oxybis[1-chloropropane]	1.5242 1.1465	1.4554 1.0400	1.4462 +++++	1.3542	1.2403	Ave		1.3152			0.0100	13.6		20.0			
N-Nitrosopyrrolidine	0.4432 0.5177	0.4744 0.4986	0.4962 0.5139	0.5225	0.5288	Ave		0.4994			0.0100	5.7		20.0			
N-Nitrosodi-n-propylamine	0.8531 0.7108	0.8850 0.6542	0.8759 0.6378	0.8299	0.7525	Ave		0.7749			0.5000	12.9		20.0			
Acetophenone	+++++ 1.5524	1.9108 1.4258	1.8697 1.3848	1.7431	1.6231	Ave		1.6442			0.0100	12.6		20.0			
Methylphenol, 3 & 4	1.1088 1.0651	1.1538 0.9785	1.1783 0.9746	1.1561	1.0893	Ave		1.0881			0.6000	7.2		20.0			
Hexachloroethane	0.6106 0.6160	0.6103 0.5967	0.6236 0.6029	0.6269	0.6211	Ave		0.6135			0.3000	1.7		20.0			
Nitrobenzene	0.3505 0.3349	0.3551 0.3220	0.3691 0.3165	0.3588	0.3398	Ave		0.3433			0.2000	5.3		20.0			
Isophorone	0.5328 0.5536	0.5371 0.5262	0.5570 0.5279	0.5706	0.5563	Ave		0.5452			0.4000	3.0		20.0			
2-Nitrophenol	0.1259 0.1881	0.1528 0.1866	0.1627 0.1893	0.1779	0.1860	Ave		0.1712			0.1000	13.2		20.0			
2,4-Dimethylphenol	0.2607 0.3035	0.2755 0.2929	0.2894 0.2878	0.2835	0.2921	Ave		0.2857			0.2000	4.5		20.0			
Bis(2-chloroethoxy)methane	0.3727 0.3529	0.3834 0.3371	0.3904 0.3384	0.3799	0.3671	Ave		0.3652			0.3000	5.6		20.0			
Benzoic acid	+++++ 0.1644	0.0912 0.1693	0.1061 0.1766	0.1317	0.1537	Qua	0.3243	6.2461	-0.191		0.0100			20.0	0.9999		0.9900
2,4-Dichlorophenol	0.2366 0.2914	0.2650 0.2863	0.2838 0.2841	0.2885	0.2988	Ave		0.2793			0.2000	7.1		20.0			
1,2,4-Trichlorobenzene	0.3564 0.3544	0.3623 0.3455	0.3600 0.3449	0.3563	0.3571	Ave		0.3546			0.0100	1.8		20.0			
Naphthalene	1.0900 0.9882	1.0854 0.9366	1.0820 0.9182	1.0441	1.0207	Ave		1.0206			0.7000	6.6		20.0			
4-Chloroaniline	0.3994 0.4091	0.4118 0.3900	0.4253 0.3888	0.4254	0.4230	Ave		0.4091			0.0100	3.7		20.0			
2,6-Dichlorophenol	0.2552 0.2800	0.2770 0.2719	0.2784 0.2752	0.2832	0.2824	Ave		0.2754			0.0100	3.3		20.0			
Hexachlorobutadiene	0.2153 0.2327	0.2193 0.2300	0.2226 0.2327	0.2242	0.2249	Ave		0.2252			0.0100	2.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 79656

SDG No.:

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/06/2013 06:33 Calibration End Date: 08/06/2013 09:41 Calibration ID: 10611

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Caprolactam	0.0402 0.0781	0.0531 0.0794	0.0597 0.0806	0.0715	0.0765	Qua	0.0761	12.895	-0.719		0.0100			20.0	0.9999		0.9900
4-Chloro-3-methylphenol	0.2092 0.2732	0.2385 0.2589	0.2592 0.2615	0.2659	0.2710	Ave		0.2547			0.2000	8.3		20.0			
2-Methylnaphthalene	0.7072 0.6563	0.6960 0.6263	0.7248 0.6149	0.7078	0.6831	Ave		0.6770			0.4000	6.0		20.0			
1-Methylnaphthalene	0.6771 0.6083	0.6674 0.5752	0.6655 0.5685	0.6419	0.6233	Ave		0.6284			0.0100	6.7		20.0			
Hexachlorocyclopentadiene	0.3662 0.5017	0.4029 0.5016	0.4124 0.4967	0.4458	0.4817	Ave		0.4511			0.0500	11.6		20.0			
1,2,4,5-Tetrachlorobenzene	0.6279 0.6921	0.6422 0.6812	0.6564 0.6628	0.6579	0.6759	Ave		0.6621			0.0100	3.2		20.0			
2,4,6-Trichlorophenol	0.2764 0.3972	0.3251 0.3968	0.3350 0.4031	0.3711	0.3789	Ave		0.3604			0.2000	12.4		20.0			
2,4,5-Trichlorophenol	0.2830 0.4070	0.3394 0.4121	0.3604 0.4085	0.3839	0.4024	Ave		0.3746			0.2000	12.1		20.0			
1,1'-Biphenyl	1.5426 1.4514	1.5166 1.3943	1.5295 1.3573	1.5211	1.4798	Ave		1.4741			0.0100	4.6		20.0			
2-Chloronaphthalene	1.2528 1.2664	1.2200 1.2642	1.3127 1.1613	1.2772	1.2998	Ave		1.2568			0.8000	3.8		20.0			
2-Nitroaniline	0.2307 0.3191	0.2723 0.3156	0.3049 0.3134	0.3086	0.3174	Ave		0.2977			0.0100	10.4		20.0			
Dimethyl phthalate	1.2063 1.1855	1.1872 1.1675	1.1992 1.1315	1.1889	1.1766	Ave		1.1803			0.0100	2.0		20.0			
1,3-Dinitrobenzene	+++++ 0.2047	0.1511 0.2057	0.1743 0.2050	0.1875	0.1980	Ave		0.1895			0.0100	10.8		20.0			
2,6-Dinitrotoluene	0.2039 0.2791	0.2517 0.2755	0.2603 0.2743	0.2713	0.2686	Ave		0.2606			0.2000	9.4		20.0			
Acenaphthylene	1.7427 1.8293	1.8049 1.7751	1.8571 1.7182	1.8832	1.8470	Ave		1.8072			0.9000	3.2		20.0			
3-Nitroaniline	0.2336 0.3105	0.2632 0.3088	0.2871 0.3111	0.2967	0.3042	Ave		0.2894			0.0100	9.6		20.0			
Acenaphthene	1.1430 1.1174	1.1926 1.0588	1.1884 1.0338	1.1731	1.1278	Ave		1.1294			0.9000	5.2		20.0			
2,4-Dinitrophenol	+++++ 0.1710	+++++ 0.1815	0.0870 0.1863	0.1248	0.1515	Qua	0.6498	5.7005	-0.141		0.0100			20.0	0.9998		0.9900
4-Nitrophenol	+++++ 0.1526	0.1136 0.1526	0.1272 0.1535	0.1407	0.1482	Ave		0.1412			0.0100	10.9		20.0			
2,4-Dinitrotoluene	0.2572 0.3559	0.2999 0.3599	0.3242 0.3587	0.3402	0.3502	Ave		0.3308			0.2000	10.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 79656

SDG No.:

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/06/2013 06:33 Calibration End Date: 08/06/2013 09:41 Calibration ID: 10611

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dibenzofuran	1.6792 1.6040	1.6844 1.5575	1.6593 1.5217	1.6375	1.5965	Ave		1.6175			0.8000	3.6		20.0			
2,3,5,6-Tetrachlorophenol	+++++ 0.3281	0.2447 0.3454	0.2708 0.3572	0.2880	0.3109	Ave		0.3064			0.0100	13.3		20.0			
2,3,4,6-Tetrachlorophenol	0.2305 0.3339	0.2681 0.3418	0.2850 0.3335	0.3075	0.3103	Ave		0.3013			0.0100	12.7		20.0			
2-Naphthylamine	0.8813 +++++	0.9812 +++++	1.0097 +++++	0.8649	0.7813	Ave		0.9037			0.0100	10.2		20.0			
Diethyl phthalate	1.1058 1.1024	1.1710 1.0618	1.1747 0.9997	1.1393	1.1194	Ave		1.1093			0.0100	5.2		20.0			
Hexadecane	0.4009 0.3891	0.4124 0.3561	0.4340 0.3454	0.4266	0.4079	Ave		0.3966				8.0					
4-Chlorophenyl phenyl ether	0.6196 0.6684	0.6211 0.6665	0.6344 0.6767	0.6371	0.6505	Ave		0.6468			0.4000	3.4		20.0			
4-Nitroaniline	0.2156 0.2917	0.2359 0.2853	0.2604 0.2842	0.2766	0.2833	Ave		0.2666			0.0100	10.3		20.0			
Fluorene	1.2131 1.2235	1.2880 1.1958	1.2928 1.1657	1.2575	1.2311	Ave		1.2334			0.9000	3.6		20.0			
4,6-Dinitro-2-methylphenol	+++++ 0.1483	0.0769 0.1541	0.0937 0.1578	0.1190	0.1385	Qua	0.3665	6.7681	-0.177		0.0100			20.0	0.9999		0.9900
N-Nitrosodiphenylamine	0.4945 0.5732	0.5290 0.5553	0.5426 0.5552	0.5589	0.5685	Ave		0.5472			0.0100	4.6		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.8379 0.9339	0.8920 0.8881	0.9386 0.8655	0.9400	0.9590	Ave		0.9069			0.0100	4.7		20.0			
4-Bromophenyl phenyl ether	0.2128 0.2505	0.2156 0.2507	0.2236 0.2500	0.2344	0.2465	Ave		0.2355			0.1000	6.9		20.0			
Hexachlorobenzene	0.2411 0.2462	0.2300 0.2428	0.2379 0.2447	0.2401	0.2431	Ave		0.2407			0.1000	2.1		20.0			
Atrazine	0.1451 0.1999	0.1640 0.1916	0.1757 0.1769	0.1873	0.1992	Ave		0.1800			0.0100	10.4		20.0			
n-Octadecane	1.3841 1.4873	1.5600 1.3337	1.5947 1.2747	1.6664	1.5927	Ave		1.4867				9.5					
Pentachlorophenol	0.2115 0.1565	0.0992 0.1654	0.0993 0.1658	0.1241	0.1430	Qua	0.2651	6.4881	-0.176		0.0500			20.0	0.9992		0.9900
Phenanthrene	1.1558 1.1205	1.1252 1.0938	1.1275 1.0851	1.1146	1.1312	Ave		1.1192			0.7000	2.0		20.0			
Anthracene	1.0071 1.1482	1.0743 1.1072	1.1154 1.0715	1.1365	1.1558	Ave		1.1020			0.7000	4.5		20.0			
Carbazole	0.8759 1.0121	0.9278 0.9901	0.9614 0.9850	0.9805	1.0151	Ave		0.9685			0.0100	4.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 79656

SDG No.:

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/06/2013 06:33 Calibration End Date: 08/06/2013 09:41 Calibration ID: 10611

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Di-n-butyl phthalate	0.7762 1.2134	0.9270 1.1890	1.0179 1.1770	1.1128	1.2027	Ave		1.0770			0.0100	14.7		20.0			
Fluoranthene	0.9146 1.1223	0.9803 1.1066	1.0184 1.1065	1.0410	1.0984	Ave		1.0485			0.6000	7.0		20.0			
Benzidine	+++++ 0.2322	0.2303 0.2498	0.2871 0.2781	0.2609	0.2694	Ave		0.2583			0.0100	8.5		20.0			
Pyrene	1.2649 1.2709	1.2782 1.2196	1.3097 1.2119	1.3311	1.3048	Ave		1.2739			0.6000	3.3		20.0			
Butyl benzyl phthalate	0.3352 0.5263	0.3518 0.5244	0.3842 0.5302	0.4570	0.5127	Qua	0.0929	1.8948	-0.005		0.0100			20.0	0.9998		0.9900
3,3'-Dichlorobenzidine	+++++ 0.3827	0.1956 0.4035	0.2267 0.4193	0.2921	0.3496	Qua	0.2020	2.6654	-0.080		0.0100			20.0	0.9998		0.9900
Bis(2-ethylhexyl) phthalate	0.3735 0.6978	0.3992 0.7052	0.4677 0.7102	0.6021	0.6730	Qua	0.1149	1.4232	-0.005		0.0100			20.0	0.9998		0.9900
Benzo[a]anthracene	1.0059 1.0963	1.0122 1.1040	1.0487 1.1230	1.0757	1.1058	Ave		1.0714			0.8000	4.2		20.0			
Chrysene	0.9389 1.0204	0.9617 1.0104	0.9867 1.0240	0.9958	1.0072	Ave		0.9931			0.7000	3.0		20.0			
Di-n-octyl phthalate	1.4148 1.3168	0.9540 1.3193	0.7424 1.3024	1.0140	1.2109	Qua	0.1525	0.7417	0.0008		0.0100			20.0	0.9992		0.9900
7,12-Dimethylbenz(a)anthracene	+++++ 0.6157	0.4456 0.6150	0.4912 0.6143	0.5331	0.5919	Ave		0.5581			0.0100	12.4		20.0			
Benzo[b]fluoranthene	1.0073 1.3811	1.1800 1.3047	1.3165 1.3539	1.3377	1.3616	Ave		1.2803			0.7000	9.9		20.0			
Benzo[k]fluoranthene	1.0777 1.3110	1.2109 1.3170	1.2830 1.2361	1.3436	1.3497	Ave		1.2661			0.7000	7.1		20.0			
Benzo[a]pyrene	0.8307 1.2041	0.8805 1.1938	0.9730 1.1889	1.0991	1.1824	Ave		1.0691			0.7000	14.3		20.0			
Indeno[1,2,3-cd]pyrene	0.9039 1.4234	1.0299 1.4184	1.1508 1.4039	1.2356	1.3718	Qua	0.0942	0.6858	0.0013		0.5000			20.0	0.9998		0.9900
Dibenz(a,h)anthracene	0.7674 1.1841	0.8730 1.1984	0.9777 1.1929	1.0429	1.1484	Qua	0.0825	0.8357	-0.001		0.4000			20.0	0.9999		0.9900
Benzo[g,h,i]perylene	0.7712 1.2042	0.9123 1.2027	0.9863 1.2034	1.0455	1.1721	Qua	0.0813	0.8228	0		0.5000			20.0	0.9998		0.9900
2-Fluorophenol (Surr)	0.8776 1.1102	0.9604 1.0863	0.9964 1.1032	1.0679	1.1010	Ave		1.0379				8.2		20.0			
Phenol-d5 (Surr)	1.2849 1.3812	1.3643 1.3267	1.4072 1.3151	1.4335	1.4087	Ave		1.3652				3.8		20.0			
Nitrobenzene-d5 (Surr)	0.3137 0.3254	0.3351 0.3164	0.3417 0.3112	0.3356	0.3385	Ave		0.3272				3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 79656

SDG No.:

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/06/2013 06:33 Calibration End Date: 08/06/2013 09:41 Calibration ID: 10611

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
2-Fluorobiphenyl	1.4313 1.3451	1.4051 1.3131	1.4280 1.2937	1.3894	1.3638	Ave		1.3712				3.7		20.0			
2,4,6-Tribromophenol (Surr)	+++++ 0.1057	0.0721 0.1055	0.0838 0.1067	0.0933	0.1028	Ave		0.0957			0.0100	14.0		20.0			
Terphenyl-d14 (Surr)	0.8454 0.9132	0.8932 0.9054	0.9182 0.9082	0.9192	0.9243	Ave		0.9034				2.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab File ID: N1003DF1.D DFTPP Injection Date: 10/03/2013

Instrument ID: 733 DFTPP Injection Time: 10:51

Analysis Batch No.: 85707

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	37.2	
68	Less than 2.0 % of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	38.0	
70	Less than 2.0 % of mass 69	0.5	(1.4)1
127	40.0 - 60.0 % of mass 198	47.5	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.5	
275	10.0 - 30.0 % of mass 198	25.8	
365	Greater than 1.0 % of mass 198	2.8	
441	Present but less than mass 443	11.6	(86.0)3
442	Greater than 40.0 % of mass 198	69.3	
443	17.0 - 23.0 % of mass 442	13.5	(19.5)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-85707/13	N10030CC.D	10/03/2013	11:05
	MB 180-85543/1-A	N1003016.D	10/03/2013	12:23
	LCS 180-85543/2-A	N1003017.D	10/03/2013	13:15
SD-151-SS	180-25423-20	N1003020.D	10/03/2013	19:48
SD-151-SS MS	180-25423-20 MS	N1003021.D	10/03/2013	20:14
SD-151-SS MSD	180-25423-20 MSD	N1003022.D	10/03/2013	20:40
SD-151-01	180-25423-21	N1003023.D	10/03/2013	21:07
SD-151-02	180-25423-22	N1003024.D	10/03/2013	21:33
SD-151-03	180-25423-23	N1003025.D	10/03/2013	21:59
SD-111-SS	180-25423-24	N1003026.D	10/03/2013	22:25
SD-111-01	180-25423-25	N1003027.D	10/03/2013	22:51

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCVIS 180-85707/13 Calibration Date: 10/03/2013 11:05

Instrument ID: 733 Calib Start Date: 08/06/2013 06:33

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 08/06/2013 09:41

Lab File ID: N10030CC.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.3202	0.4691	0.0100	7.32	5.00	46.5*	20.0
N-Nitrosodimethylamine	Ave	0.3891	0.6114	0.0100	7.86	5.00	57.2*	20.0
Pyridine	Ave	0.7321	1.089	0.0100	7.44	5.00	48.8*	20.0
Methyl methanesulfonate	Ave	0.5656	0.6686	0.0100	5.91	5.00	18.2	20.0
Benzaldehyde	Ave	0.9360	0.9869	0.0100	5.27	5.00	5.4	20.0
Phenol	Ave	1.552	1.618	0.8000	5.21	5.00	4.3	20.0
Aniline	Ave	1.745	1.779	0.0100	5.10	5.00	2.0	20.0
Bis(2-chloroethyl)ether	Ave	1.114	1.055	0.7000	4.74	5.00	-5.3	20.0
2-Chlorophenol	Ave	1.265	1.328	0.8000	5.25	5.00	5.0	20.0
1,3-Dichlorobenzene	Ave	1.564	1.568	0.0100	5.01	5.00	0.3	20.0
1,4-Dichlorobenzene	Ave	1.574	1.567	0.0100	4.98	5.00	-0.5	20.0
Benzyl alcohol	Ave	0.7311	0.7380	0.0100	5.05	5.00	0.9	20.0
1,2-Dichlorobenzene	Ave	1.521	1.485	0.0100	4.88	5.00	-2.3	20.0
2-Methylphenol	Ave	1.072	1.085	0.7000	5.06	5.00	1.2	20.0
Indene	Ave	2.131	2.127	0.0100	4.99	5.00	-0.2	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.315	1.273	0.0100	4.84	5.00	-3.2	20.0
N-Nitrosopyrrolidine	Ave	0.4994	0.4846	0.0100	4.85	5.00	-3.0	20.0
Acetophenone	Ave	1.644	1.629	0.0100	4.95	5.00	-0.9	20.0
N-Nitrosodi-n-propylamine	Ave	0.7749	0.7544	0.5000	4.87	5.00	-2.6	20.0
Methylphenol, 3 & 4	Ave	1.088	1.109	0.6000	5.09	5.00	1.9	20.0
Hexachloroethane	Ave	0.6135	0.5841	0.3000	4.76	5.00	-4.8	20.0
Nitrobenzene	Ave	0.3433	0.3374	0.2000	4.91	5.00	-1.7	20.0
Isophorone	Ave	0.5452	0.5539	0.4000	5.08	5.00	1.6	20.0
2-Nitrophenol	Ave	0.1712	0.1978	0.1000	5.78	5.00	15.6	20.0
2,4-Dimethylphenol	Ave	0.2857	0.2800	0.2000	4.90	5.00	-2.0	20.0
Benzoic acid	Qua	0.1418	0.1590	0.0100	11.1	10.0	11.1	20.0
Bis(2-chloroethoxy)methane	Ave	0.3652	0.3299	0.3000	4.52	5.00	-9.7	20.0
2,4-Dichlorophenol	Ave	0.2793	0.3061	0.2000	5.48	5.00	9.6	20.0
1,2,4-Trichlorobenzene	Ave	0.3546	0.3608	0.0100	5.09	5.00	1.7	20.0
Naphthalene	Ave	1.021	1.001	0.7000	4.90	5.00	-1.9	20.0
4-Chloroaniline	Ave	0.4091	0.4146	0.0100	5.07	5.00	1.4	20.0
2,6-Dichlorophenol	Ave	0.2754	0.2970	0.0100	5.39	5.00	7.8	20.0
Hexachlorobutadiene	Ave	0.2252	0.2324	0.0100	5.16	5.00	3.2	20.0
Caprolactam	Qua	0.0674	0.0725	0.0100	4.95	5.00	-0.9	20.0
4-Chloro-3-methylphenol	Ave	0.2547	0.2723	0.2000	5.35	5.00	6.9	20.0
2-Methylnaphthalene	Ave	0.6770	0.6824	0.4000	5.04	5.00	0.8	20.0
1-Methylnaphthalene	Ave	0.6284	0.6189	0.0100	4.92	5.00	-1.5	20.0
Hexachlorocyclopentadiene	Ave	0.4511	0.5063	0.0500	5.61	5.00	12.2	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.6621	0.6665	0.0100	5.03	5.00	0.7	20.0
2,4,6-Trichlorophenol	Ave	0.3604	0.4121	0.2000	5.72	5.00	14.3	20.0
2,4,5-Trichlorophenol	Ave	0.3746	0.4229	0.2000	5.64	5.00	12.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCVIS 180-85707/13 Calibration Date: 10/03/2013 11:05

Instrument ID: 733 Calib Start Date: 08/06/2013 06:33

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 08/06/2013 09:41

Lab File ID: N10030CC.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.474	1.440	0.0100	4.89	5.00	-2.3	20.0
2-Chloronaphthalene	Ave	1.257	1.180	0.8000	4.69	5.00	-6.1	20.0
2-Nitroaniline	Ave	0.2977	0.2880	0.0100	4.84	5.00	-3.3	20.0
Dimethyl phthalate	Ave	1.180	1.203	0.0100	5.10	5.00	2.0	20.0
1,3-Dinitrobenzene	Ave	0.1895	0.2052	0.0100	5.42	5.00	8.3	20.0
2,6-Dinitrotoluene	Ave	0.2606	0.2771	0.2000	5.32	5.00	6.3	20.0
Acenaphthylene	Ave	1.807	1.808	0.9000	5.00	5.00	0.0	20.0
3-Nitroaniline	Ave	0.2894	0.2969	0.0100	5.13	5.00	2.6	20.0
2,4-Dinitrophenol	Qua	0.1504	0.1767	0.0100	12.6	10.0	25.6*	20.0
Acenaphthene	Ave	1.129	1.121	0.9000	4.96	5.00	-0.7	20.0
4-Nitrophenol	Ave	0.1412	0.1545	0.0100	10.9	10.0	9.4	20.0
2,4-Dinitrotoluene	Ave	0.3308	0.3467	0.2000	5.24	5.00	4.8	20.0
Dibenzofuran	Ave	1.618	1.564	0.8000	4.83	5.00	-3.3	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3064	0.3548	0.0100	5.79	5.00	15.8	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3013	0.3391	0.0100	5.63	5.00	12.5	20.0
2-Naphthylamine	Ave	0.9037	0.7936	0.0100	4.39	5.00	-12.2	20.0
Diethyl phthalate	Ave	1.109	1.138	0.0100	5.13	5.00	2.6	20.0
4-Chlorophenyl phenyl ether	Ave	0.6468	0.6674	0.4000	5.16	5.00	3.2	20.0
4-Nitroaniline	Ave	0.2666	0.2667	0.0100	5.00	5.00	0.0	20.0
Fluorene	Ave	1.233	1.250	0.9000	5.07	5.00	1.4	20.0
4,6-Dinitro-2-methylphenol	Qua	0.1269	0.1515	0.0100	11.6	10.0	16.2	20.0
N-Nitrosodiphenylamine	Ave	0.5472	0.5543	0.0100	5.06	5.00	1.3	20.0
4-Bromophenyl phenyl ether	Ave	0.2355	0.2560	0.1000	5.43	5.00	8.7	20.0
Hexachlorobenzene	Ave	0.2407	0.2365	0.1000	4.91	5.00	-1.8	20.0
Atrazine	Ave	0.1800	0.2125	0.0100	5.90	5.00	18.1	20.0
Pentachlorophenol	Qua	0.1456	0.1542	0.0500	11.0	10.0	9.6	20.0
Phenanthrene	Ave	1.119	1.065	0.7000	4.76	5.00	-4.8	20.0
Anthracene	Ave	1.102	1.105	0.7000	5.01	5.00	0.2	20.0
Carbazole	Ave	0.9685	0.9534	0.0100	4.92	5.00	-1.6	20.0
Di-n-butyl phthalate	Ave	1.077	1.136	0.0100	5.27	5.00	5.5	20.0
Fluoranthene	Ave	1.049	1.201	0.6000	5.73	5.00	14.6	20.0
Benzidine	Ave	0.2583	0.3361	0.0100	6.51	5.00	30.1*	20.0
Pyrene	Ave	1.274	1.261	0.6000	4.95	5.00	-1.0	20.0
Butyl benzyl phthalate	Qua	0.4527	0.4958	0.0100	5.06	5.00	1.2	20.0
3,3'-Dichlorobenzidine	Qua	0.3242	0.3787	0.0100	5.78	5.00	15.7	20.0
Bis(2-ethylhexyl) phthalate	Qua	0.5786	0.6532	0.0100	5.10	5.00	1.9	20.0
Benzo[a]anthracene	Ave	1.071	1.133	0.8000	5.29	5.00	5.8	20.0
Chrysene	Ave	0.9931	1.039	0.7000	5.23	5.00	4.6	20.0
Di-n-octyl phthalate	Qua	1.159	1.243	0.0100	5.23	5.00	4.5	20.0
7,12-Dimethylbenz(a)anthracene	Ave	0.5581	0.5599	0.0100	5.02	5.00	0.3	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCVIS 180-85707/13 Calibration Date: 10/03/2013 11:05

Instrument ID: 733 Calib Start Date: 08/06/2013 06:33

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 08/06/2013 09:41

Lab File ID: N10030CC.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[b]fluoranthene	Ave	1.280	1.261	0.7000	4.92	5.00	-1.5	20.0
Benzo[k]fluoranthene	Ave	1.266	1.250	0.7000	4.94	5.00	-1.3	20.0
Benzo[a]pyrene	Ave	1.069	1.132	0.7000	5.29	5.00	5.9	20.0
Indeno[1,2,3-cd]pyrene	Qua	1.242	1.210	0.5000	4.54	5.00	-9.2	20.0
Dibenz(a,h)anthracene	Qua	1.048	1.035	0.4000	4.65	5.00	-7.0	20.0
Benzo[g,h,i]perylene	Qua	1.062	1.014	0.5000	4.50	5.00	-10.1	20.0
2-Fluorophenol (Surr)	Ave	1.038	1.196		5.76	5.00	15.2	20.0
Phenol-d5 (Surr)	Ave	1.365	1.458		5.34	5.00	6.8	20.0
Nitrobenzene-d5 (Surr)	Ave	0.3272	0.3445		5.26	5.00	5.3	20.0
2-Fluorobiphenyl	Ave	1.371	1.403		5.12	5.00	2.3	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.0957	0.1010	0.0100	5.28	5.00	5.6	20.0
Terphenyl-d14 (Surr)	Ave	0.9034	0.9214		5.10	5.00	2.0	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab File ID: N1004DF1.D DFTPP Injection Date: 10/04/2013

Instrument ID: 733 DFTPP Injection Time: 08:36

Analysis Batch No.: 85843

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	37.1	
68	Less than 2.0 % of mass 69	0.4	(0.9)1
69	Mass 69 relative abundance	40.8	
70	Less than 2.0 % of mass 69	0.3	(0.6)1
127	40.0 - 60.0 % of mass 198	45.8	
197	Less than 1.0 % of mass 198	0.5	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.9	
275	10.0 - 30.0 % of mass 198	25.1	
365	Greater than 1.0 % of mass 198	2.7	
441	Present but less than mass 443	11.0	(80.1)3
442	Greater than 40.0 % of mass 198	69.5	
443	17.0 - 23.0 % of mass 442	13.7	(19.7)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-85843/28	N10040CC.D	10/04/2013	08:51
	MB 180-85545/1-A	N1004009.D	10/04/2013	09:17
	LCS 180-85545/2-A	N1004010.D	10/04/2013	09:43
SD-162-SS	180-25423-30	N1004001.D	10/04/2013	10:08
SD-162-01	180-25423-31	N1004002.D	10/04/2013	10:34
SD-162-02	180-25423-32	N1004003.D	10/04/2013	11:00
SD-162-03	180-25423-33	N1004004.D	10/04/2013	11:26
SD-161-SS	180-25423-34	N1004005.D	10/04/2013	11:52
SD-161-01	180-25423-35	N1004006.D	10/04/2013	12:18
SD-161-02	180-25423-36	N1004007.D	10/04/2013	12:45
SD-161-03	180-25423-37	N1004008.D	10/04/2013	13:11
SD-110-SS	180-25423-1	N1004011.D	10/04/2013	13:37
SD-110-SS MS	180-25423-1 MS	N1004012.D	10/04/2013	14:03
SD-110-SS MSD	180-25423-1 MSD	N1004013.D	10/04/2013	14:30
SD-110-01	180-25423-2	N1004014.D	10/04/2013	14:56
SD-110-02	180-25423-3	N1004015.D	10/04/2013	15:22
SD-110-03	180-25423-4	N1004016.D	10/04/2013	15:48
SD-116-SS	180-25423-5	N1004017.D	10/04/2013	16:15
SD-116-01	180-25423-6	N1004018.D	10/04/2013	16:41
SD-116-02	180-25423-7	N1004019.D	10/04/2013	17:07
SD-148-SS	180-25423-8	N1004020.D	10/04/2013	17:33
SD-148-01	180-25423-9	N1004021.D	10/04/2013	17:59
SD-148-02	180-25423-10	N1004022.D	10/04/2013	18:25

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab File ID: N1004DF1.D DFTPP Injection Date: 10/04/2013

Instrument ID: 733 DFTPP Injection Time: 08:36

Analysis Batch No.: 85843

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	37.1	
68	Less than 2.0 % of mass 69	0.4	(0.9)1
69	Mass 69 relative abundance	40.8	
70	Less than 2.0 % of mass 69	0.3	(0.6)1
127	40.0 - 60.0 % of mass 198	45.8	
197	Less than 1.0 % of mass 198	0.5	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.9	
275	10.0 - 30.0 % of mass 198	25.1	
365	Greater than 1.0 % of mass 198	2.7	
441	Present but less than mass 443	11.0	(80.1)3
442	Greater than 40.0 % of mass 198	69.5	
443	17.0 - 23.0 % of mass 442	13.7	(19.7)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SD-148-03	180-25423-11	N1004023.D	10/04/2013	18:52
SD-149-SS	180-25423-12	N1004024.D	10/04/2013	19:18
SD-149-01	180-25423-13	N1004025.D	10/04/2013	19:44
SD-149-02	180-25423-14	N1004026.D	10/04/2013	20:10
SD-149-03	180-25423-15	N1004027.D	10/04/2013	20:36

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FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCVIS 180-85843/28 Calibration Date: 10/04/2013 08:51

Instrument ID: 733 Calib Start Date: 08/06/2013 06:33

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 08/06/2013 09:41

Lab File ID: N10040CC.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Naphthalene	Ave	1.021	1.002	0.7000	4.91	5.00	-1.8	20.0
2-Methylnaphthalene	Ave	0.6770	0.6792	0.4000	5.02	5.00	0.3	20.0
1-Methylnaphthalene	Ave	0.6284	0.6265	0.0100	4.98	5.00	-0.3	20.0
Acenaphthylene	Ave	1.807	1.782	0.9000	4.93	5.00	-1.4	20.0
Acenaphthene	Ave	1.129	1.140	0.9000	5.05	5.00	0.9	20.0
Dibenzofuran	Ave	1.618	1.573	0.8000	4.86	5.00	-2.8	20.0
Fluorene	Ave	1.233	1.243	0.9000	5.04	5.00	0.8	20.0
Phenanthrene	Ave	1.119	1.040	0.7000	4.65	5.00	-7.1	20.0
Anthracene	Ave	1.102	1.089	0.7000	4.94	5.00	-1.2	20.0
Carbazole	Ave	0.9685	0.9119	0.0100	4.71	5.00	-5.8	20.0
Fluoranthene	Ave	1.049	1.159	0.6000	5.53	5.00	10.6	20.0
Pyrene	Ave	1.274	1.324	0.6000	5.20	5.00	4.0	20.0
Benzo[a]anthracene	Ave	1.071	1.159	0.8000	5.41	5.00	8.1	20.0
Chrysene	Ave	0.9931	1.039	0.7000	5.23	5.00	4.6	20.0
Benzo[b]fluoranthene	Ave	1.280	1.200	0.7000	4.69	5.00	-6.3	20.0
Benzo[k]fluoranthene	Ave	1.266	1.218	0.7000	4.81	5.00	-3.8	20.0
Benzo[a]pyrene	Ave	1.069	1.101	0.7000	5.15	5.00	3.0	20.0
Indeno[1,2,3-cd]pyrene	Qua	1.242	1.188	0.5000	4.46	5.00	-10.8	20.0
Dibenz(a,h)anthracene	Qua	1.048	1.019	0.4000	4.58	5.00	-8.3	20.0
Benzo[g,h,i]perylene	Qua	1.062	0.999	0.5000	4.44	5.00	-11.3	20.0
2-Fluorophenol (Surr)	Ave	1.038	1.237		5.96	5.00	19.2	20.0
Phenol-d5 (Surr)	Ave	1.365	1.438		5.27	5.00	5.4	20.0
Nitrobenzene-d5 (Surr)	Ave	0.3272	0.3358		5.13	5.00	2.6	20.0
2-Fluorobiphenyl	Ave	1.371	1.404		5.12	5.00	2.4	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.0957	0.1008	0.0100	5.27	5.00	5.3	20.0
Terphenyl-d14 (Surr)	Ave	0.9034	0.9484		5.25	5.00	5.0	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab File ID: N1009DF1.D DFTPP Injection Date: 10/09/2013

Instrument ID: 733 DFTPP Injection Time: 05:09

Analysis Batch No.: 86218

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	36.1	
68	Less than 2.0 % of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	41.4	
70	Less than 2.0 % of mass 69	0.5	(1.1)1
127	40.0 - 60.0 % of mass 198	44.9	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	7.6	
275	10.0 - 30.0 % of mass 198	24.8	
365	Greater than 1.0 % of mass 198	2.8	
441	Present but less than mass 443	7.8	(68.6)3
442	Greater than 40.0 % of mass 198	57.0	
443	17.0 - 23.0 % of mass 442	11.3	(19.9)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-86218/2	N1009IC1.D	10/09/2013	05:24
	IC 180-86218/3	N1009IC2.D	10/09/2013	05:49
	IC 180-86218/4	N1009IC3.D	10/09/2013	06:15
	ICIS 180-86218/5	N1009IC4.D	10/09/2013	06:40
	IC 180-86218/6	N1009IC5.D	10/09/2013	07:06
	IC 180-86218/7	N1009IC6.D	10/09/2013	07:31
	IC 180-86218/8	N1009IC7.D	10/09/2013	07:56
	IC 180-86218/9	N1009IC8.D	10/09/2013	08:22

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 86218

SDG No.:

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/09/2013 05:24 Calibration End Date: 10/09/2013 08:22 Calibration ID: 11737

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
2-Methylphenol	1.1941 1.1090	1.0480 1.1323	1.0413 1.1406	1.0539	1.0801	Ave		1.0999			0.7000	4.9		20.0			
Indene	2.2212 2.2790	2.0313 2.3330	2.1595 2.4154	2.1194	2.1826	Ave		2.2177			0.0100	5.5		20.0			
2,2'-oxybis[1-chloropropane]	1.2490 1.1406	1.1360 1.1500	1.1499 1.1341	1.1167	1.1507	Ave		1.1534			0.0100	3.5		20.0			
N-Nitrosopyrrolidine	0.5193 0.4893	0.4362 0.4613	0.4635 0.4869	0.4726	0.4938	Ave		0.4779			0.0100	5.3		20.0			
Acetophenone	2.4176 1.7087	1.7162 1.7232	1.7143 1.7465	1.6710	1.6732	Ave		1.7963			0.0100	14.0		20.0			
N-Nitrosodi-n-propylamine	0.8087 0.8008	0.7512 0.8016	0.8225 0.8348	0.7846	0.8109	Ave		0.8019			0.5000	3.2		20.0			
Methylphenol, 3 & 4	1.1805 1.1949	1.0273 1.2044	1.1088 1.2487	1.1195	1.1395	Ave		1.1530			0.6000	6.0		20.0			
Hexachloroethane	0.6629 0.5971	0.5703 0.6106	0.5948 0.6099	0.5921	0.5893	Ave		0.6034			0.3000	4.5		20.0			
Nitrobenzene	0.3724 0.3628	0.3584 0.3610	0.3514 0.3688	0.3436	0.3643	Ave		0.3603			0.2000	2.6		20.0			
Isophorone	0.5353 0.5977	0.5550 0.6095	0.5685 0.6202	0.5582	0.5821	Ave		0.5783			0.4000	5.1		20.0			
2-Nitrophenol	0.1895 0.2052	0.1701 0.2145	0.1794 0.2142	0.1934	0.2017	Ave		0.1960			0.1000	8.1		20.0			
2,4-Dimethylphenol	0.3348 0.3349	0.2828 0.3529	0.2740 0.3582	0.2863	0.3039	Ave		0.3160			0.2000	10.5		20.0			
Bis(2-chloroethoxy)methane	0.3416 0.3717	0.3541 0.3774	0.3482 0.3818	0.3367	0.3637	Ave		0.3594			0.3000	4.7		20.0			
Benzoic acid	+++++ 0.1801	+++++ 0.1807	0.0892 0.1909	0.1256	0.1673	Qua	0.5758	5.5258	-0.109		0.0100			20.0	0.9994		0.9900
2,4-Dichlorophenol	0.3209 0.3305	0.3044 0.3424	0.3168 0.3439	0.3170	0.3319	Ave		0.3260			0.2000	4.2		20.0			
1,2,4-Trichlorobenzene	0.3728 0.3978	0.3976 0.4105	0.4093 0.4124	0.3814	0.4031	Ave		0.3981			0.0100	3.6		20.0			
Naphthalene	1.1072 1.0649	1.0222 1.1119	1.0067 1.1296	0.9910	1.0566	Ave		1.0613			0.7000	4.9		20.0			
4-Chloroaniline	0.4095 0.4280	0.3999 0.4467	0.4250 0.4507	0.4130	0.4356	Ave		0.4260			0.0100	4.2		20.0			
2,6-Dichlorophenol	0.3072 0.3186	0.2948 0.3318	0.3028 0.3339	0.3038	0.3193	Ave		0.3140			0.0100	4.5		20.0			
Hexachlorobutadiene	0.2626 0.2685	0.2789 0.2782	0.2583 0.2763	0.2549	0.2680	Ave		0.2682			0.0100	3.4		20.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 86218

SDG No.:

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/09/2013 05:24 Calibration End Date: 10/09/2013 08:22 Calibration ID: 11737

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Caprolactam	+++++ 0.0814	0.0738 0.0832	0.0630 0.0837	0.0739	0.0752	Ave		0.0763			0.0100	9.5		20.0			
4-Chloro-3-methylphenol	0.2953 0.2880	0.2614 0.2980	0.2817 0.3037	0.2814	0.2935	Ave		0.2879			0.2000	4.6		20.0			
2-Methylnaphthalene	0.7388 0.7564	0.6982 0.7748	0.7084 0.7857	0.7171	0.7372	Ave		0.7396			0.4000	4.2		20.0			
1-Methylnaphthalene	0.6723 0.6850	0.6697 0.7060	0.6492 0.7160	0.6416	0.6726	Ave		0.6766			0.0100	3.8		20.0			
Hexachlorocyclopentadiene	0.4441 0.5769	0.4252 0.5914	0.4772 0.5975	0.4997	0.5434	Ave		0.5194			0.0500	13.0		20.0			
1,2,4,5-Tetrachlorobenzene	0.8106 0.7570	0.7310 0.7651	0.7391 0.7830	0.7139	0.7666	Ave		0.7583			0.0100	4.0		20.0			
2,4,6-Trichlorophenol	0.4349 0.4467	0.3765 0.4374	0.3942 0.4398	0.4077	0.4234	Ave		0.4201			0.2000	5.9		20.0			
2,4,5-Trichlorophenol	0.4089 0.4525	0.4291 0.4672	0.4318 0.4625	0.4306	0.4501	Ave		0.4416			0.2000	4.5		20.0			
1,1'-Biphenyl	1.6739 1.5394	1.4826 1.5660	1.5078 1.5946	1.4585	1.5340	Ave		1.5446			0.0100	4.4		20.0			
2-Chloronaphthalene	1.4771 1.2840	1.2955 1.3755	1.2623 1.3633	1.2804	1.2192	Ave		1.3197			0.8000	6.2		20.0			
2-Nitroaniline	0.2374 0.3053	0.2765 0.3041	0.2983 0.2992	0.2892	0.3035	Ave		0.2892			0.0100	8.0		20.0			
Dimethyl phthalate	1.3118 1.2701	1.2609 1.3080	1.2788 1.2821	1.2815	1.2913	Ave		1.2856			0.0100	1.4		20.0			
1,3-Dinitrobenzene	0.1515 0.2116	0.1793 0.2134	0.1893 0.2091	0.2088	0.2131	Ave		0.1970			0.0100	11.3		20.0			
2,6-Dinitrotoluene	0.2389 0.2960	0.2678 0.2987	0.2832 0.2972	0.2996	0.3008	Ave		0.2853			0.2000	7.7		20.0			
Acenaphthylene	1.7531 1.9284	1.7288 1.9472	1.8185 1.9402	1.8090	1.8869	Ave		1.8515			0.9000	4.6		20.0			
3-Nitroaniline	0.2669 0.2854	0.2687 0.2948	0.2838 0.2906	0.2972	0.2899	Ave		0.2847			0.0100	4.0		20.0			
Acenaphthene	1.2498 1.2306	1.1601 1.2620	1.1589 1.2610	1.1703	1.2045	Ave		1.2121			0.9000	3.7		20.0			
2,4-Dinitrophenol	+++++ 0.1995	+++++ 0.2187	0.1014 0.2127	0.1574	0.1866	Qua	0.6723	4.5706	-0.018		0.0100			20.0	0.9987		0.9900
4-Nitrophenol	0.1087 0.1662	0.1415 0.1794	0.1555 0.1717	0.1625	0.1672	Ave		0.1566			0.0100	14.3		20.0			
2,4-Dinitrotoluene	0.2663 0.3926	0.3333 0.4093	0.3783 0.3962	0.3804	0.3864	Ave		0.3678			0.2000	12.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 86218

SDG No.:

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/09/2013 05:24 Calibration End Date: 10/09/2013 08:22 Calibration ID: 11737

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dibenzofuran	1.7030 1.6571	1.6517 1.6748	1.6787 1.6551	1.6112	1.6227	Ave		1.6568			0.8000	1.8		20.0			
2,3,5,6-Tetrachlorophenol	+++++ 0.3947	0.2890 0.4097	0.3310 0.4063	0.3570	0.3889	Ave		0.3681			0.0100	12.2		20.0			
2,3,4,6-Tetrachlorophenol	0.3554 0.3870	0.3522 0.4014	0.3779 0.3951	0.3865	0.3993	Ave		0.3819			0.0100	5.0		20.0			
2-Naphthylamine	0.9083 +++++	0.9709 +++++	0.9933 +++++	0.8514	0.6946	Ave		0.8837			0.0100	13.5		20.0			
Diethyl phthalate	1.2145 1.2106	1.1446 1.2465	1.2189 1.2299	1.1943	1.2130	Ave		1.2090			0.0100	2.5		20.0			
Hexadecane	0.3015 0.3435	0.3023 0.3709	0.3117 0.3765	0.3135	0.3336	Ave		0.3317				9.0					
4-Chlorophenyl phenyl ether	0.7439 0.7595	0.7299 0.7544	0.7449 0.7622	0.7180	0.7333	Ave		0.7433			0.4000	2.1		20.0			
4-Nitroaniline	0.2542 0.2867	0.2481 0.2950	0.2692 0.2899	0.2811	0.2699	Ave		0.2743			0.0100	6.2		20.0			
Fluorene	1.3659 1.3244	1.2840 1.3769	1.3159 1.3727	1.2918	1.3252	Ave		1.3321			0.9000	2.7		20.0			
4,6-Dinitro-2-methylphenol	+++++ 0.1555	+++++ 0.1583	0.1146 0.1678	0.1431	0.1459	Qua	0.1540	6.8213	-0.266		0.0100			20.0	0.9998		0.9900
N-Nitrosodiphenylamine	0.5024 0.5613	0.5255 0.5774	0.5085 0.6007	0.5220	0.5492	Ave		0.5434			0.0100	6.4		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.6204 0.7426	0.6676 0.7334	0.6898 0.7476	0.6682	0.7114	Ave		0.6976			0.0100	6.4		20.0			
4-Bromophenyl phenyl ether	0.2615 0.2704	0.2641 0.2740	0.2506 0.2803	0.2433	0.2656	Ave		0.2637			0.1000	4.6		20.0			
Hexachlorobenzene	0.2521 0.2542	0.2395 0.2601	0.2332 0.2667	0.2272	0.2448	Ave		0.2472			0.1000	5.5		20.0			
Atrazine	0.2077 0.2179	0.2130 0.1919	0.2292 0.1613	0.2206	0.2250	Ave		0.2083			0.0100	10.7		20.0			
Pentachlorophenol	0.1043 0.1778	0.1056 0.1870	0.0995 0.1998	0.1427	0.1619	Qua	0.2483	6.0144	-0.269		0.0500			20.0	0.9997		0.9900
n-Octadecane	1.2042 1.1479	0.9921 1.1646	1.0911 1.1914	1.1791	1.1299	Ave		1.1375				6.1					
Phenanthrene	1.1217 1.1486	1.0663 1.1839	1.0783 1.2152	1.0507	1.0992	Ave		1.1205			0.7000	5.2		20.0			
Anthracene	1.1004 1.1316	1.0827 1.1428	1.0508 1.1836	1.0700	1.1213	Ave		1.1104			0.7000	3.9		20.0			
Carbazole	1.0016 0.9650	0.9138 0.9887	0.9204 1.0065	0.9402	0.9523	Ave		0.9611			0.0100	3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 86218

SDG No.:

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/09/2013 05:24 Calibration End Date: 10/09/2013 08:22 Calibration ID: 11737

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Di-n-butyl phthalate	0.9839 1.1563	0.9794 1.1502	1.0608 1.1937	1.0925	1.1461	Ave		1.0954			0.0100	7.4		20.0			
Fluoranthene	1.2183 1.2520	1.1919 1.3026	1.2189 1.2873	1.2526	1.2313	Ave		1.2444			0.6000	3.0		20.0			
Benzidine	0.1608 0.2136	0.3792 0.1997	0.4099 +++++	0.3350	0.2941	Qua	-0.039	2.5025	1.7452		0.0100			20.0	0.9952		0.9900
Pyrene	1.3158 1.2692	1.2284 1.2267	1.2703 1.2631	1.2514	1.3318	Ave		1.2696			0.6000	3.0		20.0			
Butyl benzyl phthalate	0.4101 0.4630	0.3658 0.4516	0.3901 0.4765	0.4441	0.4681	Ave		0.4337			0.0100	9.3		20.0			
3,3'-Dichlorobenzidine	0.3340 0.4121	0.3228 0.4235	0.3395 0.4442	0.3793	0.4064	Ave		0.3827			0.0100	12.0		20.0			
Bis(2-ethylhexyl) phthalate	+++++ 0.6195	0.4421 0.6217	0.5076 0.6474	0.5794	0.6151	Ave		0.5761			0.0100	12.9		20.0			
Benzo[a]anthracene	1.2970 1.1352	1.0898 1.1378	1.1096 1.1762	1.1102	1.1572	Ave		1.1516			0.8000	5.6		20.0			
Chrysene	1.0213 1.0272	1.0515 1.0157	1.0307 1.0580	0.9968	1.0463	Ave		1.0309			0.7000	2.0		20.0			
Di-n-octyl phthalate	0.8515 1.2803	0.8642 1.2979	0.9867 1.3653	1.1103	1.2448	Qua	0.0627	0.8223	-0.007		0.0100			20.0	0.9998		0.9900
7,12-Dimethylbenz(a)anthracene	0.4752 0.6408	0.5087 0.6685	0.5360 0.6995	0.5600	0.6313	Ave		0.5900			0.0100	13.7		20.0			
Benzo[b]fluoranthene	1.3148 1.4270	1.2972 1.4055	1.3053 1.4944	1.3968	1.4979	Ave		1.3924			0.7000	5.8		20.0			
Benzo[k]fluoranthene	1.4974 1.3518	1.3500 1.4101	1.4219 1.4076	1.3250	1.3442	Ave		1.3885			0.7000	4.1		20.0			
Benzo[a]pyrene	1.1308 1.2459	1.1928 1.2756	1.1622 1.3337	1.2152	1.2556	Ave		1.2265			0.7000	5.3		20.0			
Indeno[1,2,3-cd]pyrene	1.1984 1.3068	1.1621 1.3639	1.1629 1.4227	1.2084	1.2770	Ave		1.2628			0.5000	7.6		20.0			
Dibenz(a,h)anthracene	1.0016 1.0819	0.9688 1.1455	0.9704 1.2165	1.0522	1.0757	Ave		1.0641			0.4000	8.1		20.0			
Benzo[g,h,i]perylene	0.9764 1.0726	0.9528 1.1361	0.9780 1.1856	1.0407	1.0501	Ave		1.0490			0.5000	7.8		20.0			
2-Fluorophenol (Surr)	1.0763 1.3056	1.1790 1.2920	1.2561 1.2919	1.2680	1.2901	Ave		1.2449				6.3		20.0			
Phenol-d5 (Surr)	1.4462 1.4919	1.3836 1.4756	1.4488 1.4930	1.4791	1.4828	Ave		1.4626				2.5		20.0			
Nitrobenzene-d5 (Surr)	0.3473 0.3607	0.3569 0.3686	0.3551 0.3695	0.3458	0.3621	Ave		0.3582				2.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 86218

SDG No.:

Instrument ID: 733 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/09/2013 05:24 Calibration End Date: 10/09/2013 08:22 Calibration ID: 11737

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
2-Fluorobiphenyl	1.4478 1.5090	1.4556 1.5034	1.4716 1.5319	1.4489	1.4995	Ave		1.4835				2.1		20.0			
2,4,6-Tribromophenol (Surr)	0.0666 0.0971	0.0795 0.0998	0.0828 0.0995	0.0868	0.0913	Ave		0.0879			0.0100	13.1		20.0			
Terphenyl-d14 (Surr)	1.0357 0.9543	0.8969 0.9156	0.9340 0.9366	0.9162	0.9837	Ave		0.9466				4.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab File ID: N1010DF2.D DFTPP Injection Date: 10/09/2013

Instrument ID: 733 DFTPP Injection Time: 09:58

Analysis Batch No.: 86264

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	38.6	
68	Less than 2.0 % of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	41.9	
70	Less than 2.0 % of mass 69	0.3	(0.7)1
127	40.0 - 60.0 % of mass 198	46.4	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	7.3	
275	10.0 - 30.0 % of mass 198	26.9	
365	Greater than 1.0 % of mass 198	3.3	
441	Present but less than mass 443	9.9	(87.6)3
442	Greater than 40.0 % of mass 198	59.6	
443	17.0 - 23.0 % of mass 442	11.3	(19.0)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-86264/7	N1009NCC.D	10/09/2013	10:13
SD-161-01 DL	180-25423-35 DL	N1009N01.D	10/09/2013	15:54
SD-150-SS	180-25423-16	N1009N02.D	10/09/2013	16:20
SD-150-01	180-25423-17	N1009N03.D	10/09/2013	16:46
SD-150-02	180-25423-18	N1009N04.D	10/09/2013	17:12
SD-150-03	180-25423-19	N1009N05.D	10/09/2013	17:39
DUP O8	180-25423-38	N1009N06.D	10/09/2013	18:05

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCVIS 180-86264/7 Calibration Date: 10/09/2013 10:13

Instrument ID: 733 Calib Start Date: 10/09/2013 05:24

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 10/09/2013 08:22

Lab File ID: N1009NCC.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5205	0.4874	0.0100	4.68	5.00	-6.4	20.0
N-Nitrosodimethylamine	Ave	0.6476	0.6629	0.0100	5.12	5.00	2.4	20.0
Pyridine	Ave	1.180	1.215	0.0100	5.15	5.00	2.9	20.0
Methyl methanesulfonate	Ave	0.7469	0.7715	0.0100	5.16	5.00	3.3	20.0
Benzaldehyde	Ave	0.9731	1.021	0.0100	5.25	5.00	4.9	20.0
Phenol	Ave	1.663	1.612	0.8000	4.85	5.00	-3.0	20.0
Aniline	Ave	1.752	1.796	0.0100	5.13	5.00	2.5	20.0
Bis(2-chloroethyl)ether	Ave	1.056	1.072	0.7000	5.07	5.00	1.5	20.0
2-Chlorophenol	Ave	1.310	1.320	0.8000	5.04	5.00	0.7	20.0
1,3-Dichlorobenzene	Ave	1.573	1.550	0.0100	4.93	5.00	-1.5	20.0
1,4-Dichlorobenzene	Ave	1.611	1.577	0.0100	4.90	5.00	-2.1	20.0
Benzyl alcohol	Ave	0.7283	0.7262	0.0100	4.99	5.00	-0.3	20.0
1,2-Dichlorobenzene	Ave	1.506	1.516	0.0100	5.04	5.00	0.7	20.0
2-Methylphenol	Ave	1.100	1.060	0.7000	4.82	5.00	-3.7	20.0
Indene	Ave	2.218	2.131	0.0100	4.80	5.00	-3.9	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.153	1.121	0.0100	4.86	5.00	-2.8	20.0
N-Nitrosopyrrolidine	Ave	0.4779	0.4834	0.0100	5.06	5.00	1.2	20.0
Acetophenone	Ave	1.796	1.726	0.0100	4.80	5.00	-3.9	20.0
Methylphenol, 3 & 4	Ave	1.153	1.138	0.6000	4.94	5.00	-1.3	20.0
N-Nitrosodi-n-propylamine	Ave	0.8019	0.8215	0.5000	5.12	5.00	2.4	20.0
Hexachloroethane	Ave	0.6034	0.5967	0.3000	4.94	5.00	-1.1	20.0
Nitrobenzene	Ave	0.3603	0.3436	0.2000	4.77	5.00	-4.6	20.0
Isophorone	Ave	0.5783	0.5496	0.4000	4.75	5.00	-5.0	20.0
2-Nitrophenol	Ave	0.1960	0.1907	0.1000	4.86	5.00	-2.7	20.0
2,4-Dimethylphenol	Ave	0.3160	0.2859	0.2000	4.52	5.00	-9.5	20.0
Benzoic acid	Qua	0.1556	0.1272	0.0100	9.29	10.0	-7.1	20.0
Bis(2-chloroethoxy)methane	Ave	0.3594	0.3396	0.3000	4.72	5.00	-5.5	20.0
2,4-Dichlorophenol	Ave	0.3260	0.3082	0.2000	4.73	5.00	-5.4	20.0
1,2,4-Trichlorobenzene	Ave	0.3981	0.3804	0.0100	4.78	5.00	-4.4	20.0
Naphthalene	Ave	1.061	1.000	0.7000	4.71	5.00	-5.8	20.0
4-Chloroaniline	Ave	0.4260	0.4160	0.0100	4.88	5.00	-2.4	20.0
2,6-Dichlorophenol	Ave	0.3140	0.3001	0.0100	4.78	5.00	-4.4	20.0
Hexachlorobutadiene	Ave	0.2682	0.2536	0.0100	4.73	5.00	-5.5	20.0
Caprolactam	Ave	0.0763	0.0784	0.0100	5.13	5.00	2.7	20.0
4-Chloro-3-methylphenol	Ave	0.2879	0.2715	0.2000	4.72	5.00	-5.7	20.0
2-Methylnaphthalene	Ave	0.7396	0.6857	0.4000	4.64	5.00	-7.3	20.0
1-Methylnaphthalene	Ave	0.6766	0.6377	0.0100	4.71	5.00	-5.7	20.0
Hexachlorocyclopentadiene	Ave	0.5194	0.5070	0.0500	4.88	5.00	-2.4	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.7583	0.7008	0.0100	4.62	5.00	-7.6	20.0
2,4,6-Trichlorophenol	Ave	0.4201	0.4201	0.2000	5.00	5.00	0.0	20.0
2,4,5-Trichlorophenol	Ave	0.4416	0.4244	0.2000	4.81	5.00	-3.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCVIS 180-86264/7 Calibration Date: 10/09/2013 10:13

Instrument ID: 733 Calib Start Date: 10/09/2013 05:24

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 10/09/2013 08:22

Lab File ID: N1009NCC.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.545	1.483	0.0100	4.80	5.00	-4.0	20.0
2-Chloronaphthalene	Ave	1.320	1.230	0.8000	4.66	5.00	-6.8	20.0
2-Nitroaniline	Ave	0.2892	0.3033	0.0100	5.24	5.00	4.9	20.0
Dimethyl phthalate	Ave	1.286	1.259	0.0100	4.90	5.00	-2.1	20.0
1,3-Dinitrobenzene	Ave	0.1970	0.2030	0.0100	5.15	5.00	3.0	20.0
2,6-Dinitrotoluene	Ave	0.2853	0.2828	0.2000	4.96	5.00	-0.9	20.0
Acenaphthylene	Ave	1.852	1.844	0.9000	4.98	5.00	-0.4	20.0
3-Nitroaniline	Ave	0.2847	0.2835	0.0100	4.98	5.00	-0.4	20.0
Acenaphthene	Ave	1.212	1.130	0.9000	4.66	5.00	-6.8	20.0
2,4-Dinitrophenol	Qua	0.1794	0.1656	0.0100	10.2	10.0	2.4	20.0
4-Nitrophenol	Ave	0.1566	0.1627	0.0100	10.4	10.0	3.9	20.0
2,4-Dinitrotoluene	Ave	0.3678	0.3870	0.2000	5.26	5.00	5.2	20.0
Dibenzofuran	Ave	1.657	1.560	0.8000	4.71	5.00	-5.9	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3681	0.3600	0.0100	4.89	5.00	-2.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3819	0.4047	0.0100	5.30	5.00	6.0	20.0
2-Naphthylamine	Ave	0.8837	0.8822	0.0100	4.99	5.00	-0.2	20.0
Diethyl phthalate	Ave	1.209	1.197	0.0100	4.95	5.00	-1.0	20.0
4-Chlorophenyl phenyl ether	Ave	0.7433	0.7231	0.4000	4.86	5.00	-2.7	20.0
4-Nitroaniline	Ave	0.2743	0.2901	0.0100	5.29	5.00	5.8	20.0
Fluorene	Ave	1.332	1.274	0.9000	4.78	5.00	-4.4	20.0
4,6-Dinitro-2-methylphenol	Qua	0.1475	0.1298	0.0100	9.36	10.0	-6.4	20.0
N-Nitrosodiphenylamine	Ave	0.5434	0.5249	0.0100	4.83	5.00	-3.4	20.0
4-Bromophenyl phenyl ether	Ave	0.2637	0.2511	0.1000	4.76	5.00	-4.8	20.0
Hexachlorobenzene	Ave	0.2472	0.2346	0.1000	4.75	5.00	-5.1	20.0
Atrazine	Ave	0.2083	0.2224	0.0100	5.34	5.00	6.8	20.0
Pentachlorophenol	Qua	0.1473	0.1488	0.0500	9.79	10.0	-2.1	20.0
Phenanthrene	Ave	1.120	1.057	0.7000	4.72	5.00	-5.6	20.0
Anthracene	Ave	1.110	1.093	0.7000	4.92	5.00	-1.6	20.0
Carbazole	Ave	0.9611	0.9180	0.0100	4.78	5.00	-4.5	20.0
Di-n-butyl phthalate	Ave	1.095	1.121	0.0100	5.12	5.00	2.4	20.0
Fluoranthene	Ave	1.244	1.236	0.6000	4.97	5.00	-0.7	20.0
Benzidine	Qua	0.2846	0.3471	0.0100	5.50	5.00	10.0	20.0
Pyrene	Ave	1.270	1.285	0.6000	5.06	5.00	1.2	20.0
Butyl benzyl phthalate	Ave	0.4337	0.4444	0.0100	5.12	5.00	2.5	20.0
3,3'-Dichlorobenzidine	Ave	0.3827	0.3881	0.0100	5.07	5.00	1.4	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.5761	0.5810	0.0100	5.04	5.00	0.9	20.0
Benzo[a]anthracene	Ave	1.152	1.102	0.8000	4.78	5.00	-4.3	20.0
Chrysene	Ave	1.031	1.022	0.7000	4.96	5.00	-0.8	20.0
Di-n-octyl phthalate	Qua	1.125	1.140	0.0100	4.88	5.00	-2.4	20.0
7,12-Dimethylbenz(a)anthracene	Ave	0.5900	0.5638	0.0100	4.78	5.00	-4.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCVIS 180-86264/7 Calibration Date: 10/09/2013 10:13

Instrument ID: 733 Calib Start Date: 10/09/2013 05:24

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 10/09/2013 08:22

Lab File ID: N1009NCC.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[b]fluoranthene	Ave	1.392	1.355	0.7000	4.86	5.00	-2.7	20.0
Benzo[k]fluoranthene	Ave	1.389	1.393	0.7000	5.02	5.00	0.3	20.0
Benzo[a]pyrene	Ave	1.226	1.199	0.7000	4.89	5.00	-2.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.263	1.220	0.5000	4.83	5.00	-3.4	20.0
Dibenz(a,h)anthracene	Ave	1.064	1.012	0.4000	4.75	5.00	-4.9	20.0
Benzo[g,h,i]perylene	Ave	1.049	1.023	0.5000	4.87	5.00	-2.5	20.0
2-Fluorophenol (Surr)	Ave	1.245	1.260		5.06	5.00	1.2	20.0
Phenol-d5 (Surr)	Ave	1.463	1.452		4.96	5.00	-0.7	20.0
Nitrobenzene-d5 (Surr)	Ave	0.3582	0.3506		4.89	5.00	-2.1	20.0
2-Fluorobiphenyl	Ave	1.483	1.417		4.78	5.00	-4.5	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.0879	0.0871	0.0100	4.96	5.00	-0.9	20.0
Terphenyl-d14 (Surr)	Ave	0.9466	0.9482		5.01	5.00	0.2	20.0

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Matrix: Sediment Level: Low

GC Column (1): RTX-1701 ID: 0.53 (mm) GC Column (2): RTX-1701 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	TCX1 #	TCX2 #	DCB2 #	DCB1 #	
SD-110-SS	180-25423-1		79	111		10X
SD-110-01	180-25423-2		74	144		
SD-110-02	180-25423-3		100	285 X		
SD-110-03	180-25423-4		89	187 X		
SD-116-SS	180-25423-5		86	156 X		
SD-116-01	180-25423-6		79	348 X		
SD-116-02	180-25423-7		88	114		
SD-148-SS	180-25423-8		642 X	111		
SD-148-01	180-25423-9		130 D	657 X D		100X
SD-148-02	180-25423-10		118	535 X		10X
SD-148-03	180-25423-11		76	312 X		
SD-149-SS	180-25423-12		108	227 X		
SD-149-01	180-25423-13		125 D	874 X D		100X
SD-149-02	180-25423-14		117	373 X		10X
SD-149-03	180-25423-15		151 X D	1095 X D		1000X
SD-150-SS	180-25423-16		79	145		10X
SD-150-01	180-25423-17		152 X D	1059 X D		100X
SD-150-02	180-25423-18		144	359 X		10X
SD-150-03	180-25423-19		73	685 X		
SD-151-SS	180-25423-20	70			146	
SD-151-01	180-25423-21	0 X D			0 X D	100X
SD-151-02	180-25423-22	70			447 X	10X
SD-151-03	180-25423-23	100			248 X	10X
SD-111-SS	180-25423-24	79			110	10X
SD-111-01	180-25423-25	90			87	5X
SD-138-SS	180-25423-26	0 X D			0 X D	25000 X
SD-138-01	180-25423-27	0 X D			0 X D	100000 X
SD-139-SS	180-25423-28	0 X D			0 X D	2000X
SD-139-01	180-25423-29	0 X D			0 X D	50000 X
SD-162-SS	180-25423-30	62			655 X	10 X
SD-162-01	180-25423-31	77			82	
SD-162-02	180-25423-32	85			124	
SD-162-03	180-25423-33	106			83	
SD-161-SS	180-25423-34	0 X D			0 X D	200X
SD-161-01	180-25423-35		288 X D	18816 X D		5000X

	QC LIMITS
TCX = Tetrachloro-m-xylene	31-150
DCB = DCB Decachlorobiphenyl (Surr)	31-150

Column to be used to flag recovery values

FORM II 8082A

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Matrix: Sediment Level: Low

GC Column (1): RTX-1701 ID: 0.53 (mm) GC Column (2): RTX-1701 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	TCX1 #	TCX2 #	DCB2 #	DCB1 #	
SD-161-02	180-25423-36		0 X D	7886 X D		5000X
SD-161-03	180-25423-37		91 D	1160 X D		500X
DUP 08	180-25423-38		71	180 X		10X
	MB 180-85546/1-C		81	92		
	MB 180-85557/1-C	83			105	
	MB 180-85695/1-C		79	94		
	LCS 180-85546/2-C		86	96		
	LCS 180-85557/2-C	89			107	
	LCS 180-85695/2-C		90	99		
SD-110-01 MS	180-25423-2 MS		80	135		
SD-110-01 MSD	180-25423-2 MSD		82	144		

	QC LIMITS
TCX = Tetrachloro-m-xylene	31-150
DCB = DCB Decachlorobiphenyl (Surr)	31-150

Column to be used to flag recovery values

FORM II 8082A

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: MB 180-85546/1-C

Matrix: Sediment Date Extracted: 10/02/2013 23:42

Lab File ID:(1) Lab File ID:(2) T1030140.D

Date Analyzed:(1) Date Analyzed:(2) 10/04/2013 18:57

Instrument ID:(1) Instrument ID:(2) GC10

GC Column:(1) ID: GC Column:(2) RTX-1701 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
SD-110-SS	180-25423-1		10/04/2013 09:26
SD-110-01	180-25423-2		10/04/2013 09:58
SD-110-01 MS	180-25423-2 MS		10/04/2013 10:30
SD-110-01 MSD	180-25423-2 MSD		10/04/2013 11:01
SD-110-02	180-25423-3		10/04/2013 11:33
SD-110-03	180-25423-4		10/04/2013 12:05
SD-116-SS	180-25423-5		10/04/2013 12:37
SD-116-01	180-25423-6		10/04/2013 13:08
SD-116-02	180-25423-7		10/04/2013 13:40
SD-148-SS	180-25423-8		10/04/2013 14:12
SD-148-02	180-25423-10		10/04/2013 15:16
SD-148-03	180-25423-11		10/04/2013 15:48
SD-149-SS	180-25423-12		10/04/2013 16:19
SD-149-02	180-25423-14		10/04/2013 17:23
SD-150-SS	180-25423-16		10/04/2013 18:26
	LCS 180-85546/2-C		10/04/2013 19:29
SD-150-02	180-25423-18		10/04/2013 21:03
SD-150-03	180-25423-19		10/04/2013 21:34
DUP 08	180-25423-38		10/04/2013 22:06
SD-148-01	180-25423-9		10/07/2013 18:54
SD-149-01	180-25423-13		10/07/2013 19:26
SD-149-03	180-25423-15		10/07/2013 19:57
SD-150-01	180-25423-17		10/07/2013 20:29

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh
Job No.: 180-25423-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 180-85546/1-C
Matrix: Sediment
Lab File ID: T1030140.D
Analysis Method: 8082A
Date Collected:
Extraction Method: 3541
Date Extracted: 10/02/2013 23:42
Sample wt/vol: 30.0(g)
Date Analyzed: 10/04/2013 18:57
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: RTX-1701 ID: 0.53(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 85914
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.42	0.062
11104-28-2	PCB-1221	ND		0.42	0.080
11141-16-5	PCB-1232	ND		0.42	0.071
53469-21-9	PCB-1242	ND		0.42	0.068
12672-29-6	PCB-1248	ND		0.42	0.039
11097-69-1	PCB-1254	ND		0.42	0.059
11096-82-5	PCB-1260	0.349	J	0.42	0.059

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	92		31-150
877-09-8	Tetrachloro-m-xylene	81		31-150

FORM I 8082A

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: T1030141.D

Lab ID: LCS 180-85546/2-C Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
PCB-1016	33.3	30.4	91	40-115	
PCB-1260	33.3	30.5	92	40-115	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: T1030124.D

Lab ID: 180-25423-2 MS Client ID: SD-110-01 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
PCB-1016	49.7	ND	68.7	138	40-115	F
PCB-1260	49.7	140	174	74	40-115	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: T1030125.D

Lab ID: 180-25423-2 MSD Client ID: SD-110-01 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
PCB-1016	49.7	72.6	146	5	35	40-115	F
PCB-1260	49.7	174	75	0	29	40-115	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: MB 180-85557/1-C

Matrix: Sediment Date Extracted: 10/03/2013 06:00

Lab File ID:(1) O1030038.D Lab File ID:(2)

Date Analyzed:(1) 10/04/2013 03:18 Date Analyzed:(2)

Instrument ID:(1) GC8 Instrument ID:(2)

GC Column:(1) RTX-50 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
SD-151-SS	180-25423-20	10/03/2013 20:01	
SD-151-02	180-25423-22	10/03/2013 20:59	
SD-151-03	180-25423-23	10/03/2013 21:29	
SD-111-SS	180-25423-24	10/03/2013 21:58	
SD-111-01	180-25423-25	10/03/2013 22:27	
SD-162-SS	180-25423-30	10/04/2013 00:53	
SD-162-01	180-25423-31	10/04/2013 01:22	
SD-162-02	180-25423-32	10/04/2013 01:51	
SD-162-03	180-25423-33	10/04/2013 02:20	
	LCS 180-85557/2-C	10/04/2013 03:47	
SD-139-SS	180-25423-28	10/04/2013 08:21	
SD-161-SS	180-25423-34	10/04/2013 09:19	
SD-151-01	180-25423-21	10/04/2013 09:48	
SD-138-SS	180-25423-26	10/04/2013 10:17	
SD-138-01	180-25423-27	10/04/2013 10:46	
SD-139-01	180-25423-29	10/04/2013 11:16	

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh
Job No.: 180-25423-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 180-85557/1-C
Matrix: Sediment
Lab File ID: O1030038.D
Analysis Method: 8082A
Date Collected:
Extraction Method: 3541
Date Extracted: 10/03/2013 06:00
Sample wt/vol: 30.0(g)
Date Analyzed: 10/04/2013 03:18
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: RTX-50 ID: 0.53(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 85741
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.42	0.062
11104-28-2	PCB-1221	ND		0.42	0.080
11141-16-5	PCB-1232	ND		0.42	0.071
53469-21-9	PCB-1242	ND		0.42	0.068
12672-29-6	PCB-1248	ND		0.42	0.039
11097-69-1	PCB-1254	ND		0.42	0.059
11096-82-5	PCB-1260	ND		0.42	0.059

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	105		31-150
877-09-8	Tetrachloro-m-xylene	83		31-150

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: O1030039.D

Lab ID: LCS 180-85557/2-C Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
PCB-1016	33.3	28.0	84	40-115	
PCB-1260	33.3	28.1	84	40-115	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: MB 180-85695/1-C

Matrix: Sediment Date Extracted: 10/03/2013 22:08

Lab File ID:(1) Lab File ID:(2) P1030340.D

Date Analyzed:(1) Date Analyzed:(2) 10/12/2013 09:49

Instrument ID:(1) Instrument ID:(2) GC8

GC Column:(1) ID: GC Column:(2) RTX-1701 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 180-85695/2-C		10/12/2013 10:19
SD-161-01	180-25423-35		10/12/2013 17:40
SD-161-02	180-25423-36		10/12/2013 18:09
SD-161-03	180-25423-37		10/12/2013 18:39

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-25423-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-85695/1-C

Matrix: Sediment | Lab File ID: P1030340.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3541 | Date Extracted: 10/03/2013 22:08

Sample wt/vol: 30.0(g) | Date Analyzed: 10/12/2013 09:49

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-1701 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 86523 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.42	0.062
11104-28-2	PCB-1221	ND		0.42	0.080
11141-16-5	PCB-1232	ND		0.42	0.071
53469-21-9	PCB-1242	ND		0.42	0.068
12672-29-6	PCB-1248	ND		0.42	0.039
11097-69-1	PCB-1254	ND		0.42	0.059
11096-82-5	PCB-1260	ND		0.42	0.059

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	94		31-150
877-09-8	Tetrachloro-m-xylene	79		31-150

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Matrix: Sediment Level: Low Lab File ID: P1030341.D

Lab ID: LCS 180-85695/2-C Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
PCB-1016	33.3	30.0	90	40-115	
PCB-1260	33.3	28.7	86	40-115	

Column to be used to flag recovery and RPD values

FORM III 8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Instrument ID: GC10 Start Date: 09/23/2013 11:01

Analysis Batch Number: 84799 End Date: 09/25/2013 03:19

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 180-84799/1		09/23/2013 11:01	1	T0930513.D	RTX-1701 0.53(mm)
IC 180-84799/2		09/23/2013 11:32	1	T0930514.D	RTX-1701 0.53(mm)
IC 180-84799/3		09/23/2013 12:04	1	T0930515.D	RTX-1701 0.53(mm)
IC 180-84799/4		09/23/2013 12:35	1	T0930516.D	RTX-1701 0.53(mm)
IC 180-84799/5		09/23/2013 13:07	1		RTX-1701 0.53(mm)
IC 180-84799/6		09/23/2013 13:38	1		RTX-1701 0.53(mm)
IC 180-84799/7		09/23/2013 14:10	1	T0930519.D	RTX-1701 0.53(mm)
IC 180-84799/8		09/23/2013 14:41	1	T0930520.D	RTX-1701 0.53(mm)
IC 180-84799/9		09/23/2013 15:13	1	T0930521.D	RTX-1701 0.53(mm)
ICRT 180-84799/10		09/23/2013 15:44	1	T0930522.D	RTX-1701 0.53(mm)
IC 180-84799/11		09/23/2013 16:16	1	T0930523.D	RTX-1701 0.53(mm)
IC 180-84799/12		09/23/2013 16:47	1	T0930524.D	RTX-1701 0.53(mm)
IC 180-84799/13		09/23/2013 17:19	1	T0930525.D	RTX-1701 0.53(mm)
ICV 180-84799/14		09/23/2013 17:50	1		RTX-1701 0.53(mm)
ICV 180-84799/15		09/23/2013 18:22	1		RTX-1701 0.53(mm)
ICV 180-84799/16		09/23/2013 18:54	1		RTX-1701 0.53(mm)
ICV 180-84799/17		09/23/2013 19:25	1		RTX-1701 0.53(mm)
ICV 180-84799/18		09/23/2013 19:56	1		RTX-1701 0.53(mm)
ICV 180-84799/19		09/23/2013 20:28	1		RTX-1701 0.53(mm)
ICV 180-84799/20		09/23/2013 20:59	1		RTX-1701 0.53(mm)
CCVRT 180-84799/21		09/24/2013 12:45	1		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 13:16	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 13:48	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 14:20	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 14:51	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 15:23	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 15:53	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 16:23	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 16:53	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 17:25	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 17:56	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 18:27	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 18:56	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 19:28	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 20:00	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 20:31	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 21:03	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 21:34	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 22:05	10		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 22:37	1		RTX-1701 0.53(mm)
ZZZZZ		09/24/2013 23:08	1		RTX-1701 0.53(mm)
CCV 180-84799/42		09/24/2013 23:40	1		RTX-1701 0.53(mm)
ZZZZZ		09/25/2013 00:11	10		RTX-1701 0.53(mm)
ZZZZZ		09/25/2013 00:42	10		RTX-1701 0.53(mm)
ZZZZZ		09/25/2013 01:14	10		RTX-1701 0.53(mm)

8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Instrument ID: GC10 Start Date: 09/23/2013 11:01

Analysis Batch Number: 84799 End Date: 09/25/2013 03:19

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		09/25/2013 01:45	10		RTX-1701 0.53(mm)
ZZZZZ		09/25/2013 02:16	1		RTX-1701 0.53(mm)
ZZZZZ		09/25/2013 02:48	1		RTX-1701 0.53(mm)
CCV 180-84799/49		09/25/2013 03:19	1		RTX-1701 0.53(mm)

8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Instrument ID: GC10 Start Date: 10/03/2013 19:57

Analysis Batch Number: 85914 End Date: 10/04/2013 23:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 180-85914/1		10/03/2013 19:57	1	T1030097.D	RTX-1701 0.53(mm)
CCV 180-85914/2		10/03/2013 20:29	1	T1030098.D	RTX-1701 0.53(mm)
CCV 180-85914/3		10/03/2013 21:00	1	T1030099.D	RTX-1701 0.53(mm)
CCV 180-85914/4		10/03/2013 21:32	1	T1030100.D	RTX-1701 0.53(mm)
CCV 180-85914/5		10/03/2013 22:03	1		RTX-1701 0.53(mm)
CCV 180-85914/6		10/03/2013 22:35	1		RTX-1701 0.53(mm)
CCV 180-85914/7		10/03/2013 23:06	1	T1030103.D	RTX-1701 0.53(mm)
CCVRT 180-85914/8		10/04/2013 08:55	1	T1030121.D	RTX-1701 0.53(mm)
180-25423-1	SD-110-SS	10/04/2013 09:26	10	T1030122.D	RTX-1701 0.53(mm)
180-25423-2	SD-110-01	10/04/2013 09:58	10	T1030123.D	RTX-1701 0.53(mm)
180-25423-2 MS	SD-110-01 MS	10/04/2013 10:30	10	T1030124.D	RTX-1701 0.53(mm)
180-25423-2 MSD	SD-110-01 MSD	10/04/2013 11:01	10	T1030125.D	RTX-1701 0.53(mm)
180-25423-3	SD-110-02	10/04/2013 11:33	10	T1030126.D	RTX-1701 0.53(mm)
180-25423-4	SD-110-03	10/04/2013 12:05	10	T1030127.D	RTX-1701 0.53(mm)
180-25423-5	SD-116-SS	10/04/2013 12:37	10	T1030128.D	RTX-1701 0.53(mm)
180-25423-6	SD-116-01	10/04/2013 13:08	10	T1030129.D	RTX-1701 0.53(mm)
180-25423-7	SD-116-02	10/04/2013 13:40	10	T1030130.D	RTX-1701 0.53(mm)
180-25423-8	SD-148-SS	10/04/2013 14:12	10	T1030131.D	RTX-1701 0.53(mm)
ZZZZZ		10/04/2013 14:44	10		RTX-1701 0.53(mm)
180-25423-10	SD-148-02	10/04/2013 15:16	10	T1030133.D	RTX-1701 0.53(mm)
180-25423-11	SD-148-03	10/04/2013 15:48	10	T1030134.D	RTX-1701 0.53(mm)
180-25423-12	SD-149-SS	10/04/2013 16:19	10	T1030135.D	RTX-1701 0.53(mm)
ZZZZZ		10/04/2013 16:51	10		RTX-1701 0.53(mm)
180-25423-14	SD-149-02	10/04/2013 17:23	10	T1030137.D	RTX-1701 0.53(mm)
ZZZZZ		10/04/2013 17:54	10		RTX-1701 0.53(mm)
180-25423-16	SD-150-SS	10/04/2013 18:26	10	T1030139.D	RTX-1701 0.53(mm)
MB 180-85546/1-C		10/04/2013 18:57	1	T1030140.D	RTX-1701 0.53(mm)
LCS 180-85546/2-C		10/04/2013 19:29	1	T1030141.D	RTX-1701 0.53(mm)
CCV 180-85914/29		10/04/2013 20:00	1	T1030142.D	RTX-1701 0.53(mm)
ZZZZZ		10/04/2013 20:32	10		RTX-1701 0.53(mm)
180-25423-18	SD-150-02	10/04/2013 21:03	10	T1030144.D	RTX-1701 0.53(mm)
180-25423-19	SD-150-03	10/04/2013 21:34	10	T1030145.D	RTX-1701 0.53(mm)
180-25423-38	DUP 08	10/04/2013 22:06	10	T1030146.D	RTX-1701 0.53(mm)
ZZZZZ		10/04/2013 22:37	1		RTX-1701 0.53(mm)
CCV 180-85914/34		10/04/2013 23:09	1	T1030148.D	RTX-1701 0.53(mm)

8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Instrument ID: GC10 Start Date: 10/07/2013 09:28

Analysis Batch Number: 86069 End Date: 10/08/2013 12:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 180-86069/1		10/07/2013 09:28	1	T1030160.D	RTX-1701 0.53(mm)
CCV 180-86069/2		10/07/2013 09:59	1	T1030161.D	RTX-1701 0.53(mm)
CCV 180-86069/3		10/07/2013 10:31	1	T1030162.D	RTX-1701 0.53(mm)
CCV 180-86069/4		10/07/2013 11:02	1	T1030163.D	RTX-1701 0.53(mm)
CCV 180-86069/5		10/07/2013 11:34	1		RTX-1701 0.53(mm)
CCV 180-86069/6		10/07/2013 12:05	1		RTX-1701 0.53(mm)
CCVRT 180-86069/7		10/07/2013 12:37	1	T1030166.D	RTX-1701 0.53(mm)
180-25423-9	SD-148-01	10/07/2013 18:54	100	T1030178.D	RTX-1701 0.53(mm)
180-25423-13	SD-149-01	10/07/2013 19:26	100	T1030179.D	RTX-1701 0.53(mm)
180-25423-15	SD-149-03	10/07/2013 19:57	1000	T1030180.D	RTX-1701 0.53(mm)
180-25423-17	SD-150-01	10/07/2013 20:29	100	T1030181.D	RTX-1701 0.53(mm)
CCV 180-86069/12		10/07/2013 21:00	1	T1030182.D	RTX-1701 0.53(mm)
CCV 180-86069/13		10/08/2013 07:57	1	T1030203.D	RTX-1701 0.53(mm)
ZZZZZ		10/08/2013 08:28	5		RTX-1701 0.53(mm)
ZZZZZ		10/08/2013 08:59	5		RTX-1701 0.53(mm)
ZZZZZ		10/08/2013 09:31	5		RTX-1701 0.53(mm)
ZZZZZ		10/08/2013 10:02	5		RTX-1701 0.53(mm)
ZZZZZ		10/08/2013 10:34	5		RTX-1701 0.53(mm)
ZZZZZ		10/08/2013 11:05	1		RTX-1701 0.53(mm)
ZZZZZ		10/08/2013 11:37	1		RTX-1701 0.53(mm)
CCV 180-86069/21		10/08/2013 12:08	1		RTX-1701 0.53(mm)

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 11:01 Calibration End Date: 09/23/2013 11:01 Calibration ID: 11470

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/1	T0930513.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1221 Peak 1	166838				Ave		166838.000						20.0			
PCB-1221 Peak 2	104272				Ave		104272.000						20.0			
PCB-1221 Peak 3	329624				Ave		329624.000						20.0			
PCB-1254 Peak 1	225388				Ave		225388.000						20.0			
PCB-1254 Peak 2	337660				Ave		337660.000						20.0			
PCB-1254 Peak 3	162344				Ave		162344.000						20.0			
PCB-1254 Peak 4	499968				Ave		499968.000						20.0			
PCB-1254 Peak 5	323028				Ave		323028.000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 11:32 Calibration End Date: 09/23/2013 11:32 Calibration ID: 11471

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/2	T0930514.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1232 Peak 1	92670				Ave		92670.0000						20.0			
PCB-1232 Peak 2	67010				Ave		67010.0000						20.0			
PCB-1232 Peak 3	94874				Ave		94874.0000						20.0			
PCB-1232 Peak 4	49462				Ave		49462.0000						20.0			
PCB-1232 Peak 5	104848				Ave		104848.000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 12:04 Calibration End Date: 09/23/2013 12:04 Calibration ID: 11472

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/3	T0930515.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1242 Peak 1	384688				Ave		384688.000						20.0			
PCB-1242 Peak 2	149334				Ave		149334.000						20.0			
PCB-1242 Peak 3	179020				Ave		179020.000						20.0			
PCB-1242 Peak 4	217298				Ave		217298.000						20.0			
PCB-1242 Peak 5	118344				Ave		118344.000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 12:35 Calibration End Date: 09/23/2013 12:35 Calibration ID: 11473

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/4	T0930516.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1248 Peak 1	339916				Ave		339916.000						20.0			
PCB-1248 Peak 2	123720				Ave		123720.000						20.0			
PCB-1248 Peak 3	352358				Ave		352358.000						20.0			
PCB-1248 Peak 4	327462				Ave		327462.000						20.0			
PCB-1248 Peak 5	165020				Ave		165020.000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 84799

SDG No.:

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/23/2013 14:10 Calibration End Date: 09/23/2013 17:19 Calibration ID: 11476

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-84799/7	T0930519.D
Level 2	IC 180-84799/8	T0930520.D
Level 3	IC 180-84799/9	T0930521.D
Level 4	ICRT 180-84799/10	T0930522.D
Level 5	IC 180-84799/11	T0930523.D
Level 6	IC 180-84799/12	T0930524.D
Level 7	IC 180-84799/13	T0930525.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
PCB-1016 Peak 1	310300 246993	271100 250661	279405 241612	261666	Ave		265962.357				8.9		20.0			
PCB-1016 Peak 2	592700 486048	522780 483484	539680 466854	505710	Ave		513893.643				8.3		20.0			
PCB-1016 Peak 3	791600 710868	713900 738408	756520 725823	717158	Ave		736325.250				4.0		20.0			
PCB-1016 Peak 4	341500 290709	310080 300127	318500 286570	299104	Ave		306655.750				6.1		20.0			
PCB-1016 Peak 5	251200 220874	228300 233547	246640 221215	228264	Ave		232862.821				5.1		20.0			
PCB-1260 Peak 1	433300 361551	399040 362315	409150 348679	381990	Ave		385146.357				7.9		20.0			
PCB-1260 Peak 2	525600 423986	476560 428835	481395 407784	450368	Ave		456361.071				9.0		20.0			
PCB-1260 Peak 3	408500 315920	345860 310527	351850 299516	336998	Ave		338452.857				10.8		20.0			
PCB-1260 Peak 4	732100 661608	679240 663017	724700 659505	687726	Ave		686842.214				4.4		20.0			
PCB-1260 Peak 5	558600 486302	508880 486202	540195 477103	502112	Ave		508484.893				6.0		20.0			
Tetrachloro-m-xylene	23400000 19924880	19295600 20367230	20787200 20138305	20402120	Ave		20616476.4				6.4		20.0			
DCB Decachlorobiphenyl (Surr)	8240000 7568420	7833600 7609710	8455700 7339395	8070720	Ave		7873935.00				5.1		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Sample No.: CCVRT 180-85914/8 Date Analyzed: 10/04/2013 08:55

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm)

Lab File ID (Standard): T1030121.D Heated Purge: (Y/N) N

Calibration ID: 11476

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX RT #	DCB RT #	
CONTINUING CALIBRATION SURROGATE				5.76	17.88	
UPPER LIMIT				5.81	17.93	
LOWER LIMIT				5.71	17.83	
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 180-85914/8		10/04/2013 08:55	T1030121.D	5.76	17.88	
180-25423-1	SD-110-SS	10/04/2013 09:26	T1030122.D	5.76	17.87	
180-25423-2	SD-110-01	10/04/2013 09:58	T1030123.D	5.76	17.88	
180-25423-2 MS	SD-110-01 MS	10/04/2013 10:30	T1030124.D	5.76	17.87	
180-25423-2 MSD	SD-110-01 MSD	10/04/2013 11:01	T1030125.D	5.76	17.87	
180-25423-3	SD-110-02	10/04/2013 11:33	T1030126.D	5.76	17.88	
180-25423-4	SD-110-03	10/04/2013 12:05	T1030127.D	5.76	17.88	
180-25423-5	SD-116-SS	10/04/2013 12:37	T1030128.D	5.76	17.88	
180-25423-6	SD-116-01	10/04/2013 13:08	T1030129.D	5.76	17.88	
180-25423-7	SD-116-02	10/04/2013 13:40	T1030130.D	5.76	17.88	
180-25423-8	SD-148-SS	10/04/2013 14:12	T1030131.D	5.73	17.88	
180-25423-10	SD-148-02	10/04/2013 15:16	T1030133.D	5.77	17.88	
180-25423-11	SD-148-03	10/04/2013 15:48	T1030134.D	5.76	17.88	
180-25423-12	SD-149-SS	10/04/2013 16:19	T1030135.D	5.76	17.88	
180-25423-14	SD-149-02	10/04/2013 17:23	T1030137.D	5.77	17.88	
180-25423-16	SD-150-SS	10/04/2013 18:26	T1030139.D	5.76	17.87	
MB 180-85546/1-C		10/04/2013 18:57	T1030140.D	5.76	17.87	
LCS 180-85546/2-C		10/04/2013 19:29	T1030141.D	5.76	17.87	
CCV 180-85914/29		10/04/2013 20:00	T1030142.D	5.76	17.87	
180-25423-18	SD-150-02	10/04/2013 21:03	T1030144.D	5.76	17.87	
180-25423-19	SD-150-03	10/04/2013 21:34	T1030145.D	5.76	17.87	
180-25423-38	DUP 08	10/04/2013 22:06	T1030146.D	5.76	17.87	
CCV 180-85914/34		10/04/2013 23:09	T1030148.D	5.76	17.87	

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

TCX RT Limit = ± 0.05 minutes of surrogate RT
DCB RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCV 180-85914/7 Calibration Date: 10/03/2013 23:06

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T1030103.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	265962	255888		0.481	0.500	-3.8	20.0
PCB-1016 Peak 2	Ave	513894	505650		0.492	0.500	-1.6	20.0
PCB-1016 Peak 3	Ave	736325	708306		0.481	0.500	-3.8	20.0
PCB-1016 Peak 4	Ave	306656	302746		0.494	0.500	-1.3	20.0
PCB-1016 Peak 5	Ave	232863	234148		0.503	0.500	0.6	20.0
PCB-1260 Peak 1	Ave	385146	391010		0.508	0.500	1.5	20.0
PCB-1260 Peak 2	Ave	456361	453186		0.497	0.500	-0.7	20.0
PCB-1260 Peak 3	Ave	338453	339024		0.501	0.500	0.2	20.0
PCB-1260 Peak 4	Ave	686842	678554		0.494	0.500	-1.2	20.0
PCB-1260 Peak 5	Ave	508485	508478		0.500	0.500	0.0	20.0
Tetrachloro-m-xylene	Ave	20616476	20030120		0.0243	0.0250	-2.8	20.0
DCB Decachlorobiphenyl (Surr)	Ave	7873935	7924200		0.0252	0.0250	0.6	20.0

FORM VII 8082A

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCVRT 180-85914/8 Calibration Date: 10/04/2013 08:55

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T1030121.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	265962	260182		0.489	0.500	-2.2	20.0
PCB-1016 Peak 2	Ave	513894	514554		0.501	0.500	0.1	20.0
PCB-1016 Peak 3	Ave	736325	720306		0.489	0.500	-2.2	20.0
PCB-1016 Peak 4	Ave	306656	310460		0.506	0.500	1.2	20.0
PCB-1016 Peak 5	Ave	232863	239486		0.514	0.500	2.8	20.0
PCB-1260 Peak 1	Ave	385146	396770		0.515	0.500	3.0	20.0
PCB-1260 Peak 2	Ave	456361	457068		0.501	0.500	0.2	20.0
PCB-1260 Peak 3	Ave	338453	341596		0.505	0.500	0.9	20.0
PCB-1260 Peak 4	Ave	686842	699334		0.509	0.500	1.8	20.0
PCB-1260 Peak 5	Ave	508485	514452		0.506	0.500	1.2	20.0
Tetrachloro-m-xylene	Ave	20616476	20474840		0.0248	0.0250	-0.7	20.0
DCB Decachlorobiphenyl (Surr)	Ave	7873935	7885520		0.0250	0.0250	0.1	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCV 180-85914/29 Calibration Date: 10/04/2013 20:00

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T1030142.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	265962	261482		0.492	0.500	-1.7	20.0
PCB-1016 Peak 2	Ave	513894	513814		0.500	0.500	-0.0	20.0
PCB-1016 Peak 3	Ave	736325	728184		0.494	0.500	-1.1	20.0
PCB-1016 Peak 4	Ave	306656	309042		0.504	0.500	0.8	20.0
PCB-1016 Peak 5	Ave	232863	238224		0.512	0.500	2.3	20.0
PCB-1260 Peak 1	Ave	385146	391762		0.509	0.500	1.7	20.0
PCB-1260 Peak 2	Ave	456361	458950		0.503	0.500	0.6	20.0
PCB-1260 Peak 3	Ave	338453	339454		0.501	0.500	0.3	20.0
PCB-1260 Peak 4	Ave	686842	692524		0.504	0.500	0.8	20.0
PCB-1260 Peak 5	Ave	508485	507198		0.499	0.500	-0.3	20.0
Tetrachloro-m-xylene	Ave	20616476	20384120		0.0247	0.0250	-1.1	20.0
DCB Decachlorobiphenyl (Surr)	Ave	7873935	7681080		0.0244	0.0250	-2.4	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCV 180-85914/34 Calibration Date: 10/04/2013 23:09

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T1030148.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	265962	261428		0.491	0.500	-1.7	20.0
PCB-1016 Peak 2	Ave	513894	510338		0.497	0.500	-0.7	20.0
PCB-1016 Peak 3	Ave	736325	729142		0.495	0.500	-1.0	20.0
PCB-1016 Peak 4	Ave	306656	309288		0.504	0.500	0.9	20.0
PCB-1016 Peak 5	Ave	232863	238734		0.513	0.500	2.5	20.0
PCB-1260 Peak 1	Ave	385146	388312		0.504	0.500	0.8	20.0
PCB-1260 Peak 2	Ave	456361	452924		0.496	0.500	-0.8	20.0
PCB-1260 Peak 3	Ave	338453	335012		0.495	0.500	-1.0	20.0
PCB-1260 Peak 4	Ave	686842	691026		0.503	0.500	0.6	20.0
PCB-1260 Peak 5	Ave	508485	503172		0.495	0.500	-1.0	20.0
Tetrachloro-m-xylene	Ave	20616476	20448560		0.0248	0.0250	-0.8	20.0
DCB Decachlorobiphenyl (Surr)	Ave	7873935	7629560		0.0242	0.0250	-3.1	20.0

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Sample No.: CCVRT 180-86069/7 Date Analyzed: 10/07/2013 12:37

Instrument ID: GC10 GC Column: RTX-1701 ID: 0.53(mm)

Lab File ID (Standard): T1030166.D Heated Purge: (Y/N) N

Calibration ID: 11476

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB
				RT #	RT #
CONTINUING CALIBRATION SURROGATE				5.76	17.87
UPPER LIMIT				5.81	17.92
LOWER LIMIT				5.71	17.82
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID		
CCVRT 180-86069/7		10/07/2013 12:37	T1030166.D	5.76	17.87
180-25423-9	SD-148-01	10/07/2013 18:54	T1030178.D	5.75	17.86
180-25423-13	SD-149-01	10/07/2013 19:26	T1030179.D	5.75	17.86
180-25423-15	SD-149-03	10/07/2013 19:57	T1030180.D	5.75	17.86
180-25423-17	SD-150-01	10/07/2013 20:29	T1030181.D	5.76	17.87
CCV 180-86069/12		10/07/2013 21:00	T1030182.D	5.75	17.86
CCV 180-86069/13		10/08/2013 07:57	T1030203.D	5.75	17.86

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

TCX RT Limit = ± 0.05 minutes of surrogate RT
DCB RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCVRT 180-86069/7 Calibration Date: 10/07/2013 12:37

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T1030166.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	265962	255810		0.481	0.500	-3.8	20.0
PCB-1016 Peak 2	Ave	513894	503122		0.490	0.500	-2.1	20.0
PCB-1016 Peak 3	Ave	736325	700328		0.476	0.500	-4.9	20.0
PCB-1016 Peak 4	Ave	306656	302362		0.493	0.500	-1.4	20.0
PCB-1016 Peak 5	Ave	232863	233120		0.501	0.500	0.1	20.0
PCB-1260 Peak 1	Ave	385146	388070		0.504	0.500	0.8	20.0
PCB-1260 Peak 2	Ave	456361	447626		0.490	0.500	-1.9	20.0
PCB-1260 Peak 3	Ave	338453	333938		0.493	0.500	-1.3	20.0
PCB-1260 Peak 4	Ave	686842	673818		0.491	0.500	-1.9	20.0
PCB-1260 Peak 5	Ave	508485	493674		0.485	0.500	-2.9	20.0
Tetrachloro-m-xylene	Ave	20616476	20031280		0.0243	0.0250	-2.8	20.0
DCB Decachlorobiphenyl (Surr)	Ave	7873935	7661160		0.0243	0.0250	-2.7	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCV 180-86069/12 Calibration Date: 10/07/2013 21:00

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T1030182.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	265962	252716		0.475	0.500	-5.0	20.0
PCB-1016 Peak 2	Ave	513894	501668		0.488	0.500	-2.4	20.0
PCB-1016 Peak 3	Ave	736325	701566		0.476	0.500	-4.7	20.0
PCB-1016 Peak 4	Ave	306656	301766		0.492	0.500	-1.6	20.0
PCB-1016 Peak 5	Ave	232863	232360		0.499	0.500	-0.2	20.0
PCB-1260 Peak 1	Ave	385146	387344		0.503	0.500	0.6	20.0
PCB-1260 Peak 2	Ave	456361	443156		0.486	0.500	-2.9	20.0
PCB-1260 Peak 3	Ave	338453	336308		0.497	0.500	-0.6	20.0
PCB-1260 Peak 4	Ave	686842	682288		0.497	0.500	-0.7	20.0
PCB-1260 Peak 5	Ave	508485	498636		0.490	0.500	-1.9	20.0
Tetrachloro-m-xylene	Ave	20616476	19985040		0.0242	0.0250	-3.1	20.0
DCB Decachlorobiphenyl (Surr)	Ave	7873935	7701440		0.0245	0.0250	-2.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCV 180-86069/13 Calibration Date: 10/08/2013 07:57

Instrument ID: GC10 Calib Start Date: 09/23/2013 14:10

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 09/23/2013 17:19

Lab File ID: T1030203.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	265962	260578		0.490	0.500	-2.0	20.0
PCB-1016 Peak 2	Ave	513894	514518		0.501	0.500	0.1	20.0
PCB-1016 Peak 3	Ave	736325	717862		0.487	0.500	-2.5	20.0
PCB-1016 Peak 4	Ave	306656	310550		0.506	0.500	1.3	20.0
PCB-1016 Peak 5	Ave	232863	239990		0.515	0.500	3.1	20.0
PCB-1260 Peak 1	Ave	385146	392786		0.510	0.500	2.0	20.0
PCB-1260 Peak 2	Ave	456361	458942		0.503	0.500	0.6	20.0
PCB-1260 Peak 3	Ave	338453	343148		0.507	0.500	1.4	20.0
PCB-1260 Peak 4	Ave	686842	691610		0.503	0.500	0.7	20.0
PCB-1260 Peak 5	Ave	508485	514478		0.506	0.500	1.2	20.0
Tetrachloro-m-xylene	Ave	20616476	20379360		0.0247	0.0250	-1.2	20.0
DCB Decachlorobiphenyl (Surr)	Ave	7873935	7961920		0.0253	0.0250	1.1	20.0

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Instrument ID: GC8 Start Date: 09/27/2013 10:40

Analysis Batch Number: 85524 End Date: 10/01/2013 20:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 180-85524/1		09/27/2013 10:40	1	00930800.D	RTX-50 0.53(mm)
IC 180-85524/2		09/27/2013 11:09	1	00930801.D	RTX-50 0.53(mm)
IC 180-85524/3		09/27/2013 11:39	1	00930802.D	RTX-50 0.53(mm)
IC 180-85524/4		09/27/2013 12:08	1	00930803.D	RTX-50 0.53(mm)
IC 180-85524/5		09/27/2013 12:37	1	00930804.D	RTX-50 0.53(mm)
IC 180-85524/6		09/27/2013 13:07	1	00930805.D	RTX-50 0.53(mm)
IC 180-85524/7		09/27/2013 13:36	1	00930806.D	RTX-50 0.53(mm)
IC 180-85524/8		09/27/2013 14:05	1	00930807.D	RTX-50 0.53(mm)
IC 180-85524/9		09/27/2013 14:35	1	00930808.D	RTX-50 0.53(mm)
IC 180-85524/10		09/27/2013 15:04	1	00930809.D	RTX-50 0.53(mm)
IC 180-85524/11		09/27/2013 15:34	1	00930810.D	RTX-50 0.53(mm)
IC 180-85524/12		09/27/2013 16:03	1	00930811.D	RTX-50 0.53(mm)
IC 180-85524/13		09/27/2013 16:32	1	00930812.D	RTX-50 0.53(mm)
IC 180-85524/14		09/27/2013 17:02	1	00930813.D	RTX-50 0.53(mm)
IC 180-85524/15		09/27/2013 17:31	1	00930814.D	RTX-50 0.53(mm)
IC 180-85524/16		09/27/2013 18:01	1	00930815.D	RTX-50 0.53(mm)
IC 180-85524/17		09/27/2013 18:30	1		RTX-50 0.53(mm)
IC 180-85524/18		09/27/2013 18:59	1		RTX-50 0.53(mm)
IC 180-85524/19		09/27/2013 19:29	1	00930818.D	RTX-50 0.53(mm)
IC 180-85524/20		09/27/2013 19:58	1	00930819.D	RTX-50 0.53(mm)
IC 180-85524/21		09/27/2013 20:27	1	00930820.D	RTX-50 0.53(mm)
IC 180-85524/22		09/27/2013 20:57	1	00930821.D	RTX-50 0.53(mm)
IC 180-85524/23		09/27/2013 21:26	1	00930822.D	RTX-50 0.53(mm)
IC 180-85524/24		09/27/2013 21:55	1	00930823.D	RTX-50 0.53(mm)
IC 180-85524/25		09/27/2013 22:24	1	00930824.D	RTX-50 0.53(mm)
ICV 180-85524/26		09/27/2013 22:54	1		RTX-50 0.53(mm)
ICV 180-85524/27		09/27/2013 23:23	1		RTX-50 0.53(mm)
ICV 180-85524/28		09/27/2013 23:52	1		RTX-50 0.53(mm)
ICV 180-85524/29		09/28/2013 00:22	1		RTX-50 0.53(mm)
ICV 180-85524/30		09/28/2013 00:51	1		RTX-50 0.53(mm)
ICV 180-85524/31		09/28/2013 01:20	1		RTX-50 0.53(mm)
ICV 180-85524/32		09/28/2013 01:49	1		RTX-50 0.53(mm)
CCV 180-85524/33		10/01/2013 03:25	1		RTX-50 0.53(mm)
CCV 180-85524/34		10/01/2013 03:54	1		RTX-50 0.53(mm)
CCV 180-85524/35		10/01/2013 04:24	1		RTX-50 0.53(mm)
CCV 180-85524/36		10/01/2013 04:53	1		RTX-50 0.53(mm)
CCV 180-85524/37		10/01/2013 05:22	1		RTX-50 0.53(mm)
CCV 180-85524/38		10/01/2013 05:51	1		RTX-50 0.53(mm)
CCV 180-85524/39		10/01/2013 06:21	1		RTX-50 0.53(mm)
CCVRT 180-85524/40		10/01/2013 11:56	1		RTX-50 0.53(mm)
ZZZZZ		10/01/2013 12:44	5		RTX-50 0.53(mm)
ZZZZZ		10/01/2013 13:13	5		RTX-50 0.53(mm)
ZZZZZ		10/01/2013 13:43	5		RTX-50 0.53(mm)
ZZZZZ		10/01/2013 14:12	5		RTX-50 0.53(mm)
ZZZZZ		10/01/2013 14:41	5		RTX-50 0.53(mm)

8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Instrument ID: GC8 Start Date: 09/27/2013 10:40

Analysis Batch Number: 85524 End Date: 10/01/2013 20:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		10/01/2013 15:11	5		RTX-50 0.53(mm)
ZZZZZ		10/01/2013 15:40	5		RTX-50 0.53(mm)
ZZZZZ		10/01/2013 16:09	5		RTX-50 0.53(mm)
ZZZZZ		10/01/2013 19:05	1		RTX-50 0.53(mm)
ZZZZZ		10/01/2013 19:35	1		RTX-50 0.53(mm)
CCV 180-85524/51		10/01/2013 20:04	1		RTX-50 0.53(mm)

8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Instrument ID: GC8 Start Date: 10/03/2013 08:47

Analysis Batch Number: 85741 End Date: 10/04/2013 12:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 180-85741/1		10/03/2013 08:47	1		RTX-50 0.53(mm)
CCV 180-85741/2		10/03/2013 09:17	1		RTX-50 0.53(mm)
CCV 180-85741/3		10/03/2013 09:46	1		RTX-50 0.53(mm)
CCV 180-85741/4		10/03/2013 10:15	1		RTX-50 0.53(mm)
CCV 180-85741/5		10/03/2013 10:45	1		RTX-50 0.53(mm)
CCV 180-85741/6		10/03/2013 11:14	1		RTX-50 0.53(mm)
CCVRT 180-85741/7		10/03/2013 11:43	1	O1030009.D	RTX-50 0.53(mm)
ZZZZZ		10/03/2013 14:38	10		RTX-50 0.53(mm)
ZZZZZ		10/03/2013 15:07	10		RTX-50 0.53(mm)
ZZZZZ		10/03/2013 15:36	10		RTX-50 0.53(mm)
ZZZZZ		10/03/2013 16:06	10		RTX-50 0.53(mm)
CCV 180-85741/12		10/03/2013 18:03	1	O1030019.D	RTX-50 0.53(mm)
ZZZZZ		10/03/2013 18:33	10		RTX-50 0.53(mm)
ZZZZZ		10/03/2013 19:02	10		RTX-50 0.53(mm)
ZZZZZ		10/03/2013 19:31	10		RTX-50 0.53(mm)
180-25423-20	SD-151-SS	10/03/2013 20:01	10	O1030023.D	RTX-50 0.53(mm)
180-25423-22	SD-151-02	10/03/2013 20:59	10	O1030025.D	RTX-50 0.53(mm)
180-25423-23	SD-151-03	10/03/2013 21:29	10	O1030026.D	RTX-50 0.53(mm)
180-25423-24	SD-111-SS	10/03/2013 21:58	10	O1030027.D	RTX-50 0.53(mm)
180-25423-25	SD-111-01	10/03/2013 22:27	5	O1030028.D	RTX-50 0.53(mm)
180-25423-30	SD-162-SS	10/04/2013 00:53	10	O1030033.D	RTX-50 0.53(mm)
180-25423-31	SD-162-01	10/04/2013 01:22	10	O1030034.D	RTX-50 0.53(mm)
180-25423-32	SD-162-02	10/04/2013 01:51	10	O1030035.D	RTX-50 0.53(mm)
180-25423-33	SD-162-03	10/04/2013 02:20	10	O1030036.D	RTX-50 0.53(mm)
MB 180-85557/1-C		10/04/2013 03:18	1	O1030038.D	RTX-50 0.53(mm)
LCS 180-85557/2-C		10/04/2013 03:47	1	O1030039.D	RTX-50 0.53(mm)
CCV 180-85741/27		10/04/2013 04:16	1	O1030040.D	RTX-50 0.53(mm)
180-25423-28	SD-139-SS	10/04/2013 08:21	2000	O1030043.D	RTX-50 0.53(mm)
180-25423-34	SD-161-SS	10/04/2013 09:19	200	O1030045.D	RTX-50 0.53(mm)
180-25423-21	SD-151-01	10/04/2013 09:48	100	O1030046.D	RTX-50 0.53(mm)
180-25423-26	SD-138-SS	10/04/2013 10:17	25000	O1030047.D	RTX-50 0.53(mm)
180-25423-27	SD-138-01	10/04/2013 10:46	100000	O1030048.D	RTX-50 0.53(mm)
180-25423-29	SD-139-01	10/04/2013 11:16	50000	O1030049.D	RTX-50 0.53(mm)
CCV 180-85741/34		10/04/2013 12:14	1	O1030051.D	RTX-50 0.53(mm)

8082A

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 85524

SDG No.:

Instrument ID: GC8 GC Column: RTX-50 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/27/2013 10:40 Calibration End Date: 09/27/2013 12:37 Calibration ID: 11624

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-85524/1	O0930800.D
Level 2	IC 180-85524/2	O0930801.D
Level 3	IC 180-85524/3	O0930802.D
Level 4	IC 180-85524/4	O0930803.D
Level 5	IC 180-85524/5	O0930804.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
PCB-1221 Peak 1	58100 45886	52720	51364	48482	Ave		51310.4000				9.0		20.0			
PCB-1221 Peak 2	169700 133940	164330	150228	140158	Ave		151671.200				10.1		20.0			
PCB-1221 Peak 3	212200 312454	329620	314740	317846	Ave		297372.000				16.2		20.0			
PCB-1254 Peak 1	438500 282724	343170	310816	296192	Ave		334280.400				18.7		20.0			
PCB-1254 Peak 2	533800 370142	446740	404268	387648	Ave		428519.600				15.3		20.0			
PCB-1254 Peak 3	295400 240334	286030	247312	252064	Ave		264228.000				9.4		20.0			
PCB-1254 Peak 4	651100 462789	547250	495852	489170	Ave		529232.200				14.1		20.0			
PCB-1254 Peak 5	305600 195004	238460	218188	208672	Ave		233184.800				18.6		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 85524

SDG No.:

Instrument ID: GC8 GC Column: RTX-50 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/27/2013 13:07 Calibration End Date: 09/27/2013 15:04 Calibration ID: 11625

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-85524/6	O0930805.D
Level 2	IC 180-85524/7	O0930806.D
Level 3	IC 180-85524/8	O0930807.D
Level 4	IC 180-85524/9	O0930808.D
Level 5	IC 180-85524/10	O0930809.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
PCB-1242 Peak 1	233800 170235	205750	192688	179036	Ave		196301.800				12.7		20.0			
PCB-1242 Peak 2	220000 146456	183010	172508	155666	Ave		175528.000				16.3		20.0			
PCB-1242 Peak 3	153600 119417	145600	138768	126632	Ave		136803.400				10.1		20.0			
PCB-1242 Peak 4	141900 105582	126110	119240	109348	Ave		120436.000				12.0		20.0			
PCB-1242 Peak 5	235700 180121	209890	202220	186438	Ave		202873.800				10.8		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 85524

SDG No.:

Instrument ID: GC8 GC Column: RTX-50 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/27/2013 15:34 Calibration End Date: 09/27/2013 17:31 Calibration ID: 11626

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-85524/11	O0930810.D
Level 2	IC 180-85524/12	O0930811.D
Level 3	IC 180-85524/13	O0930812.D
Level 4	IC 180-85524/14	O0930813.D
Level 5	IC 180-85524/15	O0930814.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
PCB-1248 Peak 1	597000 446400	488880	463160	440734	Ave		487234.800				13.2		20.0			
PCB-1248 Peak 2	453300 318959	378500	351028	324236	Ave		365204.600				15.0		20.0			
PCB-1248 Peak 3	446100 330887	381990	353784	336096	Ave		369771.400				12.7		20.0			
PCB-1248 Peak 4	200500 129768	161820	146480	137032	Ave		155120.000				18.1		20.0			
PCB-1248 Peak 5	362800 279824	315840	294988	284790	Ave		307648.400				11.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 85524

SDG No.:

Instrument ID: GC8 GC Column: RTX-50 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/27/2013 19:29 Calibration End Date: 09/27/2013 22:24 Calibration ID: 11630

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-85524/19	O0930818.D
Level 2	IC 180-85524/20	O0930819.D
Level 3	IC 180-85524/21	O0930820.D
Level 4	IC 180-85524/22	O0930821.D
Level 5	IC 180-85524/23	O0930822.D
Level 6	IC 180-85524/24	O0930823.D
Level 7	IC 180-85524/25	O0930824.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
PCB-1016 Peak 1	1134900 851163	994440 891521	972505 912735	844714	Ave		943139.679				10.8		20.0			
PCB-1016 Peak 2	326900 261016	342560 262703	307095 264499	269536	Ave		290615.429				11.8		20.0			
PCB-1016 Peak 3	297100 209106	261060 207910	235390 209090	214336	Ave		233427.393				14.7		20.0			
PCB-1016 Peak 4	336200 231693	307680 234640	259145 229944	240248	Ave		262792.786				16.1		20.0			
PCB-1016 Peak 5	217200 144232	177780 143408	166920 141400	151944	Ave		163269.107				16.8		20.0			
PCB-1260 Peak 1	575500 365522	476380 365655	453130 365988	377524	Ave		425671.250				18.9		20.0			
PCB-1260 Peak 2	616100 420155	526600 437494	517405 425187	437682	Ave		482946.071				15.2		20.0			
PCB-1260 Peak 3	447800 284641	368900 290197	352005 286537	299388	Ave		332781.071				18.3		20.0			
PCB-1260 Peak 4	406700 287336	366180 286662	345485 287774	290492	Ave		324375.464				15.0		20.0			
PCB-1260 Peak 5	893500 669881	799380 675519	780745 691145	678520	Ave		741241.357				11.6		20.0			
Tetrachloro-m-xylene	23556000 18319920	21079600 19566390	20549400 19674460	18146560	Ave		20127475.7				9.2		20.0			
DCB Decachlorobiphenyl (Surr)	6096000 4372720	5495600 4429240	5517300 4430720	4477160	Ave		4974105.71				14.3		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Sample No.: CCVRT 180-85741/7 Date Analyzed: 10/03/2013 11:43

Instrument ID: GC8 GC Column: RTX-50 ID: 0.53(mm)

Lab File ID (Standard): O1030009.D Heated Purge: (Y/N) N

Calibration ID: 11630

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX RT #	DCB RT #	
CONTINUING CALIBRATION SURROGATE				6.24	19.94	
UPPER LIMIT				6.29	19.99	
LOWER LIMIT				6.19	19.89	
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 180-85741/7		10/03/2013 11:43	O1030009.D	6.24	19.94	
CCV 180-85741/12		10/03/2013 18:03	O1030019.D	6.25	19.96	
180-25423-20	SD-151-SS	10/03/2013 20:01	O1030023.D	6.25	19.95	
180-25423-22	SD-151-02	10/03/2013 20:59	O1030025.D	6.24	19.95	
180-25423-23	SD-151-03	10/03/2013 21:29	O1030026.D	6.25	19.96	
180-25423-24	SD-111-SS	10/03/2013 21:58	O1030027.D	6.25	19.94	
180-25423-25	SD-111-01	10/03/2013 22:27	O1030028.D	6.25	19.95	
180-25423-30	SD-162-SS	10/04/2013 00:53	O1030033.D	6.24	19.96	
180-25423-31	SD-162-01	10/04/2013 01:22	O1030034.D	6.24	19.93	
180-25423-32	SD-162-02	10/04/2013 01:51	O1030035.D	6.24	19.94	
180-25423-33	SD-162-03	10/04/2013 02:20	O1030036.D	6.24	19.94	
MB 180-85557/1-C		10/04/2013 03:18	O1030038.D	6.24	19.94	
LCS 180-85557/2-C		10/04/2013 03:47	O1030039.D	6.24	19.94	
CCV 180-85741/27		10/04/2013 04:16	O1030040.D	6.24	19.94	
180-25423-28	SD-139-SS	10/04/2013 08:21	O1030043.D	0.00	0.00	
180-25423-34	SD-161-SS	10/04/2013 09:19	O1030045.D	0.00	0.00	
180-25423-21	SD-151-01	10/04/2013 09:48	O1030046.D	0.00	0.00	
180-25423-26	SD-138-SS	10/04/2013 10:17	O1030047.D	0.00	0.00	
180-25423-27	SD-138-01	10/04/2013 10:46	O1030048.D	0.00	0.00	
180-25423-29	SD-139-01	10/04/2013 11:16	O1030049.D	0.00	0.00	
CCV 180-85741/34		10/04/2013 12:14	O1030051.D	6.24	19.94	

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

TCX RT Limit = ± 0.05 minutes of surrogate RT
DCB RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCVRT 180-85741/7 Calibration Date: 10/03/2013 11:43

Instrument ID: GC8 Calib Start Date: 09/27/2013 19:29

GC Column: RTX-50 ID: 0.53(mm) Calib End Date: 09/27/2013 22:24

Lab File ID: O1030009.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	943140	890712		0.472	0.500	-5.6	20.0
PCB-1016 Peak 2	Ave	290615	289376		0.498	0.500	-0.4	20.0
PCB-1016 Peak 3	Ave	233427	225492		0.483	0.500	-3.4	20.0
PCB-1016 Peak 4	Ave	262793	262890		0.500	0.500	0.0	20.0
PCB-1016 Peak 5	Ave	163269	164646		0.504	0.500	0.8	20.0
PCB-1260 Peak 1	Ave	425671	400736		0.471	0.500	-5.9	20.0
PCB-1260 Peak 2	Ave	482946	467570		0.484	0.500	-3.2	20.0
PCB-1260 Peak 3	Ave	332781	310568		0.467	0.500	-6.7	20.0
PCB-1260 Peak 4	Ave	324375	317294		0.489	0.500	-2.2	20.0
PCB-1260 Peak 5	Ave	741241	711590		0.480	0.500	-4.0	20.0
Tetrachloro-m-xylene	Ave	20127476	20105080		0.0250	0.0250	-0.1	20.0
DCB Decachlorobiphenyl (Surr)	Ave	4974106	4962200		0.0249	0.0250	-0.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCV 180-85741/12 Calibration Date: 10/03/2013 18:03

Instrument ID: GC8 Calib Start Date: 09/27/2013 19:29

GC Column: RTX-50 ID: 0.53(mm) Calib End Date: 09/27/2013 22:24

Lab File ID: O1030019.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	943140	922466		0.489	0.500	-2.2	20.0
PCB-1016 Peak 2	Ave	290615	297598		0.512	0.500	2.4	20.0
PCB-1016 Peak 3	Ave	233427	235576		0.505	0.500	0.9	20.0
PCB-1016 Peak 4	Ave	262793	267612		0.509	0.500	1.8	20.0
PCB-1016 Peak 5	Ave	163269	170974		0.524	0.500	4.7	20.0
PCB-1260 Peak 1	Ave	425671	405934		0.477	0.500	-4.6	20.0
PCB-1260 Peak 2	Ave	482946	476950		0.494	0.500	-1.2	20.0
PCB-1260 Peak 3	Ave	332781	315578		0.474	0.500	-5.2	20.0
PCB-1260 Peak 4	Ave	324375	324280		0.500	0.500	-0.0	20.0
PCB-1260 Peak 5	Ave	741241	722840		0.488	0.500	-2.5	20.0
Tetrachloro-m-xylene	Ave	20127476	20588840		0.0256	0.0250	2.3	20.0
DCB Decachlorobiphenyl (Surr)	Ave	4974106	5073160		0.0255	0.0250	2.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCV 180-85741/27 Calibration Date: 10/04/2013 04:16

Instrument ID: GC8 Calib Start Date: 09/27/2013 19:29

GC Column: RTX-50 ID: 0.53(mm) Calib End Date: 09/27/2013 22:24

Lab File ID: O1030040.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	943140	953042		0.505	0.500	1.0	20.0
PCB-1016 Peak 2	Ave	290615	305486		0.526	0.500	5.1	20.0
PCB-1016 Peak 3	Ave	233427	242742		0.520	0.500	4.0	20.0
PCB-1016 Peak 4	Ave	262793	273998		0.521	0.500	4.3	20.0
PCB-1016 Peak 5	Ave	163269	172734		0.529	0.500	5.8	20.0
PCB-1260 Peak 1	Ave	425671	431772		0.507	0.500	1.4	20.0
PCB-1260 Peak 2	Ave	482946	505006		0.523	0.500	4.6	20.0
PCB-1260 Peak 3	Ave	332781	336694		0.506	0.500	1.2	20.0
PCB-1260 Peak 4	Ave	324375	346288		0.534	0.500	6.8	20.0
PCB-1260 Peak 5	Ave	741241	742358		0.501	0.500	0.2	20.0
Tetrachloro-m-xylene	Ave	20127476	21314120		0.0265	0.0250	5.9	20.0
DCB Decachlorobiphenyl (Surr)	Ave	4974106	5242320		0.0263	0.0250	5.4	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCV 180-85741/34 Calibration Date: 10/04/2013 12:14

Instrument ID: GC8 Calib Start Date: 09/27/2013 19:29

GC Column: RTX-50 ID: 0.53(mm) Calib End Date: 09/27/2013 22:24

Lab File ID: O1030051.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	943140	934088		0.495	0.500	-1.0	20.0
PCB-1016 Peak 2	Ave	290615	298858		0.514	0.500	2.8	20.0
PCB-1016 Peak 3	Ave	233427	236790		0.507	0.500	1.4	20.0
PCB-1016 Peak 4	Ave	262793	266878		0.508	0.500	1.6	20.0
PCB-1016 Peak 5	Ave	163269	169396		0.519	0.500	3.8	20.0
PCB-1260 Peak 1	Ave	425671	415628		0.488	0.500	-2.4	20.0
PCB-1260 Peak 2	Ave	482946	482744		0.500	0.500	-0.0	20.0
PCB-1260 Peak 3	Ave	332781	321878		0.484	0.500	-3.3	20.0
PCB-1260 Peak 4	Ave	324375	329718		0.508	0.500	1.6	20.0
PCB-1260 Peak 5	Ave	741241	741704		0.500	0.500	0.0	20.0
Tetrachloro-m-xylene	Ave	20127476	20452120		0.0254	0.0250	1.6	20.0
DCB Decachlorobiphenyl (Surr)	Ave	4974106	5252480		0.0264	0.0250	5.6	20.0

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Instrument ID: GC8 Start Date: 10/10/2013 14:35

Analysis Batch Number: 86523 End Date: 10/12/2013 13:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 180-86523/1		10/10/2013 14:35	1	P1030252.D	RTX-1701 0.53(mm)
IC 180-86523/2		10/10/2013 15:04	1	P1030253.D	RTX-1701 0.53(mm)
IC 180-86523/3		10/10/2013 15:34	1	P1030254.D	RTX-1701 0.53(mm)
IC 180-86523/4		10/10/2013 16:03	1	P1030255.D	RTX-1701 0.53(mm)
IC 180-86523/5		10/10/2013 16:32	1	P1030256.D	RTX-1701 0.53(mm)
IC 180-86523/6		10/10/2013 17:02	1	P1030257.D	RTX-1701 0.53(mm)
IC 180-86523/7		10/10/2013 17:31	1	P1030258.D	RTX-1701 0.53(mm)
IC 180-86523/8		10/10/2013 18:01	1	P1030259.D	RTX-1701 0.53(mm)
IC 180-86523/9		10/10/2013 18:30	1	P1030260.D	RTX-1701 0.53(mm)
IC 180-86523/10		10/10/2013 18:59	1	P1030261.D	RTX-1701 0.53(mm)
IC 180-86523/11		10/10/2013 19:29	1	P1030262.D	RTX-1701 0.53(mm)
IC 180-86523/12		10/10/2013 19:58	1	P1030263.D	RTX-1701 0.53(mm)
IC 180-86523/13		10/10/2013 20:27	1	P1030264.D	RTX-1701 0.53(mm)
IC 180-86523/14		10/10/2013 20:56	1	P1030265.D	RTX-1701 0.53(mm)
IC 180-86523/15		10/10/2013 21:26	1	P1030266.D	RTX-1701 0.53(mm)
IC 180-86523/16		10/10/2013 21:55	1	P1030267.D	RTX-1701 0.53(mm)
IC 180-86523/17		10/10/2013 22:24	1		RTX-1701 0.53(mm)
IC 180-86523/18		10/10/2013 22:54	1		RTX-1701 0.53(mm)
IC 180-86523/19		10/10/2013 23:23	1	P1030270.D	RTX-1701 0.53(mm)
IC 180-86523/20		10/10/2013 23:52	1	P1030271.D	RTX-1701 0.53(mm)
IC 180-86523/21		10/11/2013 00:22	1	P1030272.D	RTX-1701 0.53(mm)
ICRT 180-86523/22		10/11/2013 00:51	1	P1030273.D	RTX-1701 0.53(mm)
IC 180-86523/23		10/11/2013 01:20	1	P1030274.D	RTX-1701 0.53(mm)
IC 180-86523/24		10/11/2013 01:49	1	P1030275.D	RTX-1701 0.53(mm)
IC 180-86523/25		10/11/2013 02:19	1	P1030276.D	RTX-1701 0.53(mm)
ICV 180-86523/26		10/11/2013 02:48	1	P1030277.D	RTX-1701 0.53(mm)
ICV 180-86523/27		10/11/2013 03:17	1	P1030278.D	RTX-1701 0.53(mm)
ICV 180-86523/28		10/11/2013 03:46	1	P1030279.D	RTX-1701 0.53(mm)
ICV 180-86523/29		10/11/2013 04:16	1	P1030280.D	RTX-1701 0.53(mm)
ICV 180-86523/30		10/11/2013 04:45	1		RTX-1701 0.53(mm)
ICV 180-86523/31		10/11/2013 05:44	1	P1030283.D	RTX-1701 0.53(mm)
ICV 180-86523/32		10/11/2013 14:19	1		RTX-1701 0.53(mm)
CCVRT 180-86523/33		10/11/2013 14:49	1	P1030301.D	RTX-1701 0.53(mm)
ZZZZZ		10/11/2013 15:18	5		RTX-1701 0.53(mm)
ZZZZZ		10/11/2013 15:47	5		RTX-1701 0.53(mm)
ZZZZZ		10/11/2013 16:16	5		RTX-1701 0.53(mm)
ZZZZZ		10/11/2013 16:46	5		RTX-1701 0.53(mm)
ZZZZZ		10/11/2013 17:15	5		RTX-1701 0.53(mm)
ZZZZZ		10/11/2013 17:44	5		RTX-1701 0.53(mm)
ZZZZZ		10/11/2013 18:13	5		RTX-1701 0.53(mm)
ZZZZZ		10/11/2013 18:43	5		RTX-1701 0.53(mm)
ZZZZZ		10/11/2013 19:12	5		RTX-1701 0.53(mm)
ZZZZZ		10/11/2013 19:41	5		RTX-1701 0.53(mm)
ZZZZZ		10/11/2013 20:10	5		RTX-1701 0.53(mm)
ZZZZZ		10/11/2013 20:40	5		RTX-1701 0.53(mm)

8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Instrument ID: GC8 Start Date: 10/10/2013 14:35

Analysis Batch Number: 86523 End Date: 10/12/2013 13:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		10/11/2013 21:09	5		RTX-1701 0.53(mm)
ZZZZZ		10/11/2013 21:38	5		RTX-1701 0.53(mm)
ZZZZZ		10/11/2013 22:07	5		RTX-1701 0.53(mm)
ZZZZZ		10/11/2013 22:37	5		RTX-1701 0.53(mm)
ZZZZZ		10/11/2013 23:06	5		RTX-1701 0.53(mm)
ZZZZZ		10/11/2013 23:35	1		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 00:05	1		RTX-1701 0.53(mm)
CCV 180-86523/53		10/12/2013 00:34	1	P1030321.D	RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 01:03	5		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 01:32	5		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 02:01	5		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 02:31	5		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 03:00	1		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 03:29	1		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 03:58	1		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 04:28	5		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 04:57	5		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 05:26	5		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 05:55	5		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 06:25	5		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 06:54	5		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 07:23	5		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 07:52	5		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 08:22	5		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 08:51	5		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 09:20	5		RTX-1701 0.53(mm)
MB 180-85695/1-C		10/12/2013 09:49	1	P1030340.D	RTX-1701 0.53(mm)
LCS 180-85695/2-C		10/12/2013 10:19	1	P1030341.D	RTX-1701 0.53(mm)
CCV 180-86523/74		10/12/2013 10:48	1	P1030342.D	RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 11:17	5		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 11:46	5		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 12:16	5		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 12:45	5		RTX-1701 0.53(mm)
CCV 180-86523/79		10/12/2013 13:14	1		RTX-1701 0.53(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Instrument ID: GC8 Start Date: 10/12/2013 17:11

Analysis Batch Number: 86576 End Date: 10/12/2013 23:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 180-86576/1		10/12/2013 17:11	1	P1030350.D	RTX-1701 0.53(mm)
180-25423-35	SD-161-01	10/12/2013 17:40	5000	P1030351.D	RTX-1701 0.53(mm)
180-25423-36	SD-161-02	10/12/2013 18:09	5000	P1030352.D	RTX-1701 0.53(mm)
180-25423-37	SD-161-03	10/12/2013 18:39	500	P1030353.D	RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 19:08	1		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 19:37	1		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 20:06	1		RTX-1701 0.53(mm)
ZZZZZ		10/12/2013 20:36	1		RTX-1701 0.53(mm)
CCV 180-86576/9		10/12/2013 23:31	1	P1030363.D	RTX-1701 0.53(mm)

8082A

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 86523

SDG No.:

Instrument ID: GC8 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/10/2013 14:35 Calibration End Date: 10/10/2013 16:32 Calibration ID: 11803

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-86523/1	P1030252.D
Level 2	IC 180-86523/2	P1030253.D
Level 3	IC 180-86523/3	P1030254.D
Level 4	IC 180-86523/4	P1030255.D
Level 5	IC 180-86523/5	P1030256.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
PCB-1221 Peak 1	253800 244607	195150	214412	237710	Lin	0.01743093	247691.094						20.0	0.9990		0.9900
PCB-1221 Peak 2	120000 313022	213080	247640	280988	Lin	0.03519440	319432.931						20.0	0.9966		0.9900
PCB-1221 Peak 3	179600 627044	458810	517288	569332	Lin	0.03065287	637889.641						20.0	0.9975		0.9900
PCB-1254 Peak 1	1190200 1393135	1379340	1372712	1365776	Ave		1340232.60				6.3		20.0			
PCB-1254 Peak 2	1068700 1242567	1191430	1192324	1191582	Ave		1177320.60				5.5		20.0			
PCB-1254 Peak 3	339300 440763	433070	427616	420584	Ave		412266.600				10.1		20.0			
PCB-1254 Peak 4	743700 714558	776600	742860	737196	Ave		742982.800				3.0		20.0			
PCB-1254 Peak 5	591900 655025	665350	654764	676226	Ave		648653.000				5.1		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 86523

SDG No.:

Instrument ID: GC8 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/10/2013 17:02 Calibration End Date: 10/10/2013 18:59 Calibration ID: 11804

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-86523/6	P1030257.D
Level 2	IC 180-86523/7	P1030258.D
Level 3	IC 180-86523/8	P1030259.D
Level 4	IC 180-86523/9	P1030260.D
Level 5	IC 180-86523/10	P1030261.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
PCB-1242 Peak 1	419700 453085	383310	454512	452542	Lin	0.00576826	456275.032						20.0	0.9998		0.9900
PCB-1242 Peak 2	288800 506121	425820	490804	498690	Lin	0.01041524	510882.706						20.0	0.9999		0.9900
PCB-1242 Peak 3	525300 567553	510060	532800	543940	Lin	0.01085693	569847.283						20.0	0.9995		0.9900
PCB-1242 Peak 4	114700 263049	171810	215600	232042	Lin	0.03518969	267983.483						20.0	0.9963		0.9900
PCB-1242 Peak 5	400200 536987	419070	490244	514210	Lin	0.01757406	543166.790						20.0	0.9993		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 86523

SDG No.:

Instrument ID: GC8 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/10/2013 19:29 Calibration End Date: 10/10/2013 21:26 Calibration ID: 11805

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-86523/11	P1030262.D
Level 2	IC 180-86523/12	P1030263.D
Level 3	IC 180-86523/13	P1030264.D
Level 4	IC 180-86523/14	P1030265.D
Level 5	IC 180-86523/15	P1030266.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
PCB-1248 Peak 1	407600 642619	505540	530516	581414	Ave		533537.800				16.5		20.0			
PCB-1248 Peak 2	965300 1116917	1018820	1061992	1082028	Ave		1049011.40				5.6		20.0			
PCB-1248 Peak 3	788400 961208	865710	883904	917690	Ave		883382.400				7.3		20.0			
PCB-1248 Peak 4	612500 713677	733110	706676	684346	Ave		690061.800				6.8		20.0			
PCB-1248 Peak 5	437400 495862	474170	478592	485362	Ave		474277.200				4.7		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1 Analy Batch No.: 86523

SDG No.:

Instrument ID: GC8 GC Column: RTX-1701 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/10/2013 23:23 Calibration End Date: 10/11/2013 02:19 Calibration ID: 11809

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-86523/19	P1030270.D
Level 2	IC 180-86523/20	P1030271.D
Level 3	IC 180-86523/21	P1030272.D
Level 4	ICRT 180-86523/22	P1030273.D
Level 5	IC 180-86523/23	P1030274.D
Level 6	IC 180-86523/24	P1030275.D
Level 7	IC 180-86523/25	P1030276.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
PCB-1016 Peak 1	1418300 1306762	1375640 1368495	1487015 1329661	1275600	Ave		1365924.75				5.2		20.0			
PCB-1016 Peak 2	1125900 1591644	1306220 1924826	1575640 2081916	1385206	Ave		1570193.07				21.6	*	20.0			
PCB-1016 Peak 3	534800 737550	697780 836610	821940 908371	725744	Ave		751827.786				16.1		20.0			
PCB-1016 Peak 4	846200 787257	841180 856160	895720 856568	790882	Ave		839138.107				4.6		20.0			
PCB-1016 Peak 5	625000 616079	711560 683544	790745 652539	683438	Ave		680414.964				8.7		20.0			
PCB-1260 Peak 1	1618200 1365866	1515220 1423524	1541675 1374467	1345578	Ave		1454932.79				7.2		20.0			
PCB-1260 Peak 2	1517200 1480069	1533900 1559820	1630685 1534651	1441218	Ave		1528220.29				3.9		20.0			
PCB-1260 Peak 3	1456300 1490782	1495160 1583698	1614660 1599519	1424800	Ave		1523559.79				4.9		20.0			
PCB-1260 Peak 4	1033700 1016295	1054280 1049636	1102555 1033448	1002410	Ave		1041760.61				3.1		20.0			
PCB-1260 Peak 5	2068000 2173899	2141620 2312521	2342820 2307627	2091666	Ave		2205450.29				5.2		20.0			
Tetrachloro-m-xylene	40588000 45596140	40316800 52095590	46925600 55228335	40564760	Ave		45902175.0				13.0		20.0			
DCB Decachlorobiphenyl (Surr)	23472000 20626200	22630000 21145970	23420000 21250995	20664280	Ave		21887063.6				5.7		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Sample No.: ICRT 180-86523/22 Date Analyzed: 10/11/2013 00:51

Instrument ID: GC8 GC Column: RTX-1701 ID: 0.53(mm)

Lab File ID (Standard): P1030273.D Heated Purge: (Y/N) N

Calibration ID: 11809

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX RT #	DCB RT #
INITIAL CALIBRATION SURROGATE				6.36	18.15
UPPER LIMIT				6.41	18.20
LOWER LIMIT				6.31	18.10
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID		
ICRT 180-86523/22		10/11/2013 00:51	P1030273.D	6.36	18.15
CCVRT 180-86523/33		10/11/2013 14:49	P1030301.D	6.35	18.14

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

TCX RT Limit = ± 0.05 minutes of surrogate RT
DCB RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: ICV 180-86523/26 Calibration Date: 10/11/2013 02:48

Instrument ID: GC8 Calib Start Date: 10/10/2013 14:35

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 10/10/2013 16:32

Lab File ID: P1030277.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Lin	229136	256044		0.534	0.500	6.9	20.0
PCB-1221 Peak 2	Lin	234946	294864		0.497	0.500	-0.7	20.0
PCB-1221 Peak 3	Lin	470415	540452		0.454	0.500	-9.1	20.0
PCB-1254 Peak 1	Ave	1340233	1587638		0.592	0.500	18.5	20.0
PCB-1254 Peak 2	Ave	1177321	1390274		0.590	0.500	18.1	20.0
PCB-1254 Peak 3	Ave	412267	510080		0.619	0.500	23.7	20.0
PCB-1254 Peak 4	Ave	742983	816460		0.549	0.500	9.9	20.0
PCB-1254 Peak 5	Ave	648653	728144		0.561	0.500	12.3	20.0

no samples

$\bar{x}$ ✓

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: ICV 180-86523/27 Calibration Date: 10/11/2013 03:17

Instrument ID: GC8 Calib Start Date: 10/10/2013 21:55

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 10/10/2013 21:55

Lab File ID: P1030278.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Ave	144984	161414		0.557	0.500	11.3	20.0
PCB-1232 Peak 2	Ave	380800	413888		0.543	0.500	8.7	20.0
PCB-1232 Peak 3	Ave	272398	296970		0.545	0.500	9.0	20.0
PCB-1232 Peak 4	Ave	307608	324240		0.527	0.500	5.4	20.0
PCB-1232 Peak 5	Ave	222084	247472		0.557	0.500	11.4	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: ICV 180-86523/28 Calibration Date: 10/11/2013 03:46

Instrument ID: GC8 Calib Start Date: 10/10/2013 17:02

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 10/10/2013 18:59

Lab File ID: P1030279.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Lin	432630	540956		0.599	0.500	19.7	20.0
PCB-1242 Peak 2	Lin	442047	603590		0.601	0.500	20.2*	20.0
PCB-1242 Peak 3	Lin	535931	661450		0.591	0.500	18.2	20.0
PCB-1242 Peak 4	Lin	199440	296034		0.588	0.500	17.5	20.0
PCB-1242 Peak 5	Lin	472142	636180		0.603	0.500	20.6*	20.0

no samples
$\bar{x}$ ✓

FORM VII 8082A

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: ICV 180-86523/29 Calibration Date: 10/11/2013 04:16

Instrument ID: GC8 Calib Start Date: 10/10/2013 19:29

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 10/10/2013 21:26

Lab File ID: P1030280.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Ave	533538	516300		0.484	0.500	-3.2	20.0
PCB-1248 Peak 2	Ave	1049011	976362		0.465	0.500	-6.9	20.0
PCB-1248 Peak 3	Ave	883382	842804		0.477	0.500	-4.6	20.0
PCB-1248 Peak 4	Ave	690062	667304		0.484	0.500	-3.3	20.0
PCB-1248 Peak 5	Ave	474277	483666		0.510	0.500	2.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: ICV 180-86523/31 Calibration Date: 10/11/2013 05:44

Instrument ID: GC8 Calib Start Date: 10/10/2013 23:23

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 10/11/2013 02:19

Lab File ID: P1030283.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	1365925	1197304		0.438	0.500	-12.3	20.0
PCB-1016 Peak 2	Ave	1570193	1348074		0.429	0.500	-14.1	20.0
PCB-1016 Peak 3	Ave	751828	704802		0.469	0.500	-6.3	20.0
PCB-1016 Peak 4	Ave	839138	778392		0.464	0.500	-7.2	20.0
PCB-1016 Peak 5	Ave	680415	672764		0.494	0.500	-1.1	20.0
PCB-1260 Peak 1	Ave	1454933	1337964		0.460	0.500	-8.0	20.0
PCB-1260 Peak 2	Ave	1528220	1443952		0.472	0.500	-5.5	20.0
PCB-1260 Peak 3	Ave	1523560	1437238		0.472	0.500	-5.7	20.0
PCB-1260 Peak 4	Ave	1041761	1003726		0.482	0.500	-3.7	20.0
PCB-1260 Peak 5	Ave	2205450	2087622		0.473	0.500	-5.3	20.0

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Sample No.: CCVRT 180-86523/33 Date Analyzed: 10/11/2013 14:49

Instrument ID: GC8 GC Column: RTX-1701 ID: 0.53(mm)

Lab File ID (Standard): P1030301.D Heated Purge: (Y/N) N

Calibration ID: 11809

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB
				RT #	RT #
CONTINUING CALIBRATION SURROGATE				6.35	18.14
UPPER LIMIT				6.41	18.20
LOWER LIMIT				6.31	18.10
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID		
CCVRT 180-86523/33		10/11/2013 14:49	P1030301.D	6.35	18.14
CCV 180-86523/53		10/12/2013 00:34	P1030321.D	6.36	18.14
MB 180-85695/1-C		10/12/2013 09:49	P1030340.D	6.35	18.14
LCS 180-85695/2-C		10/12/2013 10:19	P1030341.D	6.35	18.14
CCV 180-86523/74		10/12/2013 10:48	P1030342.D	6.35	18.14

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

TCX RT Limit = ± 0.05 minutes of surrogate RT
DCB RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCVRT 180-86523/33 Calibration Date: 10/11/2013 14:49

Instrument ID: GC8 Calib Start Date: 10/10/2013 23:23

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 10/11/2013 02:19

Lab File ID: P1030301.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	1365925	1283286		0.470	0.500	-6.1	20.0
PCB-1016 Peak 2	Ave	1570193	1391462		0.443	0.500	-11.4	20.0
PCB-1016 Peak 3	Ave	751828	694262		0.462	0.500	-7.7	20.0
PCB-1016 Peak 4	Ave	839138	765212		0.456	0.500	-8.8	20.0
PCB-1016 Peak 5	Ave	680415	650806		0.478	0.500	-4.4	20.0
PCB-1260 Peak 1	Ave	1454933	1322832		0.455	0.500	-9.1	20.0
PCB-1260 Peak 2	Ave	1528220	1423298		0.466	0.500	-6.9	20.0
PCB-1260 Peak 3	Ave	1523560	1414990		0.464	0.500	-7.1	20.0
PCB-1260 Peak 4	Ave	1041761	980798		0.471	0.500	-5.9	20.0
PCB-1260 Peak 5	Ave	2205450	2056604		0.466	0.500	-6.7	20.0
Tetrachloro-m-xylene	Ave	45902175	42347560		0.0231	0.0250	-7.7	20.0
DCB Decachlorobiphenyl (Surr)	Ave	21887064	20105280		0.0230	0.0250	-8.1	20.0

FORM VII 8082A

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCV 180-86523/53 Calibration Date: 10/12/2013 00:34

Instrument ID: GC8 Calib Start Date: 10/10/2013 23:23

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 10/11/2013 02:19

Lab File ID: P1030321.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	1365925	1278770		0.468	0.500	-6.4	20.0
PCB-1016 Peak 2	Ave	1570193	1401950		0.446	0.500	-10.7	20.0
PCB-1016 Peak 3	Ave	751828	692104		0.460	0.500	-7.9	20.0
PCB-1016 Peak 4	Ave	839138	766276		0.457	0.500	-8.7	20.0
PCB-1016 Peak 5	Ave	680415	640386		0.471	0.500	-5.9	20.0
PCB-1260 Peak 1	Ave	1454933	1327062		0.456	0.500	-8.8	20.0
PCB-1260 Peak 2	Ave	1528220	1435522		0.470	0.500	-6.1	20.0
PCB-1260 Peak 3	Ave	1523560	1421490		0.467	0.500	-6.7	20.0
PCB-1260 Peak 4	Ave	1041761	1000924		0.480	0.500	-3.9	20.0
PCB-1260 Peak 5	Ave	2205450	2094786		0.475	0.500	-5.0	20.0
Tetrachloro-m-xylene	Ave	45902175	40992440		0.0223	0.0250	-10.7	20.0
DCB Decachlorobiphenyl (Surr)	Ave	21887064	20665160		0.0236	0.0250	-5.6	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCV 180-86523/74 Calibration Date: 10/12/2013 10:48

Instrument ID: GC8 Calib Start Date: 10/10/2013 23:23

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 10/11/2013 02:19

Lab File ID: P1030342.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	1365925	1337424		0.490	0.500	-2.1	20.0
PCB-1016 Peak 2	Ave	1570193	1580656		0.503	0.500	0.7	20.0
PCB-1016 Peak 3	Ave	751828	758554		0.504	0.500	0.9	20.0
PCB-1016 Peak 4	Ave	839138	813152		0.485	0.500	-3.1	20.0
PCB-1016 Peak 5	Ave	680415	651232		0.479	0.500	-4.3	20.0
PCB-1260 Peak 1	Ave	1454933	1379620		0.474	0.500	-5.2	20.0
PCB-1260 Peak 2	Ave	1528220	1514388		0.495	0.500	-0.9	20.0
PCB-1260 Peak 3	Ave	1523560	1524844		0.500	0.500	0.0	20.0
PCB-1260 Peak 4	Ave	1041761	1033318		0.496	0.500	-0.8	20.0
PCB-1260 Peak 5	Ave	2205450	2216750		0.503	0.500	0.5	20.0
Tetrachloro-m-xylene	Ave	45902175	43682320		0.0238	0.0250	-4.8	20.0
DCB Decachlorobiphenyl (Surr)	Ave	21887064	21256240		0.0243	0.0250	-2.9	20.0

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Sample No.: CCVRT 180-86576/1 Date Analyzed: 10/12/2013 17:11

Instrument ID: GC8 GC Column: RTX-1701 ID: 0.53(mm)

Lab File ID (Standard): P1030350.D Heated Purge: (Y/N) N

Calibration ID: 11809

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX RT #	DCB RT #	
CONTINUING CALIBRATION SURROGATE				6.34	18.13	
UPPER LIMIT				6.39	18.18	
LOWER LIMIT				6.29	18.08	
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 180-86576/1		10/12/2013 17:11	P1030350.D	6.34	18.13	
180-25423-35	SD-161-01	10/12/2013 17:40	P1030351.D	6.35	18.13	
180-25423-36	SD-161-02	10/12/2013 18:09	P1030352.D	0.00	18.14	
180-25423-37	SD-161-03	10/12/2013 18:39	P1030353.D	6.35	18.14	
CCV 180-86576/9		10/12/2013 23:31	P1030363.D	6.35	18.14	

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

TCX RT Limit = ± 0.05 minutes of surrogate RT
DCB RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCVRT 180-86576/1 Calibration Date: 10/12/2013 17:11

Instrument ID: GC8 Calib Start Date: 10/10/2013 23:23

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 10/11/2013 02:19

Lab File ID: P1030350.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	1365925	1347930		0.493	0.500	-1.3	20.0
PCB-1016 Peak 2	Ave	1570193	1533044		0.488	0.500	-2.4	20.0
PCB-1016 Peak 3	Ave	751828	749956		0.499	0.500	-0.2	20.0
PCB-1016 Peak 4	Ave	839138	807264		0.481	0.500	-3.8	20.0
PCB-1016 Peak 5	Ave	680415	606618		0.446	0.500	-10.8	20.0
PCB-1260 Peak 1	Ave	1454933	1389514		0.478	0.500	-4.5	20.0
PCB-1260 Peak 2	Ave	1528220	1502448		0.492	0.500	-1.7	20.0
PCB-1260 Peak 3	Ave	1523560	1512292		0.496	0.500	-0.7	20.0
PCB-1260 Peak 4	Ave	1041761	1041700		0.500	0.500	-0.0	20.0
PCB-1260 Peak 5	Ave	2205450	2213978		0.502	0.500	0.4	20.0
Tetrachloro-m-xylene	Ave	45902175	43562640		0.0237	0.0250	-5.1	20.0
DCB Decachlorobiphenyl (Surr)	Ave	21887064	21243640		0.0243	0.0250	-2.9	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Lab Sample ID: CCV 180-86576/9 Calibration Date: 10/12/2013 23:31

Instrument ID: GC8 Calib Start Date: 10/10/2013 23:23

GC Column: RTX-1701 ID: 0.53(mm) Calib End Date: 10/11/2013 02:19

Lab File ID: P1030363.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	1365925	1352658		0.495	0.500	-1.0	20.0
PCB-1016 Peak 2	Ave	1570193	1594134		0.508	0.500	1.5	20.0
PCB-1016 Peak 3	Ave	751828	774264		0.515	0.500	3.0	20.0
PCB-1016 Peak 4	Ave	839138	812638		0.484	0.500	-3.2	20.0
PCB-1016 Peak 5	Ave	680415	614506		0.452	0.500	-9.7	20.0
PCB-1260 Peak 1	Ave	1454933	1394784		0.479	0.500	-4.1	20.0
PCB-1260 Peak 2	Ave	1528220	1526884		0.500	0.500	-0.0	20.0
PCB-1260 Peak 3	Ave	1523560	1535338		0.504	0.500	0.8	20.0
PCB-1260 Peak 4	Ave	1041761	1046570		0.502	0.500	0.5	20.0
PCB-1260 Peak 5	Ave	2205450	2205142		0.500	0.500	-0.0	20.0
Tetrachloro-m-xylene	Ave	45902175	43556400		0.0237	0.0250	-5.1	20.0
DCB Decachlorobiphenyl (Surr)	Ave	21887064	21205720		0.0242	0.0250	-3.1	20.0

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Batch Number: 85546 Batch Start Date: 10/03/13 05:40 Batch Analyst: Yushinski, Charles

Batch Method: 3541 Batch End Date: 10/03/13 11:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	InitialAmount	GCMATRIXWORKS 00008	op-p/pcb sur 00009		
MB 180-85546/1		3541, 3665A, 3660B, 8082A		1.0 mL	30.0 g		25 uL		
LCS 180-85546/2		3541, 3665A, 3660B, 8082A		1.0 mL	30.0 g	25 uL	25 uL		
180-25423-A-1	SD-110-SS	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25423-A-2	SD-110-01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25423-A-2 MS	SD-110-01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g	25 uL	25 uL		
180-25423-A-2 MSD	SD-110-01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g	25 uL	25 uL		
180-25423-A-3	SD-110-02	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.2 g		25 uL		
180-25423-A-4	SD-110-03	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.3 g		25 uL		
180-25423-A-5	SD-116-SS	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		25 uL		
180-25423-A-6	SD-116-01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25423-A-7	SD-116-02	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25423-A-8	SD-148-SS	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25423-A-9	SD-148-01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		25 uL		
180-25423-A-10	SD-148-02	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		25 uL		
180-25423-A-11	SD-148-03	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25423-A-12	SD-149-SS	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.3 g		25 uL		
180-25423-A-13	SD-149-01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25423-A-14	SD-149-02	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.3 g		25 uL		
180-25423-A-15	SD-149-03	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.3 g		25 uL		
180-25423-A-16	SD-150-SS	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.3 g		25 uL		
180-25423-A-17	SD-150-01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.3 g		25 uL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Batch Number: 85546 Batch Start Date: 10/03/13 05:40 Batch Analyst: Yushinski, Charles

Batch Method: 3541 Batch End Date: 10/03/13 11:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	InitialAmount	GCMATRIXWORKS 00008	op-p/pcb sur 00009		
180-25423-A-18	SD-150-02	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		25 uL		
180-25423-A-19	SD-150-03	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25423-A-38	DUP 08	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		

Batch Notes	
Balance ID	1120122641
Batch Comment	sox # 2 3 4 5
Person's name who did the concentration	kg
Exchange Solvent Lot #	963970
Exchange Solvent Name	Hexane
Magnesium Sulfate Lot #	963972
N-evap #	2
Na2SO4 Lot Number	965232
Person's name who did the prep	cy kg bp
Solvent	Hexane/acetone
Solvent Lot #	950525
Uncorrected N-evap Temperature	32 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Batch Number: 85557 Batch Start Date: 10/03/13 06:00 Batch Analyst: Geehring, Kevin

Batch Method: 3541 Batch End Date: 10/03/13 11:35

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	InitialAmount	GCMATRIXWORKS 00008	op-p/pcb sur 00009		
MB 180-85557/1		3541, 3665A, 3660B, 8082A		1.0 mL	30.0 g		25 uL		
LCS 180-85557/2		3541, 3665A, 3660B, 8082A		1.0 mL	30.0 g	25 uL	25 uL		
180-25423-A-20	SD-151-SS	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		25 uL		
180-25423-A-21	SD-151-01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25423-A-22	SD-151-02	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		25 uL		
180-25423-A-23	SD-151-03	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25423-A-24	SD-111-SS	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25423-A-25	SD-111-01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		25 uL		
180-25423-A-26	SD-138-SS	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		25 uL		
180-25423-A-27	SD-138-01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25423-A-28	SD-139-SS	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		25 uL		
180-25423-A-29	SD-139-01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		25 uL		
180-25423-A-30	SD-162-SS	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25423-A-31	SD-162-01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		25 uL		
180-25423-A-32	SD-162-02	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		25 uL		
180-25423-A-34	SD-161-SS	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25423-A-33	SD-162-03	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Batch Number: 85557 Batch Start Date: 10/03/13 06:00 Batch Analyst: Geehring, Kevin

Batch Method: 3541 Batch End Date: 10/03/13 11:35

Batch Notes	
Balance ID	1120122641
Batch Comment	6 7 8 1
Person's name who did the concentration	kg
Exchange Solvent Lot #	963970
Exchange Solvent Name	Hexane
Magnesium Sulfate Lot #	963972
N-evap #	2
Na2SO4 Lot Number	965232
Person's name who did the prep	kg kg bp
Solvent	Hexane/acetone
Solvent Lot #	950525
Uncorrected N-evap Temperature	32 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Batch Number: 85618 Batch Start Date: 10/03/13 12:19 Batch Analyst: Gupta, Ashok

Batch Method: 3665A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
MB 180-85557/1-A		3665A, 3660B, 8082A		2 mL	2 mL				
LCS 180-85557/2-A		3665A, 3660B, 8082A		2 mL	2 mL				
180-25423-A-20-F	SD-151-SS	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-21-B	SD-151-01	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-22-B	SD-151-02	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-23-B	SD-151-03	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-24-B	SD-111-SS	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-25-B	SD-111-01	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-26-A	SD-138-SS	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-27-A	SD-138-01	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-28-A	SD-139-SS	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-29-A	SD-139-01	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-30-B	SD-162-SS	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-31-B	SD-162-01	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-32-B	SD-162-02	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-34-B	SD-161-SS	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-33-B	SD-162-03	3665A, 3660B, 8082A	T	2 mL	2 mL				

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Batch Number: 85619 Batch Start Date: 10/03/13 12:21 Batch Analyst: Gupta, Ashok

Batch Method: 3660B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	GCTBASOLUTION 00013			
MB 180-85557/1-B		3660B, 8082A		2 mL	2 mL	2 mL			
LCS 180-85557/2-B		3660B, 8082A		2 mL	2 mL	2 mL			
180-25423-A-20-I	SD-151-SS	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-21-C	SD-151-01	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-22-C	SD-151-02	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-23-C	SD-151-03	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-24-C	SD-111-SS	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-25-C	SD-111-01	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-26-B	SD-138-SS	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-27-B	SD-138-01	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-28-B	SD-139-SS	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-29-B	SD-139-01	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-30-C	SD-162-SS	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-31-C	SD-162-01	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-32-C	SD-162-02	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-34-C	SD-161-SS	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-33-C	SD-162-03	3660B, 8082A	T	2 mL	2 mL	2 mL			

Batch Notes	
Batch Comment	H2SO4 lot# 32783 is used for cleanup ref-3665A

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh

Job No.: 180-25423-1

SDG No.:

Batch Number: 85619

Batch Start Date: 10/03/13 12:21

Batch Analyst: Gupta, Ashok

Batch Method: 3660B

Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Batch Number: 85695 Batch Start Date: 10/04/13 03:20 Batch Analyst: Yushinski, Charles

Batch Method: 3541 Batch End Date: 10/04/13 11:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	InitialAmount	GCMATRIXWORKS 00008	op-p/pcb sur 00009		
MB 180-85695/1		3541, 3665A, 3660B, 8082A		1.0 mL	30.0 g		25 uL		
LCS 180-85695/2		3541, 3665A, 3660B, 8082A		1.0 mL	30.0 g	25 uL	25 uL		
180-25423-A-35	SD-161-01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.3 g		25 uL		
180-25423-A-36	SD-161-02	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		25 uL		
180-25423-A-37	SD-161-03	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.3 g		25 uL		

Batch Notes	
Balance ID	1120122641
Batch Comment	sox # 2 3 4 5
Person's name who did the concentration	kg
Exchange Solvent Lot #	963970
Exchange Solvent Name	Hexane
Magnesium Sulfate Lot #	963972
N-evap #	2
Na2SO4 Lot Number	965232
Person's name who did the prep	kg bp
Solvent	Hexane/acetone
Solvent Lot #	950525
Uncorrected N-evap Temperature	32 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Batch Number: 85923 Batch Start Date: 10/07/13 11:12 Batch Analyst: Oravec, John

Batch Method: 3665A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
MB 180-85546/1-A		3665A, 3660B, 8082A		2 mL	2 mL				
LCS 180-85546/2-A		3665A, 3660B, 8082A		2 mL	2 mL				
180-25423-A-1-D	SD-110-SS	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-2-B	SD-110-01	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-2-C MS	SD-110-01	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-2-D MSD	SD-110-01	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-3-B	SD-110-02	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-4-B	SD-110-03	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-5-B	SD-116-SS	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-6-B	SD-116-01	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-7-B	SD-116-02	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-8-B	SD-148-SS	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-9-B	SD-148-01	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-10-B	SD-148-02	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-11-B	SD-148-03	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-12-B	SD-149-SS	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-13-B	SD-149-01	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-14-B	SD-149-02	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-15-B	SD-149-03	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-16-B	SD-150-SS	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-17-B	SD-150-01	3665A, 3660B, 8082A	T	2 mL	2 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Batch Number: 85923 Batch Start Date: 10/07/13 11:12 Batch Analyst: Oravec, John

Batch Method: 3665A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
180-25423-A-18-B	SD-150-02	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-19-B	SD-150-03	3665A, 3660B, 8082A	T	2 mL	2 mL				
180-25423-A-38-B	DUP 08	3665A, 3660B, 8082A	T	2 mL	2 mL				

Batch Notes	
Batch Comment	2mls H2SO4 lot # 32783

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Batch Number: 85924 Batch Start Date: 10/07/13 11:14 Batch Analyst: Oravec, John

Batch Method: 3660B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	GCTBASOLUTION 00009			
MB 180-85546/1-B		3660B, 8082A		2 mL	2 mL	2 mL			
LCS 180-85546/2-B		3660B, 8082A		2 mL	2 mL	2 mL			
180-25423-A-1-K	SD-110-SS	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-2-G	SD-110-01	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-2-H MS	SD-110-01	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-2-I MSD	SD-110-01	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-3-E	SD-110-02	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-4-E	SD-110-03	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-5-E	SD-116-SS	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-6-E	SD-116-01	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-7-E	SD-116-02	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-8-E	SD-148-SS	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-9-E	SD-148-01	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-10-E	SD-148-02	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-11-E	SD-148-03	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-12-E	SD-149-SS	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-13-E	SD-149-01	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-14-E	SD-149-02	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-15-E	SD-149-03	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-16-E	SD-150-SS	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-17-E	SD-150-01	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-18-E	SD-150-02	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-19-E	SD-150-03	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-25423-A-38-G	DUP 08	3660B, 8082A	T	2 mL	2 mL	2 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Batch Number: 85924 Batch Start Date: 10/07/13 11:14 Batch Analyst: Oravec, John

Batch Method: 3660B Batch End Date:

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Batch Number: 86206 Batch Start Date: 10/09/13 13:34 Batch Analyst: Eppinger, David

Batch Method: 3665A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
MB 180-85695/1-A		3665A, 3660B, 8082A		1 mL	1 mL				
LCS 180-85695/2-A		3665A, 3660B, 8082A		1 mL	1 mL				
180-25423-A-35-D	SD-161-01	3665A, 3660B, 8082A	T	1 mL	1 mL				
180-25423-A-36-D	SD-161-02	3665A, 3660B, 8082A	T	1 mL	1 mL				
180-25423-A-37-E	SD-161-03	3665A, 3660B, 8082A	T	1 mL	1 mL				

Batch Notes	
Batch Comment	H2SO4 lot#43559

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-25423-1

SDG No.:

Batch Number: 86207 Batch Start Date: 10/09/13 13:35 Batch Analyst: Eppinger, David

Batch Method: 3660B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	GCTBASOLUTION 00013			
MB 180-85695/1-B		3660B, 8082A		1 mL	1 mL	1 mL			
LCS 180-85695/2-B		3660B, 8082A		1 mL	1 mL	1 mL			
180-25423-A-35-E	SD-161-01	3660B, 8082A	T	1 mL	1 mL	1 mL			
180-25423-A-36-E	SD-161-02	3660B, 8082A	T	1 mL	1 mL	1 mL			
180-25423-A-37-F	SD-161-03	3660B, 8082A	T	1 mL	1 mL	1 mL			

Batch Notes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Data File: T0930516.D

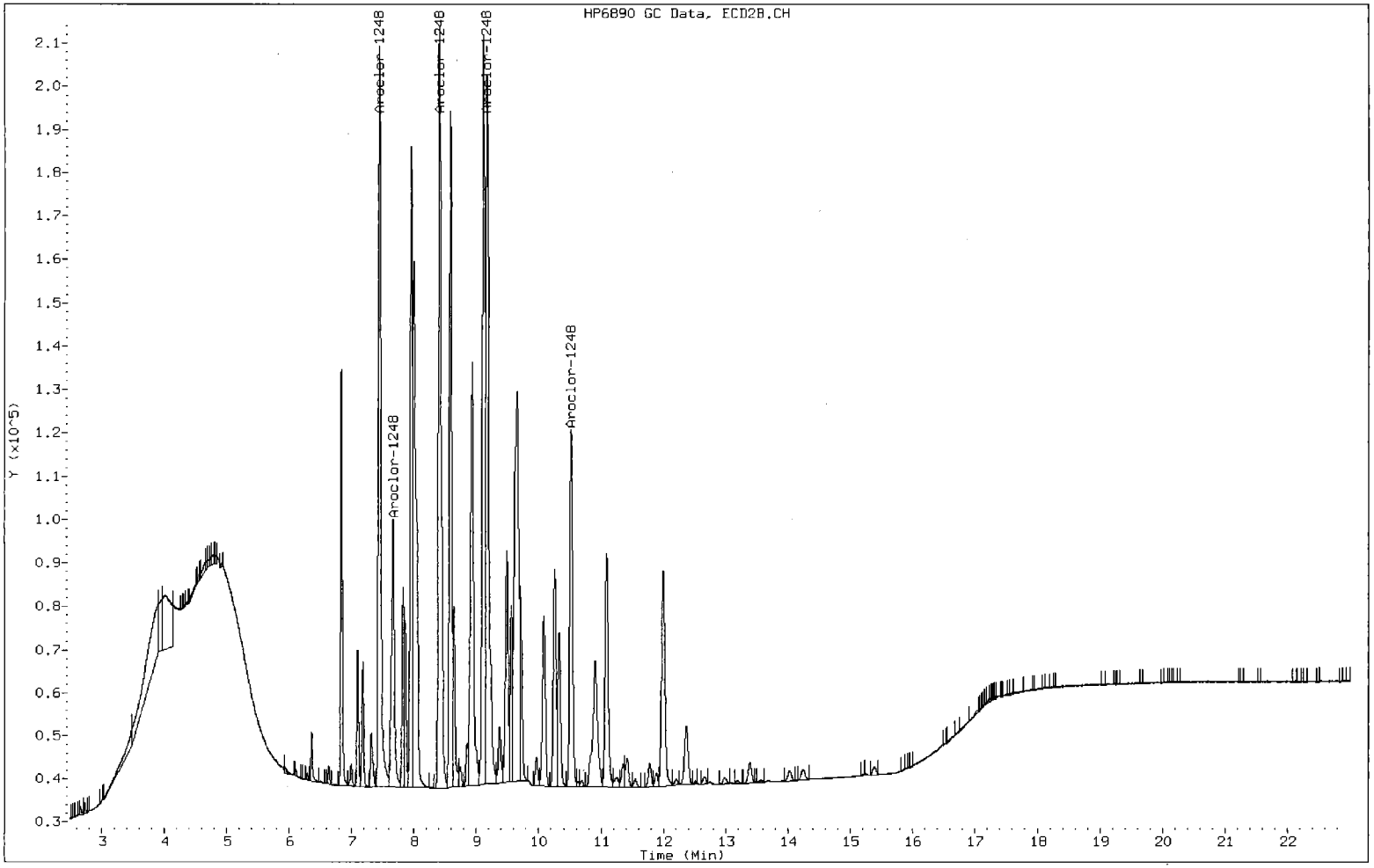
Date: 23-SEP-2013 12:35

Client ID:

Instrument: [redacted]

Sample Info: 09233B8082.b

Operator: 402331



Data File: T0930513.D

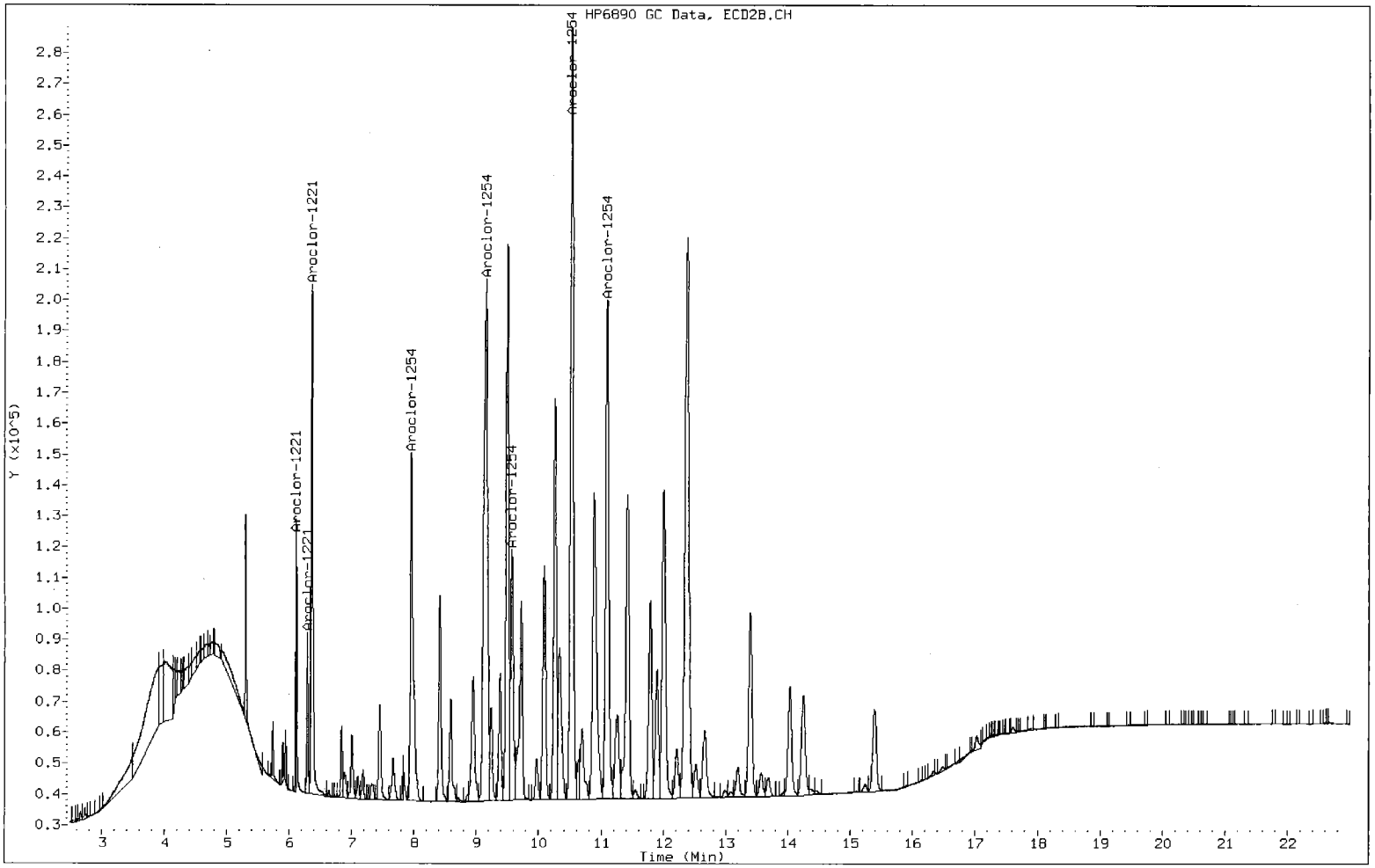
Date: 23-SEP-2013 11:01

Client ID:

Instrument: [redacted]

Sample Info: 09233B8082.b

Operator: 402331



Data File: T0930521.D

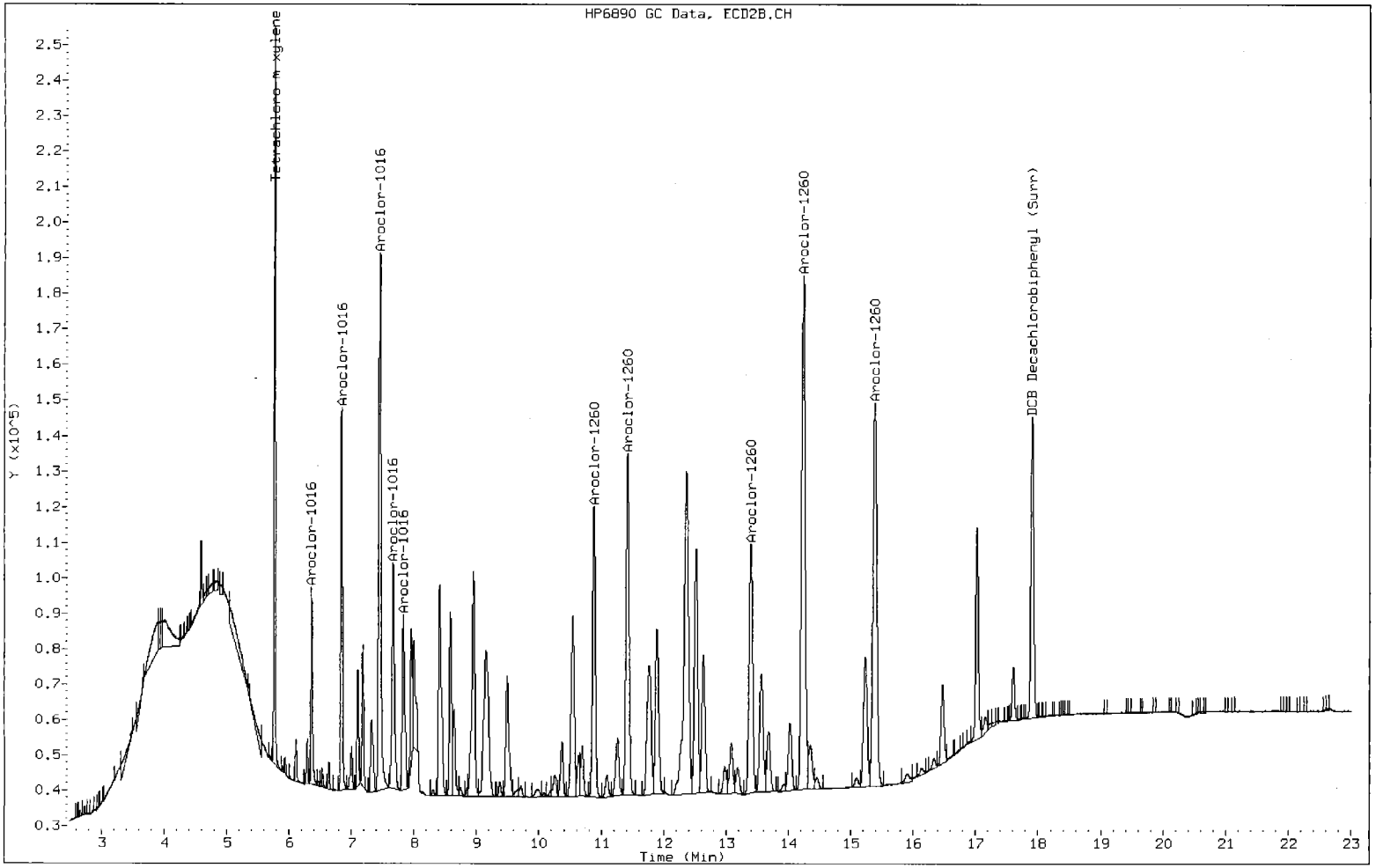
Date: 23-SEP-2013 15:13

Client ID:

Instrument: [redacted]

Sample Info: 09233B8082.b

Operator: 402331



Data File: T0930515.D

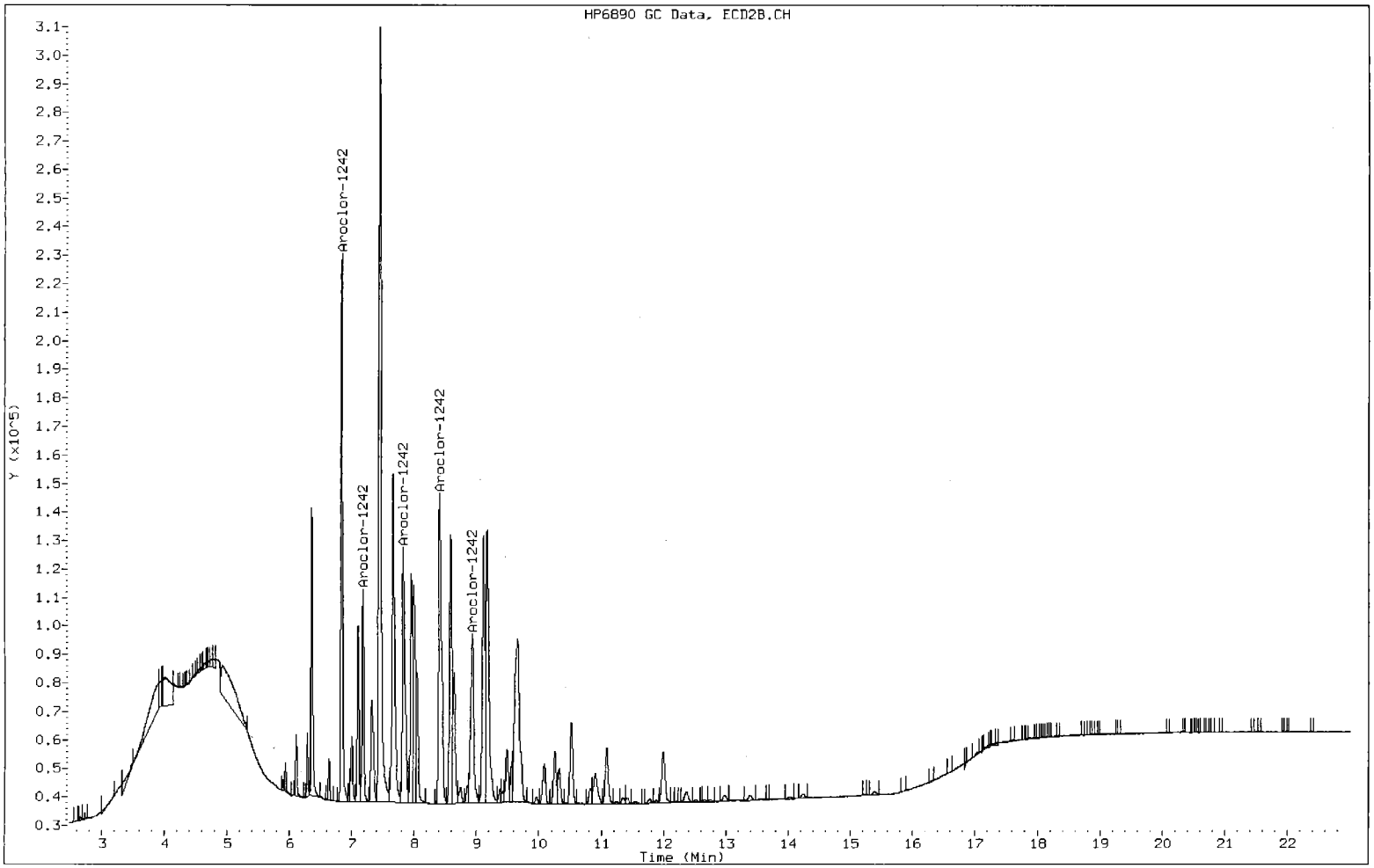
Date: 23-SEP-2013 12:04

Client ID:

Instrument: [redacted]

Sample Info: 09233B8082.b

Operator: 402331



Data File: T0930514.D

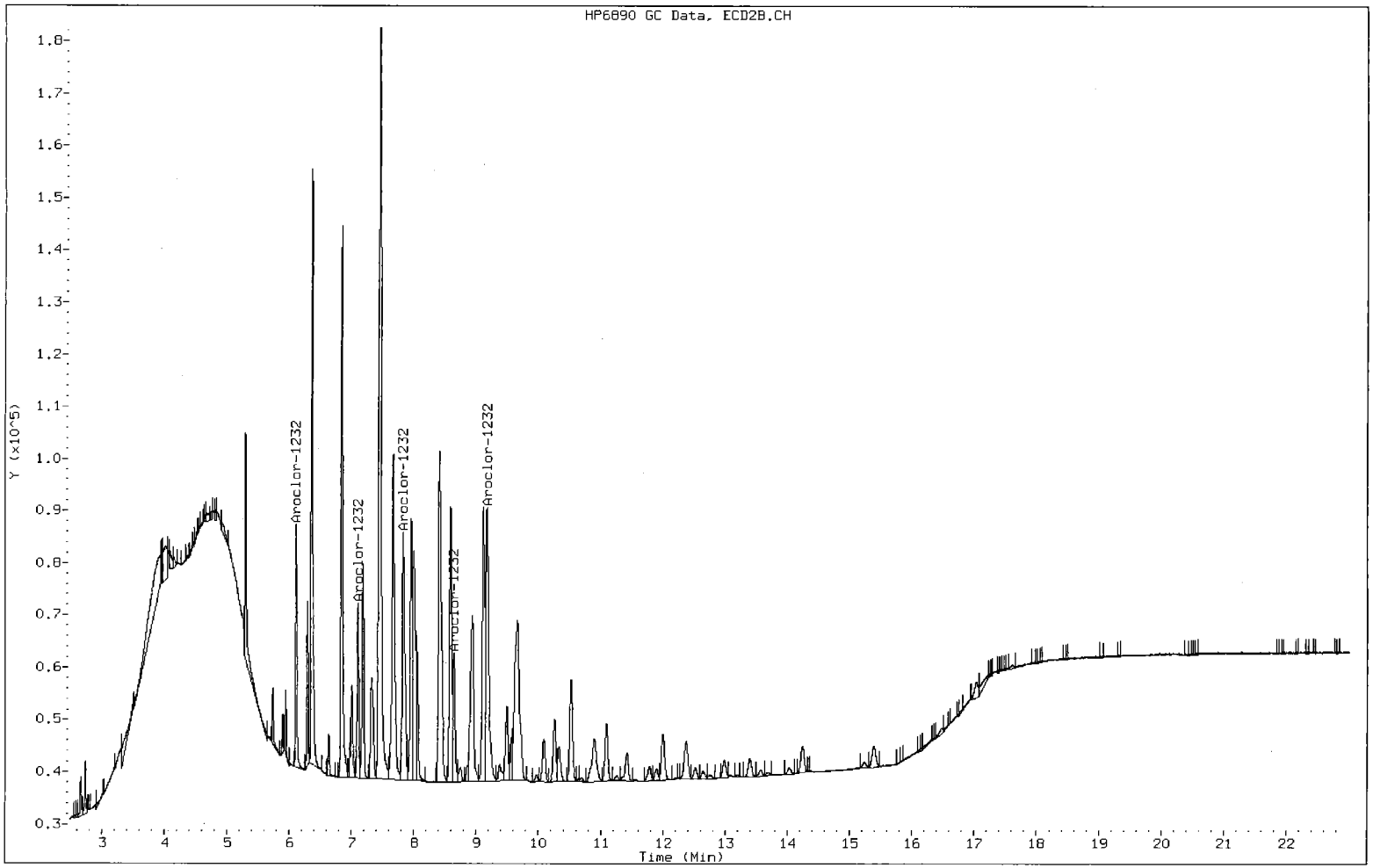
Date: 23-SEP-2013 11:32

Client ID:

Instrument: [redacted]

Sample Info: 09233B8082.b

Operator: 402331



Data File: T1030140.D

Date: 04-OCT-2013 18:57

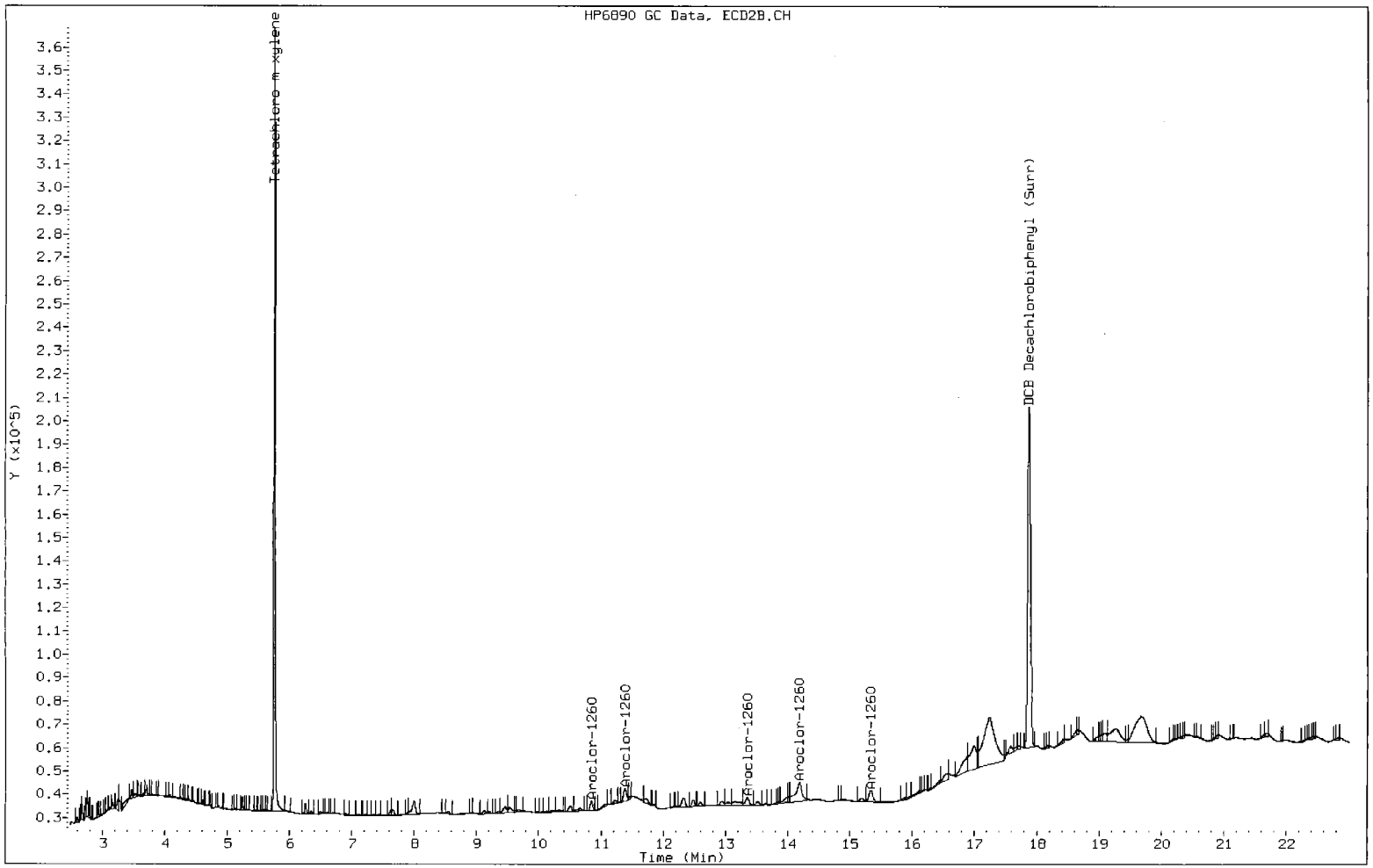
Client ID:

Instrument: gc10.i

Sample Info: 10043B8082A_LL.b

Operator: 402331

MB 180-855461 1-C



Data File: O0930822.D

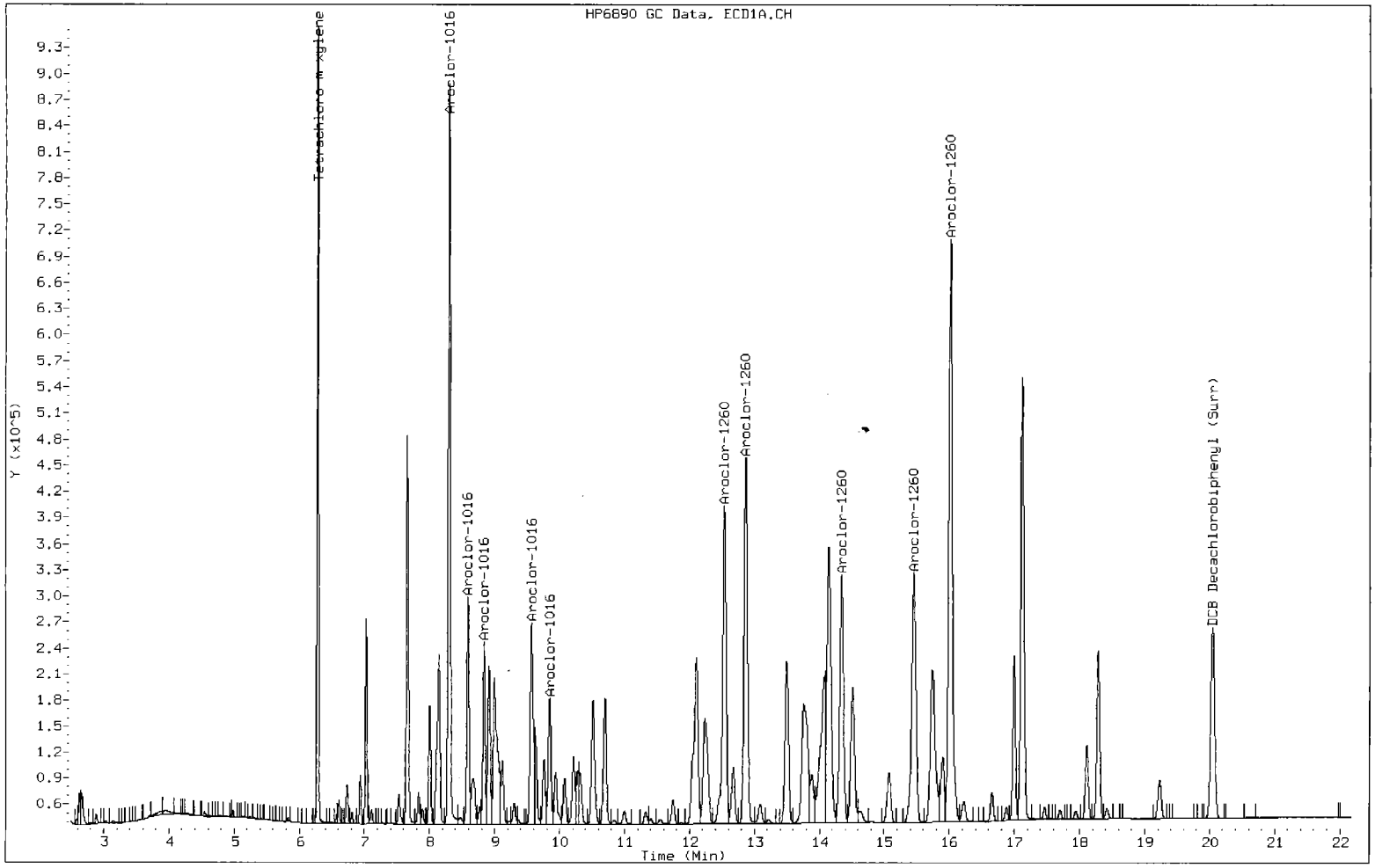
Date: 27-SEP-2013 21:26

Client ID:

Instrument: [redacted]

Sample Info: 09263A8082A.b

Operator: 402360

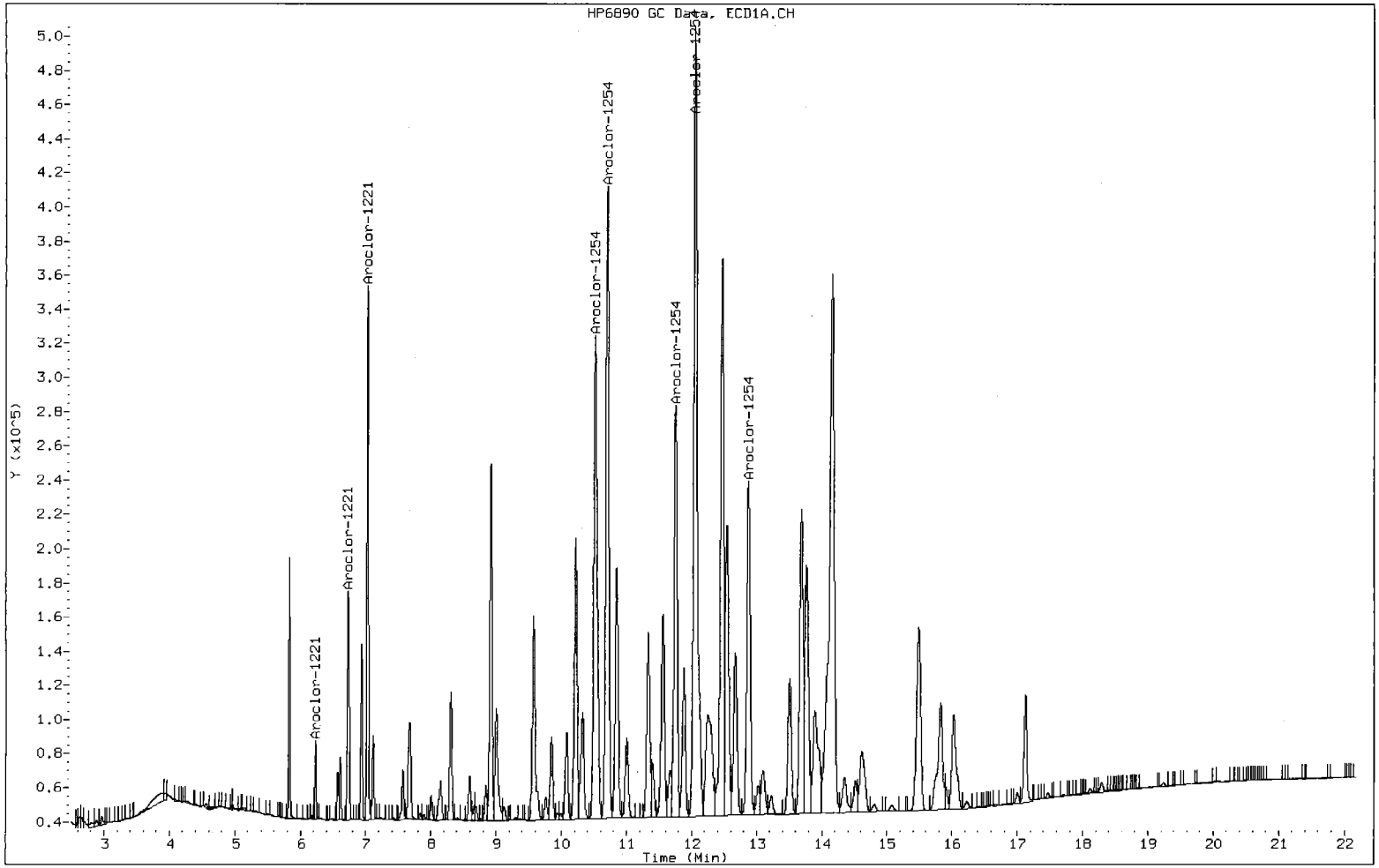


Data File: O0930804.D

Date: 27-SEP-2013 12:37

Client ID: Instrument: [redacted]

Sample Info: 09263A8082A.b Operator: 402360



Data File: O0930809.D

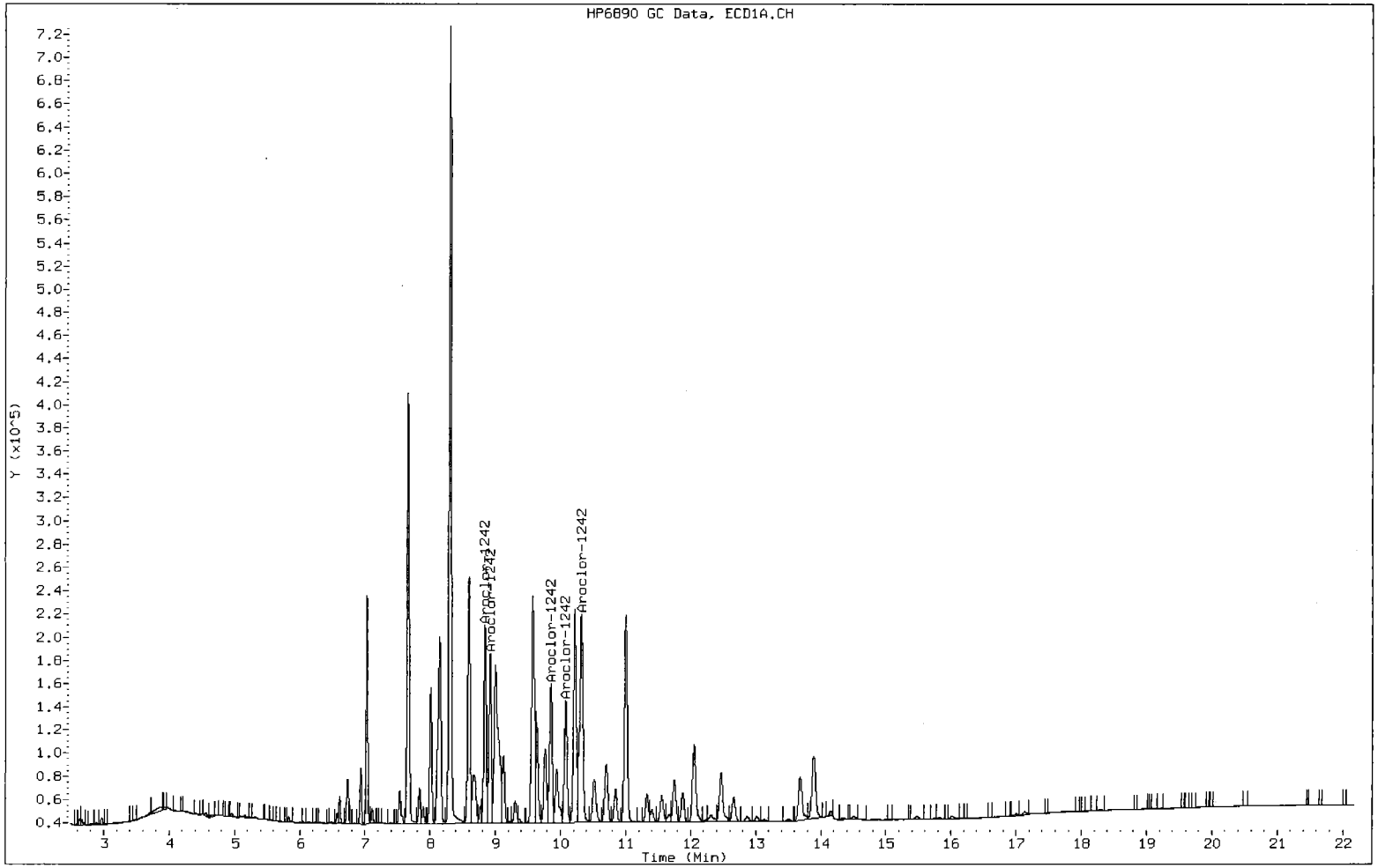
Date: 27-SEP-2013 15:04

Client ID:

Instrument: [redacted]

Sample Info: 09263A8082A.b

Operator: 402360



Data File: O0930815.D

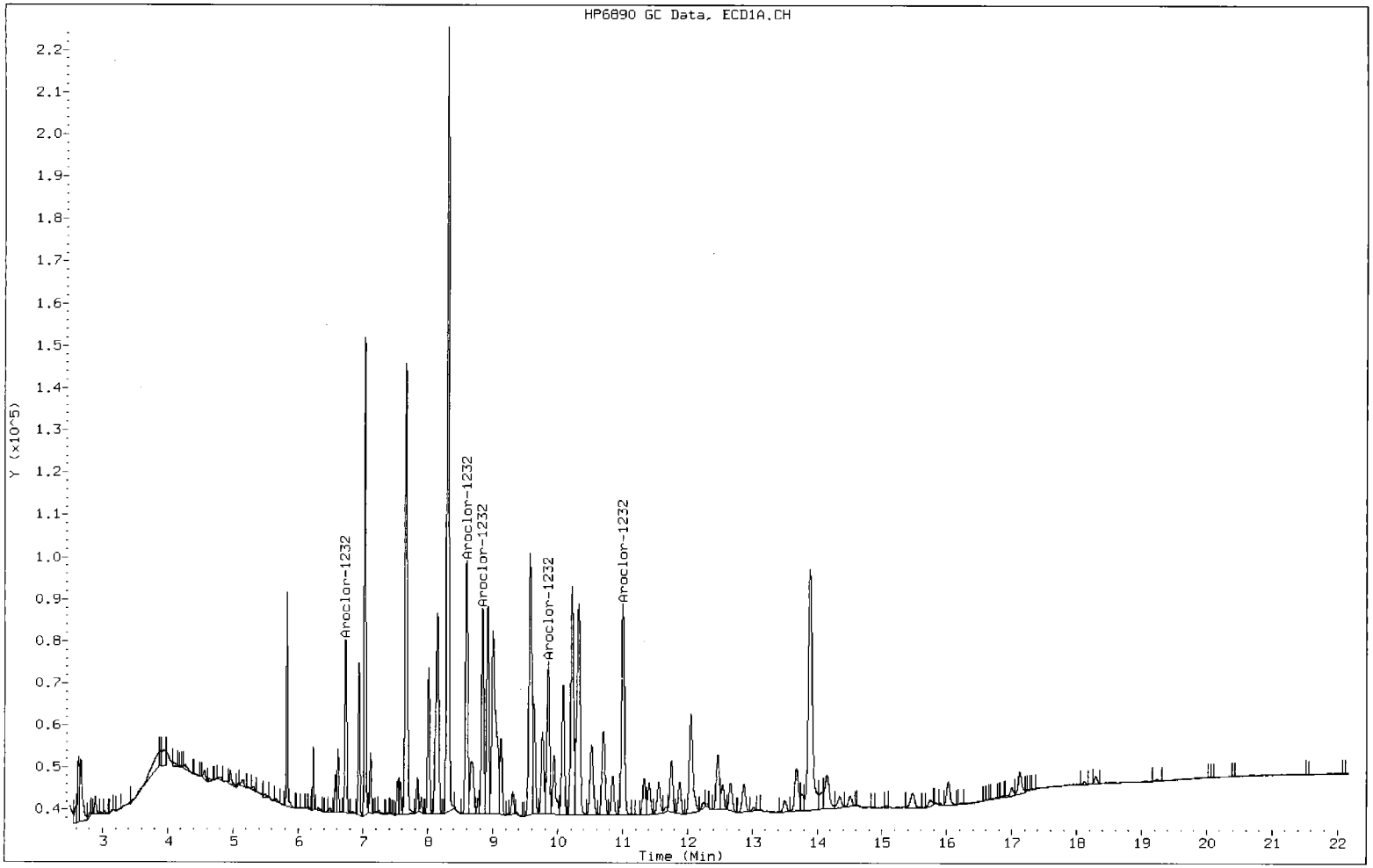
Date: 27-SEP-2013 18:01

Client ID:

Instrument: [redacted]

Sample Info: 09263A8082A.b

Operator: 402360



Data File: O0930814.D

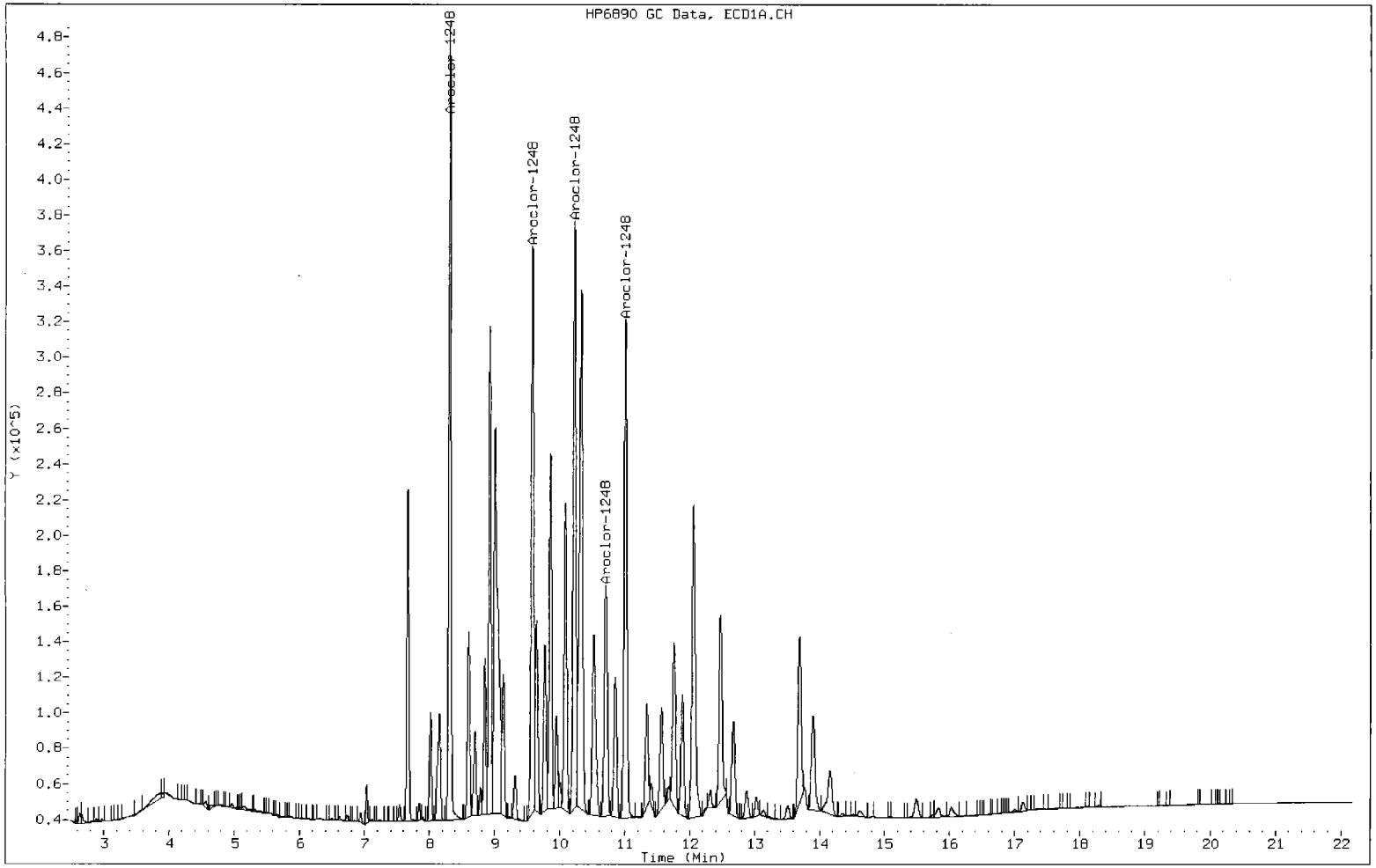
Date: 27-SEP-2013 17:31

Client ID:

Instrument: [redacted]

Sample Info: 09263A8082A.b

Operator: 402360



Data File: T1030146.D

Date: 04-OCT-2013 22:06

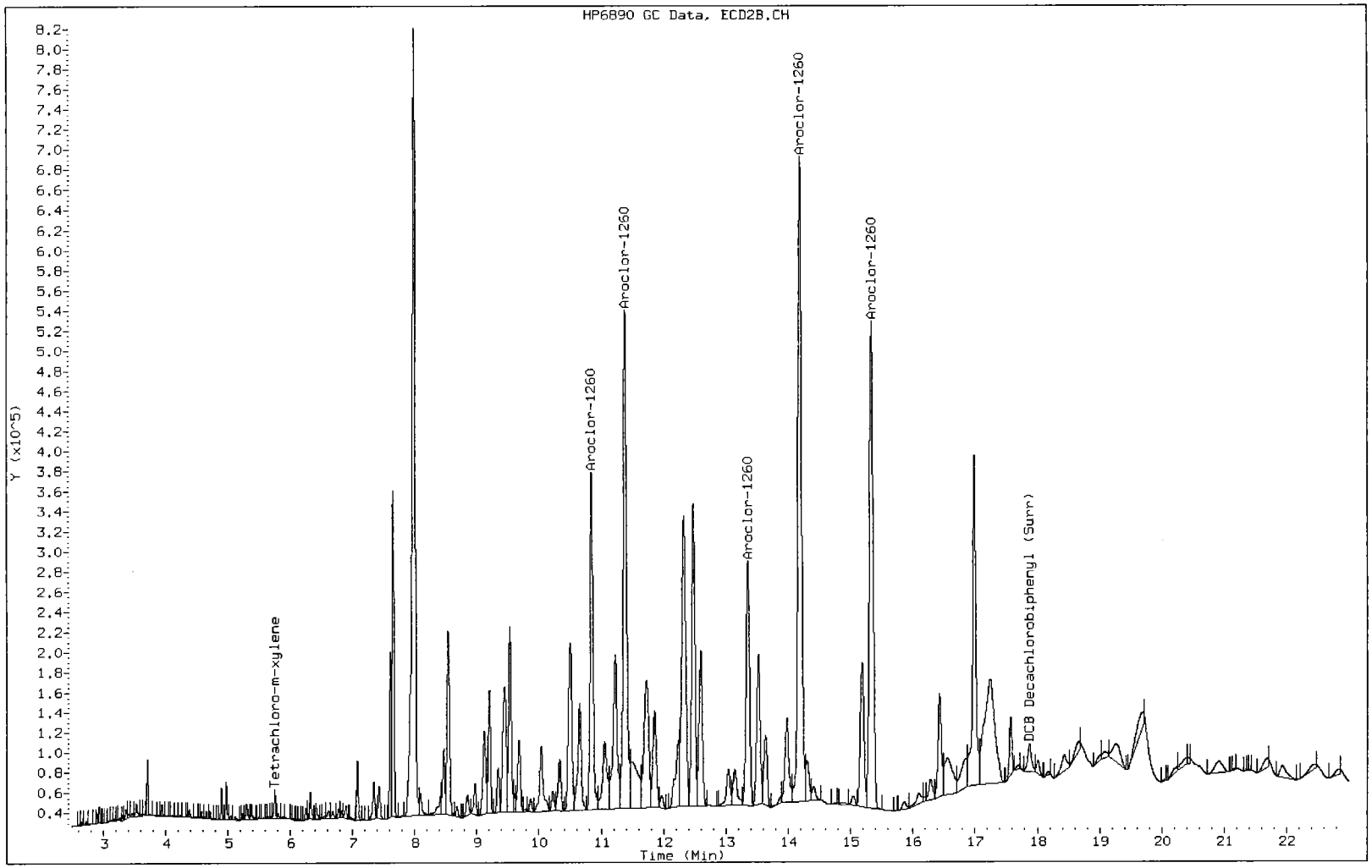
Client ID:

Instrument: gc10.i

Sample Info: 10043B8082A_LL.b

Operator: 402331

DUP Ø8



Data File: T1030123.D

Date: 04-OCT-2013 09:58

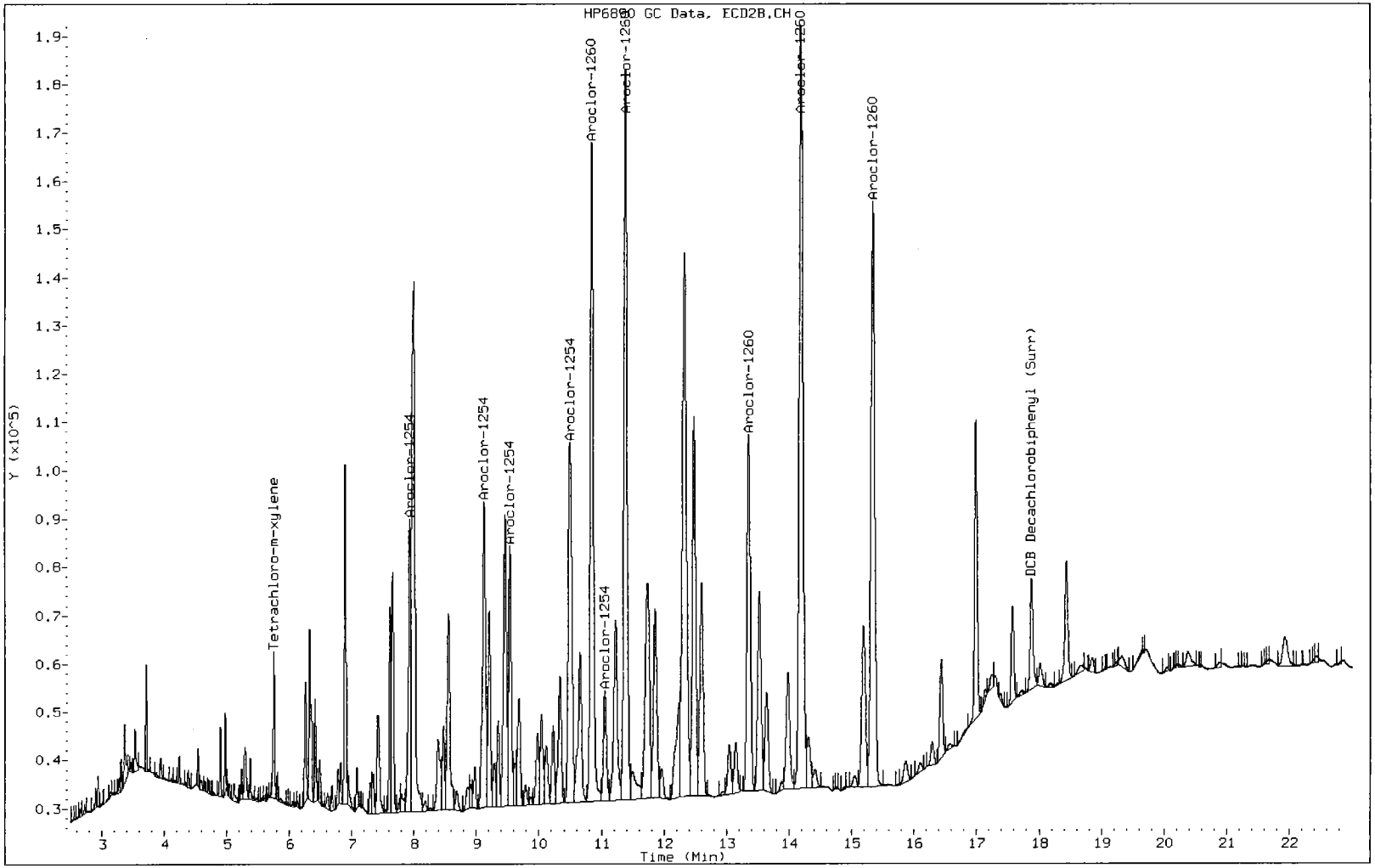
Client ID:

Instrument: gc10.i

Sample Info: 10043B8082A_LL.b

Operator: 402331

SD-110-01



Data File: T1030126.D

Date: 04-OCT-2013 11:33

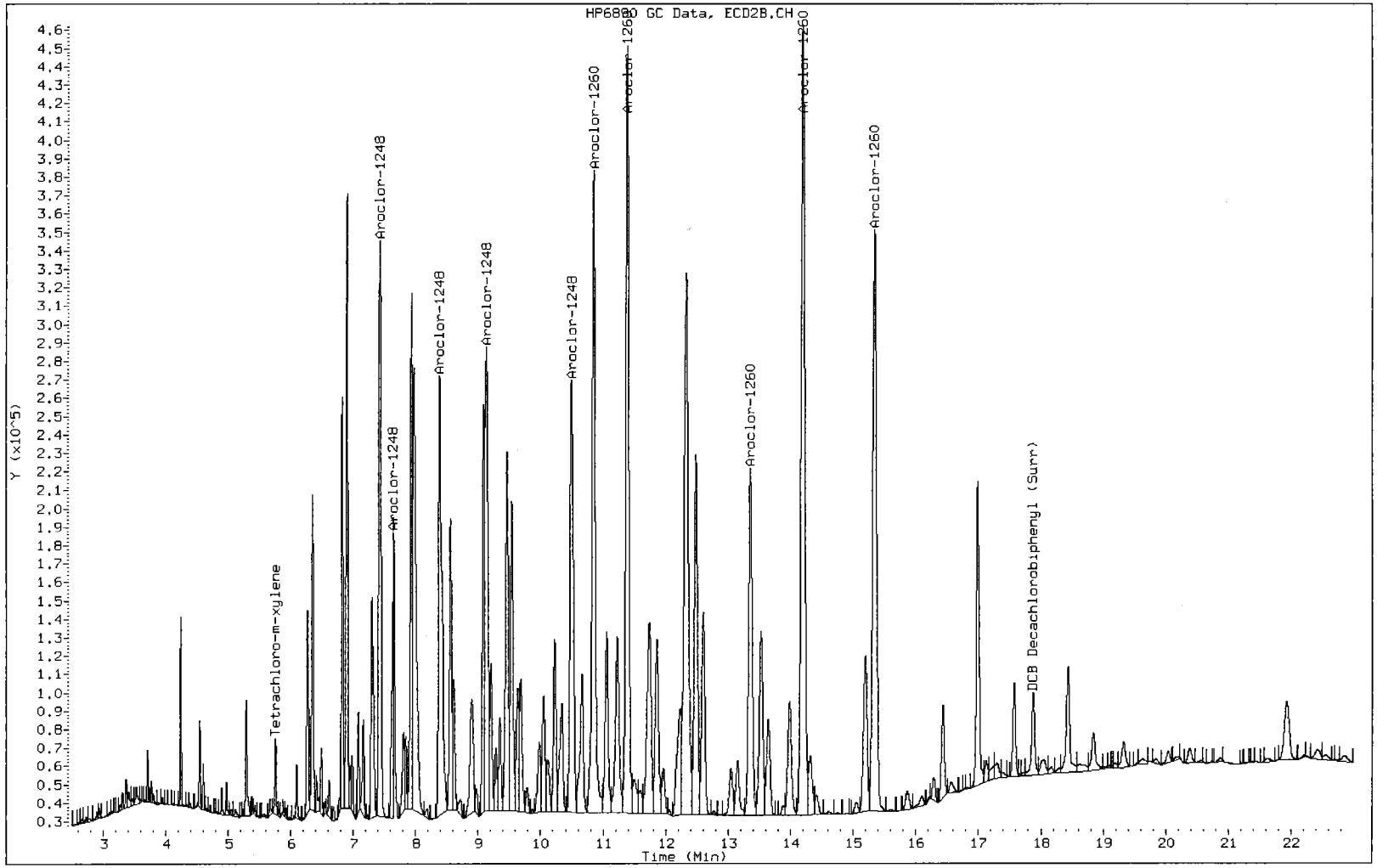
Client ID:

Instrument: gc10.i

Sample Info: 10043B8082A_LL.b

Operator: 402331

SD-110-02



Data File: T1030127.D

Date: 04-OCT-2013 12:05

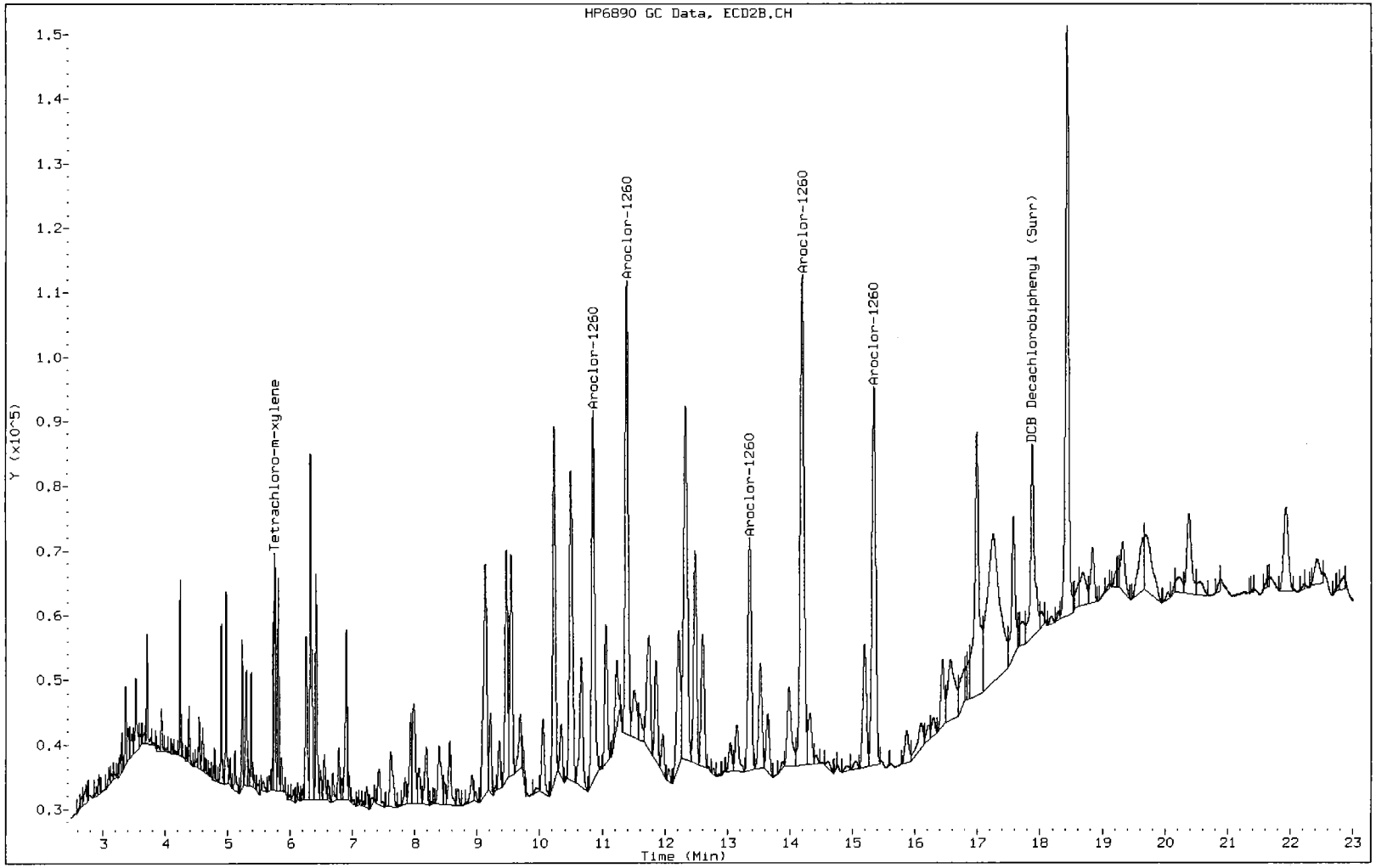
Client ID:

Instrument: gc10.i

Sample Info: 10043B8082A_LL.b

Operator: 402331

SD-110-03



Data File: T1030122.D

Date: 04-OCT-2013 09:26

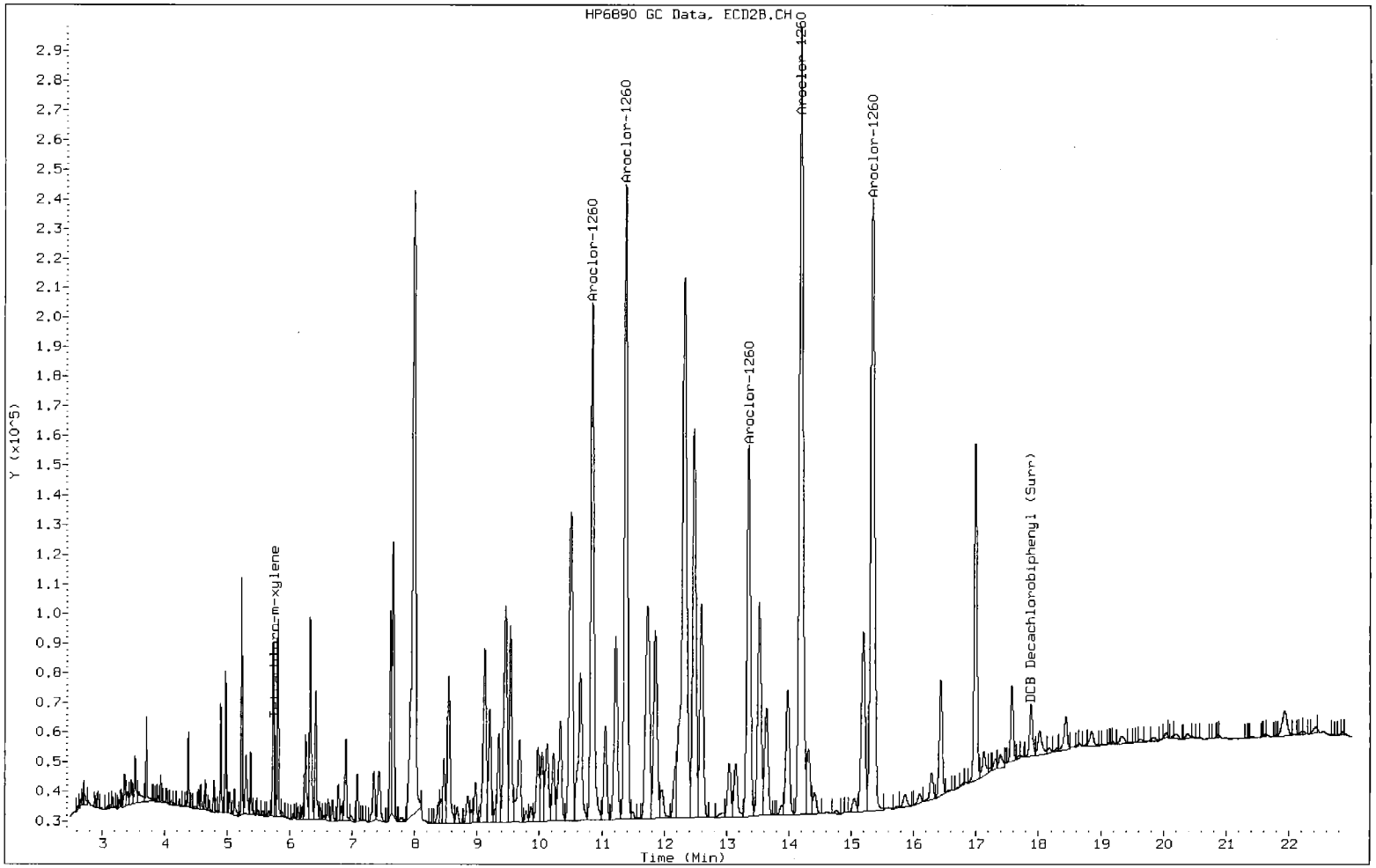
Client ID:

Instrument: gc10.i

Sample Info: 10043B8082A_LL.b

Operator: 402331

SD-110-SS



Data File: O1030028.D

Date: 03-OCT-2013 22:27

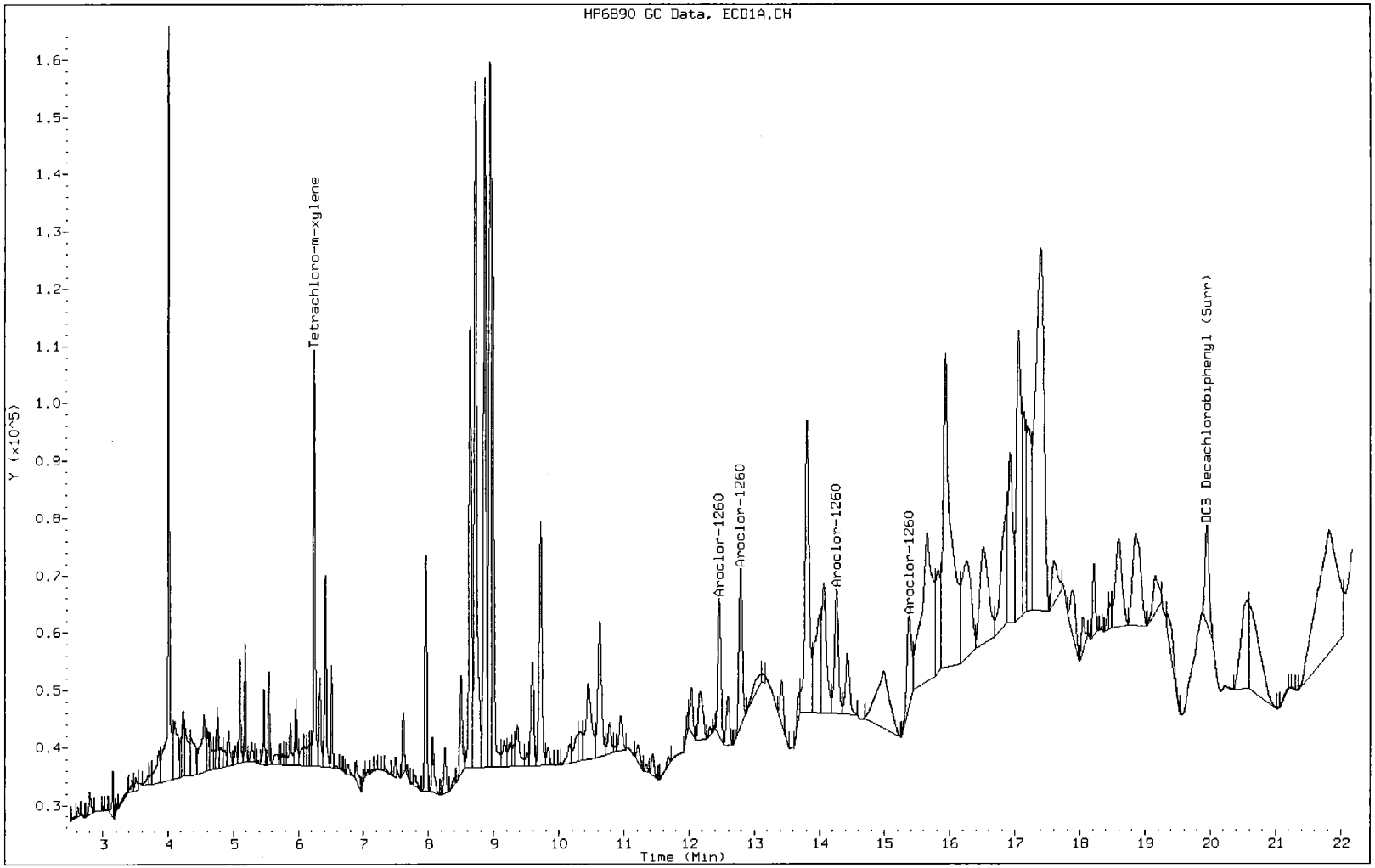
Client ID:

Instrument: gc8.i

Sample Info: 10033A8082ALL.b

Operator: 402360

SD-111-01



Data File: O1030027.D

Date: 03-OCT-2013 21:58

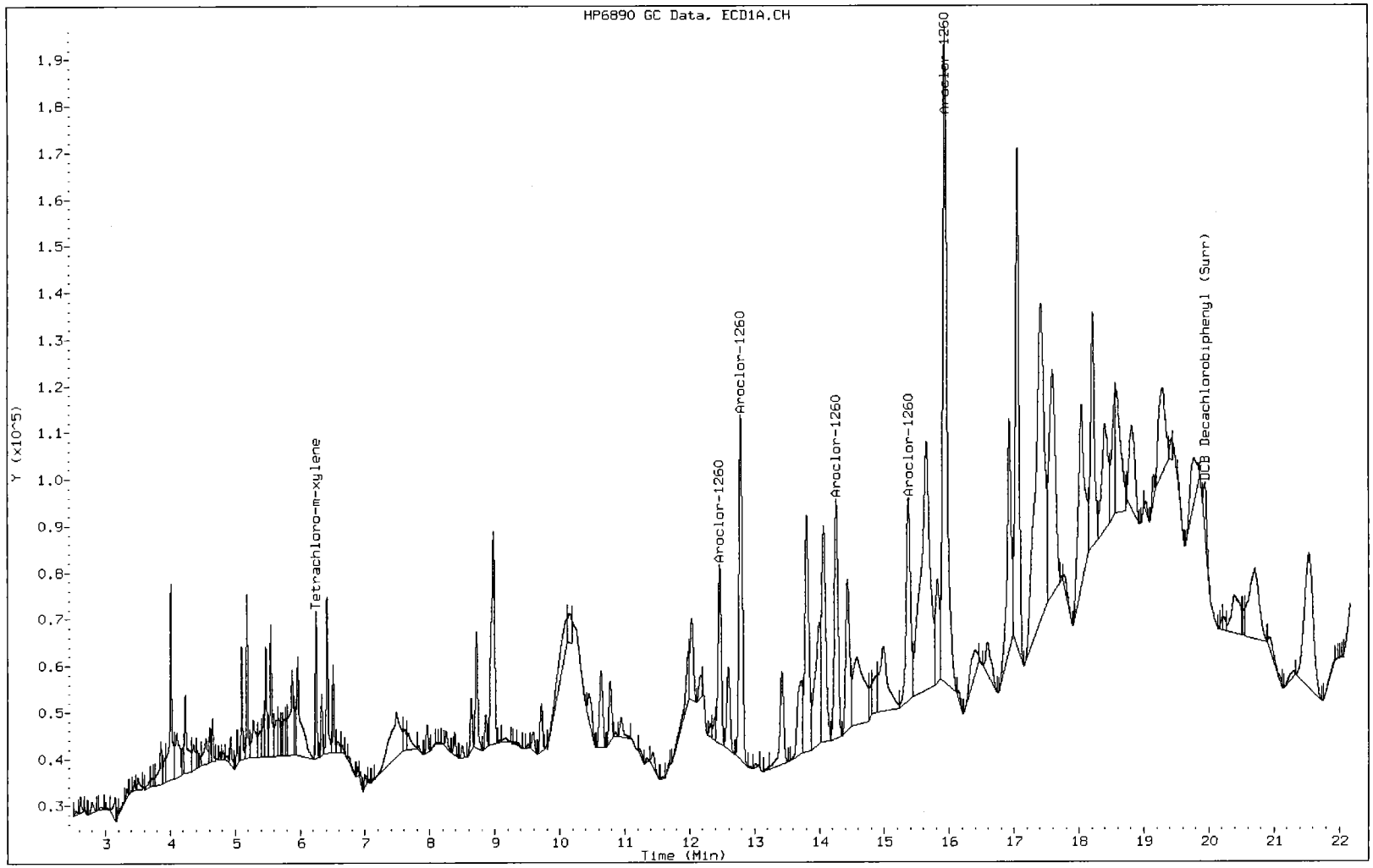
Client ID:

Instrument: gc8.i

Sample Info: 10033A8082ALL.b

Operator: 402360

SD-111-SS



Data File: T1030129.D

Date: 04-OCT-2013 13:08

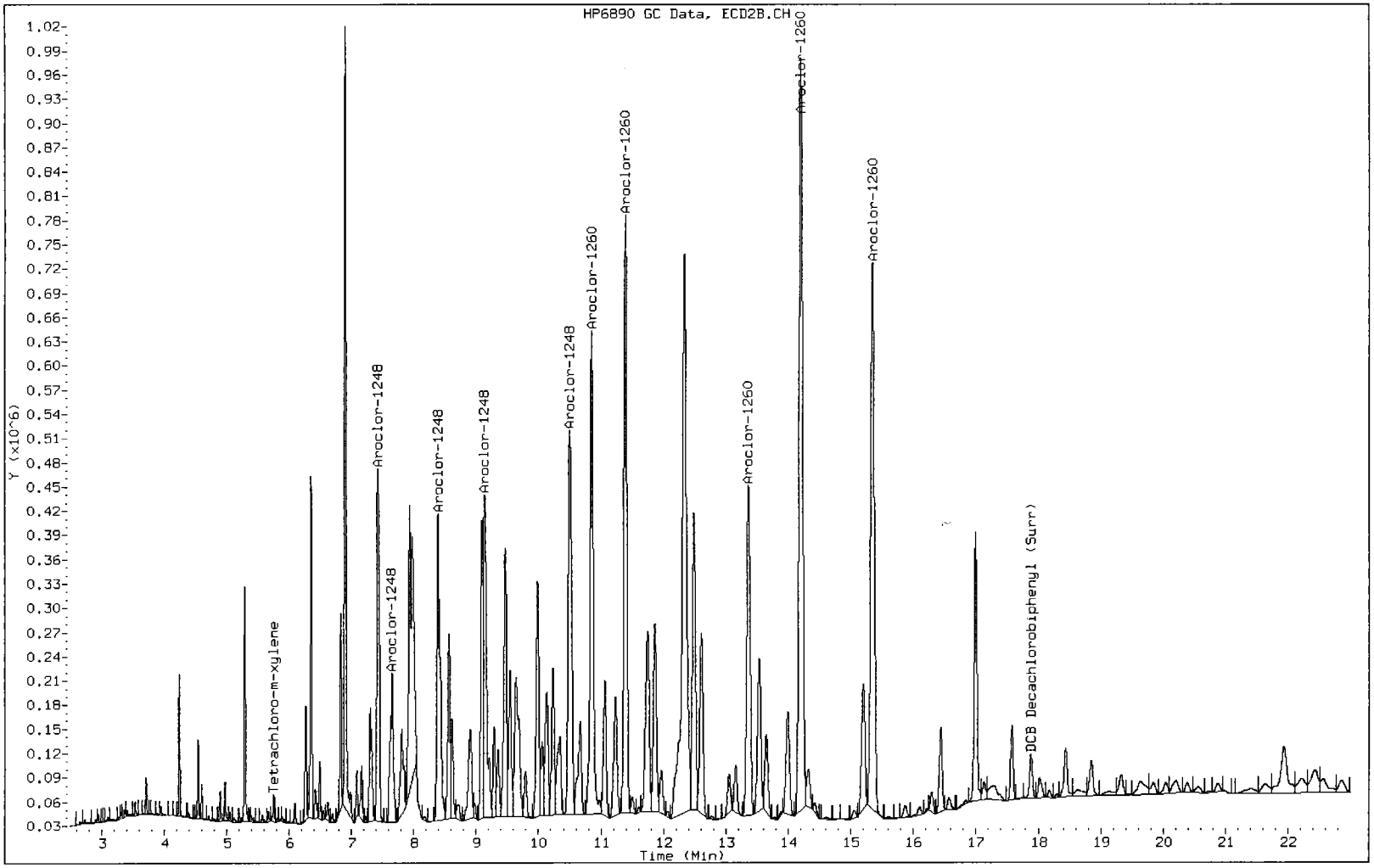
Client ID:

Instrument: gc10.i

Sample Info: 10043B8082A_LL.b

Operator: 402331

SD-116-01



Data File: T1030130.D

Date: 04-OCT-2013 13:40

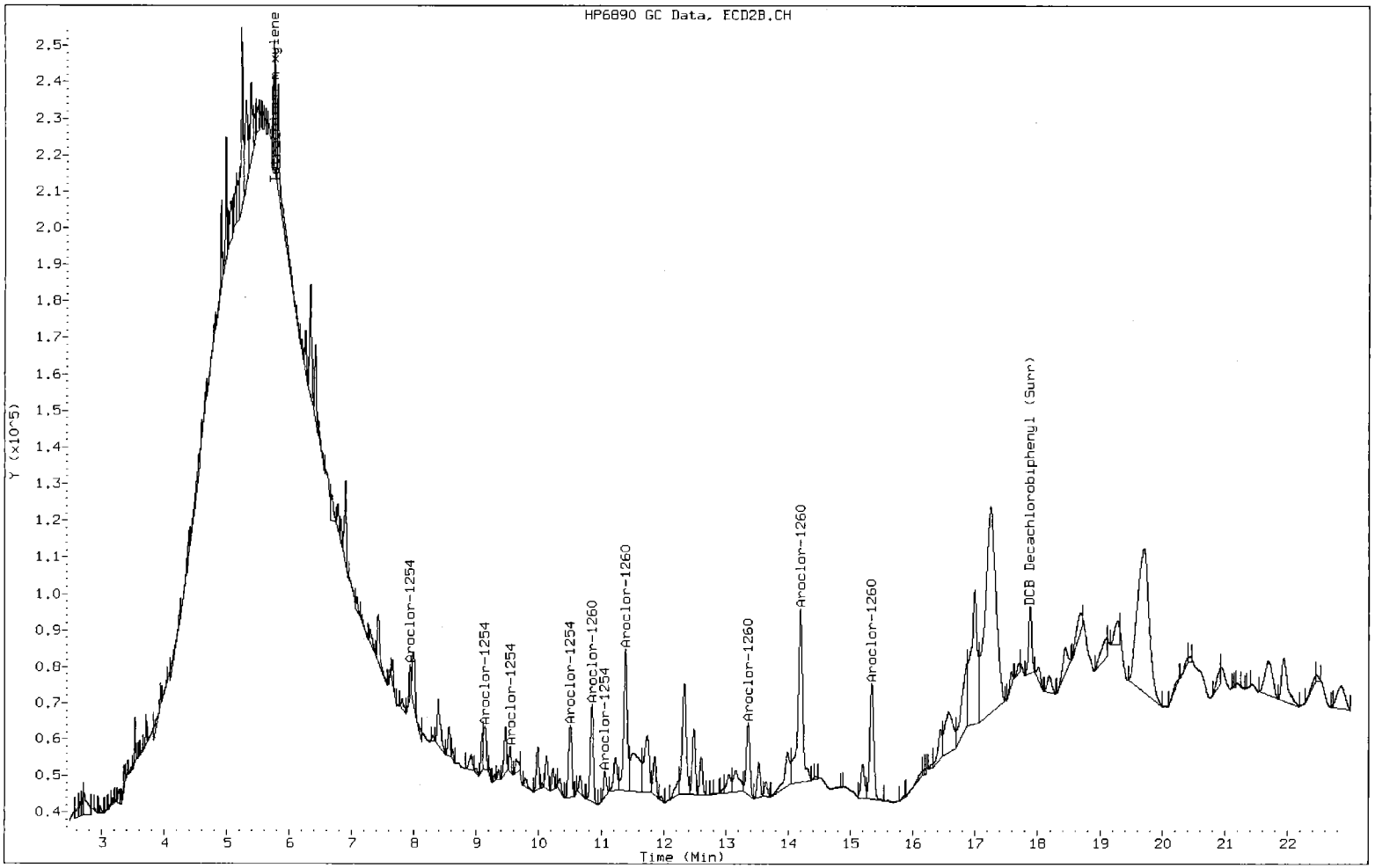
Client ID:

Instrument: gc10.i

Sample Info: 10043B8082A_LL.b

Operator: 402331

SD-116-02



Data File: T1030128.D

Date: 04-OCT-2013 12:37

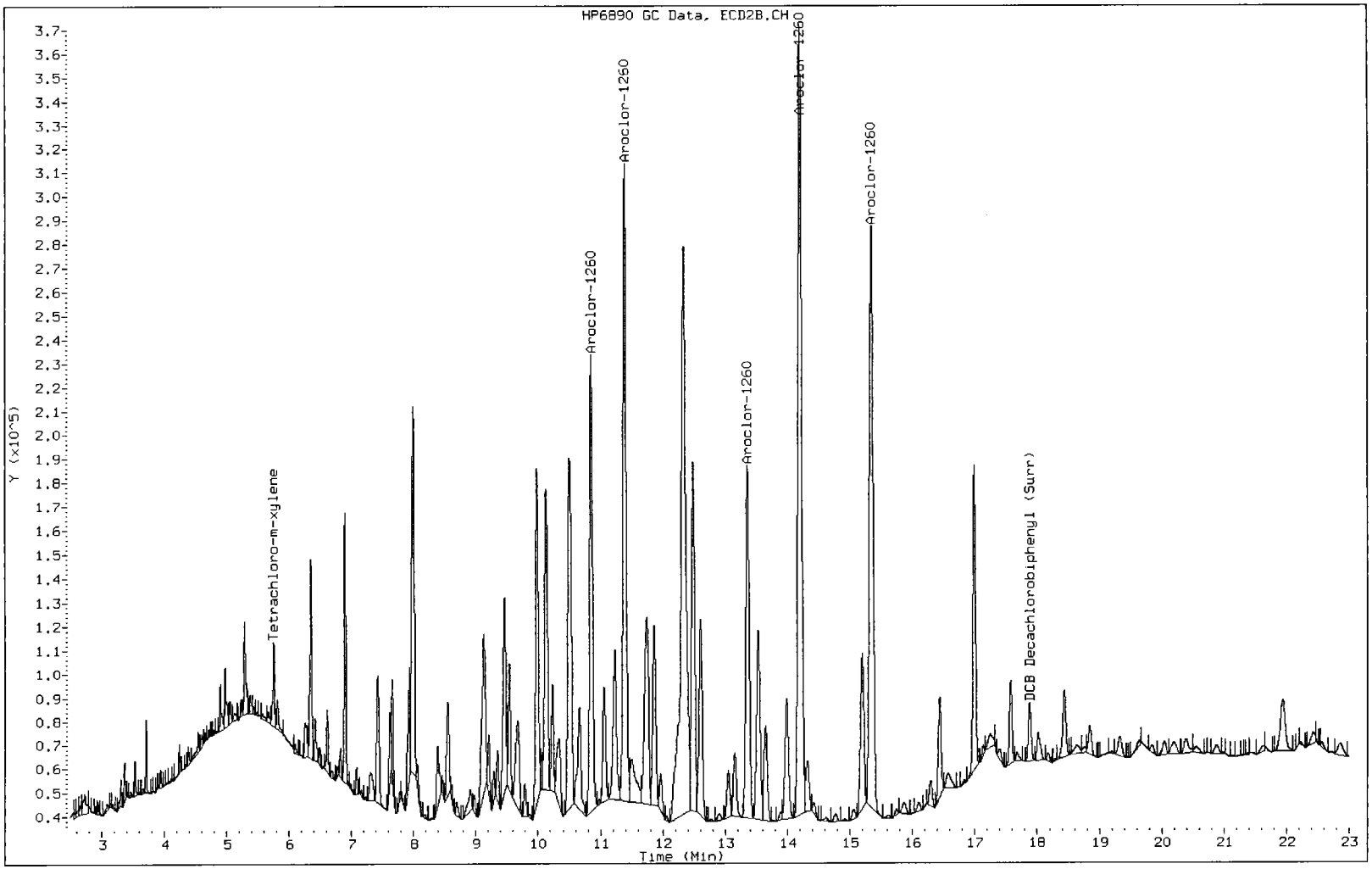
Client ID:

Instrument: gc10.i

Sample Info: 10043B8082A_LL.b

Operator: 402331

SD-116-SS



Data File: O1030048.D

Date: 04-OCT-2013 10:46

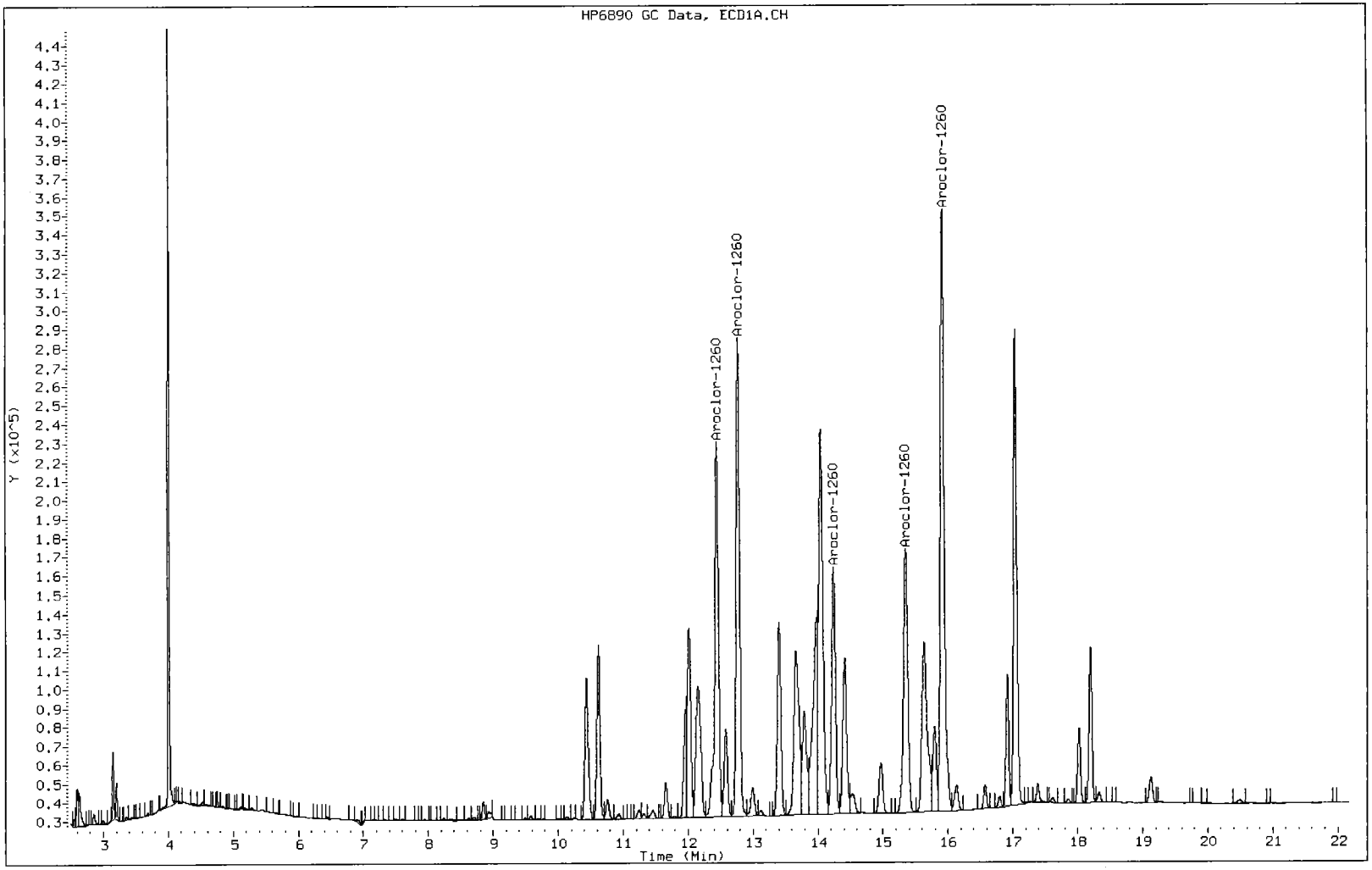
Client ID:

Instrument: gc8.i

Sample Info: 10033A8082ALL.b

Operator: 402360

SD-138-01



Data File: O1030047.D

Date: 04-OCT-2013 10:17

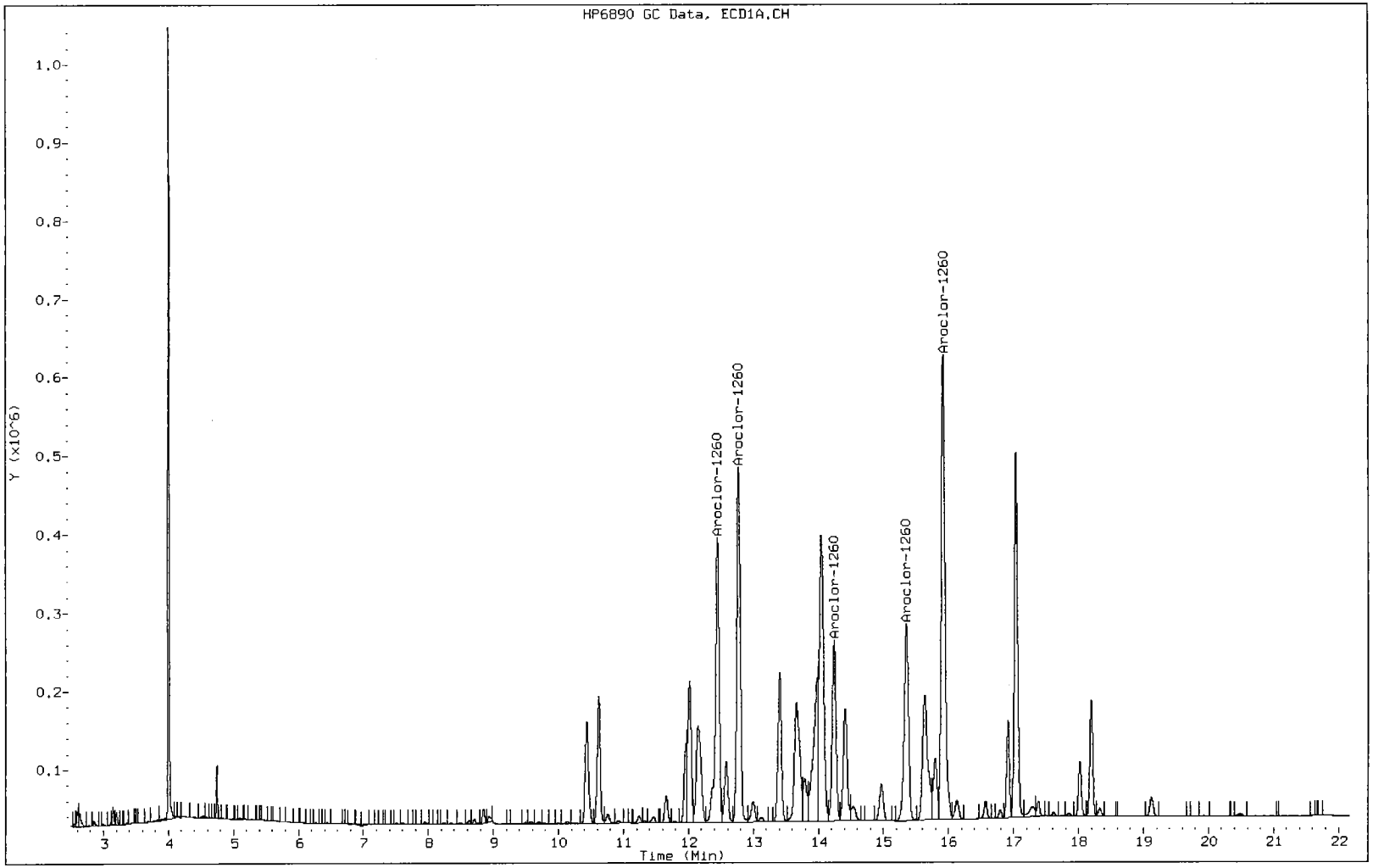
Client ID:

Instrument: gc8.i

Sample Info: 10033A8082ALL.b

Operator: 402360

SD-138-SS



Data File: O1030049.D

Date: 04-OCT-2013 11:16

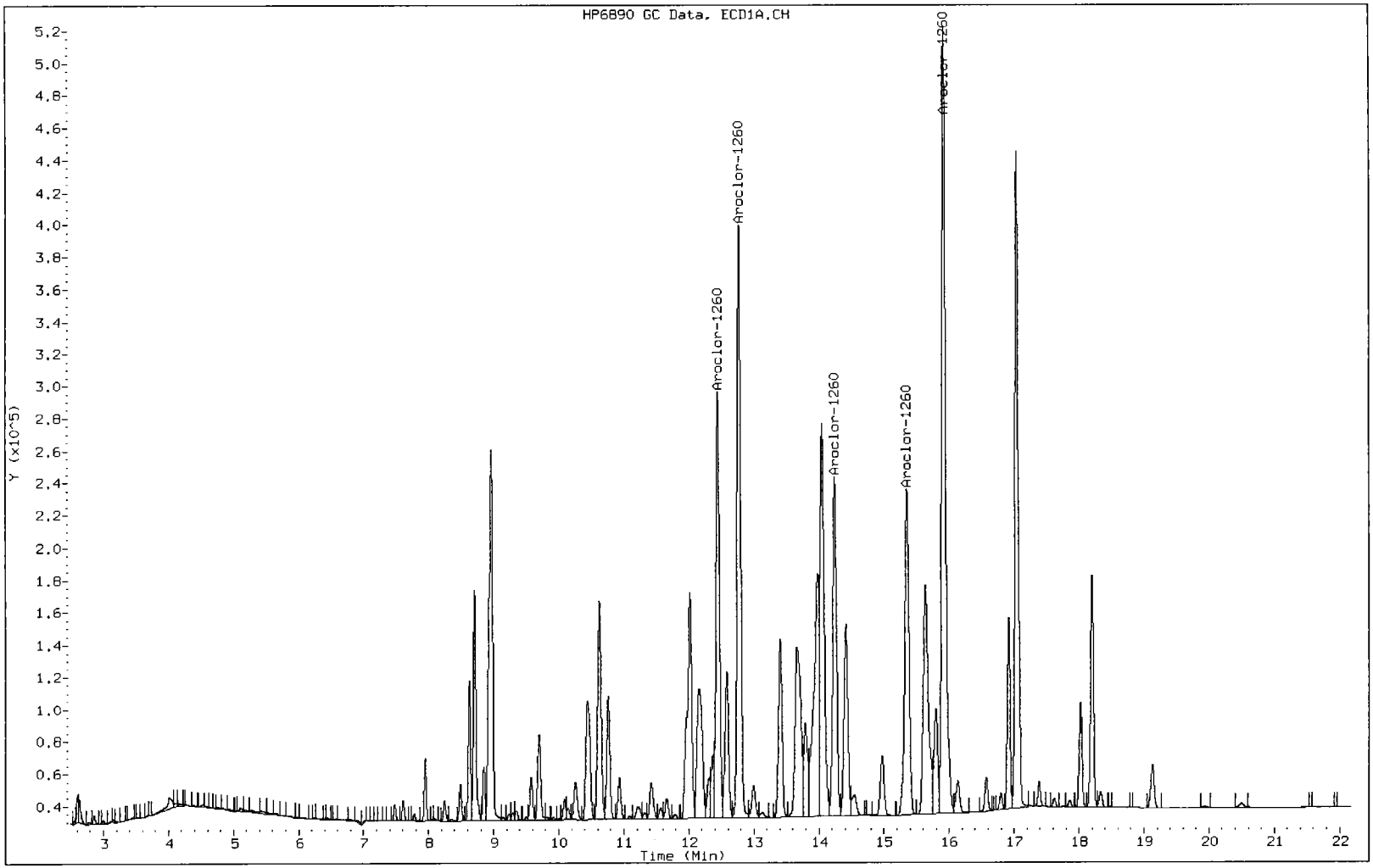
Client ID:

Instrument: gc8.i

Sample Info: 10033A8082ALL.b

Operator: 402360

SD-139-01



Data File: O1030043.D

Date: 04-OCT-2013 08:21

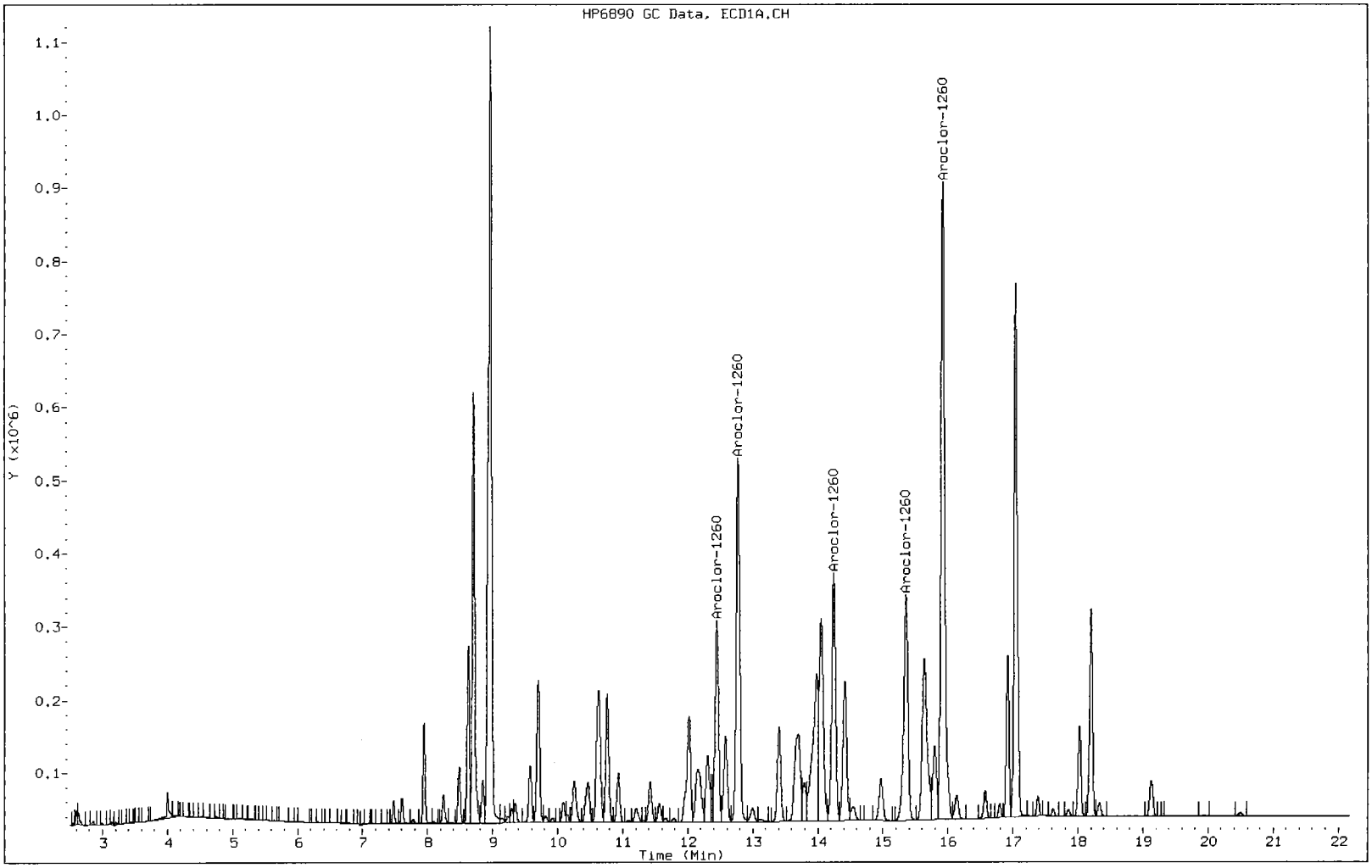
Client ID:

Instrument: gc8.i

Sample Info: 10033A8082ALL.b

Operator: 402360

SD-139-SS



Data File: T1030178.D

Date: 07-OCT-2013 18:54

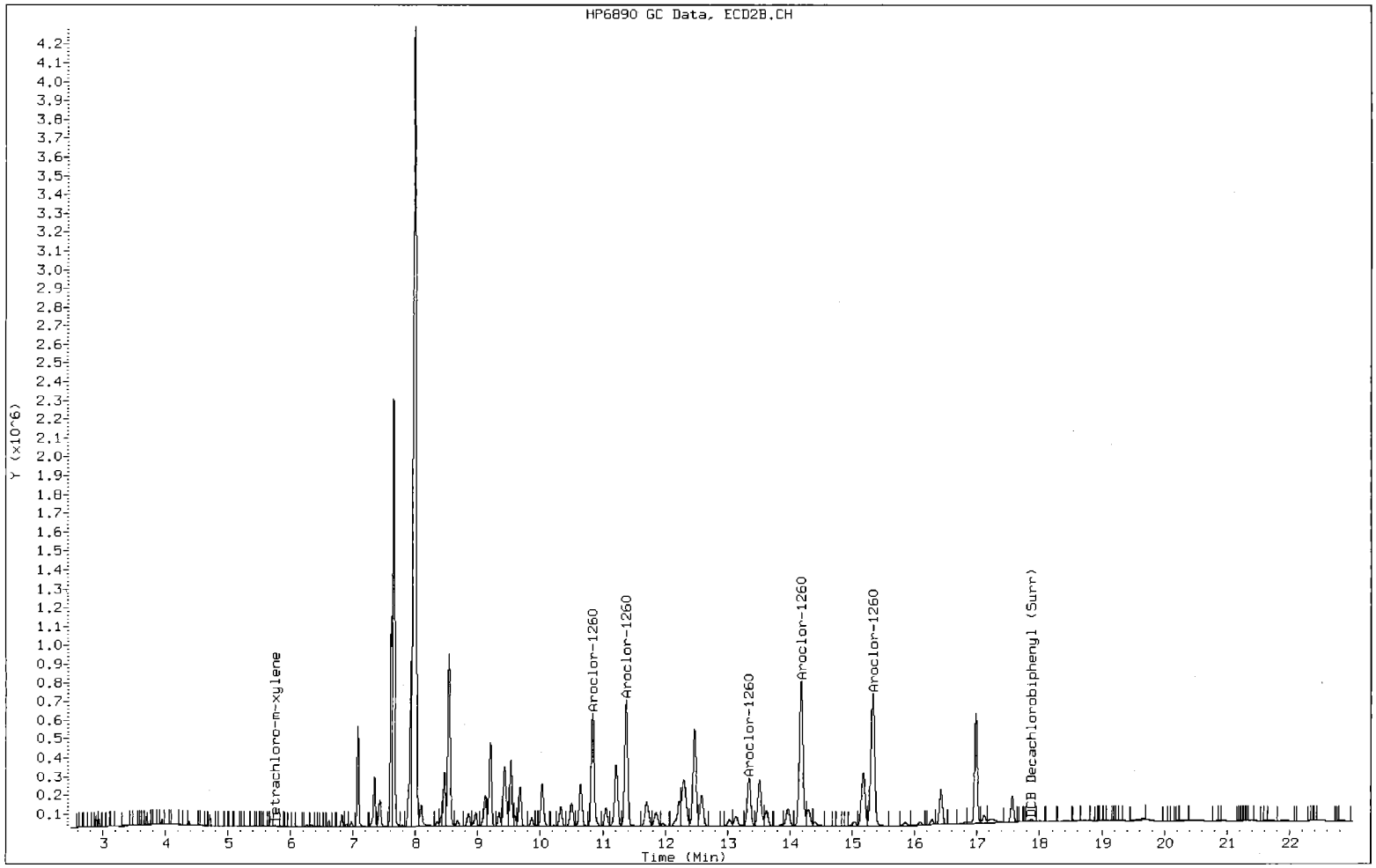
Client ID:

Instrument: gc10.i

Sample Info: 10073B8082.b

Operator: 402331

SD - 148 - 01



Data File: T1030133.D

Date: 04-OCT-2013 15:16

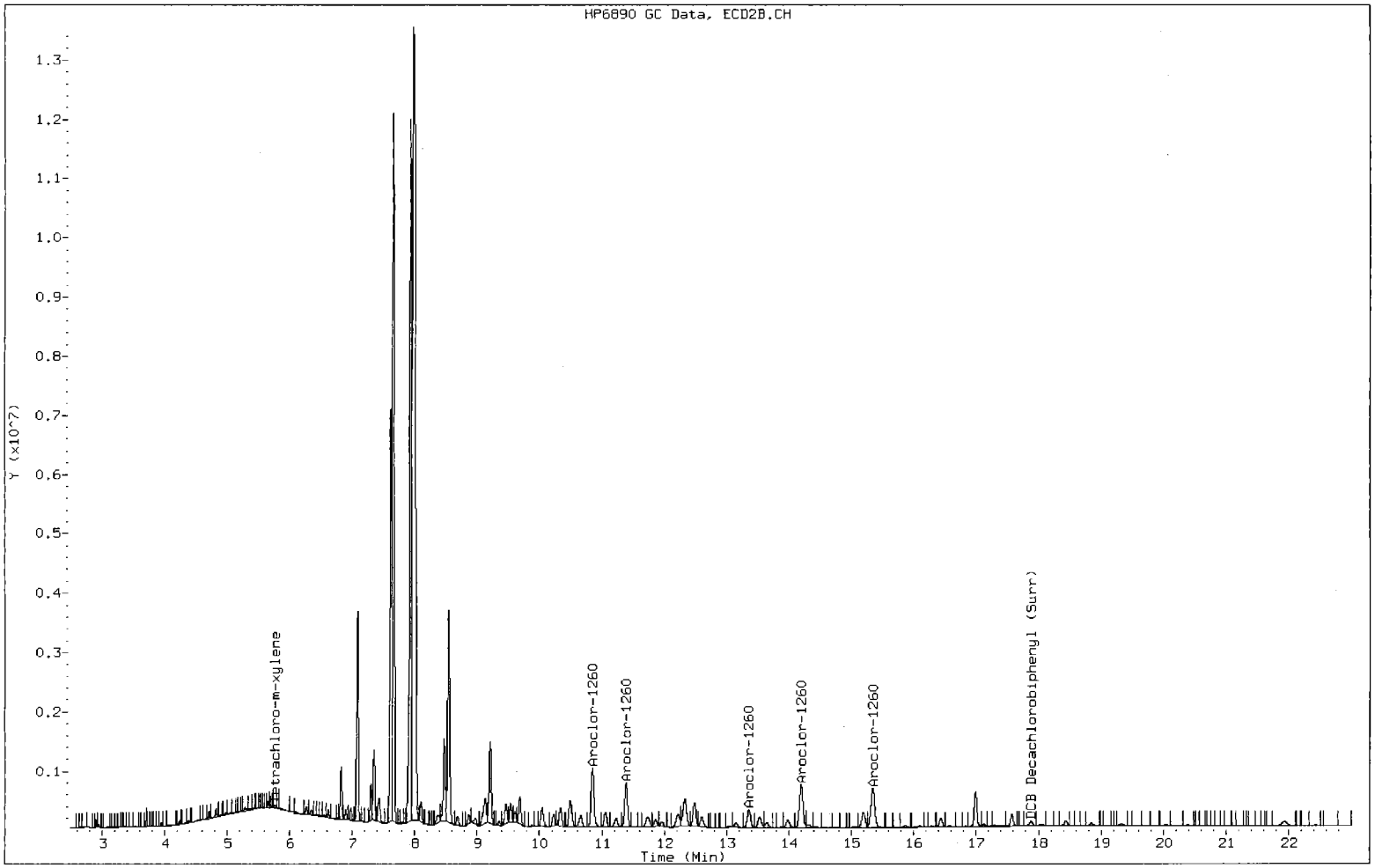
Client ID:

Instrument: gc10.i

Sample Info: 10043B8082A_LL.b

Operator: 402331

SD-148-02



Data File: T1030134.D

Date: 04-OCT-2013 15:48

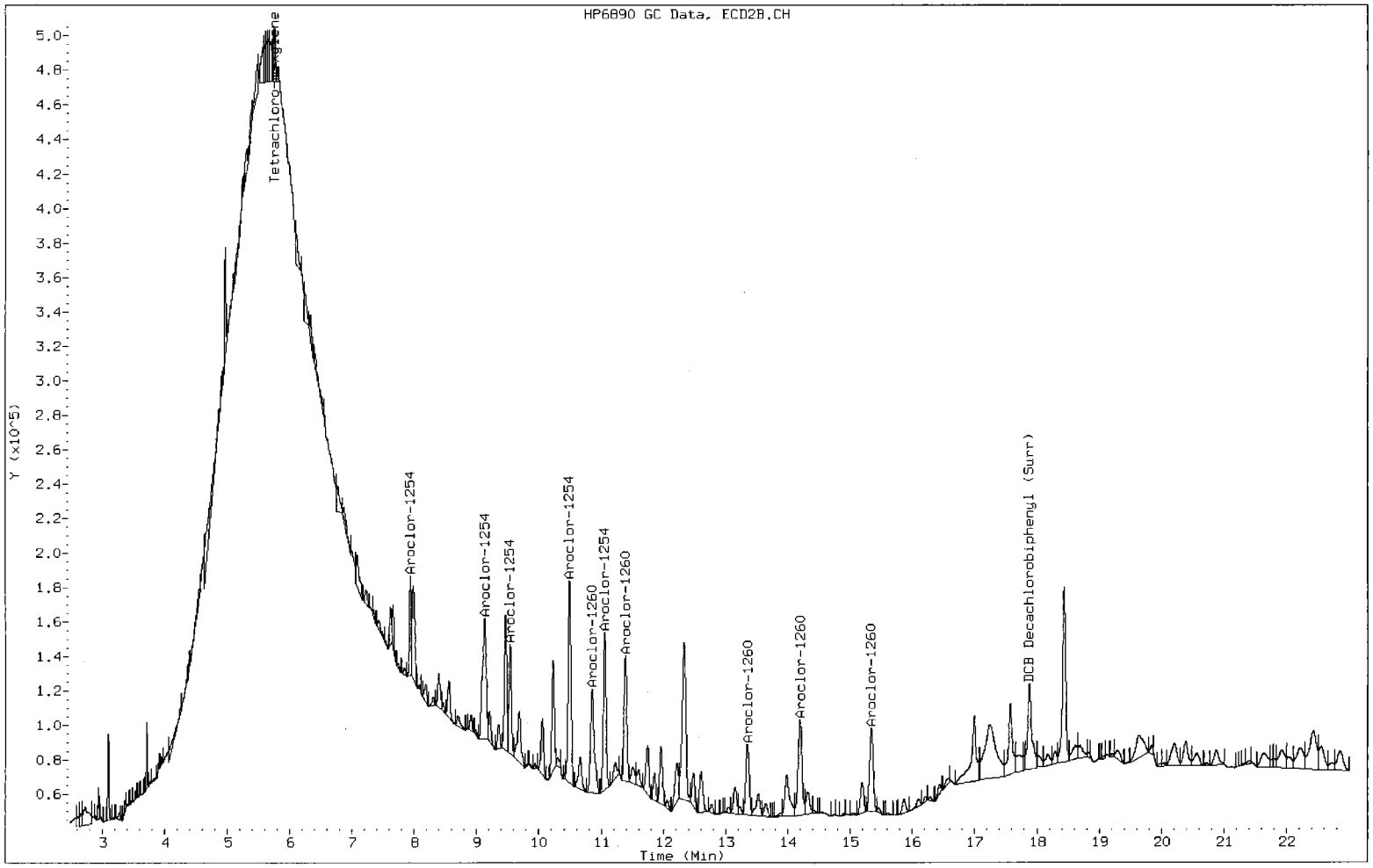
Client ID:

Instrument: gc10.i

Sample Info: 10043B8082A_LL.b

Operator: 402331

SD-148-03



Data File: T1030131.D

Date: 04-OCT-2013 14:12

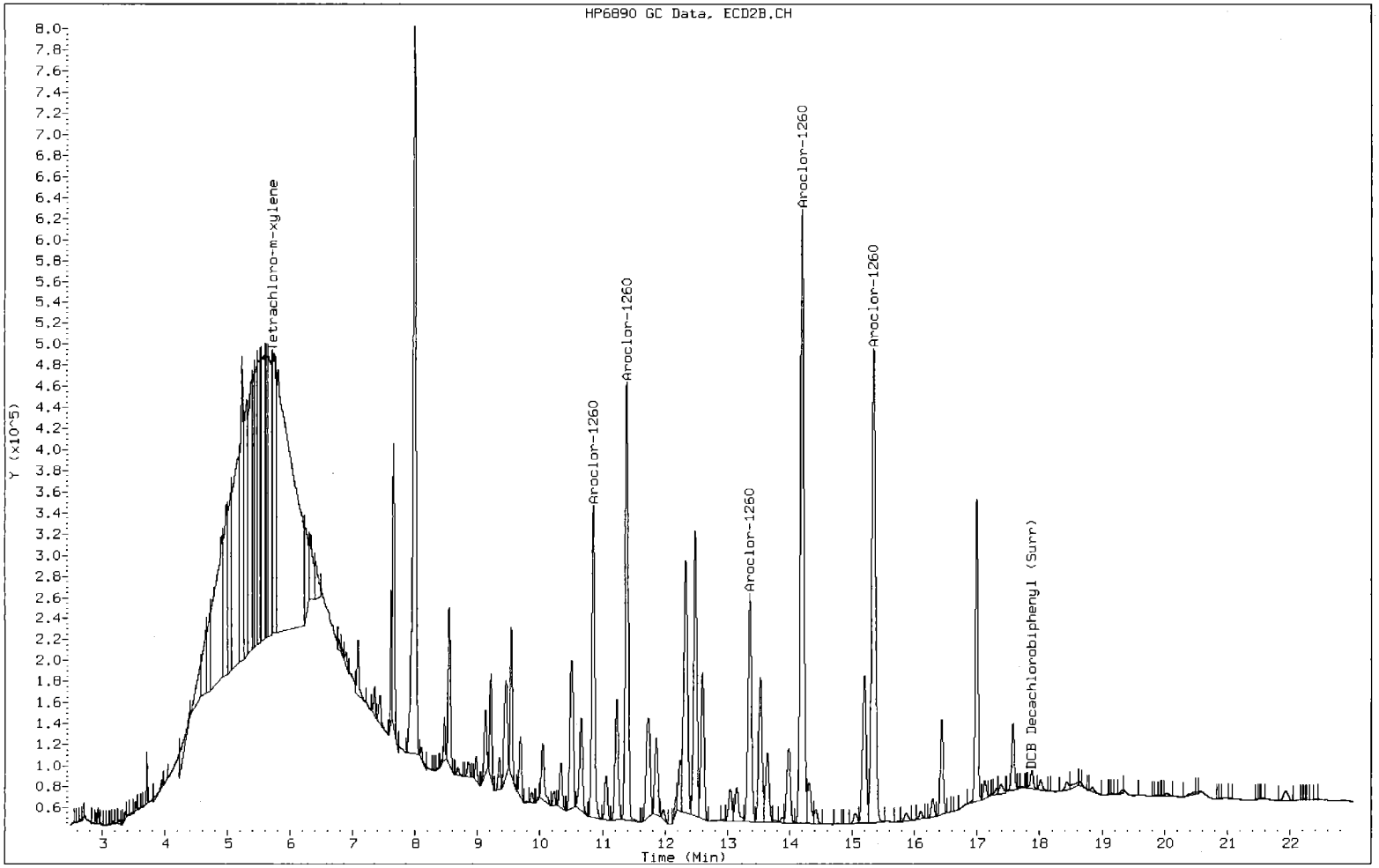
Client ID:

Instrument: gc10.i

Sample Info: 10043B8082A_LL.b

Operator: 402331

SD-148-55



Data File: T1030179.D

Date: 07-OCT-2013 19:26

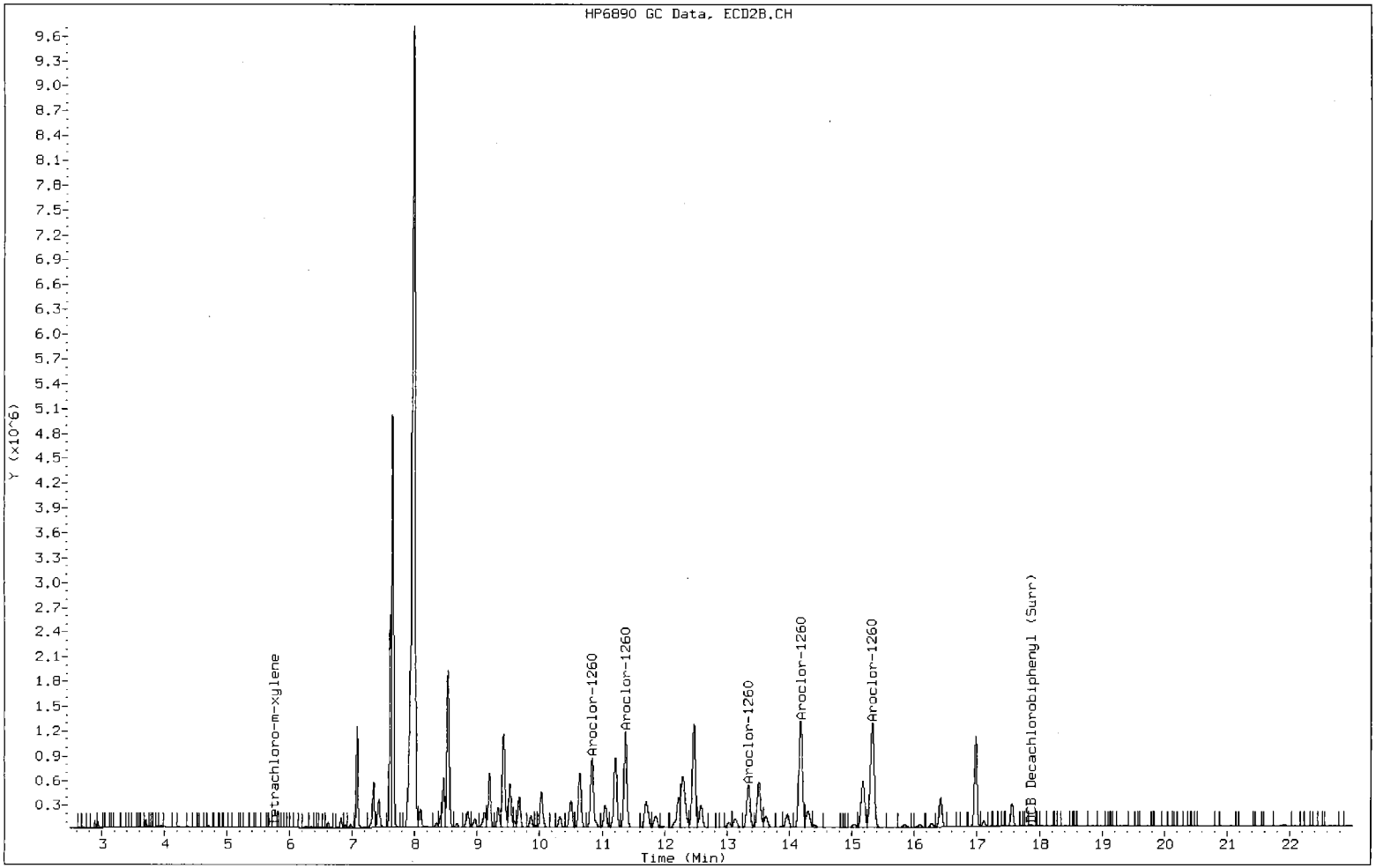
Client ID:

Instrument: gc10.i

Sample Info: 10073B8082.b

Operator: 402331

SD-149-01



Data File: T1030137.D

Date: 04-OCT-2013 17:23

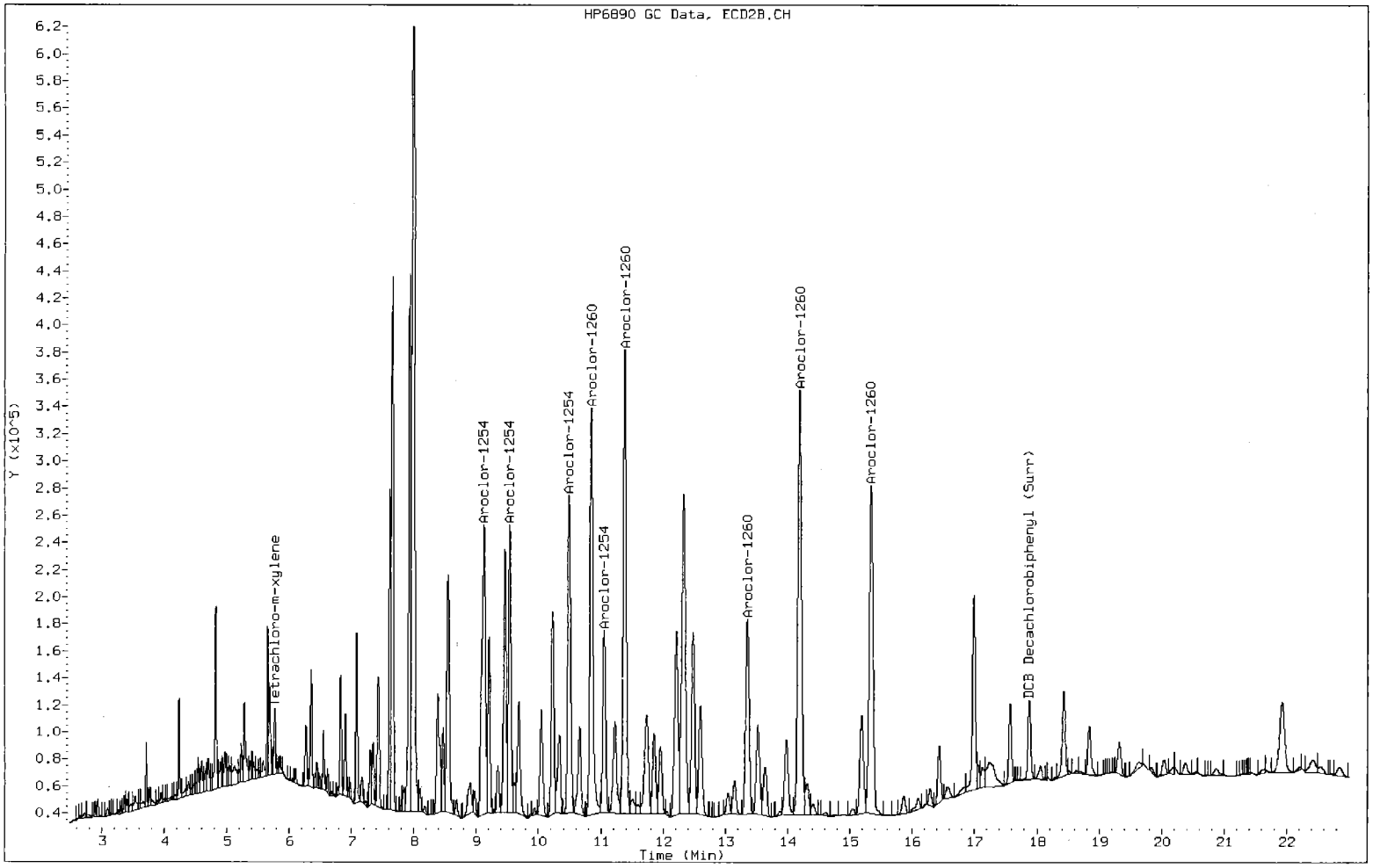
Client ID:

Instrument: gc10.i

Sample Info: 10043B8082A_LL.b

Operator: 402331

SD-149-02



Data File: T1030180.D

Date: 07-OCT-2013 19:57

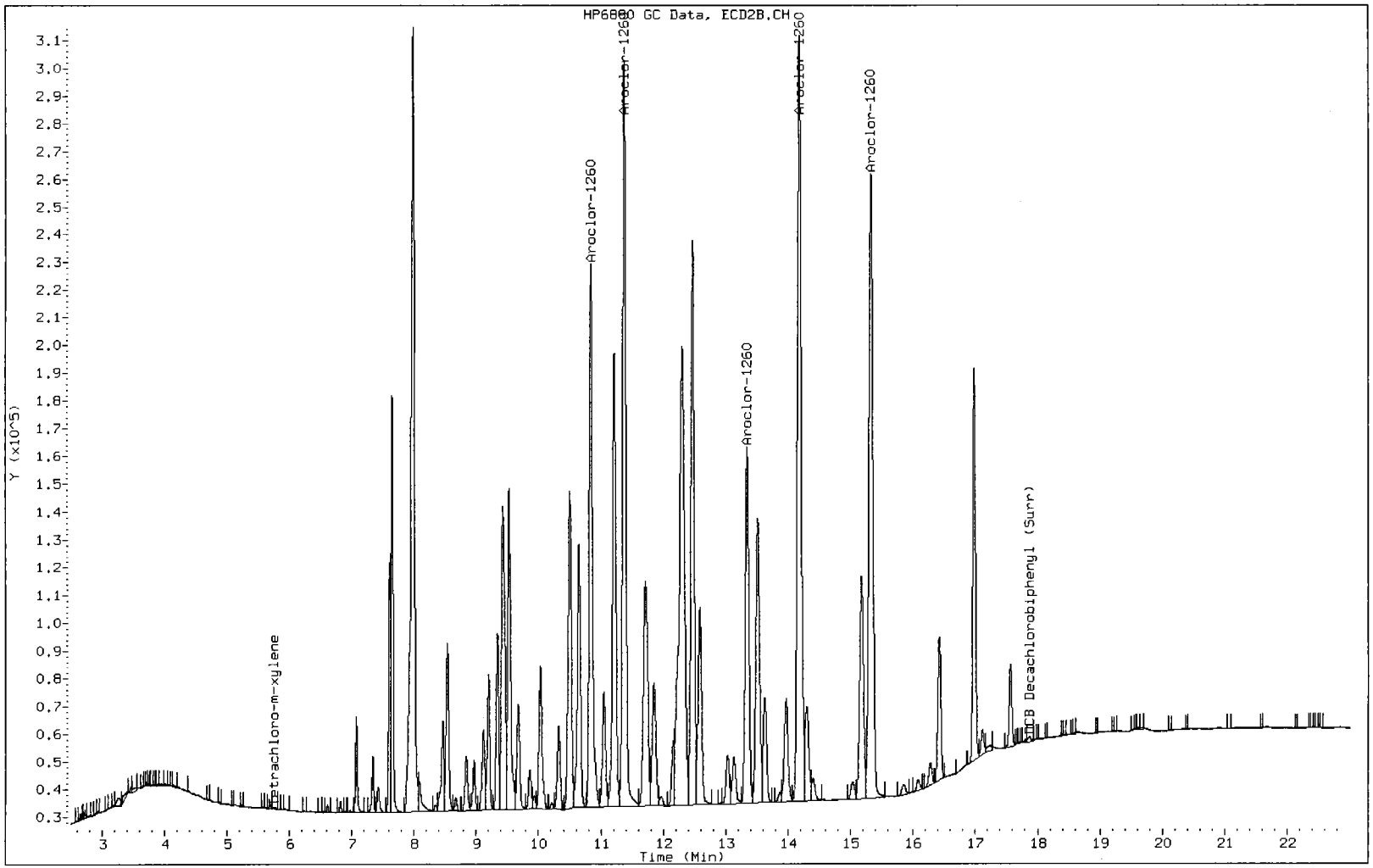
Client ID:

Instrument: gc10.i

Sample Info: 10073B8082.b

Operator: 402331

SD-149-03



Data File: T1030135.D

Date: 04-OCT-2013 16:19

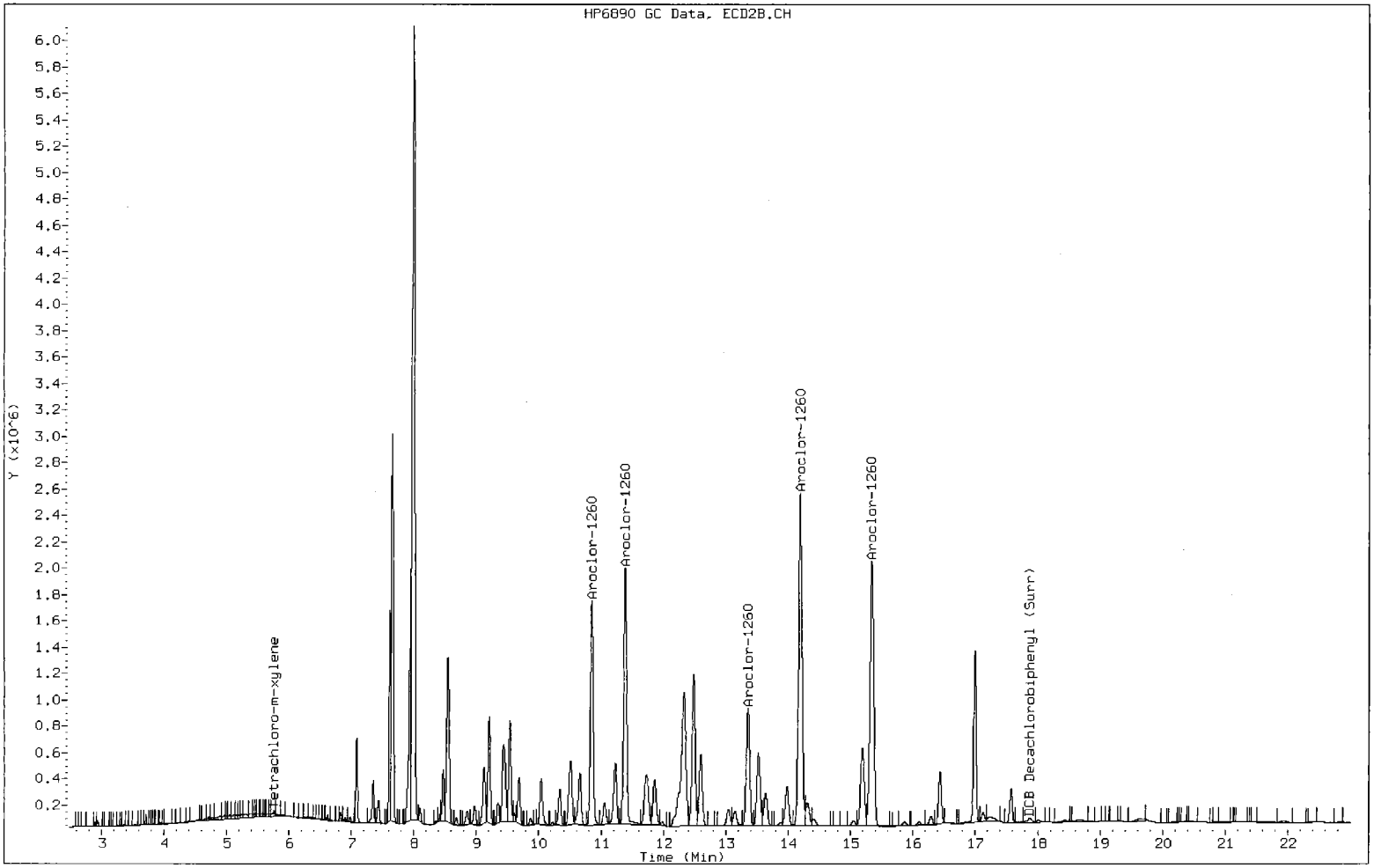
Client ID:

Instrument: gc10.i

Sample Info: 10043B8082A_LL.b

Operator: 402331

SD-149-55



Data File: T1030181.D

Date: 07-OCT-2013 20:29

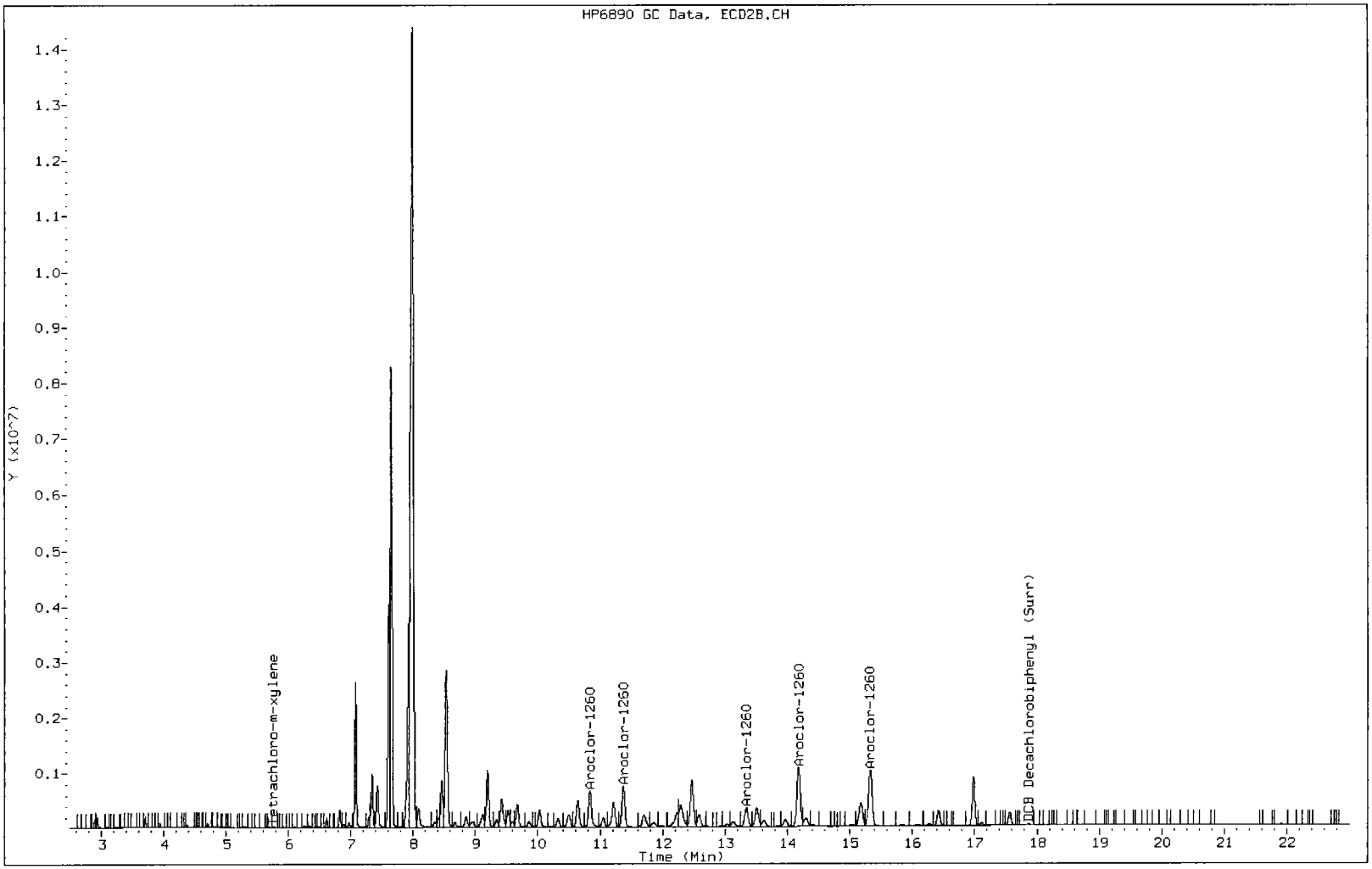
Client ID:

Instrument: gc10.i

Sample Info: 10073B8082.b

Operator: 402331

SD-150-01



Data File: T1030144.D

Date: 04-OCT-2013 21:03

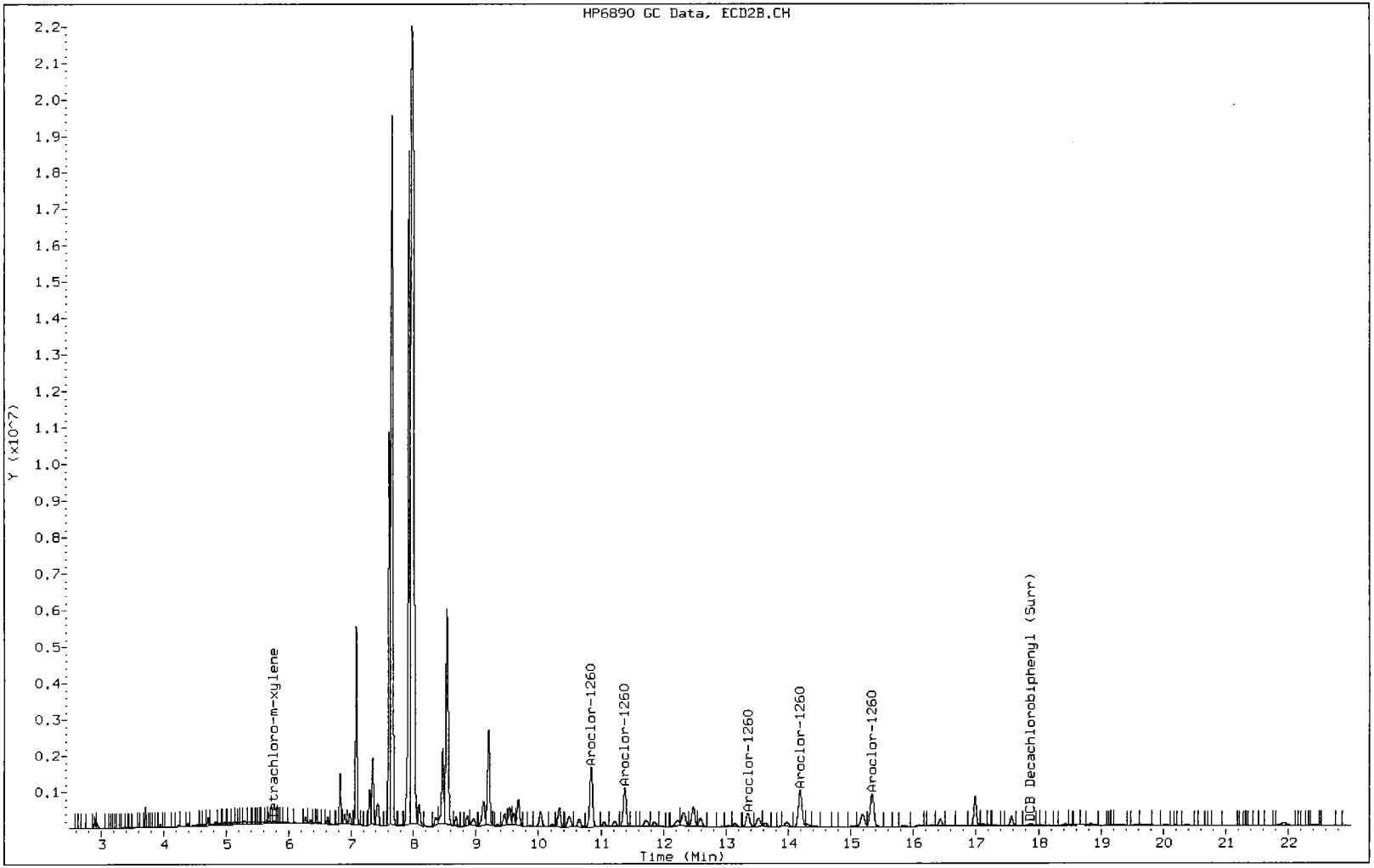
Client ID:

Instrument: gc10.i

Sample Info: 10043B8082A_LL.b

Operator: 402331

SD-150-02



Data File: T1030145.D

Date: 04-OCT-2013 21:34

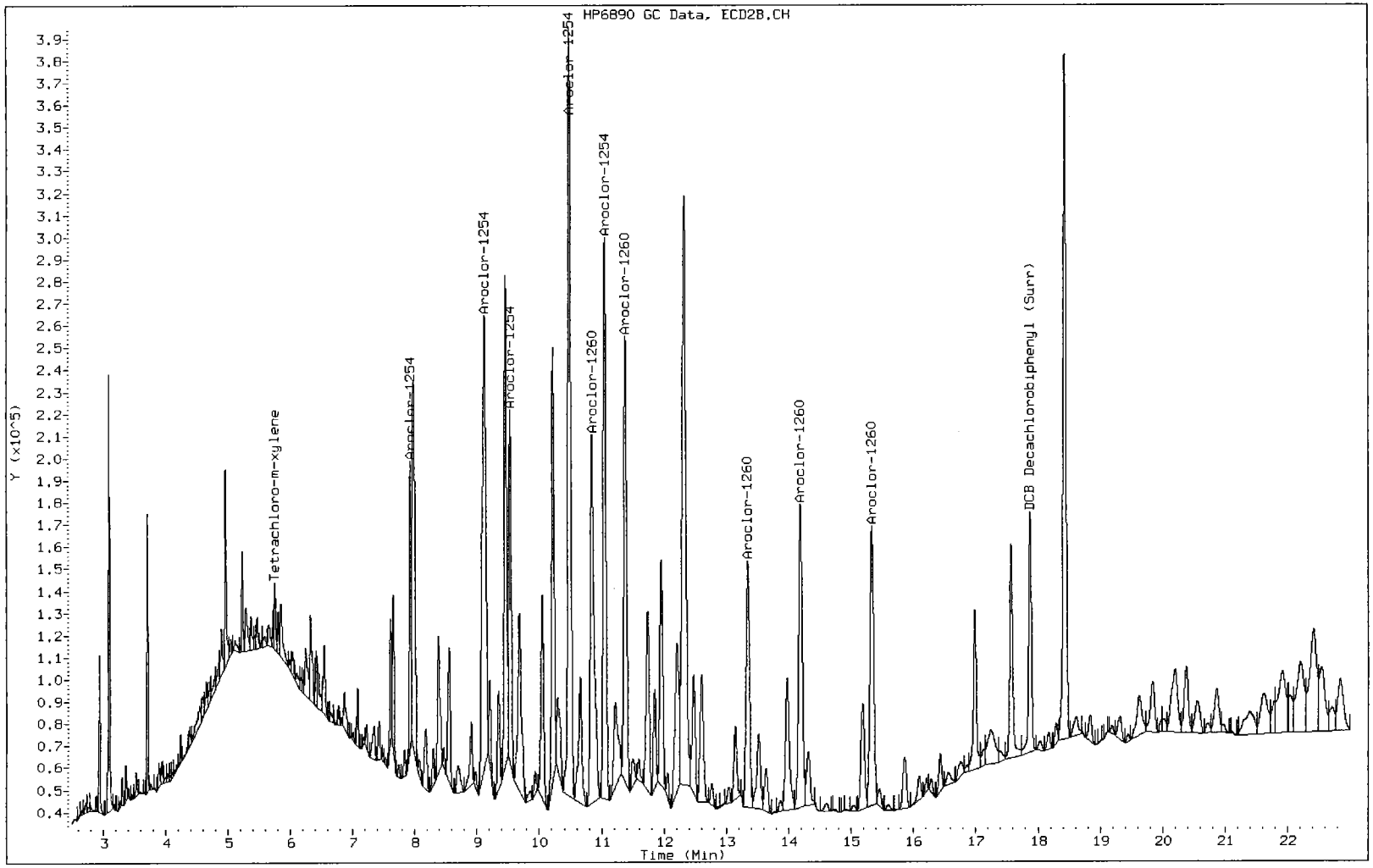
Client ID:

Instrument: gc10.i

Sample Info: 10043B8082A_LL.b

Operator: 402331

SD-150-03



Data File: T1030139.D

Date: 04-OCT-2013 18:26

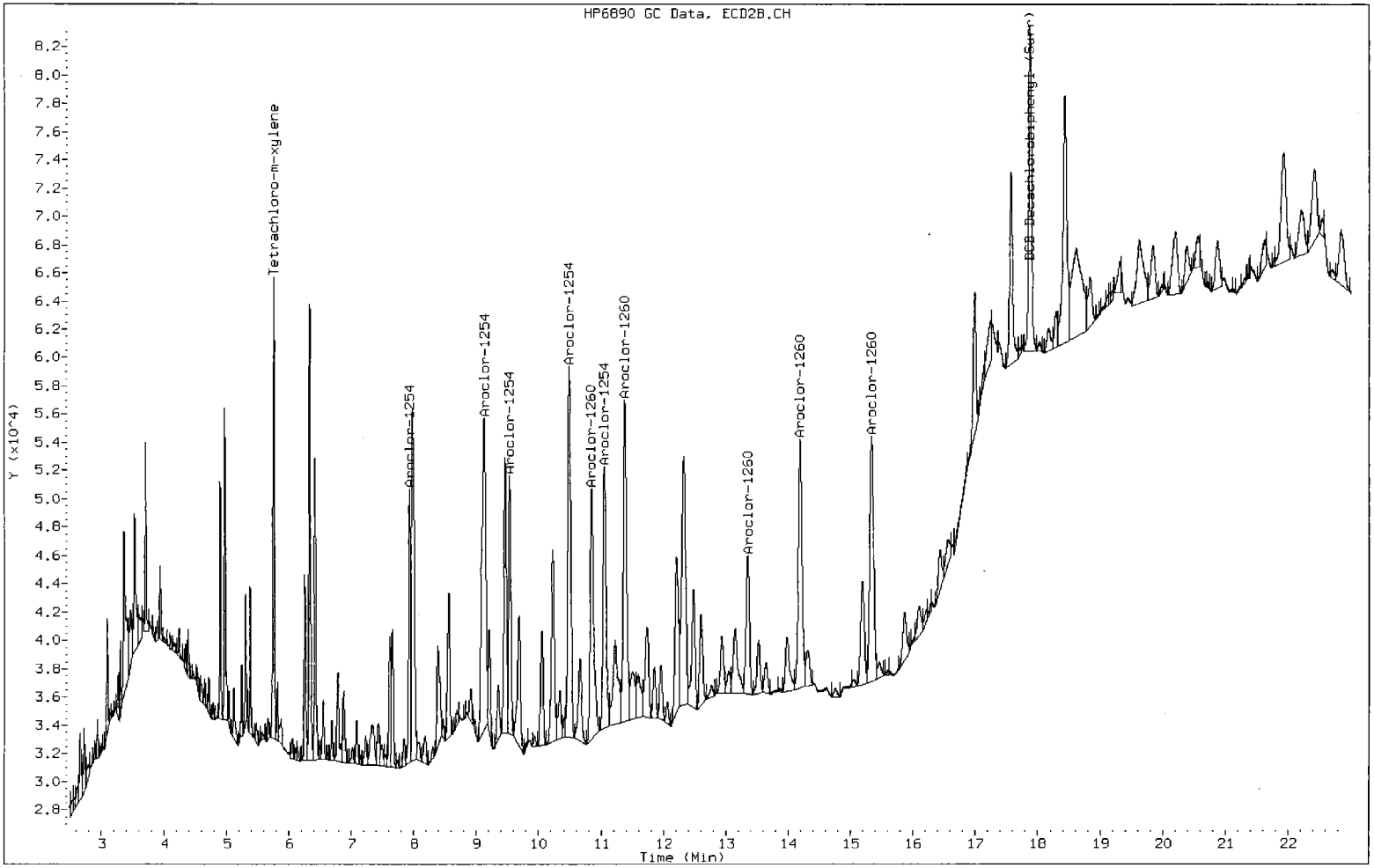
Client ID:

Instrument: gc10.i

Sample Info: 10043B8082A_LL.b

Operator: 402331

SD-150-SS (10x)



Data File: O1030046.D

Date: 04-OCT-2013 09:48

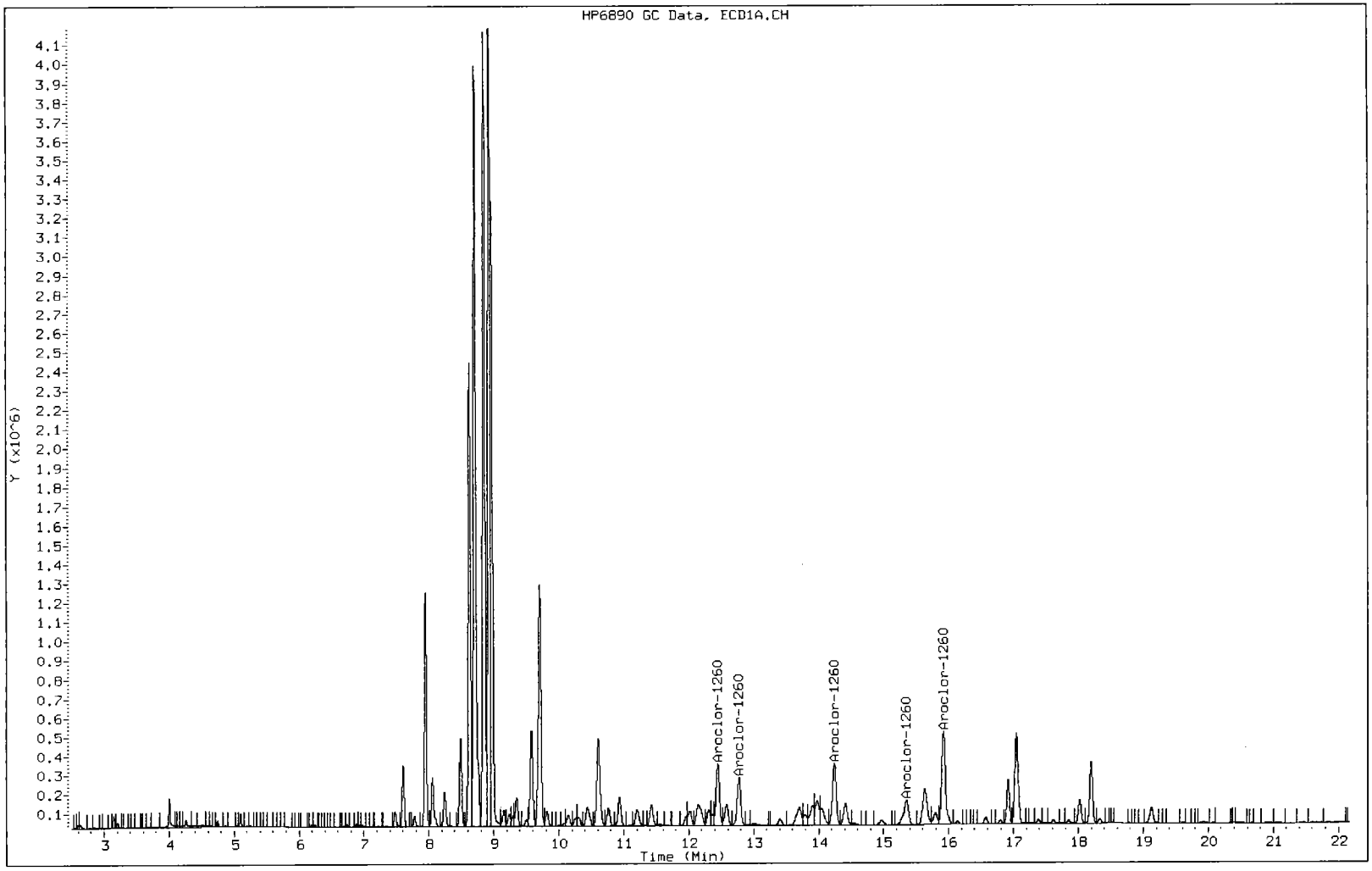
Client ID:

Instrument: gc8.i

Sample Info: 10033A8082ALL.b

Operator: 402360

SD-151-0



Data File: O1030025.D

Date: 03-OCT-2013 20:59

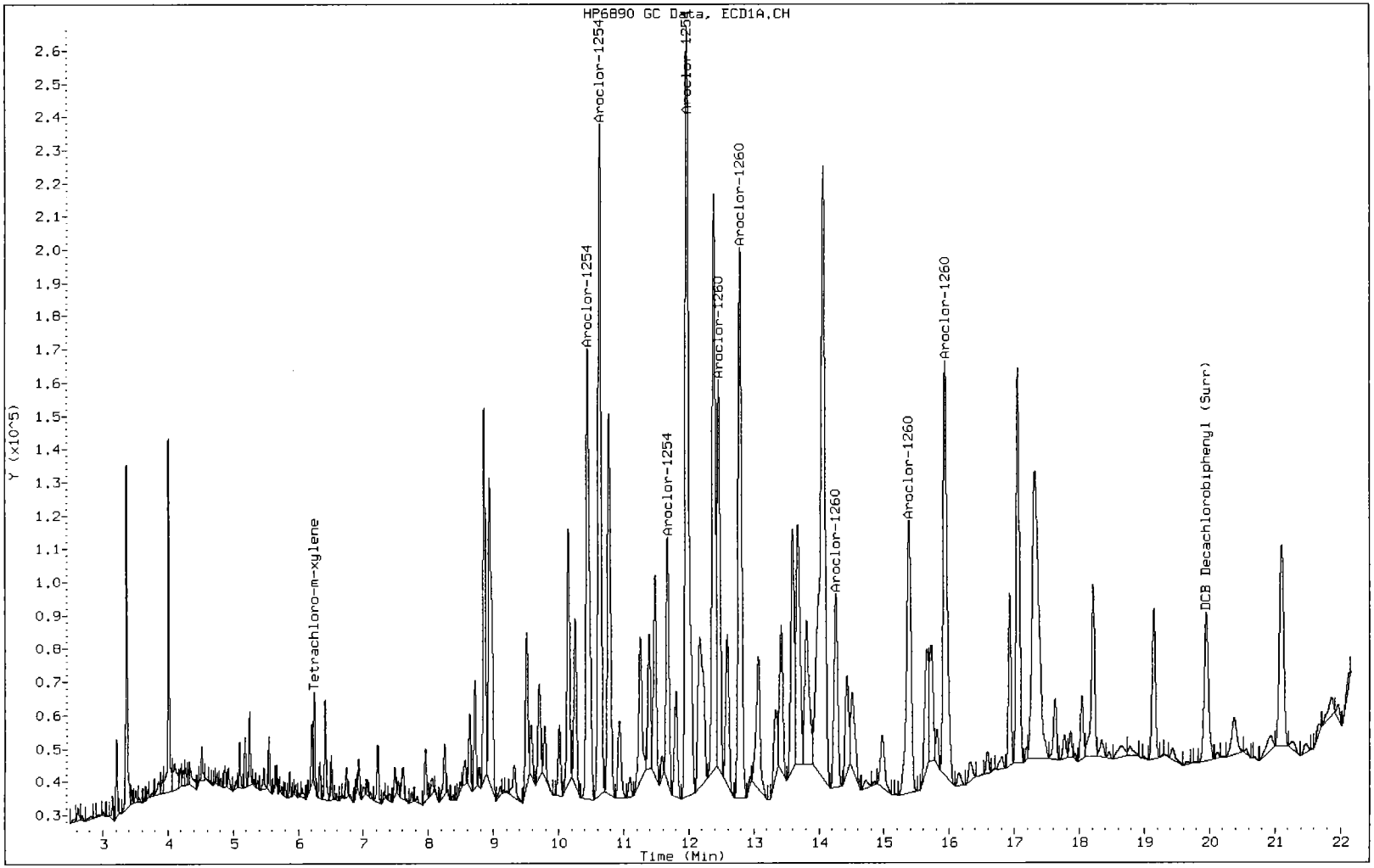
Client ID:

Instrument: gc8.i

Sample Info: 10033A8082ALL.b

Operator: 402360

SD-151-03



Data File: O1030026.D

Date: 03-OCT-2013 21:29

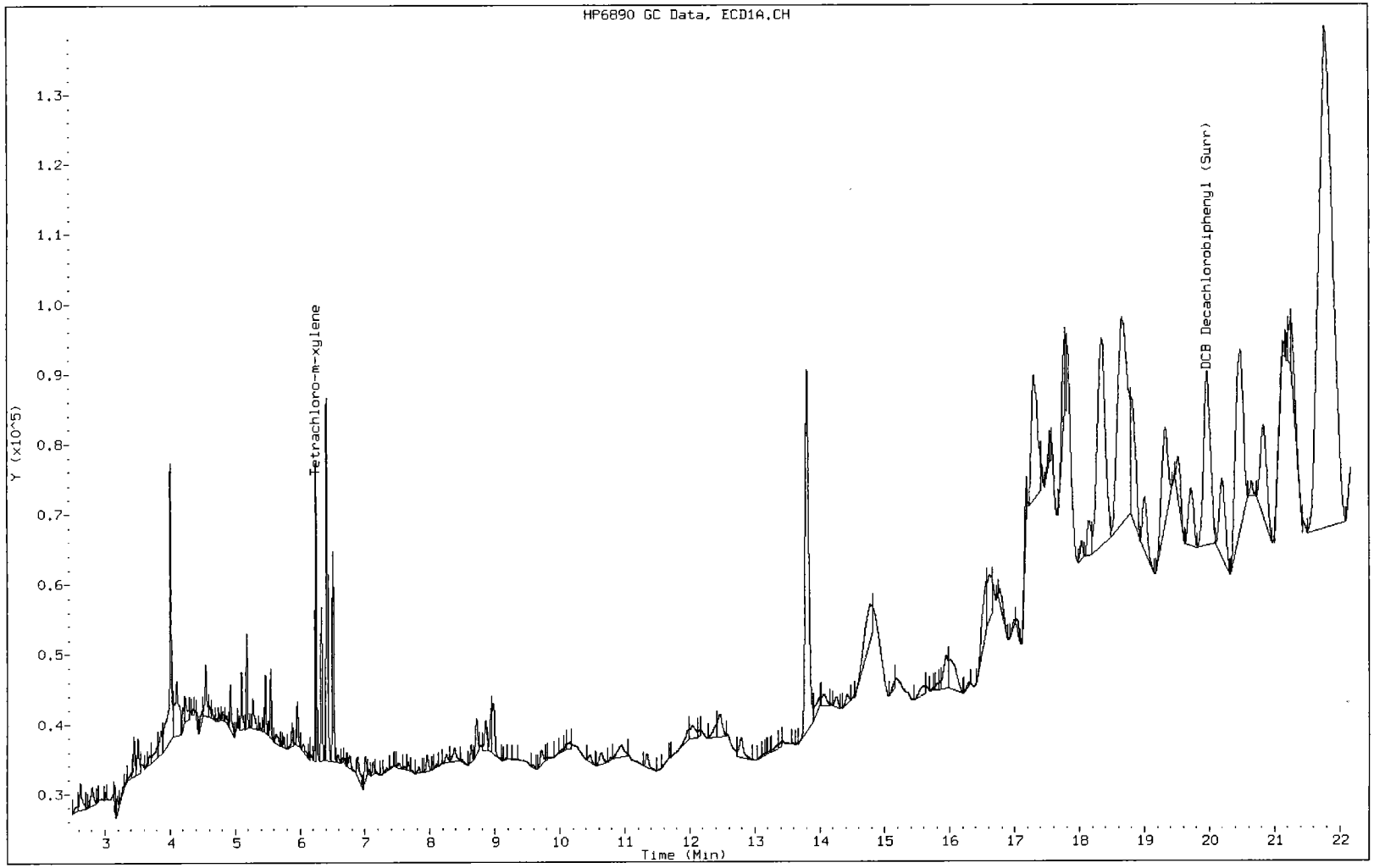
Client ID:

Instrument: gc8.i

Sample Info: 10033A8082ALL.b

Operator: 402360

STD-151-03



Data File: O1030023.D

Date: 03-OCT-2013 20:01

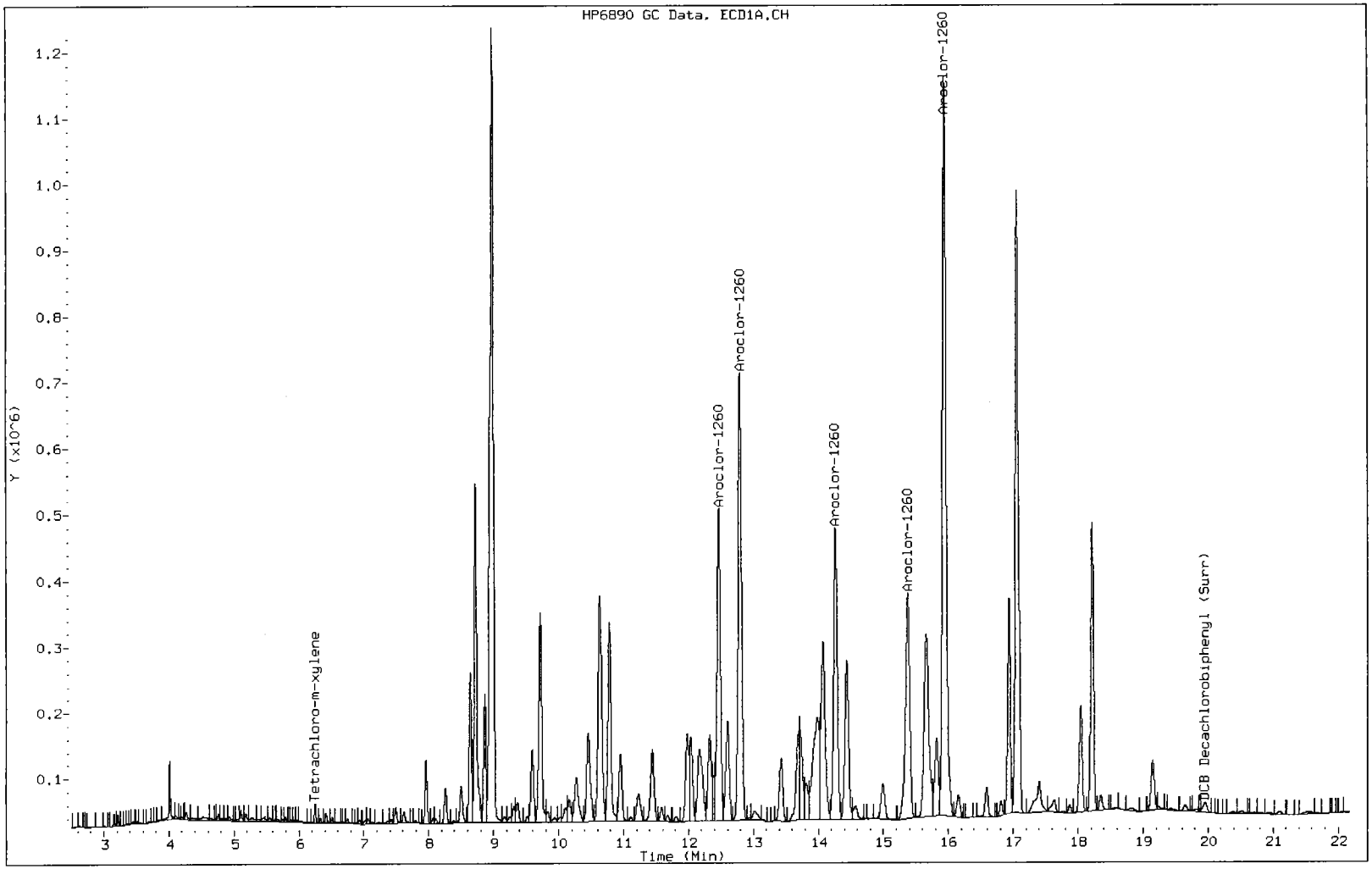
Client ID:

Instrument: gc8.i

Sample Info: 10033A8082ALL.b

Operator: 402360

SD- 151-05



Data File: P1030351.D

Date: 12-OCT-2013 17:40

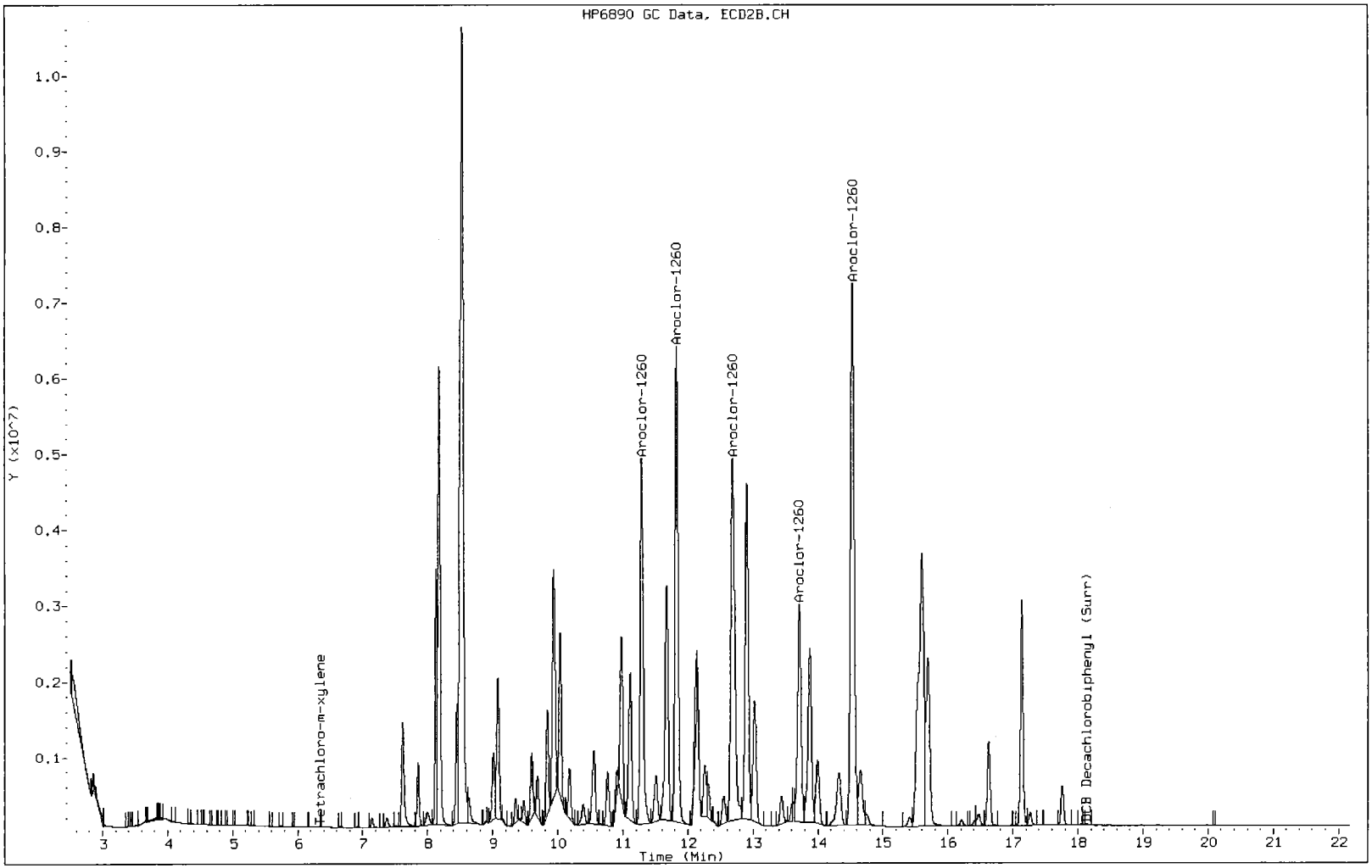
Client ID:

Instrument: gc8.i

Sample Info: 10123B.b

Operator: 01797

SD-161-01



Data File: P1030352.D

Date: 12-OCT-2013 18:09

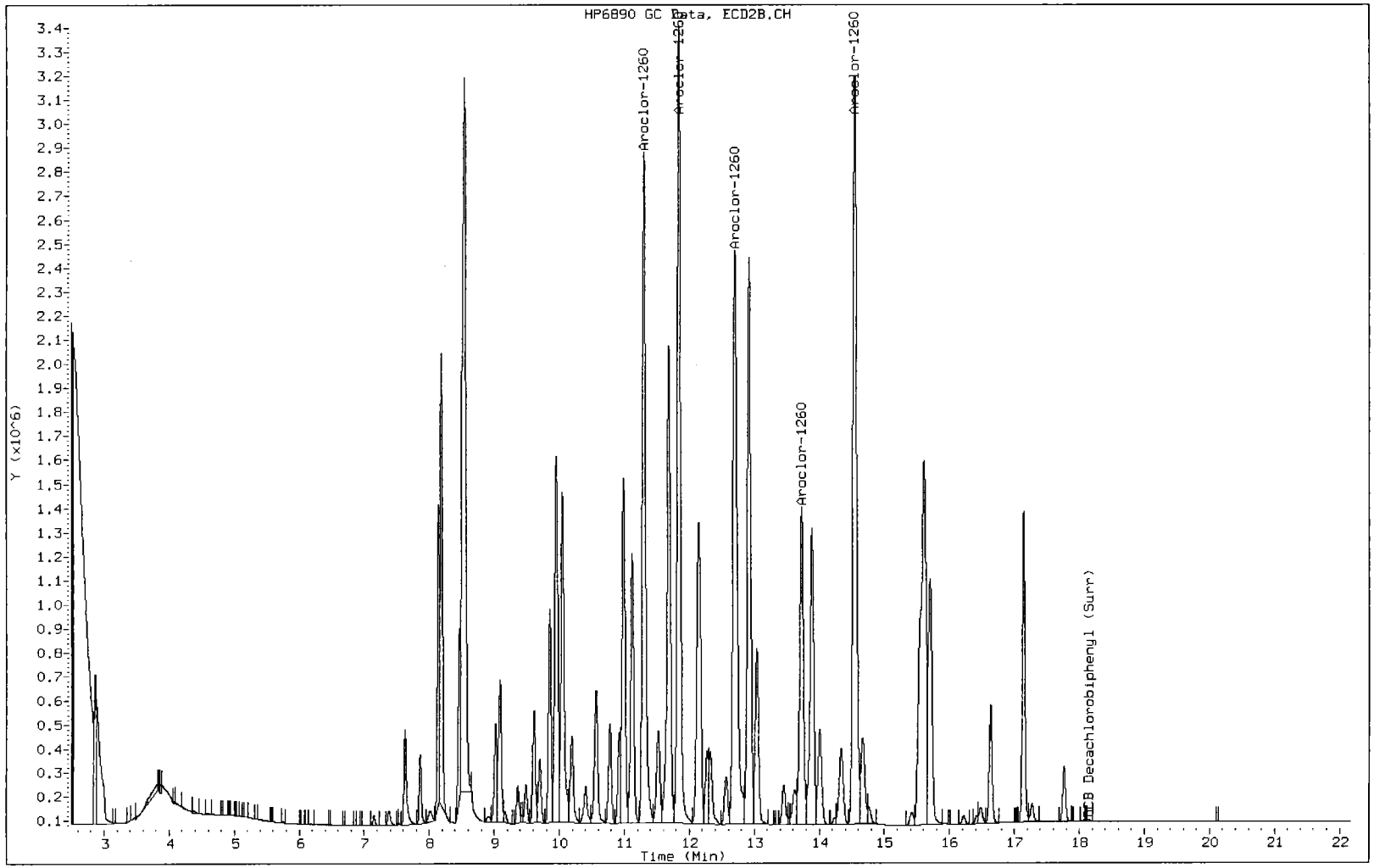
Client ID:

Instrument: gc8.i

Sample Info: 10123B.b

Operator: 01797

SD-161-02



Data File: P1030353.D

Date: 12-OCT-2013 18:39

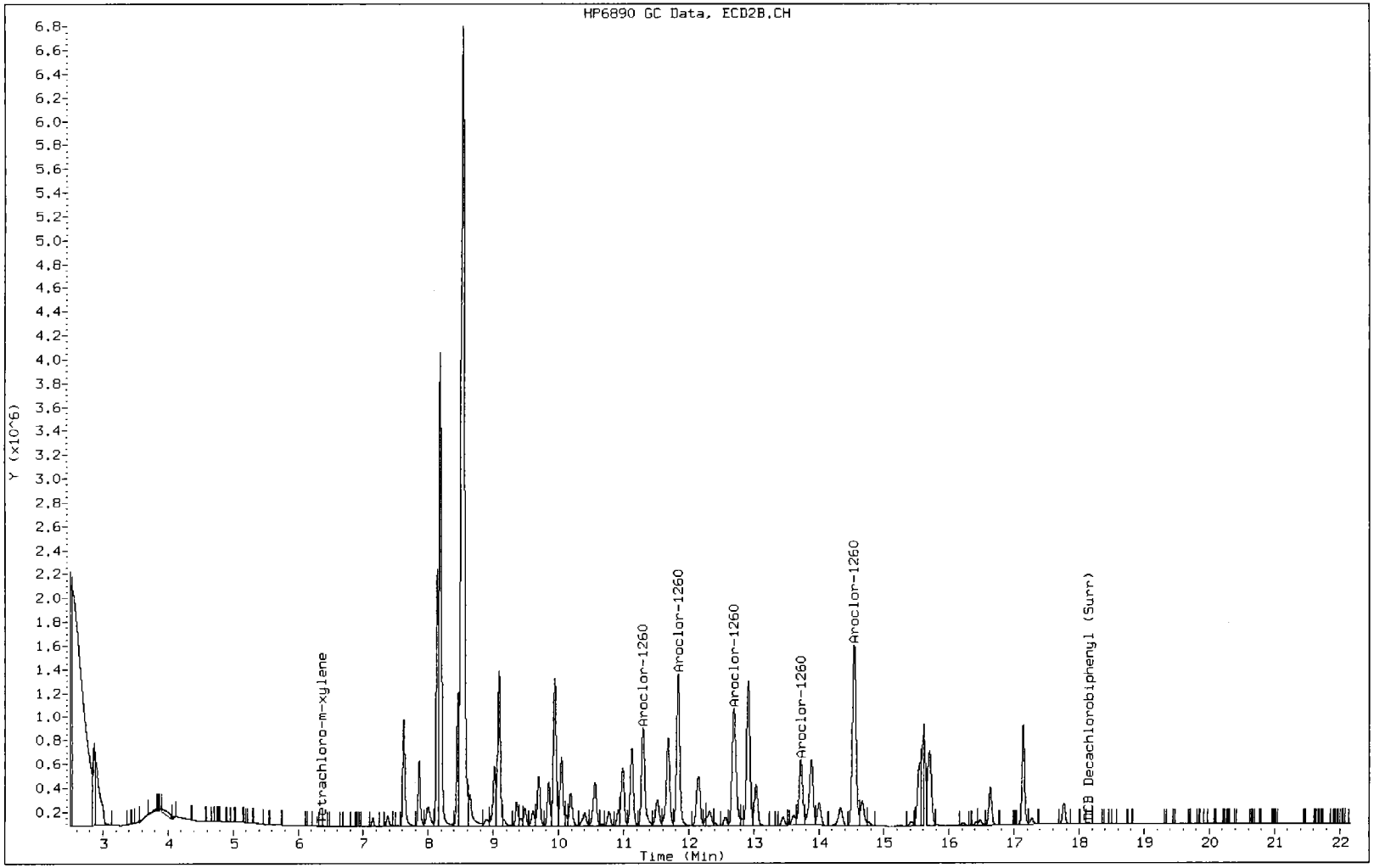
Client ID:

Instrument: gc8.i

Sample Info: 10123B.b

Operator: 01797

SD-161-03



Data File: O1030045.D

Date: 04-OCT-2013 09:19

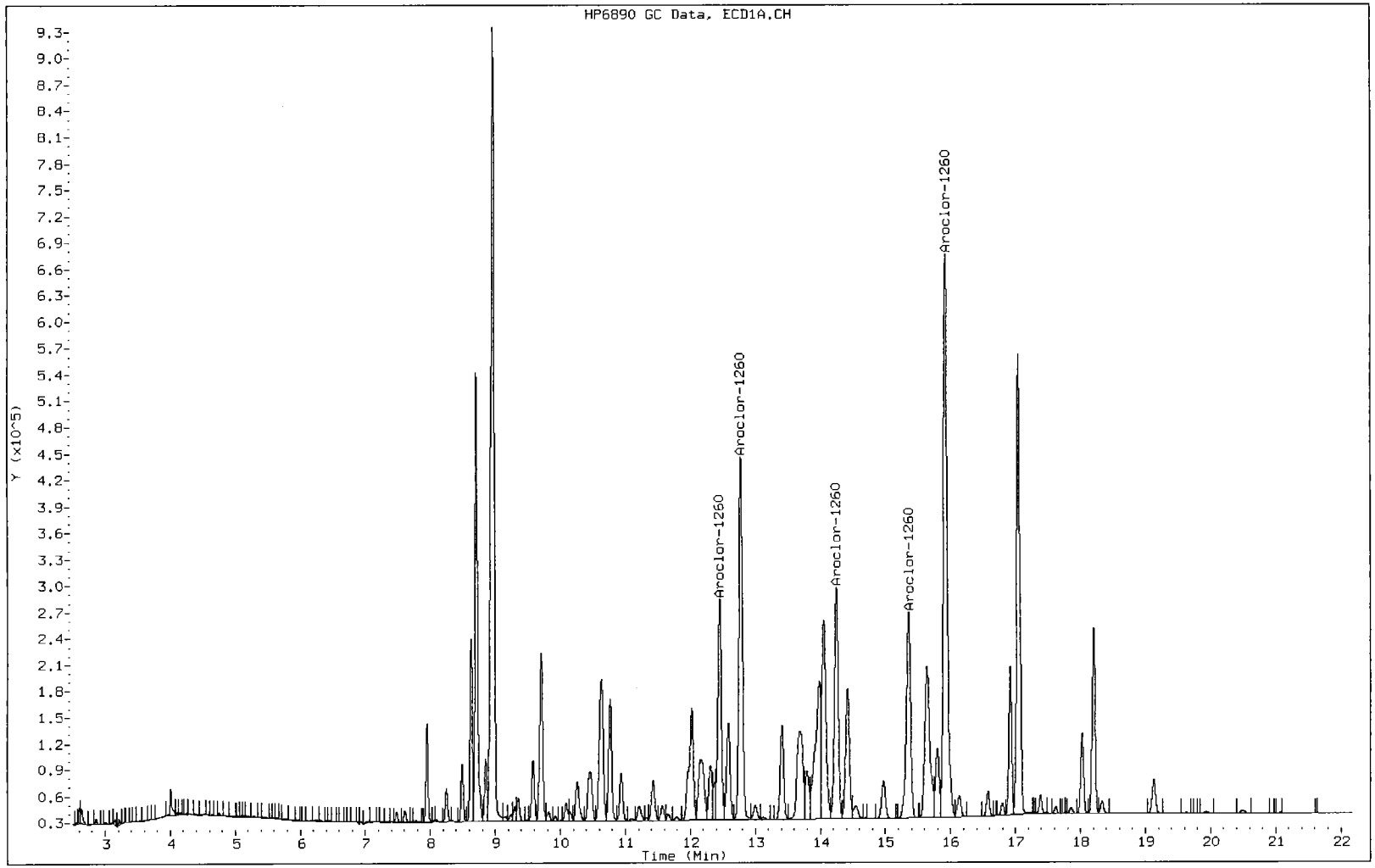
Client ID:

Instrument: gc8.i

Sample Info: 10033A8082ALL.b

Operator: 402360

SD-161-SS



Data File: O1030034.D

Date: 04-OCT-2013 01:22

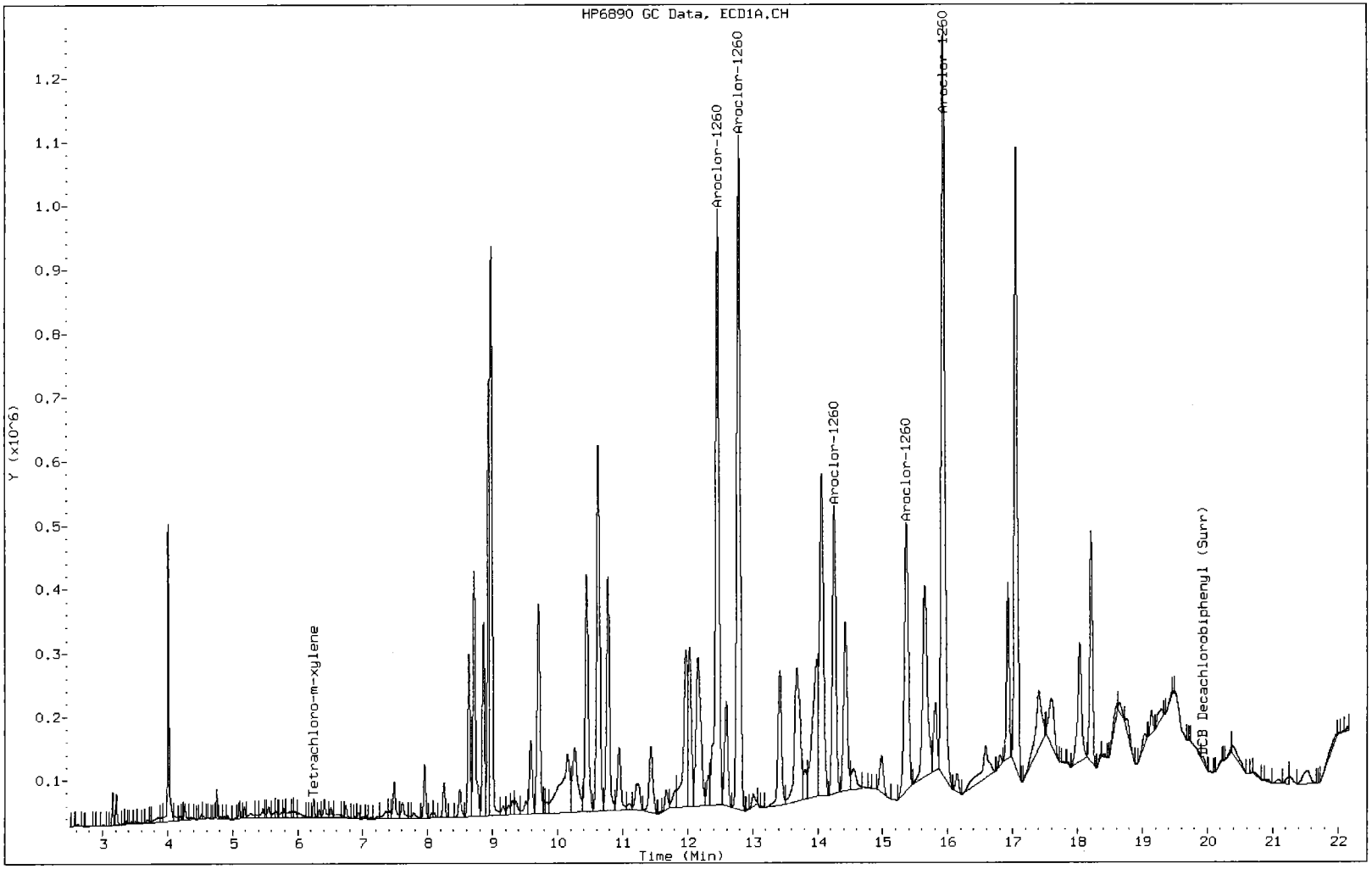
Client ID:

Instrument: gc8.i

Sample Info: 10033A8082ALL.b

Operator: 402360

SD-162-01



Data File: O1030035.D

Date: 04-OCT-2013 01:51

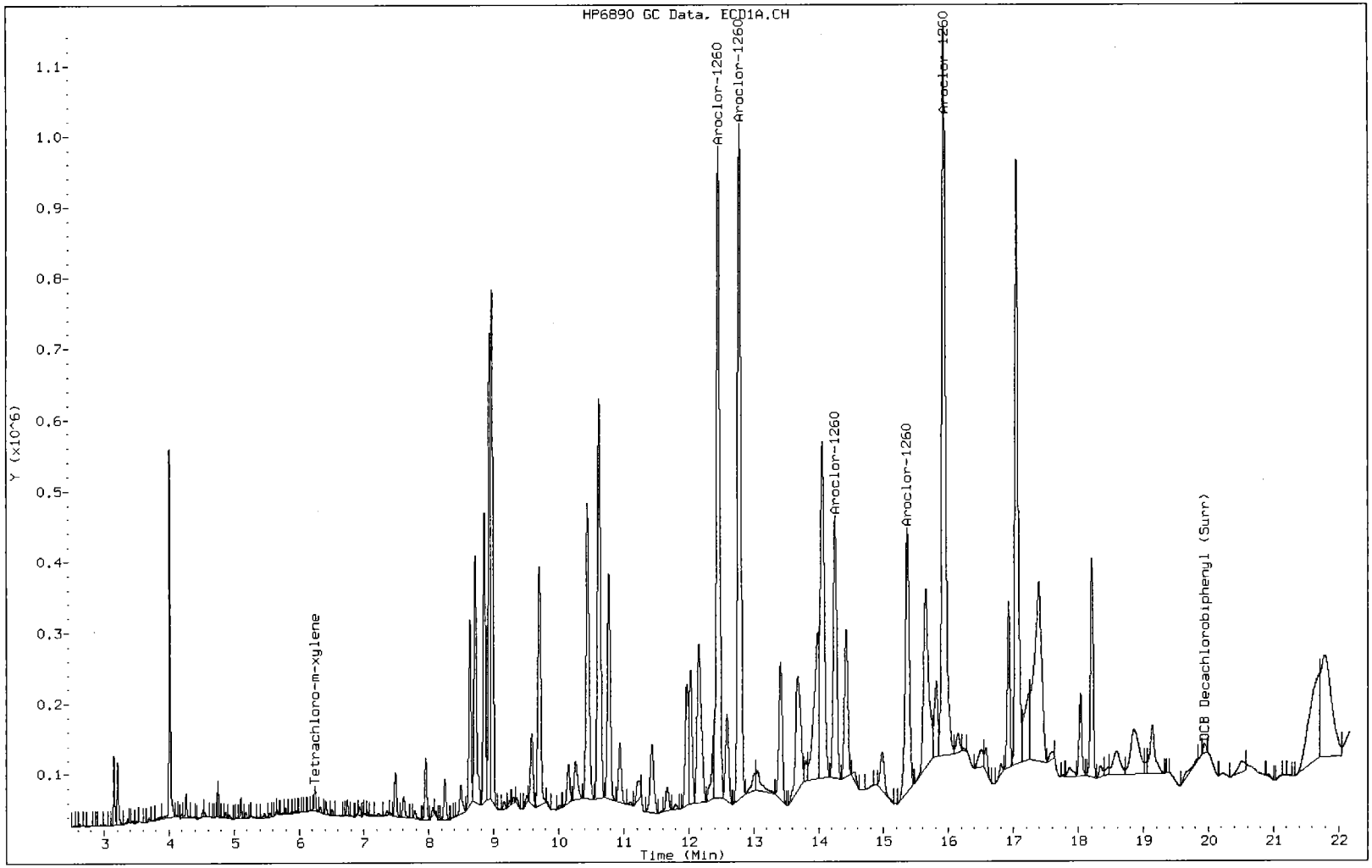
Client ID:

Instrument: gc8.i

Sample Info: 10033A8082ALL.b

Operator: 402360

SD-162-02



Data File: O1030036.D

Date: 04-OCT-2013 02:20

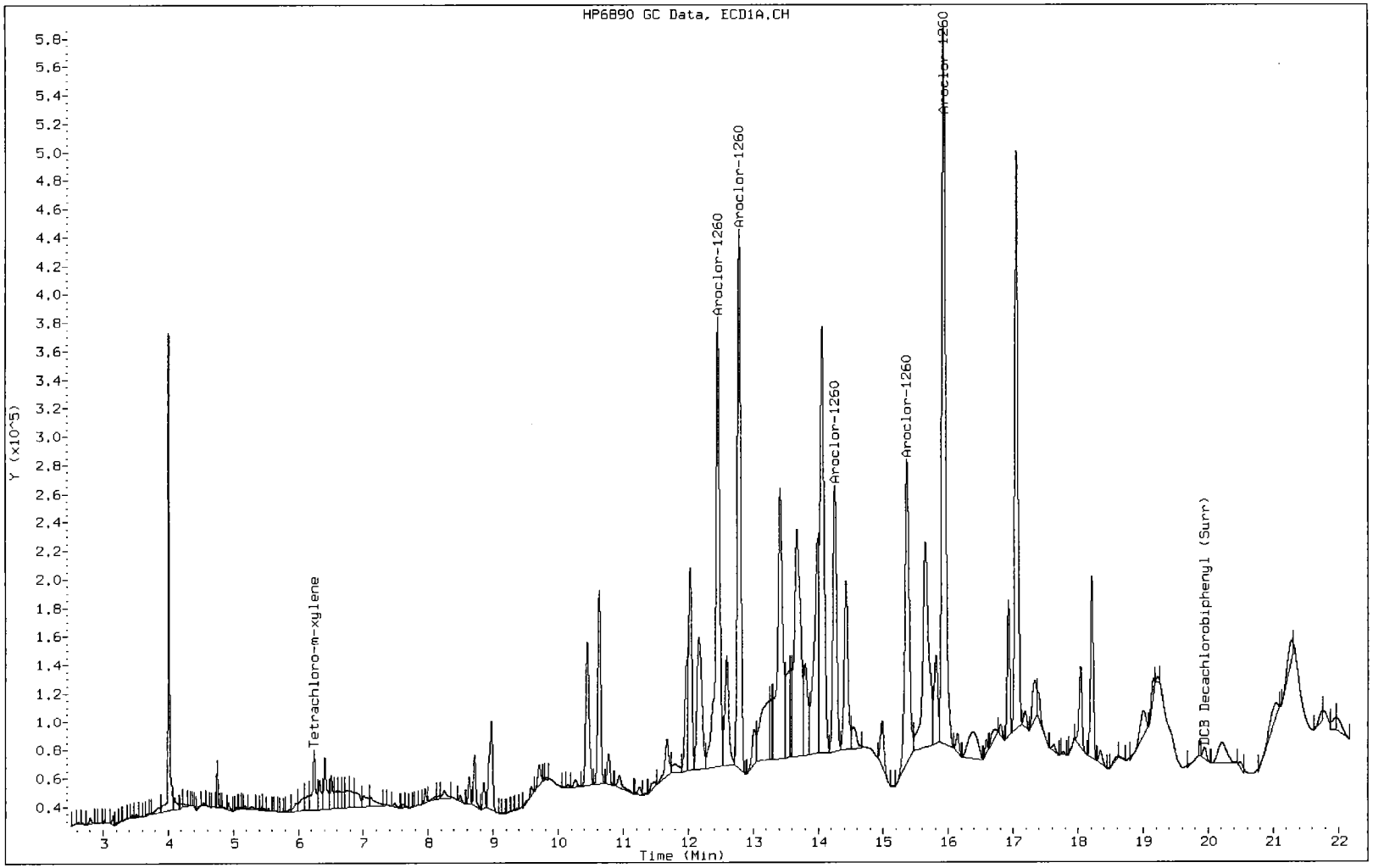
Client ID:

Instrument: gc8.i

Sample Info: 10033A8082ALL.b

Operator: 402360

SD-162-03



Data File: O1030033.D

Date: 04-OCT-2013 00:53

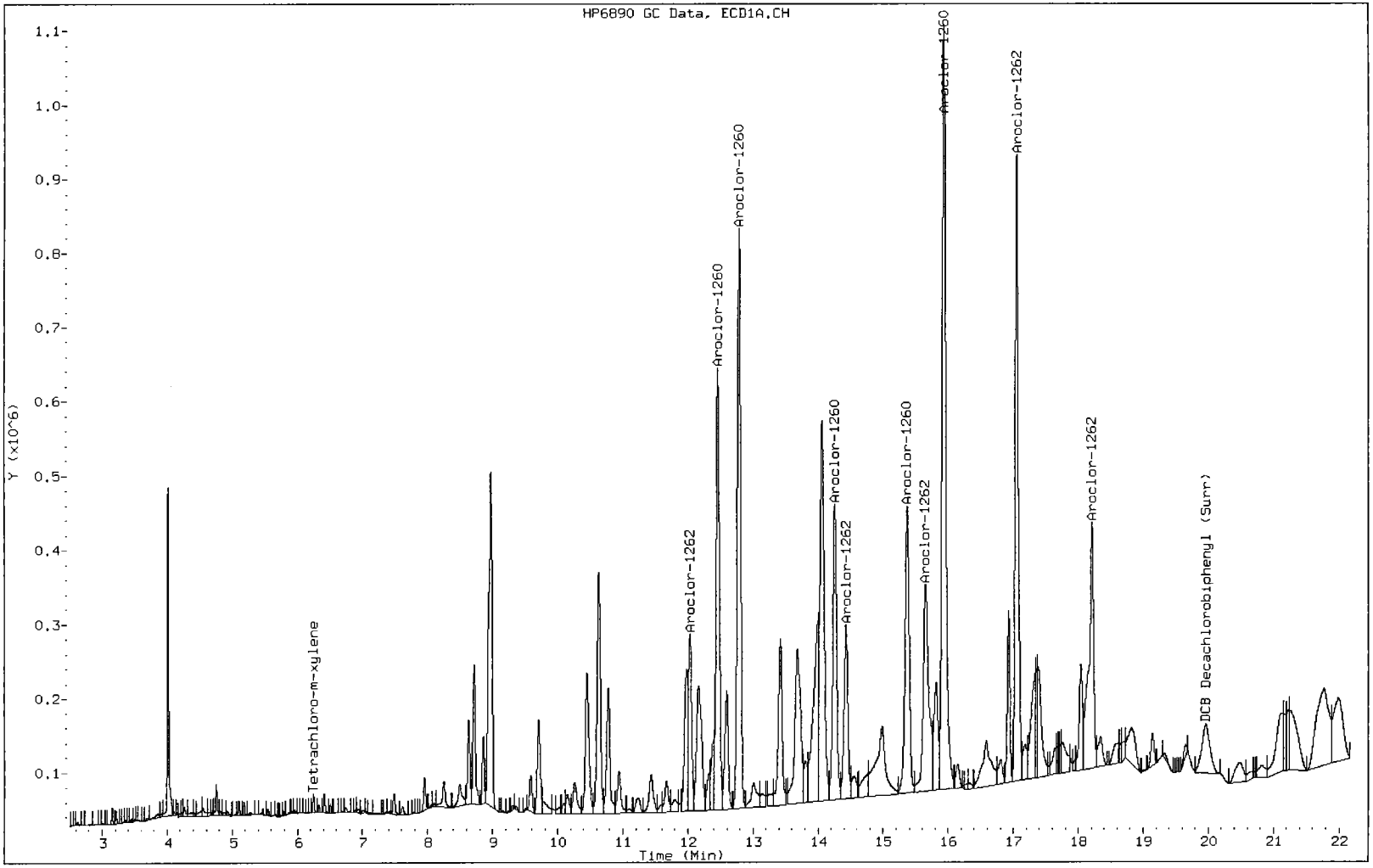
Client ID:

Instrument: gc8.i

Sample Info: 10033A8082ALL.b

Operator: 402360

SD-162-BS



METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 180-25423-1

Description	Lab Location	Method	Preparation Method
Matrix: Sediment			
Semivolatile Organic Compounds by GC/MS - Low Level	TAL PIT	SW846 8270D LL	
Automated Soxhlet Extraction (Low Level)	TAL PIT		SW846 3541
Polychlorinated Biphenyls (PCBs) (GC)	TAL PIT	SW846 8082A	
Automated Soxhlet Extraction (Low Level)	TAL PIT		SW846 3541
Sulfuric Acid/Permanganate Cleanup	TAL PIT		SW846 3665A
Metals (ICP/MS)	TAL PIT	SW846 6020A	
Preparation, Metals	TAL PIT		SW846 3050B
Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	TAL PIT	SW846 7471B	
Preparation, Mercury	TAL PIT		SW846 7471B
SM 2540G	TAL PIT	SM22 2540G	
Organic Carbon, Total (TOC)	TAL PIT	EPA Lloyd Kahn	

Lab References:

TAL PIT = TestAmerica Pittsburgh

Method References:

EPA = US Environmental Protection Agency

SM22 = Standard Methods For The Examination Of Water And Wastewater, 22nd Edition

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

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **AUGUST 29, 2014**

FROM: **MICHELLE L. ALLEN** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PCB HOMOLOGS**
LOCKHEED MARTIN CORPORATION (LMC) – SEDIMENT INVESTIGATION
SDG 680-102252-1

SAMPLES: 27/Sediment/PCB Homologs

SD-195-SS	SD-197-01	SD-197-02
SD-197-03	SD-197-SS	SD-199-01
SD-199-02	SD-199-03	SD-199-SS
SD-200-01	SD-200-02	SD-200-03
SD-200-SS	SD-202-01	SD-202-02
SD-202-SS	SD-204-01	SD-204-02
SD-204-SS	SD-207-01	SD-207-02
SD-207-03	SD-207-SS	SD-209-01
SD-209-02	SD-209-03	SD-DUP 01

Overview

The sample set for LMC, SDG 680-102252-1 consisted of twenty-seven (27) sediment environmental samples. All twenty-seven (27) sediment samples were analyzed for polychlorinated biphenyls (PCB) homologs. One field duplicate sample pair was included in this SDG: SD-DUP 01/SD-199-02.

The samples were collected by Tetra Tech, Inc. on June 11-12, 2014 and analyzed by TestAmerica, Inc. All analyses were conducted in accordance with EPA Method 680 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times/sample preservation, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, laboratory control sample results, matrix spike/matrix spike duplicate results, internal standard areas and recoveries, field duplicate precision, chromatographic resolution, compound identification, and detection limits. Areas of concern are listed below.

Major

No major issues were identified.

Minor

- The Percent Solids (% Solids) was less than 30% in the following samples:

Sample	% Solids
SD-197-01	23.7
SD-197-SS	18.2
SD-199-SS	17.3
SD-200-01	28.9
SD-200-SS	20.2

The detected and non-detected results reported for the PCB homologs in these samples were qualified as estimated, (J) and (UJ), respectively.

- The following PCB homologs were detected in the laboratory method blank at the following maximum concentrations:

PCB Homolog	Maximum Concentration (µg/Kg)	Action Level (µg/Kg)
Heptachlorobiphenyl [1]	11.7	58.5
Hexachlorobiphenyl [1]	17.3	86.5
Pentachlorobiphenyl [1]	1.03	5.15

[1] - Maximum concentration detected in the laboratory method blank MB 680-336158/10-A, from preparation batch #336158 affecting sample SD-204-02.

Action levels of 5X the maximum concentration were established to evaluate for laboratory blank contamination. Percent moisture, dilution factor, and sample aliquot, if necessary, were taken into consideration during the application of the action level. The detected result reported for hexachlorobiphenyl in the affected sample below the established action level was qualified as non-detected, (U).

- The surrogate spike compound, dechlorobiphenyl-13C12, had a Percent Recovery (%R) below the lower quality control limit in sample SD-197-SS. The detected and non-detected reported for the PCB homologs in this sample were qualified as estimated, (J) and (UJ), respectively.

- The internal standard areas for phenanthrene-d10 and chrysene-d12 were above the 130% quality control limit in samples SD-199-02, SD-199-03, SD-204-02, SD-209-01, and SD-DUP 01. In addition, the internal standard area for chrysene-d12 was above 130% in samples SD-199-SS and SD-209-03. The detected results reported for the PCB homologs associated with these internal standards were qualified as estimated, (J).

- The Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses performed on sample SD-204-02 had %Rs for heptachlorobiphenyl below the lower quality control limit. In addition, the MS %R for hexachlorobiphenyl was low. No action was taken for hexachlorobiphenyl because the MSD %R was acceptable and the result in the parent sample was qualified due to blank contamination. The detected result reported heptachlorobiphenyl in the parent sample was qualified as estimated, (J).

- Detected results reported below the RL limit but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

The surrogate recoveries were not evaluated for samples SD-199-01, SD-200-01, SD-200-SS, SD-202-SS, SD-207-01, and SD-207-SS because these samples were analyzed at dilutions.

The following samples were diluted due to concentrations of PCB homologs.

Sample	Dilution
SD-197-01	5X
SD-197-SS	5X
SD-199-01	10X
SD-200-01	10X
SD-200-02	5X
SD-200-SS	10X
SD-202-01	5X
SD-202-SS	50X
SD-204-01	5X
SD-204-SS	5X
SD-207-01	50X
SD-207-02	5X
SD-207-03	5X
SD-207-SS	100X
SD-DUP 01	5X

The MS/MSD analyses performed on sample SD-202-SS had %Rs for nonachlorobiphenyl above the upper quality control limit. The MS and MSD samples were analyzed at a 50X dilution, therefore, this quality control parameter was not evaluated. No action was taken in the parent sample.

Decachlorobiphenyl is used as the calibration congener for nonachlorobiphenyl. The continuing calibration forms were modified by removing nonachlorobiphenyl from the calibration congener list because the results were inaccurate.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: The %Solids exceeded 30% in some samples. PCB homologs were detected in on laboratory method blank. Several samples had high internal standard areas.

Other Factors Affecting Data Quality: Many samples were diluted. The MS/MSD analyses had noncompliant %Rs. One sample had a low surrogate %R. Results below the RL were estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Review" (June 2008) and EPA Method 680 analytical and reporting protocols. The text of this report has been formulated to address only those areas affecting data quality.

Tetra Tech, Inc.
Michelle L. Allen
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 05220	NSAMPLE	SD-195-SS			SD-197-01			SD-197-02			SD-197-03		
SDG: 680-102252-1	LAB_ID	680-102252-4			680-102252-10			680-102252-11			680-102252-12		
FRACTION: PCB	SAMP_DATE	6/10/2014			6/11/2014			6/11/2014			6/11/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	82.6			23.7			58.6			45.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		1	U		17	UJ	Y	1.4	U		1.8	U	
DICHLOROBIPHENYLS		0.42	U		7.3	UJ	Y	0.6	U		0.76	U	
HEPTACHLOROBIPHENYLS		0.61	U		890	J	Y	2.5	J	P	1.1	U	
HEXACHLOROBIPHENYL		0.4	U		1500	J	Y	19			0.71	U	
MONOCHLOROBIPHENYLS		0.23	U		4	UJ	Y	0.32	U		0.41	U	
NONACHLOROBIPHENYLS		4	U		69	UJ	Y	5.6	U		7.1	U	
OCTACHLOROBIPHENYLS		0.64	U		52	J	PY	0.9	U		1.1	U	
PENTACHLOROBIPHENYLS		0.41	U		1300	J	Y	31			8.1	J	P
TETRACHLOROBIPHENYLS		0.45	U		2700	J	Y	60			21		
TRICHLOROBIPHENYLS		0.21	U		73	J	Y	7.3			0.37	U	

PROJ_NO: 05220	NSAMPLE	SD-197-SS			SD-199-01			SD-199-02			SD-199-03		
SDG: 680-102252-1	LAB_ID	680-102252-9			680-102252-14			680-102252-15			680-102252-16		
FRACTION: PCB	SAMP_DATE	6/11/2014			6/11/2014			6/11/2014			6/11/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	18.2			31.2			47.9			67.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		23	UJ	RY	26	U		1.7	U		1.2	U	
DICHLOROBIPHENYLS		9.6	UJ	RY	18	J	P	0.73	U		0.52	U	
HEPTACHLOROBIPHENYLS		170	J	PRY	3900			1	U		0.74	U	
HEXACHLOROBIPHENYL		310	J	RY	5100			5.7	J	NP	0.49	U	
MONOCHLOROBIPHENYLS		5.2	UJ	RY	6.1	U		0.4	U		0.28	U	
NONACHLOROBIPHENYLS		90	UJ	RY	110	U		6.9	U		4.9	U	
OCTACHLOROBIPHENYLS		14	UJ	RY	690			1.1	U		0.78	U	
PENTACHLOROBIPHENYLS		77	J	PRY	4600			17	J	N	0.5	U	
TETRACHLOROBIPHENYLS		300	J	RY	20000			150	J	N	0.55	U	
TRICHLOROBIPHENYLS		4.6	UJ	RY	1200			12	J	N	0.25	U	

PROJ_NO: 05220	NSAMPLE	SD-199-SS			SD-200-01			SD-200-02			SD-200-03		
SDG: 680-102252-1	LAB_ID	680-102252-13			680-102252-6			680-102252-7			680-102252-8		
FRACTION: PCB	SAMP_DATE	6/11/2014			6/10/2014			6/10/2014			6/10/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	17.3			28.9			42.1			70.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		4.8	UJ	NY	29	UJ	Y	9.8	U		1.2	U	
DICHLOROBIPHENYLS		2	UJ	Y	12	UJ	Y	4.2	U		0.5	U	
HEPTACHLOROBIPHENYLS		190	J	NY	4200	J	Y	5.9	U		1.8	J	P
HEXACHLOROBIPHENYL		320	J	Y	4300	J	Y	22	J	P	7.1	J	P
MONOCHLOROBIPHENYLS		1.1	UJ	Y	6.6	UJ	Y	2.3	U		0.27	U	
NONACHLOROBIPHENYLS		19	UJ	Y	110	UJ	Y	39	U		4.7	U	
OCTACHLOROBIPHENYLS		24	J	NPY	520	J	Y	6.3	U		0.75	U	
PENTACHLOROBIPHENYLS		110	J	Y	4500	J	Y	16	J	P	1.5	J	P
TETRACHLOROBIPHENYLS		350	J	Y	16000	J	Y	190			5.2	J	P
TRICHLOROBIPHENYLS		6.9	J	PY	690	J	Y	12	J	P	0.24	U	

PROJ_NO: 05220	NSAMPLE	SD-200-SS			SD-202-01			SD-202-02			SD-202-SS		
SDG: 680-102252-1	LAB_ID	680-102252-5			680-102252-2			680-102252-3			680-102252-1		
FRACTION: PCB	SAMP_DATE	6/10/2014			6/10/2014			6/10/2014			6/10/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	20.2			70.6			75.4			52.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		41	UJ	Y	5.9	U		1.1	U		79	U	
DICHLOROBIPHENYLS		17	UJ	Y	2.5	U		0.46	U		33	U	
HEPTACHLOROBIPHENYLS		1100	J	Y	59	J	P	11	J	P	44000		
HEXACHLOROBIPHENYL		1500	J	Y	95			18			59000		
MONOCHLOROBIPHENYLS		9.4	UJ	Y	1.3	U		0.25	U		18	U	
NONACHLOROBIPHENYLS		160	UJ	Y	23	UJ	D	4.4	UJ	D	400	J	P
OCTACHLOROBIPHENYLS		67	J	Y	3.7	U		0.7	U		5200		
PENTACHLOROBIPHENYLS		910	J	Y	19	J	P	3.9	J	P	18000		
TETRACHLOROBIPHENYLS		1900	J	Y	92			25			10000		
TRICHLOROBIPHENYLS		47	J	PY	2.9	J	P	0.74	J	P	530		

PROJ_NO: 05220	NSAMPLE	SD-204-01			SD-204-02			SD-204-SS			SD-207-01		
SDG: 680-102252-1	LAB_ID	680-102252-22			680-102252-23			680-102252-21			680-102252-25		
FRACTION: PCB	SAMP_DATE	6/11/2014			6/11/2014			6/11/2014			6/11/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	57.9			80.3			51.0			33.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		7.1	U		1	U		7.9	U		120	U	
DICHLOROBIPHENYLS		3	U		0.43	U		6.1	J	P	51	U	
HEPTACHLOROBIPHENYLS		4.3	U		100	J	DN	6500			6800		
HEXACHLOROBIPHENYL		2.8	U		75	U	A	7100			7400		
MONOCHLOROBIPHENYLS		1.6	U		0.24	U	N	1.8	U		28	U	
NONACHLOROBIPHENYLS		28	U		4.1	U		73	J	P	480	U	
OCTACHLOROBIPHENYLS		4.5	U		8.9	J	NP	1200			1800		
PENTACHLOROBIPHENYLS		6.5	J	P	9.1	J	N	2800			17000		
TETRACHLOROBIPHENYLS		79			22	J	N	6300			95000		
TRICHLOROBIPHENYLS		1.5	U		0.91	J	NP	360			6400		

PROJ_NO: 05220	NSAMPLE	SD-207-02			SD-207-03			SD-207-SS			SD-209-01		
SDG: 680-102252-1	LAB_ID	680-102252-26			680-102252-27			680-102252-24			680-102252-18		
FRACTION: PCB	SAMP_DATE	6/11/2014			6/11/2014			6/11/2014			6/11/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	39.4			58.4			31.5			76.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		10	U		7.1	U		260	U		1.1	U	
DICHLOROBIPHENYLS		4.4	U		3	U		110	U		0.45	U	
HEPTACHLOROBIPHENYLS		290			13	J	P	30000			0.65	U	
HEXACHLOROBIPHENYL		510			39	J	P	43000			0.43	U	
MONOCHLOROBIPHENYLS		2.4	U		1.6	U		60	U		0.25	U	
NONACHLOROBIPHENYLS		42	U		28	U		1000	U		4.3	U	
OCTACHLOROBIPHENYLS		52	J	P	4.5	U		7300			0.69	U	
PENTACHLOROBIPHENYLS		880			36	J	P	39000			0.44	U	
TETRACHLOROBIPHENYLS		5300			350			150000			0.99	J	NP
TRICHLOROBIPHENYLS		340			5	J	P	8900			0.22	U	

PROJ_NO: 05220	NSAMPLE	SD-209-02			SD-209-03			SD-DUP01		
SDG: 680-102252-1	LAB_ID	680-102252-19			680-102252-20			680-102252-17		
FRACTION: PCB	SAMP_DATE	6/11/2014			6/11/2014			6/11/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			FD		
	UNITS	UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	76.0			81.4			51.7		
	DUP_OF							SD-199-02		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		1.1	U		1	UJ	N	8	U	
DICHLOROBIPHENYLS		0.46	U		0.43	U		3.4	U	
HEPTACHLOROBIPHENYLS		23			0.61	UJ	N	4.8	U	
HEXACHLOROBIPHENYL		37			2.3	J	P	3.2	U	
MONOCHLOROBIPHENYLS		0.25	U		0.23	U		1.8	U	
NONACHLOROBIPHENYLS		4.3	U		4	U		32	U	
OCTACHLOROBIPHENYLS		3.8	J	P	0.65	UJ	N	5.1	U	
PENTACHLOROBIPHENYLS		12			4.8	J	P	9.2	J	NP
TETRACHLOROBIPHENYLS		25			0.59	J	P	190	J	N
TRICHLOROBIPHENYLS		0.49	J	P	0.21	U		12	J	NP

Appendix B

Results as Reported by the Laboratory

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-195-SS**

Lab Sample ID: 680-102252-4
Client Matrix: Solid
% Moisture: 17.4

Date Sampled: 06/10/2014 1330
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337751	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-335389	Lab File ID:	Fg0618.D
Dilution:	1.0			Initial Weight/Volume:	29.95 g
Analysis Date:	07/06/2014 2042			Final Weight/Volume:	1 mL
Prep Date:	06/24/2014 1156			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		1.0	U	1.0	21
Dichlorobiphenyl		0.42	U	0.42	4.0
Heptachlorobiphenyl		0.61	U	0.61	12
Hexachlorobiphenyl		0.40	U	0.40	8.1
Monochlorobiphenyl		0.23	U	0.23	4.0
Nonachlorobiphenyl		4.0	U	4.0	21
Octachlorobiphenyl		0.64	U	0.64	12
Pentachlorobiphenyl		0.41	U	0.41	8.1
Tetrachlorobiphenyl		0.45	U	0.45	8.1
Trichlorobiphenyl		0.21	U	0.21	4.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	92		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-197-01**

Lab Sample ID: 680-102252-10
Client Matrix: Solid
% Moisture: 76.3

Date Sampled: 06/11/2014 1035
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337778	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-335389	Lab File ID:	Fg0631.D
Dilution:	5.0			Initial Weight/Volume:	30.21 g
Analysis Date:	07/07/2014 0258			Final Weight/Volume:	1 mL
Prep Date:	06/24/2014 1156			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		17	U	17	360
Dichlorobiphenyl		7.3	U	7.3	69
Heptachlorobiphenyl		890		10	210
Hexachlorobiphenyl		1500		6.9	140
Monochlorobiphenyl		4.0	U	4.0	69
Nonachlorobiphenyl		69	U	69	360
Octachlorobiphenyl		52	J	11	210
Pentachlorobiphenyl		1300		7.1	140
Tetrachlorobiphenyl		2700		7.8	140
Trichlorobiphenyl		73		3.6	69

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	69		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-197-02**

Lab Sample ID: 680-102252-11
Client Matrix: Solid
% Moisture: 41.4

Date Sampled: 06/11/2014 1040
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337778	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-335389	Lab File ID:	Fg0632.D
Dilution:	1.0			Initial Weight/Volume:	30.07 g
Analysis Date:	07/07/2014 0326			Final Weight/Volume:	1 mL
Prep Date:	06/24/2014 1156			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		1.4	U	1.4	29
Dichlorobiphenyl		0.60	U	0.60	5.6
Heptachlorobiphenyl		2.5	J	0.85	17
Hexachlorobiphenyl		19		0.56	11
Monochlorobiphenyl		0.32	U	0.32	5.6
Nonachlorobiphenyl		5.6	U	5.6	29
Octachlorobiphenyl		0.90	U	0.90	17
Pentachlorobiphenyl		31		0.58	11
Tetrachlorobiphenyl		60		0.63	11
Trichlorobiphenyl		7.3		0.29	5.6

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	91		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-197-03**

Lab Sample ID: 680-102252-12
Client Matrix: Solid
% Moisture: 54.1

Date Sampled: 06/11/2014 1045
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337778	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-335389	Lab File ID:	Fg0633.D
Dilution:	1.0			Initial Weight/Volume:	30.16 g
Analysis Date:	07/07/2014 0355			Final Weight/Volume:	1 mL
Prep Date:	06/24/2014 1156			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		1.8	U	1.8	37
Dichlorobiphenyl		0.76	U	0.76	7.1
Heptachlorobiphenyl		1.1	U	1.1	22
Hexachlorobiphenyl		0.71	U	0.71	15
Monochlorobiphenyl		0.41	U	0.41	7.1
Nonachlorobiphenyl		7.1	U	7.1	37
Octachlorobiphenyl		1.1	U	1.1	22
Pentachlorobiphenyl		8.1	J	0.74	15
Tetrachlorobiphenyl		21		0.80	15
Trichlorobiphenyl		0.37	U	0.37	7.1

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	88		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-197-SS**

Lab Sample ID: 680-102252-9
Client Matrix: Solid
% Moisture: 81.8

Date Sampled: 06/11/2014 1030
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337778	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-335389	Lab File ID:	Fg0630.D
Dilution:	5.0			Initial Weight/Volume:	30.10 g
Analysis Date:	07/07/2014 0229			Final Weight/Volume:	1 mL
Prep Date:	06/24/2014 1156			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		23	U	23	460
Dichlorobiphenyl		9.6	U	9.6	90
Heptachlorobiphenyl		170	J	14	270
Hexachlorobiphenyl		310		9.0	180
Monochlorobiphenyl		5.2	U	5.2	90
Nonachlorobiphenyl		90	U	90	460
Octachlorobiphenyl		14	U	14	270
Pentachlorobiphenyl		77	J	9.3	180
Tetrachlorobiphenyl		300		10	180
Trichlorobiphenyl		4.6	U	4.6	90

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	28	X	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-199-01**

Lab Sample ID: 680-102252-14
Client Matrix: Solid
% Moisture: 68.8

Date Sampled: 06/11/2014 1115
Date Received: 06/12/2014 0930

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337778	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-335389	Lab File ID:	Fg0635.D
Dilution:	10			Initial Weight/Volume:	30.15 g
Analysis Date:	07/07/2014 0453			Final Weight/Volume:	1 mL
Prep Date:	06/24/2014 1156			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		26	U	26	540
Dichlorobiphenyl		18	J	11	110
Heptachlorobiphenyl		3900		16	320
Hexachlorobiphenyl		5100		11	210
Monochlorobiphenyl		6.1	U	6.1	110
Nonachlorobiphenyl		110	U	110	540
Octachlorobiphenyl		690		17	320
Pentachlorobiphenyl		4600		11	210
Tetrachlorobiphenyl		20000		12	210
Trichlorobiphenyl		1200		5.4	110

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	0	D	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-199-02**

Lab Sample ID: 680-102252-15
Client Matrix: Solid
% Moisture: 52.1

Date Sampled: 06/11/2014 1120
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337778	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-335389	Lab File ID:	Fg0636.D
Dilution:	1.0			Initial Weight/Volume:	30.06 g
Analysis Date:	07/07/2014 0522			Final Weight/Volume:	1 mL
Prep Date:	06/24/2014 1156			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		1.7	U *	1.7	35
Dichlorobiphenyl		0.73	U *	0.73	6.9
Heptachlorobiphenyl		1.0	U *	1.0	21
Hexachlorobiphenyl		5.7	J *	0.69	14
Monochlorobiphenyl		0.40	U *	0.40	6.9
Nonachlorobiphenyl		6.9	U *	6.9	35
Octachlorobiphenyl		1.1	U *	1.1	21
Pentachlorobiphenyl		17	*	0.71	14
Tetrachlorobiphenyl		150	*	0.77	14
Trichlorobiphenyl		12	*	0.35	6.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	91	*	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-199-03**

Lab Sample ID: 680-102252-16
Client Matrix: Solid
% Moisture: 32.5

Date Sampled: 06/11/2014 1125
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337778	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-335389	Lab File ID:	Fg0637.D
Dilution:	1.0			Initial Weight/Volume:	30.12 g
Analysis Date:	07/07/2014 0552			Final Weight/Volume:	1 mL
Prep Date:	06/24/2014 1156			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		1.2	U *	1.2	25
Dichlorobiphenyl		0.52	U *	0.52	4.9
Heptachlorobiphenyl		0.74	U *	0.74	15
Hexachlorobiphenyl		0.49	U *	0.49	9.9
Monochlorobiphenyl		0.28	U *	0.28	4.9
Nonachlorobiphenyl		4.9	U *	4.9	25
Octachlorobiphenyl		0.78	U *	0.78	15
Pentachlorobiphenyl		0.50	U *	0.50	9.9
Tetrachlorobiphenyl		0.55	U *	0.55	9.9
Trichlorobiphenyl		0.25	U *	0.25	4.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	72	*	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-199-SS**

Lab Sample ID: 680-102252-13
Client Matrix: Solid
% Moisture: 82.7

Date Sampled: 06/11/2014 1110
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337778	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-335389	Lab File ID:	Fg0634.D
Dilution:	1.0			Initial Weight/Volume:	30.16 g
Analysis Date:	07/07/2014 0424			Final Weight/Volume:	1 mL
Prep Date:	06/24/2014 1156			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		4.8	U	4.8	98
Dichlorobiphenyl		2.0	U	2.0	19
Heptachlorobiphenyl		190		2.9	58
Hexachlorobiphenyl		320		1.9	39
Monochlorobiphenyl		1.1	U	1.1	19
Nonachlorobiphenyl		19	U	19	98
Octachlorobiphenyl		24	J	3.1	58
Pentachlorobiphenyl		110		2.0	39
Tetrachlorobiphenyl		350		2.1	39
Trichlorobiphenyl		6.9	J	0.98	19

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	55		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-200-01**

Lab Sample ID: 680-102252-6
Client Matrix: Solid
% Moisture: 71.1

Date Sampled: 06/10/2014 1555
Date Received: 06/12/2014 1009

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337751	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-335389	Lab File ID:	Fg0620.D
Dilution:	10			Initial Weight/Volume:	29.98 g
Analysis Date:	07/06/2014 2139			Final Weight/Volume:	1 mL
Prep Date:	06/24/2014 1156			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		29	U	29	590
Dichlorobiphenyl		12	U	12	110
Heptachlorobiphenyl		4200		17	350
Hexachlorobiphenyl		4300		11	230
Monochlorobiphenyl		6.6	U	6.6	110
Nonachlorobiphenyl		110	U	110	590
Octachlorobiphenyl		520		18	350
Pentachlorobiphenyl		4500		12	230
Tetrachlorobiphenyl		16000		13	230
Trichlorobiphenyl		690		5.9	110

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	0	D	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-200-02**

Lab Sample ID: 680-102252-7
Client Matrix: Solid
% Moisture: 57.9

Date Sampled: 06/10/2014 1600
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337751	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-335389	Lab File ID:	Fg0621.D
Dilution:	5.0			Initial Weight/Volume:	30.06 g
Analysis Date:	07/06/2014 2208			Final Weight/Volume:	1 mL
Prep Date:	06/24/2014 1156			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		9.8	U	9.8	200
Dichlorobiphenyl		4.2	U	4.2	39
Heptachlorobiphenyl		5.9	U	5.9	120
Hexachlorobiphenyl		22	J	3.9	79
Monochlorobiphenyl		2.3	U	2.3	39
Nonachlorobiphenyl		39	U	39	200
Octachlorobiphenyl		6.3	U	6.3	120
Pentachlorobiphenyl		16	J	4.0	79
Tetrachlorobiphenyl		190		4.4	79
Trichlorobiphenyl		12	J	2.0	39

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	70		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-200-03**

Lab Sample ID: 680-102252-8
Client Matrix: Solid
% Moisture: 29.3

Date Sampled: 06/10/2014 1605
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337778	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-335389	Lab File ID:	Fg0629.D
Dilution:	1.0			Initial Weight/Volume:	29.92 g
Analysis Date:	07/07/2014 0200			Final Weight/Volume:	1 mL
Prep Date:	06/24/2014 1156			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		1.2	U	1.2	24
Dichlorobiphenyl		0.50	U	0.50	4.7
Heptachlorobiphenyl		1.8	J	0.71	14
Hexachlorobiphenyl		7.1	J	0.47	9.5
Monochlorobiphenyl		0.27	U	0.27	4.7
Nonachlorobiphenyl		4.7	U	4.7	24
Octachlorobiphenyl		0.75	U	0.75	14
Pentachlorobiphenyl		1.5	J	0.48	9.5
Tetrachlorobiphenyl		5.2	J	0.52	9.5
Trichlorobiphenyl		0.24	U	0.24	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	83		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-200-SS**

Lab Sample ID: 680-102252-5
Client Matrix: Solid
% Moisture: 79.8

Date Sampled: 06/10/2014 1550
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337751	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-335389	Lab File ID:	Fg0619.D
Dilution:	10			Initial Weight/Volume:	29.92 g
Analysis Date:	07/06/2014 2111			Final Weight/Volume:	1 mL
Prep Date:	06/24/2014 1156			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		41	U	41	840
Dichlorobiphenyl		17	U	17	160
Heptachlorobiphenyl		1100		25	500
Hexachlorobiphenyl		1500		16	330
Monochlorobiphenyl		9.4	U	9.4	160
Nonachlorobiphenyl		160	U	160	840
Octachlorobiphenyl		67	J	26	500
Pentachlorobiphenyl		910		17	330
Tetrachlorobiphenyl		1900		18	330
Trichlorobiphenyl		47	J	8.4	160

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	0	D	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-202-01**

Lab Sample ID: 680-102252-2
Client Matrix: Solid
% Moisture: 29.4

Date Sampled: 06/10/2014 1225
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337751	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-335389	Lab File ID:	Fg0616.D
Dilution:	5.0			Initial Weight/Volume:	30.04 g
Analysis Date:	07/06/2014 1944			Final Weight/Volume:	1 mL
Prep Date:	06/24/2014 1156			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		5.9	U	5.9	120
Dichlorobiphenyl		2.5	U	2.5	23
Heptachlorobiphenyl		59	J	3.5	71
Hexachlorobiphenyl		95		2.3	47
Monochlorobiphenyl		1.3	U	1.3	23
Nonachlorobiphenyl		23	U	23	120
Octachlorobiphenyl		3.7	U	3.7	71
Pentachlorobiphenyl		19	J	2.4	47
Tetrachlorobiphenyl		92		2.6	47
Trichlorobiphenyl		2.9	J	1.2	23

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	82		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-202-02**

Lab Sample ID: 680-102252-3
Client Matrix: Solid
% Moisture: 24.6

Date Sampled: 06/10/2014 1230
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337751	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-335389	Lab File ID:	Fg0617.D
Dilution:	1.0			Initial Weight/Volume:	29.98 g
Analysis Date:	07/06/2014 2012			Final Weight/Volume:	1 mL
Prep Date:	06/24/2014 1156			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		1.1	U	1.1	23
Dichlorobiphenyl		0.46	U	0.46	4.4
Heptachlorobiphenyl		11	J	0.66	13
Hexachlorobiphenyl		18		0.44	8.9
Monochlorobiphenyl		0.25	U	0.25	4.4
Nonachlorobiphenyl		4.4	U	4.4	23
Octachlorobiphenyl		0.70	U	0.70	13
Pentachlorobiphenyl		3.9	J	0.45	8.9
Tetrachlorobiphenyl		25		0.49	8.9
Trichlorobiphenyl		0.74	J	0.23	4.4

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	97		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-202-SS**

Lab Sample ID: 680-102252-1
Client Matrix: Solid
% Moisture: 47.5

Date Sampled: 06/10/2014 1220
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337751	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-335389	Lab File ID:	Fg0613.D
Dilution:	50			Initial Weight/Volume:	30.07 g
Analysis Date:	07/06/2014 1816			Final Weight/Volume:	1 mL
Prep Date:	06/24/2014 1156			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		79	U	79	1600
Dichlorobiphenyl		33	U	33	310
Heptachlorobiphenyl		44000		47	950
Hexachlorobiphenyl		59000		31	640
Monochlorobiphenyl		18	U	18	310
Nonachlorobiphenyl		400	J	310	1600
Octachlorobiphenyl		5200		50	950
Pentachlorobiphenyl		18000		32	640
Tetrachlorobiphenyl		10000		35	640
Trichlorobiphenyl		530		16	310

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	0	D	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-204-01**

Lab Sample ID: 680-102252-22
Client Matrix: Solid
% Moisture: 42.1

Date Sampled: 06/11/2014 1225
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337937	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-337170	Lab File ID:	Fg0713.D
Dilution:	5.0			Initial Weight/Volume:	30.24 g
Analysis Date:	07/07/2014 2128			Final Weight/Volume:	1 mL
Prep Date:	07/02/2014 0853			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		7.1	U	7.1	150
Dichlorobiphenyl		3.0	U	3.0	28
Heptachlorobiphenyl		4.3	U	4.3	86
Hexachlorobiphenyl		2.8	U	2.8	57
Monochlorobiphenyl		1.6	U	1.6	28
Nonachlorobiphenyl		28	U	28	150
Octachlorobiphenyl		4.5	U	4.5	86
Pentachlorobiphenyl		6.5	J	2.9	57
Tetrachlorobiphenyl		79		3.2	57
Trichlorobiphenyl		1.5	U	1.5	28

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	78		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-204-02**

Lab Sample ID: 680-102252-23
Client Matrix: Solid
% Moisture: 19.7

Date Sampled: 06/11/2014 1230
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337778	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-336158	Lab File ID:	Fg0646.D
Dilution:	1.0			Initial Weight/Volume:	30.10 g
Analysis Date:	07/07/2014 1012			Final Weight/Volume:	1 mL
Prep Date:	06/25/2014 1333			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		1.0	U *	1.0	21
Dichlorobiphenyl		0.43	U *	0.43	4.1
Heptachlorobiphenyl		100	* B	0.62	12
Hexachlorobiphenyl		75	* B	0.41	8.3
Monochlorobiphenyl		0.24	U *	0.24	4.1
Nonachlorobiphenyl		4.1	U *	4.1	21
Octachlorobiphenyl		8.9	J *	0.66	12
Pentachlorobiphenyl		9.1	* B	0.42	8.3
Tetrachlorobiphenyl		22	*	0.46	8.3
Trichlorobiphenyl		0.91	J *	0.21	4.1

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	83	*	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-204-SS**

Lab Sample ID: 680-102252-21
Client Matrix: Solid
% Moisture: 49.0

Date Sampled: 06/11/2014 1220
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337937	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-337170	Lab File ID:	Fg0712.D
Dilution:	5.0			Initial Weight/Volume:	31.03 g
Analysis Date:	07/07/2014 2059			Final Weight/Volume:	1 mL
Prep Date:	07/02/2014 0853			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		7.9	U	7.9	160
Dichlorobiphenyl		6.1	J	3.3	31
Heptachlorobiphenyl		6500		4.7	95
Hexachlorobiphenyl		7100		3.1	64
Monochlorobiphenyl		1.8	U	1.8	31
Nonachlorobiphenyl		73	J	31	160
Octachlorobiphenyl		1200		5.0	95
Pentachlorobiphenyl		2800		3.2	64
Tetrachlorobiphenyl		6300		3.5	64
Trichlorobiphenyl		360		1.6	31

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	58		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-207-01**

Lab Sample ID: 680-102252-25
Client Matrix: Solid
% Moisture: 66.2

Date Sampled: 06/11/2014 1450
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-338065	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-337170	Lab File ID:	XG0818.D
Dilution:	50			Initial Weight/Volume:	30.33 g
Analysis Date:	07/08/2014 2206			Final Weight/Volume:	1 mL
Prep Date:	07/02/2014 0853			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		120	U	120	2500
Dichlorobiphenyl		51	U	51	480
Heptachlorobiphenyl		6800		73	1500
Hexachlorobiphenyl		7400		48	980
Monochlorobiphenyl		28	U	28	480
Nonachlorobiphenyl		480	U	480	2500
Octachlorobiphenyl		1800		78	1500
Pentachlorobiphenyl		17000		50	980
Tetrachlorobiphenyl		95000		54	980
Trichlorobiphenyl		6400		25	480

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	0	D	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-207-02**

Lab Sample ID: 680-102252-26
Client Matrix: Solid
% Moisture: 60.6

Date Sampled: 06/11/2014 1455
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337937	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-337170	Lab File ID:	Fg0716.D
Dilution:	5.0			Initial Weight/Volume:	30.22 g
Analysis Date:	07/07/2014 2255			Final Weight/Volume:	1 mL
Prep Date:	07/02/2014 0853			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		10	U	10	210
Dichlorobiphenyl		4.4	U	4.4	42
Heptachlorobiphenyl		290		6.3	130
Hexachlorobiphenyl		510		4.2	84
Monochlorobiphenyl		2.4	U	2.4	42
Nonachlorobiphenyl		42	U	42	210
Octachlorobiphenyl		52	J	6.7	130
Pentachlorobiphenyl		880		4.3	84
Tetrachlorobiphenyl		5300		4.7	84
Trichlorobiphenyl		340		2.1	42

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	67		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-207-03**

Lab Sample ID: 680-102252-27
Client Matrix: Solid
% Moisture: 41.6

Date Sampled: 06/11/2014 1500
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337937	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-337170	Lab File ID:	Fg0717.D
Dilution:	5.0			Initial Weight/Volume:	30.15 g
Analysis Date:	07/07/2014 2324			Final Weight/Volume:	1 mL
Prep Date:	07/02/2014 0853			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		7.1	U	7.1	140
Dichlorobiphenyl		3.0	U	3.0	28
Heptachlorobiphenyl		13	J	4.3	85
Hexachlorobiphenyl		39	J	2.8	57
Monochlorobiphenyl		1.6	U	1.6	28
Nonachlorobiphenyl		28	U	28	140
Octachlorobiphenyl		4.5	U	4.5	85
Pentachlorobiphenyl		36	J	2.9	57
Tetrachlorobiphenyl		350		3.1	57
Trichlorobiphenyl		5.0	J	1.4	28

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	72		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-207-SS**

Lab Sample ID: 680-102252-24
Client Matrix: Solid
% Moisture: 68.5

Date Sampled: 06/11/2014 1448
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-338412	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-337170	Lab File ID:	XG1006.D
Dilution:	100			Initial Weight/Volume:	30.21 g
Analysis Date:	07/10/2014 1142			Final Weight/Volume:	1 mL
Prep Date:	07/02/2014 0853			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		260	U	260	5400
Dichlorobiphenyl		110	U	110	1000
Heptachlorobiphenyl		30000		160	3200
Hexachlorobiphenyl		43000		100	2100
Monochlorobiphenyl		60	U	60	1000
Nonachlorobiphenyl		1000	U	1000	5400
Octachlorobiphenyl		7300		170	3200
Pentachlorobiphenyl		39000		110	2100
Tetrachlorobiphenyl		150000		120	2100
Trichlorobiphenyl		8900		54	1000

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	0	D	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-209-01**

Lab Sample ID: 680-102252-18
Client Matrix: Solid
% Moisture: 23.1

Date Sampled: 06/11/2014 1400
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337778	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-335389	Lab File ID:	Fg0639.D
Dilution:	1.0			Initial Weight/Volume:	30.17 g
Analysis Date:	07/07/2014 0649			Final Weight/Volume:	1 mL
Prep Date:	06/24/2014 1156			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		1.1	U *	1.1	22
Dichlorobiphenyl		0.45	U *	0.45	4.3
Heptachlorobiphenyl		0.65	U *	0.65	13
Hexachlorobiphenyl		0.43	U *	0.43	8.7
Monochlorobiphenyl		0.25	U *	0.25	4.3
Nonachlorobiphenyl		4.3	U *	4.3	22
Octachlorobiphenyl		0.69	U *	0.69	13
Pentachlorobiphenyl		0.44	U *	0.44	8.7
Tetrachlorobiphenyl		0.99	J *	0.48	8.7
Trichlorobiphenyl		0.22	U *	0.22	4.3

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	88	*	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-209-02**

Lab Sample ID: 680-102252-19
Client Matrix: Solid
% Moisture: 24.0

Date Sampled: 06/11/2014 1405
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337778	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-335389	Lab File ID:	Fg0640.D
Dilution:	1.0			Initial Weight/Volume:	29.97 g
Analysis Date:	07/07/2014 0718			Final Weight/Volume:	1 mL
Prep Date:	06/24/2014 1156			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		1.1	U	1.1	22
Dichlorobiphenyl		0.46	U	0.46	4.3
Heptachlorobiphenyl		23		0.66	13
Hexachlorobiphenyl		37		0.43	8.8
Monochlorobiphenyl		0.25	U	0.25	4.3
Nonachlorobiphenyl		4.3	U	4.3	22
Octachlorobiphenyl		3.8	J	0.70	13
Pentachlorobiphenyl		12		0.45	8.8
Tetrachlorobiphenyl		25		0.49	8.8
Trichlorobiphenyl		0.49	J	0.22	4.3

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	85		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-209-03**

Lab Sample ID: 680-102252-20
Client Matrix: Solid
% Moisture: 18.6

Date Sampled: 06/11/2014 1410
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337778	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-335389	Lab File ID:	Fg0641.D
Dilution:	1.0			Initial Weight/Volume:	30.08 g
Analysis Date:	07/07/2014 0747			Final Weight/Volume:	1 mL
Prep Date:	06/24/2014 1156			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		1.0	U	1.0	21
Dichlorobiphenyl		0.43	U	0.43	4.0
Heptachlorobiphenyl		0.61	U	0.61	12
Hexachlorobiphenyl		2.3	J	0.40	8.2
Monochlorobiphenyl		0.23	U	0.23	4.0
Nonachlorobiphenyl		4.0	U	4.0	21
Octachlorobiphenyl		0.65	U	0.65	12
Pentachlorobiphenyl		4.8	J	0.42	8.2
Tetrachlorobiphenyl		0.59	J	0.45	8.2
Trichlorobiphenyl		0.21	U	0.21	4.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	81		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Client Sample ID: **SD-DUP 01**

Lab Sample ID: 680-102252-17FD
Client Matrix: Solid
% Moisture: 48.3

Date Sampled: 06/11/2014 0000
Date Received: 06/12/2014 0933

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-337778	Instrument ID:	CMSF
Prep Method:	680	Prep Batch:	680-335389	Lab File ID:	Fg0638.D
Dilution:	5.0			Initial Weight/Volume:	30.12 g
Analysis Date:	07/07/2014 0620			Final Weight/Volume:	1 mL
Prep Date:	06/24/2014 1156			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		8.0	U *	8.0	160
Dichlorobiphenyl		3.4	U *	3.4	32
Heptachlorobiphenyl		4.8	U *	4.8	96
Hexachlorobiphenyl		3.2	U *	3.2	64
Monochlorobiphenyl		1.8	U *	1.8	32
Nonachlorobiphenyl		32	U *	32	160
Octachlorobiphenyl		5.1	U *	5.1	96
Pentachlorobiphenyl		9.2	J *	3.3	64
Tetrachlorobiphenyl		190	*	3.6	64
Trichlorobiphenyl		12	J *	1.6	32

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	77	*	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-195-SS**

Lab Sample ID: 680-102252-4
Client Matrix: Solid

Date Sampled: 06/10/2014 1330
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	17		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-197-01**

Lab Sample ID: 680-102252-10
Client Matrix: Solid

Date Sampled: 06/11/2014 1035
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	76		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-197-02**

Lab Sample ID: 680-102252-11
Client Matrix: Solid

Date Sampled: 06/11/2014 1040
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	41		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-197-03**

Lab Sample ID: 680-102252-12
Client Matrix: Solid

Date Sampled: 06/11/2014 1045
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	54		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-197-SS**

Lab Sample ID: 680-102252-9
Client Matrix: Solid

Date Sampled: 06/11/2014 1030
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	82		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-199-01**

Lab Sample ID: 680-102252-14
Client Matrix: Solid

Date Sampled: 06/11/2014 1115
Date Received: 06/12/2014 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	69		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-199-02**

Lab Sample ID: 680-102252-15
Client Matrix: Solid

Date Sampled: 06/11/2014 1120
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	52		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-199-03**

Lab Sample ID: 680-102252-16
Client Matrix: Solid

Date Sampled: 06/11/2014 1125
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	32		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-199-SS**

Lab Sample ID: 680-102252-13
Client Matrix: Solid

Date Sampled: 06/11/2014 1110
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	83		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-200-01**

Lab Sample ID: 680-102252-6
Client Matrix: Solid

Date Sampled: 06/10/2014 1555
Date Received: 06/12/2014 1009

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	71		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-200-02**

Lab Sample ID: 680-102252-7
Client Matrix: Solid

Date Sampled: 06/10/2014 1600
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	58		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-200-03**

Lab Sample ID: 680-102252-8
Client Matrix: Solid

Date Sampled: 06/10/2014 1605
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	29		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-200-SS**

Lab Sample ID: 680-102252-5
Client Matrix: Solid

Date Sampled: 06/10/2014 1550
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	80		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-202-01**

Lab Sample ID: 680-102252-2
Client Matrix: Solid

Date Sampled: 06/10/2014 1225
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	29		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-202-02**

Lab Sample ID: 680-102252-3
Client Matrix: Solid

Date Sampled: 06/10/2014 1230
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	25		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-202-SS**

Lab Sample ID: 680-102252-1
Client Matrix: Solid

Date Sampled: 06/10/2014 1220
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	47		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-204-01**

Lab Sample ID: 680-102252-22
Client Matrix: Solid

Date Sampled: 06/11/2014 1225
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	42		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-204-02**

Lab Sample ID: 680-102252-23
Client Matrix: Solid

Date Sampled: 06/11/2014 1230
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	20		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-204-SS**

Lab Sample ID: 680-102252-21
Client Matrix: Solid

Date Sampled: 06/11/2014 1220
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	49		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-207-01**

Lab Sample ID: 680-102252-25
Client Matrix: Solid

Date Sampled: 06/11/2014 1450
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	66		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-207-02**

Lab Sample ID: 680-102252-26
Client Matrix: Solid

Date Sampled: 06/11/2014 1455
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	61		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-207-03**

Lab Sample ID: 680-102252-27
Client Matrix: Solid

Date Sampled: 06/11/2014 1500
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	42		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-207-SS**

Lab Sample ID: 680-102252-24
Client Matrix: Solid

Date Sampled: 06/11/2014 1448
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	69		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-209-01**

Lab Sample ID: 680-102252-18
Client Matrix: Solid

Date Sampled: 06/11/2014 1400
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	23		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-209-02**

Lab Sample ID: 680-102252-19
Client Matrix: Solid

Date Sampled: 06/11/2014 1405
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	24		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-209-03**

Lab Sample ID: 680-102252-20
Client Matrix: Solid

Date Sampled: 06/11/2014 1410
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	19		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

General Chemistry

Client Sample ID: **SD-DUP 01**

Lab Sample ID: 680-102252-17FD
Client Matrix: Solid

Date Sampled: 06/11/2014 0000
Date Received: 06/12/2014 0933

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	48		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-333961 Analysis Date: 06/12/2014 1700 DryWt Corrected: N

Appendix C

Support Documentation

MRC SEDIMENT INVESTIGATION

SEDIMENT DATA

680-102252-1

(1X) (5X)

FRACTION	CHEMICAL		SD-199-02	UNITS	SD-DUP 01	RPD	D
PCB	HEXACHLOROBIPHENYL	RL = 14	5.7 J *	UG/KG	ND	200.00	5.70 ✓
PCB	PENTACHLOROBIPHENYLS	RL = 14	17 J	UG/KG	9.2 J	59.54	7.80 ✓
PCB	TETRACHLOROBIPHENYLS		150 J	UG/KG	190 J	23.53	40.00
PCB	TRICHLOROBIPHENYLS		12 J	UG/KG	12 J	0.00	0.00

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

LMC - MRC
SDG 680-102252-1

SAMPLE IDENTIFICATION	SD-207-SS
COMPOUND	TETRACHLOROBIPHENYL
COMPOUND AREA	528645
INTERNAL STANDARD AMOUNT (ng)	0.75
DILUTION FACTOR	100
INTERNAL STANDARD AREA	84662
AVERAGE RRF	0.3256
% SOLIDS	0.315
WEIGHT OF SAMPLE (g)	30.21
VOLUME EXTRACT (µl)	1000
VOLUME INJECTED (µl)	1
ng to µg	1000
g to Kg	1000
CONCENTRATION =	151144 ng/g OR µg/Kg

528645*0.75ng*1000µl*100*1µg*1000g/(84662*0.3256*30.21g*1µl*0.315*1000ng*1Kg)

Report Date: 26-Jul-2014 20:44:31 Chrom Revision: 2.2 24-Jul-2014 14:43:32

TestAmerica Savannah
Target Compound Quantitation Report

DF = 100X
RRF = 0.3256

Data File: \\SAVCHROM\ChromData\CMSX\20140710-10871.b\XG1006.D
Lims ID: 680-102252-A-24-D Lab Sample ID: 680-102252-24
Client ID: SD-207-SS
Sample Type: Client
Inject. Date: 10-Jul-2014 11:42:30 ALS Bottle#: 5 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 100.0000
Sample Info: 102252-A-24-D DL=100
Misc. Info.: 680-0010871-006
Operator ID: nmd Instrument ID: CMSX

% solid = 31.5%
30.21g / 1ml

Method: \\SAVCHROM\ChromData\CMSX\20140710-10871.b\680_CMSX.m
Limit Group: 680
Last Update: 26-Jul-2014 20:44:30 Calib Date: 08-Jul-2014 15:58:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\SAVCHROM\ChromData\CMSX\20140708-10816.b\XG0808.D

Column 1 : Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: davisn Date: 25-Jul-2014 18:56:05

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
* 5 Phenanthrene-d10	188	10.378	10.378	0.0	99	84662	0.7500	
A 25 Trichlorobiphenyl	256	11.254	9.940 - 12.568		0	42484	0.8464	
A 26 Tetrachlorobiphenyl	292	12.743	11.036 - 14.449		0	528645	14.4	
A 27 Pentachlorobiphenyl	326	14.144	12.306 - 15.981		0	103528	3.68	
A 28 1,1'-Biphenyl, hexachloro-	360	15.431	13.480 - 17.383		0	113114	4.08	
* 15 Chrysene-d12	240	16.506	16.508	-0.002	100	90792	0.7500	
A 29 1,1'-Biphenyl, heptachloro-	394	16.559	15.092 - 18.025		0	66116	2.82	
A 30 1,1'-Biphenyl, octachloro-	430	17.649	16.578 - 18.721		0	15052	0.6975	
A 31 1,1'-Biphenyl, nonachloro-	464	18.704	18.150 - 19.258		0	397	0.0523	

Reagents:

SM-680istd_00027 Amount Added: 30.00 Units: uL Run Reagent

PCB

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: S. Cameron	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-56831-24906.6
Client Contact: Mike Martin	Phone: (703) 342-8389	E-Mail: jerry.lanier@testamericainc.com		Page: Page ~~6 of 40~~ 1 of 3
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days):			
State, Zip: MD, 20874				
Phone:	PO #: Purchase Order not required			
Email: MIchael.Martin@tetratech.com	WO #:			
Project Name: Sediments	Project #: 68012942			
Site: Dark Head Cove	SSOW#:			

Analysis Requested

680-102252 Chain of Custody

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680 - Local Method	A01R_Th - Standard Target List	6020, 7470A *	GA_01_R_Ra - (MOD) Radium-226/228	Total Number of containers	Special Instructions/Note:
				Preservation Code:	X	X	N	N	N	N	X	
SD-202-SS	6/10/14	1220	C	Solid			X					
SD-202-01		1225	C	Solid			X					
SD-202-02		1230	C	Solid			X					
SD-195-SS		1330	C	Solid			X					
~~TCLP 195-200~~				~~Solid~~					X			* Following PCB Analysis,
SD-200-SS		1550	C	Solid			X					submit sample with
SD-200-01		1555	C	Solid			X					highest concentration
SD-200-02		1600	C	Solid			X					for TCLP Analysis.
SD-200-03		1605	C	Solid			X					[redacted]
SD-197-SS	6/11/14	1030	C	Solid			X					[redacted]
SD-197-01	6/11/14	1035	C	Solid			X					[redacted]

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 6-11-14 / 1600	Company: Tt	Received by: [signature]	Date/Time: 6/11/14 / 1600	Company: TestAmerica
Relinquished by: [signature]	Date/Time: 6/11/14 / 1715	Company: TestAmerica	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by: [signature]	Date/Time: 06/12/14 0933	Company: TA SD

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.4°C 680-102252

PCB

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Stu Cameron	Lab PM: Lanier, Jerry A	Carrier Tracking No(s): -	COC No: 680-56831-24906.8
Client Contact: Mike Martin	Phone: (703)742-8389	E-Mail: jerry.lanier@testamericainc.com		Page: ~~8 of 46~~ 2 of 3
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days):			
State, Zip: MD, 20874				
Phone:	PO #: Purchase Order not required			
Email: MIchael.Martin@tetratech.com	WO #:			
Project Name: Sediments	Project #: 68012942			
Site:	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680 - Local Method	A01R_Th - Standard Target List	6020, 7470A	GA_01_R_Ra - (MOD) Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N		
SD-197-02	6/11/14	1040	C	Solid			X					
SD-197-03		1045	C	Solid			X					
SD-199-55		1110	C	Solid			X					
SD-199-01		1115	C	Solid			X					
SD-199-02		1120	C	Solid			X					
SD-199-03		1125	C	Solid			X					
SD-DUP 01		0000	C	Solid			X					
SD-209-01		1400	C	Solid			X					
SD-209-02		1405	C	Solid			X					
SD-209-03		1410	C	Solid			X					
SD-204-55		1220	C	Solid			X					

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6-11-14 / 1600	TT	[signature]	6/11/14 / 1600	TestAmerica
[signature]	6/11/14 / 1715	TestAmerica			
			[signature]	06/12/14 0933	TA W

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 680-102252

PCB

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Stu Gmpion	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-56831-24906.9
Client Contact: Mike Martin	Phone: (703)342-8389	E-Mail: jerry.lanier@testamericainc.com		Page: Page ~~9 of 40~~ 3 of 3
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days):			
State, Zip: MD, 20874				
Phone:	PO #: Purchase Order not required			
Email: MIchael.Martin@tetratech.com	WO #:			
Project Name: Sediments	Project #: 68012942			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680 - Local Method	A01R_Th - Standard Target List	6020, 7470A	GA_01_R_Ra - (MOD) Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N		
SD-204-01	6/11/14	1225	C	Solid			X					
SD-204-02	↓	1230	C	Solid			X					
SD-207-SS		1448	C	Solid			X					
SD-207-01		1450	C	Solid			X					
SD-207-02		1455	C	Solid			X					
SD-207-03		1500	C	Solid			X					
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 6-11-14 / 1600	Company: Tt	Received by: [signature]	Date/Time: 6/11/14 / 1600	Company: TestAmerica
Relinquished by: [signature]	Date/Time: 6/11/14 / 1715	Company: TestAmerica	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 06/12/14 0933	Company: TAB
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 680-102252		

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
SDG Number: 680102252-1

Login Number: 102252
List Number: 1
Creator: Conner, Keaton

List Source: TestAmerica Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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 containers received 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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: Sediments

Report Number: 680-102252-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 06/12/2014, 06/12/2014 and 06/12/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.4 C.

The SDG was revised to include the raw data ratios for the compounds, surrogate and internal standard for method 680.

POLYCHLORINATED BIPHENYLS (PCBS)

Samples SD-202-SS (680-102252-1), SD-202-01 (680-102252-2), SD-202-02 (680-102252-3), SD-195-SS (680-102252-4), SD-200-SS (680-102252-5), SD-200-01 (680-102252-6), SD-200-02 (680-102252-7), SD-200-03 (680-102252-8), SD-197-SS (680-102252-9), SD-197-01 (680-102252-10), SD-197-02 (680-102252-11), SD-197-03 (680-102252-12), SD-199-SS (680-102252-13), SD-199-01 (680-102252-14), SD-199-02 (680-102252-15), SD-199-03 (680-102252-16), SD-DUP 01 (680-102252-17), SD-209-01 (680-102252-18), SD-209-02 (680-102252-19), SD-209-03 (680-102252-20), SD-204-SS (680-102252-21), SD-204-01 (680-102252-22), SD-204-02 (680-102252-23), SD-207-SS (680-102252-24), SD-207-01 (680-102252-25), SD-207-02 (680-102252-26) and SD-207-03 (680-102252-27) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 680. The samples were prepared on 06/24/2014, 06/25/2014 and 07/02/2014 and analyzed on 07/06/2014, 07/07/2014, 07/08/2014 and 07/10/2014.

Internal standard (ISTD) response for the following sample(s) was outside of acceptance limits when compared to the area of the CCVIS. It passes when compared the average internal standard area of the ICAL per the 680 method..: (680-102252-23 MS), (680-102252-23 MSD), (LCS 680-336158/11-A), SD-199-02 (680-102252-15), SD-199-03 (680-102252-16), SD-204-02 (680-102252-23), SD-209-01 (680-102252-18), SD-DUP 01 (680-102252-17).

Heptachlorobiphenyl and Hexachlorobiphenyl were detected in method blank MB 680-336158/10-A at levels exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Associated samples were not re-analyzed because results were less than 1/2 the reporting limit (RL) OR practical quantitation limit (PQL) with the exception of SD-204-02 (680-102252-23). There was insufficient sample for SD-204-02 (680-102252-23) to perform a re-extraction and/or re-analysis; therefore, the data have been reported.

Pentachlorobiphenyl was detected in method blank MB 680-336158/10-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

The following samples were diluted due to the nature of the sample matrix and abundance of target analytes : (680-102252-1 MS), (680-102252-1 MSD), SD-200-01 (680-102252-6), SD-200-SS (680-102252-5), SD-202-SS (680-102252-1), SD-199-01 (680-102252-14), SD-207-SS (680-102252-24), and SD-207-01 (680-102252-25). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Surrogate recovery for the following sample was outside control limits: SD-197-SS (680-102252-9). Re-extraction and/or re-analysis was performed with concurring results. The original analysis has been reported.

Tetrachlorobiphenyl and Trichlorobiphenyl exceeded the recovery criteria low for the MS of sample SD-202-SSMS (680-102252-1) in batch 680-337751. Heptachlorobiphenyl, Hexachlorobiphenyl, Octachlorobiphenyl and Pentachlorobiphenyl exceeded the recovery criteria high.

Tetrachlorobiphenyl exceeded the recovery criteria low for the MSD of sample SD-202-SSMSD (680-102252-1) in batch 680-337751. Several analytes exceeded the recovery criteria high.

Heptachlorobiphenyl and Hexachlorobiphenyl exceeded the recovery criteria low for the MS of sample SD-204-02MS (680-102252-23) in batch 680-337778.

Heptachlorobiphenyl exceeded the recovery criteria low for the MSD of sample SD-204-02MSD (680-102252-23) in batch 680-337778.

The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

Samples SD-202-SS (680-102252-1)[50X], SD-202-01 (680-102252-2)[5X], SD-200-SS (680-102252-5)[10X], SD-200-01 (680-102252-6) [10X], SD-200-02 (680-102252-7)[5X], SD-197-SS (680-102252-9)[5X], SD-197-01 (680-102252-10)[5X], SD-199-01 (680-102252-14) [10X], SD-DUP 01 (680-102252-17)[5X], SD-204-SS (680-102252-21)[5X], SD-204-01 (680-102252-22)[5X], SD-207-SS (680-102252-24) [100X], SD-207-01 (680-102252-25)[50X], SD-207-02 (680-102252-26)[5X] and SD-207-03 (680-102252-27)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

PERCENT SOLIDS/MOISTURE

Samples SD-202-SS (680-102252-1), SD-202-01 (680-102252-2), SD-202-02 (680-102252-3), SD-195-SS (680-102252-4), SD-200-SS (680-102252-5), SD-200-01 (680-102252-6), SD-200-02 (680-102252-7), SD-200-03 (680-102252-8), SD-197-SS (680-102252-9), SD-197-01 (680-102252-10), SD-197-02 (680-102252-11), SD-197-03 (680-102252-12), SD-199-SS (680-102252-13), SD-199-01 (680-102252-14), SD-199-02 (680-102252-15), SD-199-03 (680-102252-16), SD-DUP 01 (680-102252-17), SD-209-01 (680-102252-18), SD-209-02 (680-102252-19), SD-209-03 (680-102252-20), SD-204-SS (680-102252-21), SD-204-01 (680-102252-22), SD-204-02 (680-102252-23), SD-207-SS (680-102252-24), SD-207-01 (680-102252-25), SD-207-02 (680-102252-26) and SD-207-03 (680-102252-27) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 06/12/2014.

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

SAMPLE SUMMARY

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-102252-1	SD-202-SS	Solid	06/10/2014 1220	06/12/2014 0933
680-102252-2	SD-202-01	Solid	06/10/2014 1225	06/12/2014 0933
680-102252-3	SD-202-02	Solid	06/10/2014 1230	06/12/2014 0933
680-102252-4	SD-195-SS	Solid	06/10/2014 1330	06/12/2014 0933
680-102252-5	SD-200-SS	Solid	06/10/2014 1550	06/12/2014 0933
680-102252-6	SD-200-01	Solid	06/10/2014 1555	06/12/2014 1009
680-102252-7	SD-200-02	Solid	06/10/2014 1600	06/12/2014 0933
680-102252-8	SD-200-03	Solid	06/10/2014 1605	06/12/2014 0933
680-102252-9	SD-197-SS	Solid	06/11/2014 1030	06/12/2014 0933
680-102252-10	SD-197-01	Solid	06/11/2014 1035	06/12/2014 0933
680-102252-11	SD-197-02	Solid	06/11/2014 1040	06/12/2014 0933
680-102252-12	SD-197-03	Solid	06/11/2014 1045	06/12/2014 0933
680-102252-13	SD-199-SS	Solid	06/11/2014 1110	06/12/2014 0933
680-102252-14	SD-199-01	Solid	06/11/2014 1115	06/12/2014 0930
680-102252-15	SD-199-02	Solid	06/11/2014 1120	06/12/2014 0933
680-102252-16	SD-199-03	Solid	06/11/2014 1125	06/12/2014 0933
680-102252-17FD	SD-DUP 01	Solid	06/11/2014 0000	06/12/2014 0933
680-102252-18	SD-209-01	Solid	06/11/2014 1400	06/12/2014 0933
680-102252-19	SD-209-02	Solid	06/11/2014 1405	06/12/2014 0933
680-102252-20	SD-209-03	Solid	06/11/2014 1410	06/12/2014 0933
680-102252-21	SD-204-SS	Solid	06/11/2014 1220	06/12/2014 0933
680-102252-22	SD-204-01	Solid	06/11/2014 1225	06/12/2014 0933
680-102252-23	SD-204-02	Solid	06/11/2014 1230	06/12/2014 0933
680-102252-24	SD-207-SS	Solid	06/11/2014 1448	06/12/2014 0933
680-102252-25	SD-207-01	Solid	06/11/2014 1450	06/12/2014 0933
680-102252-26	SD-207-02	Solid	06/11/2014 1455	06/12/2014 0933
680-102252-27	SD-207-03	Solid	06/11/2014 1500	06/12/2014 0933

METHOD SUMMARY

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Polychlorinated Biphenyls (PCBs) (GC/MS)	TAL SAV	EPA 680	
Extraction (Solid PCBs)	TAL SAV		EPA 680
Percent Moisture	TAL SAV	EPA Moisture	

Lab References:

TAL SAV = TestAmerica Savannah

Method References:

EPA = US Environmental Protection Agency

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Sediments

TestAmerica Job ID: 680-102252-1
SDG: 680102252-1

GC/MS Semi VOA

Prep Batch: 335389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102252-1	SD-202-SS	Total/NA	Solid	680	
680-102252-1 MS	SD-202-SS	Total/NA	Solid	680	
680-102252-1 MSD	SD-202-SS	Total/NA	Solid	680	
680-102252-2	SD-202-01	Total/NA	Solid	680	
680-102252-3	SD-202-02	Total/NA	Solid	680	
680-102252-4	SD-195-SS	Total/NA	Solid	680	
680-102252-5	SD-200-SS	Total/NA	Solid	680	
680-102252-6	SD-200-01	Total/NA	Solid	680	
680-102252-7	SD-200-02	Total/NA	Solid	680	
680-102252-8	SD-200-03	Total/NA	Solid	680	
680-102252-9	SD-197-SS	Total/NA	Solid	680	
680-102252-10	SD-197-01	Total/NA	Solid	680	
680-102252-11	SD-197-02	Total/NA	Solid	680	
680-102252-12	SD-197-03	Total/NA	Solid	680	
680-102252-13	SD-199-SS	Total/NA	Solid	680	
680-102252-14	SD-199-01	Total/NA	Solid	680	
680-102252-15	SD-199-02	Total/NA	Solid	680	
680-102252-16	SD-199-03	Total/NA	Solid	680	
680-102252-17	SD-DUP 01	Total/NA	Solid	680	
680-102252-18	SD-209-01	Total/NA	Solid	680	
680-102252-19	SD-209-02	Total/NA	Solid	680	
680-102252-20	SD-209-03	Total/NA	Solid	680	
LCS 680-335389/22-A	Lab Control Sample	Total/NA	Solid	680	
MB 680-335389/21-A	Method Blank	Total/NA	Solid	680	

Prep Batch: 336158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102252-23	SD-204-02	Total/NA	Solid	680	
680-102252-23 MS	SD-204-02	Total/NA	Solid	680	
680-102252-23 MSD	SD-204-02	Total/NA	Solid	680	
LCS 680-336158/11-A	Lab Control Sample	Total/NA	Solid	680	
MB 680-336158/10-A	Method Blank	Total/NA	Solid	680	

Prep Batch: 337170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102252-21	SD-204-SS	Total/NA	Solid	680	
680-102252-22	SD-204-01	Total/NA	Solid	680	
680-102252-24	SD-207-SS	Total/NA	Solid	680	
680-102252-25	SD-207-01	Total/NA	Solid	680	
680-102252-26	SD-207-02	Total/NA	Solid	680	
680-102252-27	SD-207-03	Total/NA	Solid	680	
LCS 680-337170/12-A	Lab Control Sample	Total/NA	Solid	680	
MB 680-337170/11-A	Method Blank	Total/NA	Solid	680	

Analysis Batch: 337751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102252-1	SD-202-SS	Total/NA	Solid	680	335389
680-102252-1 MS	SD-202-SS	Total/NA	Solid	680	335389
680-102252-1 MSD	SD-202-SS	Total/NA	Solid	680	335389
680-102252-2	SD-202-01	Total/NA	Solid	680	335389
680-102252-3	SD-202-02	Total/NA	Solid	680	335389

GC/MS Semi VOA (Continued)

Analysis Batch: 337751 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102252-4	SD-195-SS	Total/NA	Solid	680	335389
680-102252-5	SD-200-SS	Total/NA	Solid	680	335389
680-102252-6	SD-200-01	Total/NA	Solid	680	335389
680-102252-7	SD-200-02	Total/NA	Solid	680	335389
LCS 680-335389/22-A	Lab Control Sample	Total/NA	Solid	680	335389
MB 680-335389/21-A	Method Blank	Total/NA	Solid	680	335389

Analysis Batch: 337778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102252-8	SD-200-03	Total/NA	Solid	680	335389
680-102252-9	SD-197-SS	Total/NA	Solid	680	335389
680-102252-10	SD-197-01	Total/NA	Solid	680	335389
680-102252-11	SD-197-02	Total/NA	Solid	680	335389
680-102252-12	SD-197-03	Total/NA	Solid	680	335389
680-102252-13	SD-199-SS	Total/NA	Solid	680	335389
680-102252-14	SD-199-01	Total/NA	Solid	680	335389
680-102252-15	SD-199-02	Total/NA	Solid	680	335389
680-102252-16	SD-199-03	Total/NA	Solid	680	335389
680-102252-17	SD-DUP 01	Total/NA	Solid	680	335389
680-102252-18	SD-209-01	Total/NA	Solid	680	335389
680-102252-19	SD-209-02	Total/NA	Solid	680	335389
680-102252-20	SD-209-03	Total/NA	Solid	680	335389
680-102252-23	SD-204-02	Total/NA	Solid	680	336158
680-102252-23 MS	SD-204-02	Total/NA	Solid	680	336158
680-102252-23 MSD	SD-204-02	Total/NA	Solid	680	336158
LCS 680-336158/11-A	Lab Control Sample	Total/NA	Solid	680	336158
MB 680-336158/10-A	Method Blank	Total/NA	Solid	680	336158

Analysis Batch: 337937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102252-21	SD-204-SS	Total/NA	Solid	680	337170
680-102252-22	SD-204-01	Total/NA	Solid	680	337170
680-102252-26	SD-207-02	Total/NA	Solid	680	337170
680-102252-27	SD-207-03	Total/NA	Solid	680	337170
LCS 680-337170/12-A	Lab Control Sample	Total/NA	Solid	680	337170
MB 680-337170/11-A	Method Blank	Total/NA	Solid	680	337170

Analysis Batch: 338065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102252-25	SD-207-01	Total/NA	Solid	680	337170

Analysis Batch: 338412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102252-24	SD-207-SS	Total/NA	Solid	680	337170

General Chemistry

Analysis Batch: 333961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102252-1	SD-202-SS	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 333961 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102252-2	SD-202-01	Total/NA	Solid	Moisture	
680-102252-3	SD-202-02	Total/NA	Solid	Moisture	
680-102252-4	SD-195-SS	Total/NA	Solid	Moisture	
680-102252-5	SD-200-SS	Total/NA	Solid	Moisture	
680-102252-6	SD-200-01	Total/NA	Solid	Moisture	
680-102252-7	SD-200-02	Total/NA	Solid	Moisture	
680-102252-8	SD-200-03	Total/NA	Solid	Moisture	
680-102252-9	SD-197-SS	Total/NA	Solid	Moisture	
680-102252-10	SD-197-01	Total/NA	Solid	Moisture	
680-102252-11	SD-197-02	Total/NA	Solid	Moisture	
680-102252-12	SD-197-03	Total/NA	Solid	Moisture	
680-102252-13	SD-199-SS	Total/NA	Solid	Moisture	
680-102252-14	SD-199-01	Total/NA	Solid	Moisture	
680-102252-15	SD-199-02	Total/NA	Solid	Moisture	
680-102252-16	SD-199-03	Total/NA	Solid	Moisture	
680-102252-17	SD-DUP 01	Total/NA	Solid	Moisture	
680-102252-18	SD-209-01	Total/NA	Solid	Moisture	
680-102252-19	SD-209-02	Total/NA	Solid	Moisture	
680-102252-20	SD-209-03	Total/NA	Solid	Moisture	
680-102252-21	SD-204-SS	Total/NA	Solid	Moisture	
680-102252-22	SD-204-01	Total/NA	Solid	Moisture	
680-102252-23	SD-204-02	Total/NA	Solid	Moisture	
680-102252-24	SD-207-SS	Total/NA	Solid	Moisture	
680-102252-25	SD-207-01	Total/NA	Solid	Moisture	
680-102252-26	SD-207-02	Total/NA	Solid	Moisture	
680-102252-27	SD-207-03	Total/NA	Solid	Moisture	

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc.

Job Number: 680-102252-1
Sdg Number: 680102252-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	*	ISTD response or retention time outside acceptable limits
	F1	MS and/or MSD Recovery exceeds the control limits
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits
	D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Instrument ID: CMSF Calibration Start Date: 07/06/2014 13:56

GC Column: HP-5MS ID: 0.25(mm) Calibration End Date: 07/06/2014 15:52

Calibration ID: 31869

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		32586	11.44	49110	17.66		
UPPER LIMIT		48879	11.94	73665	18.16		
LOWER LIMIT		16293	10.94	24555	17.16		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-337751/9		35720	11.44	49992	17.66		
MB 680-335389/21-A		38614	11.44	58864	17.66		
LCS 680-335389/22-A		37673	11.44	58440	17.66		
680-102252-1	SD-202-SS	29691	11.44	33683	17.66		
680-102252-1 MS	SD-202-SS MS	34497	11.44	42816	17.66		
680-102252-1 MSD	SD-202-SS MSD	36252	11.44	45409	17.66		
680-102252-2	SD-202-01	29834	11.44	37172	17.66		
680-102252-3	SD-202-02	36752	11.44	63368	17.66		
680-102252-4	SD-195-SS	34927	11.44	52432	17.66		
680-102252-5	SD-200-SS	40113	11.44	56488	17.66		
680-102252-6	SD-200-01	38202	11.44	54143	17.67		
680-102252-7	SD-200-02	35237	11.44	47378	17.66		
CCV 680-337751/22		42132	11.44	71035	17.66		
CCVIS 680-337778/4		28000	11.44	41369	17.66		
680-102252-8	SD-200-03	31831	11.44	52134	17.67		
680-102252-9	SD-197-SS	32344	11.44	46008	17.66		
680-102252-10	SD-197-01	30793	11.44	44324	17.67		
680-102252-11	SD-197-02	28426	11.44	49960	17.67		
680-102252-12	SD-197-03	30806	11.44	49670	17.67		
680-102252-13	SD-199-SS	34096	11.44	57684*	17.67		
680-102252-14	SD-199-01	32788	11.44	43436	17.67		
680-102252-15	SD-199-02	42009*	11.44	72479*	17.67		
680-102252-16	SD-199-03	39368*	11.44	62795*	17.67		
680-102252-17	SD-DUP 01	41243*	11.44	56779*	17.67		
680-102252-18	SD-209-01	44591*	11.44	77615*	17.67		
680-102252-19	SD-209-02	34812	11.44	64004*	17.67		
680-102252-20	SD-209-03	35365	11.44	58694*	17.67		
MB 680-336158/10-A		37525	11.44	60661	17.67		
LCS 680-336158/11-A		47056	11.44	81668*	17.67		
680-102252-23 MS	SD-204-02 MS	44395*	11.44	78812*	17.67		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Instrument ID: CMSF Calibration Start Date: 07/06/2014 13:56

GC Column: HP-5MS ID: 0.25(mm) Calibration End Date: 07/06/2014 15:52

Calibration ID: 31869

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		32586	11.44	49110	17.66		
UPPER LIMIT		48879	11.94	73665	18.16		
LOWER LIMIT		16293	10.94	24555	17.16		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102252-23 MSD	SD-204-02 MSD	44312*	11.44	70488*	17.67		
680-102252-23	SD-204-02	40680*	11.44	68231*	17.67		
CCV 680-337778/25		44541	11.44	73638	17.67		
CCVIS 680-337937/4		38199	11.37	63851	17.58		
MB 680-337170/11-A		48585	11.37	64660	17.59		
LCS 680-337170/12-A		49267*	11.37	68087	17.58		
680-102252-21	SD-204-SS	35440	11.37	47575	17.58		
680-102252-22	SD-204-01	38495	11.37	50990	17.58		
680-102252-26	SD-207-02	42608	11.37	61376	17.60		
680-102252-27	SD-207-03	40940	11.37	57946	17.60		
CCV 680-337937/21		44464	11.37	66808	17.58		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Sample No.: CCVIS 680-337778/4 Date Analyzed: 07/07/2014 01:02

Instrument ID: CMSF GC Column: HP-5MS ID: 0.25(mm)

Lab File ID (Standard): Fg0627.D Heated Purge: (Y/N) N

Calibration ID: 31869

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		28000	11.44	41369	17.66		
UPPER LIMIT		36400	11.94	53780	18.16		
LOWER LIMIT		19600	10.94	28958	17.16		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102252-8	SD-200-03	31831	11.44	52134	17.67		
680-102252-9	SD-197-SS	32344	11.44	46008	17.66		
680-102252-10	SD-197-01	30793	11.44	44324	17.67		
680-102252-11	SD-197-02	28426	11.44	49960	17.67		
680-102252-12	SD-197-03	30806	11.44	49670	17.67		
680-102252-13	SD-199-SS	34096	11.44	57684*	17.67		
680-102252-14	SD-199-01	32788	11.44	43436	17.67		
680-102252-15	SD-199-02	42009*	11.44	72479*	17.67		
680-102252-16	SD-199-03	39368*	11.44	62795*	17.67		
680-102252-17	SD-DUP 01	41243*	11.44	56779*	17.67		
680-102252-18	SD-209-01	44591*	11.44	77615*	17.67		
680-102252-19	SD-209-02	34812	11.44	64004*	17.67		
680-102252-20	SD-209-03	35365	11.44	58694*	17.67		
MB 680-336158/10-A		37525	11.44	60661	17.67		
LCS 680-336158/11-A		47056	11.44	81668*	17.67		
680-102252-23 MS	SD-204-02 MS	44395*	11.44	78812*	17.67		
680-102252-23 MSD	SD-204-02 MSD	44312*	11.44	70488*	17.67		
680-102252-23	SD-204-02	40680*	11.44	68231*	17.67		
CCV 680-337778/25		44541	11.44	73638	17.67		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Sample No.: CCVIS 680-337937/4 Date Analyzed: 07/07/2014 16:47

Instrument ID: CMSF GC Column: HP-5MS ID: 0.25(mm)

Lab File ID (Standard): Fg0704.D Heated Purge: (Y/N) N

Calibration ID: 31869

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		38199	11.37	63851	17.58		
UPPER LIMIT		49659	11.87	83006	18.08		
LOWER LIMIT		26739	10.87	44696	17.08		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-337170/11-A		48585	11.37	64660	17.59		
LCS 680-337170/12-A		49267*	11.37	68087	17.58		
680-102252-21	SD-204-SS	35440	11.37	47575	17.58		
680-102252-22	SD-204-01	38495	11.37	50990	17.58		
680-102252-26	SD-207-02	42608	11.37	61376	17.60		
680-102252-27	SD-207-03	40940	11.37	57946	17.60		
CCV 680-337937/21		44464	11.37	66808	17.58		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Instrument ID: CMSX Calibration Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calibration End Date: 07/08/2014 15:58

Calibration ID: 31919

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		82146	10.37	111835	16.51		
UPPER LIMIT		123219	10.87	167753	17.01		
LOWER LIMIT		41073	9.87	55918	16.01		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-338065/9		84988	10.37	88856	16.51		
680-102252-25	SD-207-01	81047	10.38	96796	16.51		
CCV 680-338065/19		90751	10.38	142407	16.51		
CCVIS 680-338412/4		86819	10.38	130449	16.51		
680-102252-24	SD-207-SS	84662	10.38	90792	16.51		
CCV 680-338412/20		80906	10.38	108335	16.51		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Sample No.: CCVIS 680-338412/4 Date Analyzed: 07/10/2014 10:45

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG1004.D Heated Purge: (Y/N) N

Calibration ID: 31919

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		86819	10.38	130449	16.51		
UPPER LIMIT		112865	10.88	169584	17.01		
LOWER LIMIT		60773	9.88	91314	16.01		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102252-24	SD-207-SS	84662	10.38	90792	16.51		
CCV 680-338412/20		80906	10.38	108335	16.51		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Matrix: Solid Level: Low

GC Column (1): HP-5MS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	13DCB	#	
SD-202-SS	680-102252-1	0	D	50X
SD-202-01	680-102252-2	82		
SD-202-02	680-102252-3	97		
SD-195-SS	680-102252-4	92		
SD-200-SS	680-102252-5	0	D	10X
SD-200-01	680-102252-6	0	D	10X
SD-200-02	680-102252-7	70		
SD-200-03	680-102252-8	83		
SD-197-SS	680-102252-9	28	X	
SD-197-01	680-102252-10	69		
SD-197-02	680-102252-11	91		
SD-197-03	680-102252-12	88		
SD-199-SS	680-102252-13	55		
SD-199-01	680-102252-14	0	D	10X
SD-199-02	680-102252-15	91	*	
SD-199-03	680-102252-16	72	*	
SD-DUP 01	680-102252-17	77	*	
SD-209-01	680-102252-18	88	*	
SD-209-02	680-102252-19	85		
SD-209-03	680-102252-20	81		
SD-204-SS	680-102252-21	58		
SD-204-01	680-102252-22	78		
SD-204-02	680-102252-23	83	*	
SD-207-SS	680-102252-24	0	D	100X
SD-207-01	680-102252-25	0	D	50X
SD-207-02	680-102252-26	67		
SD-207-03	680-102252-27	72		
	MB 680-335389/21-A	83		
	MB 680-336158/10-A	81		
	MB 680-337170/11-A	80		
	LCS 680-335389/22-A	94		
	LCS 680-336158/11-A	77		

	QC LIMITS
13DCB = Decachlorobiphenyl-13C12	30-130

Column to be used to flag recovery values

FORM II 680

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Matrix: Solid Level: Low

GC Column (1): HP-5MS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	13DCB	#
	LCS 680-337170/12-A	85	*
SD-202-SS MS	680-102252-1 MS	0	D
SD-204-02 MS	680-102252-23 MS	68	*
SD-202-SS MSD	680-102252-1 MSD	0	D
SD-204-02 MSD	680-102252-23 MSD	70	*

	QC LIMITS
13DCB = Decachlorobiphenyl-13C12	30-130

Column to be used to flag recovery values

FORM II 680

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Lab File ID: Fg0611.D Lab Sample ID: MB 680-335389/21-A

Matrix: Solid Date Extracted: 06/24/2014 11:56

Instrument ID: CMSF Date Analyzed: 07/06/2014 17:19

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-335389/22-A	Fg0612.D	07/06/2014 17:47
SD-202-SS	680-102252-1	Fg0613.D	07/06/2014 18:16
SD-202-SS MS	680-102252-1 MS	Fg0614.D	07/06/2014 18:45
SD-202-SS MSD	680-102252-1 MSD	Fg0615.D	07/06/2014 19:15
SD-202-01	680-102252-2	Fg0616.D	07/06/2014 19:44
SD-202-02	680-102252-3	Fg0617.D	07/06/2014 20:12
SD-195-SS	680-102252-4	Fg0618.D	07/06/2014 20:42
SD-200-SS	680-102252-5	Fg0619.D	07/06/2014 21:11
SD-200-01	680-102252-6	Fg0620.D	07/06/2014 21:39
SD-200-02	680-102252-7	Fg0621.D	07/06/2014 22:08
SD-200-03	680-102252-8	Fg0629.D	07/07/2014 02:00
SD-197-SS	680-102252-9	Fg0630.D	07/07/2014 02:29
SD-197-01	680-102252-10	Fg0631.D	07/07/2014 02:58
SD-197-02	680-102252-11	Fg0632.D	07/07/2014 03:26
SD-197-03	680-102252-12	Fg0633.D	07/07/2014 03:55
SD-199-SS	680-102252-13	Fg0634.D	07/07/2014 04:24
SD-199-01	680-102252-14	Fg0635.D	07/07/2014 04:53
SD-199-02	680-102252-15	Fg0636.D	07/07/2014 05:22
SD-199-03	680-102252-16	Fg0637.D	07/07/2014 05:52
SD-DUP 01	680-102252-17	Fg0638.D	07/07/2014 06:20
SD-209-01	680-102252-18	Fg0639.D	07/07/2014 06:49
SD-209-02	680-102252-19	Fg0640.D	07/07/2014 07:18
SD-209-03	680-102252-20	Fg0641.D	07/07/2014 07:47

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102252-1
SDG No.: 680102252-1
Client Sample ID:
Lab Sample ID: MB 680-335389/21-A
Matrix: Solid
Lab File ID: Fg0611.D
Analysis Method: 680
Date Collected:
Extract. Method: 680
Date Extracted: 06/24/2014 11:56
Sample wt/vol: 30.15(g)
Date Analyzed: 07/06/2014 17:19
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 337751
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.83	U	17	0.83
25512-42-9	Dichlorobiphenyl	0.35	U	3.3	0.35
28655-71-2	Heptachlorobiphenyl	0.50	U	10	0.50
26601-64-9	Hexachlorobiphenyl	0.33	U	6.7	0.33
27323-18-8	Monochlorobiphenyl	0.19	U	3.3	0.19
53742-07-7	Nonachlorobiphenyl	3.3	U	17	3.3
55722-26-4	Octachlorobiphenyl	0.53	U	10	0.53
25429-29-2	Pentachlorobiphenyl	0.34	U	6.7	0.34
26914-33-0	Tetrachlorobiphenyl	0.37	U	6.7	0.37
25323-68-6	Trichlorobiphenyl	0.17	U	3.3	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	83		30-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Matrix: Solid Level: Low Lab File ID: Fg0612.D

Lab ID: LCS 680-335389/22-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	334	309	93	30-130	
Dichlorobiphenyl	66.7	50.5	76	30-130	
Heptachlorobiphenyl	200	168	84	40-140	
Hexachlorobiphenyl	133	116	87	40-140	
Monochlorobiphenyl	66.7	50.7	76	30-130	
Nonachlorobiphenyl	334	368	110	30-130	
Octachlorobiphenyl	200	185	92	40-140	
Pentachlorobiphenyl	133	118	89	40-140	
Tetrachlorobiphenyl	133	108	81	40-140	
Trichlorobiphenyl	66.7	53.5	80	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Matrix: Solid Level: Low Lab File ID: Fg0614.D

Lab ID: 680-102252-1 MS Client ID: SD-202-SS MS 50x dilution

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	634	79 U	79 U	0	30-130	F1 – Dilute
Dichlorobiphenyl	127	33 U	89.1 J	70	30-130	
Heptachlorobiphenyl	380	44000	57200	3426	40-140	4 –
Hexachlorobiphenyl	253	59000	73000	5547	40-140	4 –
Monochlorobiphenyl	127	18 U	84.8 J	67	30-130	
Nonachlorobiphenyl	634	400 J	1350 J	150	30-130	F1
Octachlorobiphenyl	380	5200	7000	476	40-140	4 –
Pentachlorobiphenyl	253	18000	22300	1691	40-140	4 –
Tetrachlorobiphenyl	253	10000	8480	-776	40-140	4 –
Trichlorobiphenyl	127	530	537	7	30-130	4 –

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Matrix: Solid Level: Low Lab File ID: Fg0615.D

Lab ID: 680-102252-1 MSD Client ID: SD-202-SS MSD 50x dilution

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
DCB Decachlorobiphenyl	635	79 U	0	NC	50	30-130	F1 D 50x
Dichlorobiphenyl	127	120 J	94	29	50	30-130	
Heptachlorobiphenyl	381	54400	2674	5	50	40-140	4
Hexachlorobiphenyl	254	70100	4409	4	50	40-140	4
Monochlorobiphenyl	127	105 J	83	22	50	30-130	
Nonachlorobiphenyl	635	1530 J	179	13	50	30-130	F1
Octachlorobiphenyl	381	9280	1073	28	50	40-140	4
Pentachlorobiphenyl	254	20700	1074	7	50	40-140	4
Tetrachlorobiphenyl	254	8400	-806	1	50	40-140	4
Trichlorobiphenyl	127	629	79	16	50	30-130	4

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Lab File ID: Fg0642.D Lab Sample ID: MB 680-336158/10-A

Matrix: Solid Date Extracted: 06/25/2014 13:33

Instrument ID: CMSF Date Analyzed: 07/07/2014 08:16

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-336158/11-A	Fg0643.D	07/07/2014 08:45
SD-204-02 MS	680-102252-23 MS	Fg0644.D	07/07/2014 09:14
SD-204-02 MSD	680-102252-23 MSD	Fg0645.D	07/07/2014 09:43
SD-204-02	680-102252-23	Fg0646.D	07/07/2014 10:12

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102252-1
SDG No.: 680102252-1
Client Sample ID:
Lab Sample ID: MB 680-336158/10-A
Matrix: Solid
Lab File ID: Fg0642.D
Analysis Method: 680
Date Collected:
Extract. Method: 680
Date Extracted: 06/25/2014 13:33
Sample wt/vol: 30.03(g)
Date Analyzed: 07/07/2014 08:16
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 337778
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.83	U	17	0.83
25512-42-9	Dichlorobiphenyl	0.35	U	3.3	0.35
28655-71-2	Heptachlorobiphenyl	11.7		10	0.50
26601-64-9	Hexachlorobiphenyl	17.3		6.7	0.33
27323-18-8	Monochlorobiphenyl	0.19	U	3.3	0.19
53742-07-7	Nonachlorobiphenyl	3.3	U	17	3.3
55722-26-4	Octachlorobiphenyl	0.53	U	10	0.53
25429-29-2	Pentachlorobiphenyl	1.03	J	6.7	0.34
26914-33-0	Tetrachlorobiphenyl	0.37	U	6.7	0.37
25323-68-6	Trichlorobiphenyl	0.17	U	3.3	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	81		30-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Matrix: Solid Level: Low Lab File ID: Fg0643.D

Lab ID: LCS 680-336158/11-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	334	253	76	30-130	
Dichlorobiphenyl	66.7	44.8	67	30-130	
Heptachlorobiphenyl	200	146	73	40-140	
Hexachlorobiphenyl	133	101	76	40-140	
Monochlorobiphenyl	66.7	43.1	65	30-130	
Nonachlorobiphenyl	334	296	89	30-130	
Octachlorobiphenyl	200	155	77	40-140	
Pentachlorobiphenyl	133	103	77	40-140	
Tetrachlorobiphenyl	133	90.3	68	40-140	
Trichlorobiphenyl	66.7	45.1	68	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Matrix: Solid Level: Low Lab File ID: Fg0644.D

Lab ID: 680-102252-23 MS Client ID: SD-204-02 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	415	1.0 U	280	68	30-130	*
Dichlorobiphenyl	83.1	0.43 U	52.4	63	30-130	*
Heptachlorobiphenyl	249	100	172	29	40-140	* F1
Hexachlorobiphenyl	166	75	123	29	40-140	* F1
Monochlorobiphenyl	83.1	0.24 U	49.0	59	30-130	*
Nonachlorobiphenyl	415	4.1 U	351	85	30-130	*
Octachlorobiphenyl	249	8.9 J	172	65	40-140	*
Pentachlorobiphenyl	166	9.1	114	63	40-140	*
Tetrachlorobiphenyl	166	22	116	56	40-140	*
Trichlorobiphenyl	83.1	0.91 J	54.1	64	30-130	*

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Matrix: Solid Level: Low Lab File ID: Fg0645.D

Lab ID: 680-102252-23 MSD Client ID: SD-204-02 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
DCB Decachlorobiphenyl	415	280	68	0	50	30-130	*
Dichlorobiphenyl	83.0	49.0	59	7	50	30-130	*
Heptachlorobiphenyl	249	186	35	8	50	40-140	* F1
Hexachlorobiphenyl	166	145	42	16	50	40-140	*
Monochlorobiphenyl	83.0	47.0	57	4	50	30-130	*
Nonachlorobiphenyl	415	346	83	2	50	30-130	*
Octachlorobiphenyl	249	170	65	1	50	40-140	*
Pentachlorobiphenyl	166	112	62	2	50	40-140	*
Tetrachlorobiphenyl	166	119	58	3	50	40-140	*
Trichlorobiphenyl	83.0	54.3	64	0	50	30-130	*

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Lab File ID: Fg0706.D Lab Sample ID: MB 680-337170/11-A

Matrix: Solid Date Extracted: 07/02/2014 08:53

Instrument ID: CMSF Date Analyzed: 07/07/2014 18:05

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-337170/12-A	Fg0707.D	07/07/2014 18:34
SD-204-SS	680-102252-21	Fg0712.D	07/07/2014 20:59
SD-204-01	680-102252-22	Fg0713.D	07/07/2014 21:28
SD-207-02	680-102252-26	Fg0716.D	07/07/2014 22:55
SD-207-03	680-102252-27	Fg0717.D	07/07/2014 23:24
SD-207-01	680-102252-25	XG0818.D	07/08/2014 22:06
SD-207-SS	680-102252-24	XG1006.D	07/10/2014 11:42

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102252-1
SDG No.: 680102252-1
Client Sample ID:
Lab Sample ID: MB 680-337170/11-A
Matrix: Solid
Lab File ID: Fg0706.D
Analysis Method: 680
Date Collected:
Extract. Method: 680
Date Extracted: 07/02/2014 08:53
Sample wt/vol: 30.15(g)
Date Analyzed: 07/07/2014 18:05
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 337937
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.83	U	17	0.83
25512-42-9	Dichlorobiphenyl	0.35	U	3.3	0.35
28655-71-2	Heptachlorobiphenyl	0.50	U	10	0.50
26601-64-9	Hexachlorobiphenyl	0.33	U	6.7	0.33
27323-18-8	Monochlorobiphenyl	0.19	U	3.3	0.19
53742-07-7	Nonachlorobiphenyl	3.3	U	17	3.3
55722-26-4	Octachlorobiphenyl	0.53	U	10	0.53
25429-29-2	Pentachlorobiphenyl	0.34	U	6.7	0.34
26914-33-0	Tetrachlorobiphenyl	0.37	U	6.7	0.37
25323-68-6	Trichlorobiphenyl	0.17	U	3.3	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	80		30-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Matrix: Solid Level: Low Lab File ID: Fg0707.D

Lab ID: LCS 680-337170/12-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	333	279	84	30-130	*
Dichlorobiphenyl	66.6	48.9	73	30-130	*
Heptachlorobiphenyl	200	159	80	40-140	*
Hexachlorobiphenyl	133	107	80	40-140	*
Monochlorobiphenyl	66.6	49.3	74	30-130	*
Nonachlorobiphenyl	333	340	102	30-130	*
Octachlorobiphenyl	200	168	84	40-140	*
Pentachlorobiphenyl	133	107	80	40-140	*
Tetrachlorobiphenyl	133	98.0	74	40-140	*
Trichlorobiphenyl	66.6	48.1	72	30-130	*

Column to be used to flag recovery and RPD values

FORM III 680

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Lab File ID: Fg0602.D DFTPP Injection Date: 07/06/2014

Instrument ID: CMSF DFTPP Injection Time: 12:56

Analysis Batch No.: 337751

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	48.3
197	Less than 1 % of mass 198	0.3
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	7.3
275	10 - 30% of mass 198	22.0
365	Greater than 1% of mass 198	3.0
441	Present but less than mass 443	10.7 (75.4)2
442	Greater than 40% of mass 198	73.3
443	17 - 23% of mass 442	14.2 (19.4)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICISAV 680-337751/4	Fg0604.D	07/06/2014	13:56
	IC 680-337751/5	Fg0605.D	07/06/2014	14:25
	IC 680-337751/6	Fg0606.D	07/06/2014	14:54
	IC 680-337751/7	Fg0607.D	07/06/2014	15:23
	IC 680-337751/8	Fg0608.D	07/06/2014	15:52
	ICV 680-337751/9	Fg0609.D	07/06/2014	16:21
	MB 680-335389/21-A	Fg0611.D	07/06/2014	17:19
	LCS 680-335389/22-A	Fg0612.D	07/06/2014	17:47
SD-202-SS	680-102252-1	Fg0613.D	07/06/2014	18:16
SD-202-SS MS	680-102252-1 MS	Fg0614.D	07/06/2014	18:45
SD-202-SS MSD	680-102252-1 MSD	Fg0615.D	07/06/2014	19:15
SD-202-01	680-102252-2	Fg0616.D	07/06/2014	19:44
SD-202-02	680-102252-3	Fg0617.D	07/06/2014	20:12
SD-195-SS	680-102252-4	Fg0618.D	07/06/2014	20:42
SD-200-SS	680-102252-5	Fg0619.D	07/06/2014	21:11
SD-200-01	680-102252-6	Fg0620.D	07/06/2014	21:39
SD-200-02	680-102252-7	Fg0621.D	07/06/2014	22:08
	CCV 680-337751/22	Fg0622.D	07/06/2014	22:37

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102252-1 Analy Batch No.: 337751

SDG No.: 680102252-1

Instrument ID: CMSF GC Column: HP-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2014 13:56 Calibration End Date: 07/06/2014 15:52 Calibration ID: 31869

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-337751/8	Fg0608.D
Level 2	IC 680-337751/7	Fg0607.D
Level 3	ICISAV 680-337751/4	Fg0604.D
Level 4	IC 680-337751/6	Fg0606.D
Level 5	IC 680-337751/5	Fg0605.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	1.0360	1.0204	0.9964	1.0400	0.9363	Ave		1.0058				4.2		20.0			
Dichlorobiphenyl	0.7057	0.6752	0.6652	0.6518	0.6177	Ave		0.6631				4.9		20.0			
Trichlorobiphenyl	0.4888	0.4754	0.4650	0.4816	0.4380	Ave		0.4698				4.2		20.0			
PCB-104			0.3015			Ave		0.3015						30.0			
Tetrachlorobiphenyl	0.3154	0.2898	0.2843	0.2951	0.2810	Ave		0.2931				4.6		20.0			
Pentachlorobiphenyl	0.2558	0.2565	0.2462	0.2491	0.2414	Ave		0.2498				2.6		20.0			
PCB-77			0.4559			Ave		0.4559						30.0			
Hexachlorobiphenyl	0.2207	0.2115	0.2067	0.2115	0.1994	Ave		0.2099				3.7		20.0			
Heptachlorobiphenyl	0.2233	0.2029	0.1917	0.2060	0.1840	Ave		0.2016				7.4		20.0			
Octachlorobiphenyl	0.2273	0.2205	0.2152	0.2207	0.2039	Ave		0.2175				4.0		20.0			
PCB-208			0.1309			Ave		0.1309						30.0			
Nonachlorobiphenyl			0.1070			Ave		0.1152				7.7		20.0			
DCB Decachlorobiphenyl	0.1251	0.1218	0.1143	0.1120	0.1025	Ave		0.1152				7.7		20.0			
Decachlorobiphenyl-13C12	0.1420	0.1470	0.1285	0.1330	0.1131	Ave		0.1327				9.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Lab Sample ID: ICV 680-337751/9 Calibration Date: 07/06/2014 16:21

Instrument ID: CMSF Calib Start Date: 07/06/2014 13:56

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 07/06/2014 15:52

Lab File ID: Fg0609.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	1.006	1.003		0.997	1.00	-0.3	20.0
Dichlorobiphenyl	Ave	0.6631	0.6344		0.957	1.00	-4.3	20.0
Trichlorobiphenyl	Ave	0.4698	0.4964		1.06	1.00	5.7	20.0
Tetrachlorobiphenyl	Ave	0.2931	0.2976		2.03	2.00	1.5	20.0
Pentachlorobiphenyl	Ave	0.2498	0.2558		2.05	2.00	2.4	20.0
Hexachlorobiphenyl	Ave	0.2099	0.2140		2.04	2.00	1.9	20.0
Heptachlorobiphenyl	Ave	0.2016	0.2033		3.03	3.00	0.8	20.0
Octachlorobiphenyl	Ave	0.2175	0.2228		3.07	3.00	2.4	20.0
DCB Decachlorobiphenyl	Ave	0.1152	0.1150		4.99	5.00	-0.1	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Lab Sample ID: CCV 680-337751/22 Calibration Date: 07/06/2014 22:37

Instrument ID: CMSF Calib Start Date: 07/06/2014 13:56

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 07/06/2014 15:52

Lab File ID: Fg0622.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	1.006	1.009		1.00	1.00	0.3	20.0
Dichlorobiphenyl	Ave	0.6631	0.6695		1.01	1.00	1.0	20.0
Trichlorobiphenyl	Ave	0.4698	0.4794		1.02	1.00	2.0	20.0
Tetrachlorobiphenyl	Ave	0.2931	0.2882		1.97	2.00	-1.7	20.0
Pentachlorobiphenyl	Ave	0.2498	0.2560		2.05	2.00	2.5	20.0
Hexachlorobiphenyl	Ave	0.2099	0.2146		2.04	2.00	2.2	20.0
Heptachlorobiphenyl	Ave	0.2016	0.1939		2.89	3.00	-3.8	20.0
Octachlorobiphenyl	Ave	0.2175	0.2301		3.17	3.00	5.8	20.0
~~Nonachlorobiphenyl~~	~~Ave~~	~~0.1152~~	~~0.1526~~		~~5.30~~	~~4.00~~	~~32.5*~~	~~20.0~~
DCB Decachlorobiphenyl	Ave	0.1152	0.1288		5.59	5.00	11.8	20.0
Decachlorobiphenyl-13C12	Ave	0.1327	0.1406		5.30	5.00	6.0	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Lab File ID: Fg0625.D DFTPP Injection Date: 07/07/2014

Instrument ID: CMSF DFTPP Injection Time: 00:04

Analysis Batch No.: 337778

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	50.3
197	Less than 1 % of mass 198	0.5
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.9
275	10 - 30% of mass 198	20.0
365	Greater than 1% of mass 198	2.4
441	Present but less than mass 443	9.7 (79.0)2
442	Greater than 40% of mass 198	63.5
443	17 - 23% of mass 442	12.3 (19.3)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-337778/3	Fg0626.D	07/07/2014	00:33
	CCVIS 680-337778/4	Fg0627.D	07/07/2014	01:02
SD-200-03	680-102252-8	Fg0629.D	07/07/2014	02:00
SD-197-SS	680-102252-9	Fg0630.D	07/07/2014	02:29
SD-197-01	680-102252-10	Fg0631.D	07/07/2014	02:58
SD-197-02	680-102252-11	Fg0632.D	07/07/2014	03:26
SD-197-03	680-102252-12	Fg0633.D	07/07/2014	03:55
SD-199-SS	680-102252-13	Fg0634.D	07/07/2014	04:24
SD-199-01	680-102252-14	Fg0635.D	07/07/2014	04:53
SD-199-02	680-102252-15	Fg0636.D	07/07/2014	05:22
SD-199-03	680-102252-16	Fg0637.D	07/07/2014	05:52
SD-DUP 01	680-102252-17	Fg0638.D	07/07/2014	06:20
SD-209-01	680-102252-18	Fg0639.D	07/07/2014	06:49
SD-209-02	680-102252-19	Fg0640.D	07/07/2014	07:18
SD-209-03	680-102252-20	Fg0641.D	07/07/2014	07:47
	MB 680-336158/10-A	Fg0642.D	07/07/2014	08:16
	LCS 680-336158/11-A	Fg0643.D	07/07/2014	08:45
SD-204-02 MS	680-102252-23 MS	Fg0644.D	07/07/2014	09:14
SD-204-02 MSD	680-102252-23 MSD	Fg0645.D	07/07/2014	09:43
SD-204-02	680-102252-23	Fg0646.D	07/07/2014	10:12
	CCV 680-337778/25	Fg0648.D	07/07/2014	11:09

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Lab Sample ID: CCVIS 680-337778/4 Calibration Date: 07/07/2014 01:02

Instrument ID: CMSF Calib Start Date: 07/06/2014 13:56

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 07/06/2014 15:52

Lab File ID: Fg0627.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	1.006	1.174		1.17	1.00	16.7	20.0
Dichlorobiphenyl	Ave	0.6631	0.7327		1.10	1.00	10.5	20.0
Trichlorobiphenyl	Ave	0.4698	0.4881		1.04	1.00	3.9	20.0
Tetrachlorobiphenyl	Ave	0.2931	0.2971		2.03	2.00	1.3	20.0
Pentachlorobiphenyl	Ave	0.2498	0.2668		2.14	2.00	6.8	20.0
Hexachlorobiphenyl	Ave	0.2099	0.2209		2.10	2.00	5.2	20.0
Heptachlorobiphenyl	Ave	0.2016	0.2135		3.18	3.00	5.9	20.0
Octachlorobiphenyl	Ave	0.2175	0.2267		3.13	3.00	4.2	20.0
~~Nonachlorobiphenyl~~	~~Ave~~	~~0.1152~~	~~0.1377~~		~~4.78~~	~~4.00~~	~~19.6~~	~~20.0~~
DCB Decachlorobiphenyl	Ave	0.1152	0.1169		5.07	5.00	1.5	20.0
Decachlorobiphenyl-13C12	Ave	0.1327	0.1294		4.87	5.00	-2.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Lab Sample ID: CCV 680-337778/25 Calibration Date: 07/07/2014 11:09

Instrument ID: CMSF Calib Start Date: 07/06/2014 13:56

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 07/06/2014 15:52

Lab File ID: Fg0648.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	1.006	1.061		1.05	1.00	5.5	20.0
Dichlorobiphenyl	Ave	0.6631	0.6946		1.05	1.00	4.7	20.0
Trichlorobiphenyl	Ave	0.4698	0.4932		1.05	1.00	5.0	20.0
Tetrachlorobiphenyl	Ave	0.2931	0.3056		2.09	2.00	4.3	20.0
Pentachlorobiphenyl	Ave	0.2498	0.2688		2.15	2.00	7.6	20.0
Hexachlorobiphenyl	Ave	0.2099	0.2174		2.07	2.00	3.6	20.0
Heptachlorobiphenyl	Ave	0.2016	0.2015		3.00	3.00	-0.0	20.0
Octachlorobiphenyl	Ave	0.2175	0.2292		3.16	3.00	5.4	20.0
~~Nonachlorobiphenyl~~	~~Ave~~	~~0.1152~~	~~0.1427~~		~~4.96~~	~~4.00~~	~~*23.9*~~	~~20.0~~
DCB Decachlorobiphenyl	Ave	0.1152	0.1202		5.22	5.00	4.4	20.0
Decachlorobiphenyl-13C12	Ave	0.1327	0.1335		5.03	5.00	0.6	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Lab File ID: Fg0702.D DFTPP Injection Date: 07/07/2014

Instrument ID: CMSF DFTPP Injection Time: 15:25

Analysis Batch No.: 337937

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	51.9
197	Less than 1 % of mass 198	0.8
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.2
275	10 - 30% of mass 198	19.1
365	Greater than 1% of mass 198	2.7
441	Present but less than mass 443	9.7 (77.2)2
442	Greater than 40% of mass 198	64.6
443	17 - 23% of mass 442	12.6 (19.5)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-337937/3	Fg0703.D	07/07/2014	15:54
	CCVIS 680-337937/4	Fg0704.D	07/07/2014	16:47
	MB 680-337170/11-A	Fg0706.D	07/07/2014	18:05
	LCS 680-337170/12-A	Fg0707.D	07/07/2014	18:34
SD-204-SS	680-102252-21	Fg0712.D	07/07/2014	20:59
SD-204-01	680-102252-22	Fg0713.D	07/07/2014	21:28
SD-207-02	680-102252-26	Fg0716.D	07/07/2014	22:55
SD-207-03	680-102252-27	Fg0717.D	07/07/2014	23:24
	CCV 680-337937/21	Fg0721.D	07/08/2014	01:19

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Lab Sample ID: CCVIS 680-337937/4 Calibration Date: 07/07/2014 16:47

Instrument ID: CMSF Calib Start Date: 07/06/2014 13:56

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 07/06/2014 15:52

Lab File ID: Fg0704.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	1.006	1.077		1.07	1.00	7.0	20.0
Dichlorobiphenyl	Ave	0.6631	0.6962		1.05	1.00	5.0	20.0
Trichlorobiphenyl	Ave	0.4698	0.5090		1.08	1.00	8.4	20.0
Tetrachlorobiphenyl	Ave	0.2931	0.3010		2.05	2.00	2.7	20.0
Pentachlorobiphenyl	Ave	0.2498	0.2791		2.23	2.00	11.7	20.0
Hexachlorobiphenyl	Ave	0.2099	0.2071		1.97	2.00	-1.4	20.0
Heptachlorobiphenyl	Ave	0.2016	0.2059		3.06	3.00	2.1	20.0
Octachlorobiphenyl	Ave	0.2175	0.2223		3.07	3.00	2.2	20.0
~~Nonachlorobiphenyl~~	~~Ave~~	~~0.1152~~	~~0.1419~~		~~4.93~~	~~4.00~~	~~23.2*~~	~~20.0~~
DCB Decachlorobiphenyl	Ave	0.1152	0.1138		4.94	5.00	-1.2	20.0
Decachlorobiphenyl-13C12	Ave	0.1327	0.1257		4.74	5.00	-5.3	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Lab Sample ID: CCV 680-337937/21 Calibration Date: 07/08/2014 01:19

Instrument ID: CMSF Calib Start Date: 07/06/2014 13:56

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 07/06/2014 15:52

Lab File ID: Fg0721.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	1.006	1.079		1.07	1.00	7.3	20.0
Dichlorobiphenyl	Ave	0.6631	0.6777		1.02	1.00	2.2	20.0
Trichlorobiphenyl	Ave	0.4698	0.4895		1.04	1.00	4.2	20.0
Tetrachlorobiphenyl	Ave	0.2931	0.3041		2.08	2.00	3.8	20.0
Pentachlorobiphenyl	Ave	0.2498	0.2502		2.00	2.00	0.2	20.0
Hexachlorobiphenyl	Ave	0.2099	0.2209		2.10	2.00	5.2	20.0
Heptachlorobiphenyl	Ave	0.2016	0.2096		3.12	3.00	3.9	20.0
Octachlorobiphenyl	Ave	0.2175	0.2224		3.07	3.00	2.2	20.0
Nonachlorobiphenyl	Ave	0.1152	0.1279		4.44	4.00	11.1	20.0
DCB Decachlorobiphenyl	Ave	0.1152	0.1087		4.72	5.00	-5.6	20.0
Decachlorobiphenyl-13C12	Ave	0.1327	0.1202		4.53	5.00	-9.5	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Lab File ID: XG0802.D DFTPP Injection Date: 07/08/2014

Instrument ID: CMSX DFTPP Injection Time: 11:48

Analysis Batch No.: 338065

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	50.8	
197	Less than 1 % of mass 198	0.3	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.7	
275	10 - 30% of mass 198	27.8	
365	Greater than 1% of mass 198	4.5	
441	Present but less than mass 443	14.0	(80.5)2
442	Greater than 40% of mass 198	92.8	
443	17 - 23% of mass 442	17.3	(18.7)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-338065/3	XG0803.D	07/08/2014	12:18
	ICISAV 680-338065/4	XG0804.D	07/08/2014	14:04
	IC 680-338065/5	XG0805.D	07/08/2014	14:32
	IC 680-338065/6	XG0806.D	07/08/2014	15:01
	IC 680-338065/7	XG0807.D	07/08/2014	15:29
	IC 680-338065/8	XG0808.D	07/08/2014	15:58
	ICV 680-338065/9	XG0809.D	07/08/2014	16:27
SD-207-01	680-102252-25	XG0818.D	07/08/2014	22:06
	CCV 680-338065/19	XG0819.D	07/08/2014	22:34

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102252-1 Analy Batch No.: 338065

SDG No.: 680102252-1

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/08/2014 14:04 Calibration End Date: 07/08/2014 15:58 Calibration ID: 31919

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-338065/8	XG0808.D
Level 2	IC 680-338065/7	XG0807.D
Level 3	ICISAV 680-338065/4	XG0804.D
Level 4	IC 680-338065/6	XG0806.D
Level 5	IC 680-338065/5	XG0805.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.9065	0.8925	0.9538	0.9322	0.9238	Ave		0.9218				2.6		20.0			
Dichlorobiphenyl	0.5915	0.6255	0.6459	0.6725	0.6659	Ave		0.6403				5.1		20.0			
Trichlorobiphenyl	0.3952	0.4252	0.4540	0.4764	0.4724	Ave		0.4446				7.7		20.0			
PCB-104			0.3459			Ave		0.3459						30.0			
Tetrachlorobiphenyl	0.2979	0.3138	0.3348	0.3431	0.3385	Ave		0.3256				5.9		20.0			
Pentachlorobiphenyl	0.1953	0.2349	0.2632	0.2716	0.2824	Ave		0.2495				14.0		20.0			
PCB-77			0.4735			Ave		0.4735						30.0			
Hexachlorobiphenyl	0.1989	0.2390	0.2639	0.2669	0.2604	Ave		0.2458				12.0		20.0			
Heptachlorobiphenyl	0.1683	0.1973	0.2134	0.2347	0.2265	Ave		0.2081				13.0		20.0			
Octachlorobiphenyl	0.1458	0.1847	0.1949	0.2143	0.2163	Ave		0.1912				15.0		20.0			
PCB-208			0.0906			Ave		0.0906						30.0			
Nonachlorobiphenyl			0.0725			Ave		0.0672				15.0		20.0			
DCB Decachlorobiphenyl	0.0507	0.0661	0.0711	0.0735	0.0747	Ave		0.0672				15.0		20.0			
Decachlorobiphenyl-13C12	0.0604	0.0799	0.0831	0.0851	0.0829	Ave		0.0783				13.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Lab Sample ID: ICV 680-338065/9 Calibration Date: 07/08/2014 16:27

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG0809.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.8805		0.955	1.00	-4.5	20.0
Dichlorobiphenyl	Ave	0.6403	0.6291		0.983	1.00	-1.7	20.0
Trichlorobiphenyl	Ave	0.4446	0.4497		1.01	1.00	1.1	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3210		1.97	2.00	-1.4	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2325		1.86	2.00	-6.8	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2501		2.03	2.00	1.7	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2019		2.91	3.00	-3.0	20.0
Octachlorobiphenyl	Ave	0.1912	0.1790		2.81	3.00	-6.4	20.0
DCB Decachlorobiphenyl	Ave	0.0672	0.0596		4.44	5.00	-11.3	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Lab Sample ID: CCV 680-338065/19 Calibration Date: 07/08/2014 22:34

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG0819.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.8055		0.874	1.00	-12.6	20.0
Dichlorobiphenyl	Ave	0.6403	0.6012		0.939	1.00	-6.1	20.0
Trichlorobiphenyl	Ave	0.4446	0.4506		1.01	1.00	1.3	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3157		1.94	2.00	-3.1	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2673		2.14	2.00	7.2	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2567		2.09	2.00	4.4	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2211		3.19	3.00	6.3	20.0
Octachlorobiphenyl	Ave	0.1912	0.2096		3.29	3.00	9.6	20.0
~~Nonachlorobiphenyl~~	~~Ave~~	~~0.0672~~	~~0.0944~~		~~5.62~~	~~4.00~~	~~40.4*~~	~~20.0~~
DCB Decachlorobiphenyl	Ave	0.0672	0.0732		5.45	5.00	8.9	20.0
Decachlorobiphenyl-13C12	Ave	0.0783	0.0853		5.45	5.00	9.0	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Lab File ID: XG1002.D DFTPP Injection Date: 07/10/2014

Instrument ID: CMSX DFTPP Injection Time: 09:26

Analysis Batch No.: 338412

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	51.2	
197	Less than 1 % of mass 198	0.2	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.8	
275	10 - 30% of mass 198	27.9	
365	Greater than 1% of mass 198	4.5	
441	Present but less than mass 443	15.5	(82.2)2
442	Greater than 40% of mass 198	99.7	
443	17 - 23% of mass 442	18.8	(18.9)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-338412/3	XG1003.D	07/10/2014	09:57
	CCVIS 680-338412/4	XG1004.D	07/10/2014	10:45
SD-207-SS	680-102252-24	XG1006.D	07/10/2014	11:42
	CCV 680-338412/20	XG1020.D	07/10/2014	18:23

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Lab Sample ID: CCVIS 680-338412/4 Calibration Date: 07/10/2014 10:45

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG1004.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.8663		0.940	1.00	-6.0	20.0
Dichlorobiphenyl	Ave	0.6403	0.6240		0.975	1.00	-2.5	20.0
Trichlorobiphenyl	Ave	0.4446	0.4559		1.03	1.00	2.5	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3204		1.97	2.00	-1.6	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2650		2.12	2.00	6.2	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2613		2.13	2.00	6.3	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2299		3.31	3.00	10.5	20.0
Octachlorobiphenyl	Ave	0.1912	0.2078		3.26	3.00	8.7	20.0
~~Nonachlorobiphenyl~~	~~Ave~~	~~0.0672~~	~~0.0946~~		~~5.63~~	~~4.00~~	~~40.7*~~	~~20.0~~
DCB Decachlorobiphenyl	Ave	0.0672	0.0721		5.36	5.00	7.3	20.0
Decachlorobiphenyl-13C12	Ave	0.0783	0.0825		5.27	5.00	5.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102252-1

SDG No.: 680102252-1

Lab Sample ID: CCV 680-338412/20 Calibration Date: 07/10/2014 18:23

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG1020.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.8077		0.876	1.00	-12.4	20.0
Dichlorobiphenyl	Ave	0.6403	0.6223		0.972	1.00	-2.8	20.0
Trichlorobiphenyl	Ave	0.4446	0.4553		1.02	1.00	2.4	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3124		1.92	2.00	-4.1	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2555		2.05	2.00	2.4	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2443		1.99	2.00	-0.6	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2111		3.04	3.00	1.5	20.0
Octachlorobiphenyl	Ave	0.1912	0.1892		2.97	3.00	-1.0	20.0
~~Nonachlorobiphenyl~~	~~Ave~~	~~0.0672~~	~~0.0778~~		~~4.63~~	~~4.00~~	~~15.7~~	~~20.0~~
DCB Decachlorobiphenyl	Ave	0.0672	0.0584		4.35	5.00	-13.1	20.0
Decachlorobiphenyl-13C12	Ave	0.0783	0.0695		4.44	5.00	-11.3	20.0

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO:	**M. MARTIN**	**DATE:**	**AUGUST 29, 2014**
FROM:	**A. COGNETTI**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PCB HOMOLOGUES**
LOCKHEED MIDDLE RIVER COMPLEX (MRC) SEDIMENT INVESTIGATION
SAMPLE DELIVERY GROUP (SDG) 680-102521-1

SAMPLES: 46 / Sediment / PCB Homologues

SD-250-01	SD-250-02	SD-250-03	SD-250-SS	SD-251-01
SD-251-02	SD-251-03	SD-251-SS	SD-262-01	SD-262-02
SD-262-03	SD-262-SS	SD-263-01	SD-263-02	SD-263-03
SD-263-SS	SD-264-01	SD-264-02	SD-264-03	SD-264-SS
SD-265-01	SD-265-02	SD-265-03	SD-265-SS	SD-268-01
SD-268-02	SD-268-03	SD-268-SS	SD-269-01	SD-269-02
SD-269-03	SD-269-SS	SD-270-01	SD-270-02	SD-270-03
SD-270-SS	SD-271-01	SD-271-02	SD-271-03	SD-271-SS
SD-273-01	SD-273-02	SD-273-03	SD-273-SS	SD-Dup05
SD-Dup-06				

Overview

The sample set for Lockheed MRC Sediment Investigation, SDG 680-102521-1, consisted of forty-six (46) sediment samples. There are two (2) field duplicate sample pairs included in this SDG: SD-Dup-05/SD-262-SS and SD-Dup-06/SD-270-02.

The samples were collected by Tetra Tech on June 18, 2014 and analyzed by Test America. All analyses were conducted in accordance with EPA Method 680 for PCBs analytical and reporting protocols.

The data contained in this SDG was validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, blank spike/blank spike duplicate results, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major Problems

- The surrogate recovery of decachlorobiphenyl-13C12 was less than 10% in sample SD-265-02. The sample was re-extracted and re-analyzed at a 10X dilution. The surrogate recovery diluted out. The original sample results were used for validation and reporting purposes. The nondetected results were qualified as rejected (UR). The detected results were qualified as estimated (J).

Minor Problems

- The continuing calibration percent difference (%D) for decachlorobiphenyl was greater than the 20% quality control limit on July 21, 2014 @ 15:33 on instrument CMSX. The nondetected decachlorobiphenyl and nonachlorobiphenyl results were qualified as estimated (UJ) in the affected samples.

- The continuing calibration %D for decachlorobiphenyl was greater than the 20% quality control limit on July 27, 2014 @ 18:32 on instrument CMSX. The nondetected decachlorobiphenyl and nonachlorobiphenyl results were qualified as estimated (UJ) in the affected samples.

- Several samples had surrogate recoveries of decachlorobiphenyl-13C12 outside quality control limits.

Sample	Dilution Factor	Surrogate %R	Laboratory Action	Sample Selected for Validation and Reporting Purposes	Validation Action
SD-250-SS	**5X**	**24**	**Re-extracted and re-analyzed sample**	**Yes**	**J, UJ**
SD-250-SS-Re	5X	8			Use original sample results
SD-250-01	**5X**	**27**	**Re-extracted and re-analyzed sample**	**Yes**	**J, UJ**
SD-250-01-Re	5X	8			Use original sample results
SD-250-02	10X	0	None, surrogate diluted out		No action
SD-251-SS	5X	24	Re-extracted and re-analyzed sample		
SD-251-SS-Re	**5X**	**21**		**Yes**	**J, UJ**
SD-262-SS	**1X**	**10**	**Re-extracted and re-analyzed sample**	**Yes**	**J, UJ**
SD-262-SS-Re	1X	8			Use original sample results
SD-Dup-05	10X	0	None, surrogate diluted out		No action
SD-263-02	1X	22	Re-extracted and re-analyzed sample		Use re-extracted sample results
SD-263-02-Re	**2X**	**32**		**Yes**	**No action**
SD-264-SS	**1X**	**13**	**Re-extracted and re-analyzed sample**	**Yes**	**J, UJ**
SD-264-SS-Re	1X	3			Use original sample results
SD-264-02	10X	0	None, surrogate diluted out		No action
SD-265-01	**1X**	**17**	**Re-extracted and re-analyzed**	**Yes**	**J, UJ**

TO: M. Martin
FROM; A. Cognetti
SDG: 680-102521-1
DATE: August 29, 2014

Sample	Dilution Factor	Surrogate %R	Laboratory Action	Sample Selected for Validation and Reporting Purposes	Validation Action
			sample		
SD-265-01-Re	1X	12			Use original sample results
SD-265-03	**5X**	**27**	**Re-extracted and re-analyzed sample**	**Yes**	
SD-265-03-Re	10X	0	None, surrogate diluted out		
SD-268-SS	1x	9	Re-extracted and re-analyzed sample		
SD-268-SS-Re	**5X**	**36**		**Yes**	**Use re-extracted sample results, no action**
SD-268-01	10X	0	None, surrogate diluted out		No action
SD-270-SS	2X	12	Re-extracted and re-analyzed sample		
SD-270-SS-Re	**10X**	**0**	**None, surrogate diluted out**	**Yes**	**Detected results in re-extracted sample significantly greater in conc.**
SD-270-01	5X	25	Re-extracted and re-analyzed sample		
SD-270-01-Re	**5X**	**37**		**Yes**	**Use re-extracted sample results, no action**
SD-270-02	1X	17	Re-extracted and re-analyzed sample		
SD-270-02-Re	**1X**	**33**		**Yes**	**Use re-extracted sample results, no action**
SD-Dup06	1X	25	Re-extracted and re-analyzed sample		
SD-Dup06-Re	**1X**	**47**		**Yes**	**Use re-extracted sample results, no action**
SD-269-SS	2X	7	Re-extracted and re-analyzed		

Sample	Dilution Factor	Surrogate %R	Laboratory Action	Sample Selected for Validation and Reporting Purposes	Validation Action
			sample		
SD-269-SS-Re	**10X**	**0**	**None, surrogate diluted out**	**Yes**	**Use re-extracted sample, results significantly higher, no action**
SD-269-01	10X	0	None, surrogate diluted out		No action
SD-269-02	1X	10	Re-extracted and re-analyzed sample		
SD-269-02-Re	**1X**	**43**		**Yes**	**Use re-extracted sample results, no action**
SD-271-SS	1X	22	Re-extracted and re-analyzed sample		
SD-271-SS-Re	**1X**	**37**		**Yes**	**Use re-extracted sample results, no action**
SD-273-SS	**10X**	**0**	**Re-extracted and re-analyzed sample**	**Yes**	**No action**
SD-273-SS-Re	10X	0	None, surrogate diluted out		Use original sample results
SD-273-01	1X	18	Re-extracted and re-analyzed sample		
SD-273-01-Re	**1X**	**35**		**Yes**	**Use re-extracted sample results, no action**
SD-273-02	10X	0	None, surrogate diluted out		No action
SD-273-03	1X	16	Re-extracted and re-analyzed sample		
SD-273-03-Re	**1X**	**49**		**Yes**	**Use re-extracted sample results, no action**

- The matrix spike (MS) percent recovery (%R) of all PCB homologs were less than the lower quality control limit in spiked sample SD-263-01. The matrix spike duplicate (MSD) %Rs of all PCB homologs except nonachlorobiphenyl were less than the lower quality control limit. The relative percent differences (RPDs) for pentachlorobiphenyl, tetrachlorobiphenyl and

trichlorobiphenyl exceeded quality control limits. All detected and nondetected results were qualified as estimated (J) and (UJ), respectively in sample SD-263-01.

- The MSD %Rs of every PCB homologs were less than the lower quality control limit and the RPDs exceeded quality control limits in spiked sample SD-264-01. All detected and nondetected results were qualified as estimated (J) and (UJ), respectively in sample SD-264-01.

- The MS/MSD %Rs of every PCB homolog were less than the lower quality control limit in spiked sample SD-271-01. All detected and nondetected results were qualified as estimated (J) and (UJ), respectively in sample SD-271-01.

- Samples SD-250-SS, SD-262-SS, SD-263-01, SD-263-SS, SD-264-01, SD-264-SS, SD-265-01, SD-265-SS, SD-273-SS and SD-Dup-05 contained less than 30% solids. The detected and nondetected results were qualified as estimated (J) and (UJ), respectively.

- The internal standard area of chrysene-d12 was greater than the 130% quality control limit in sample SD-250-02. The detected results quantitated using this internal standard were qualified as estimated (J).

- Field duplicate imprecision was noted in the field duplicate pair SD-Dup-05 and SD-262-SS. The variance was greater than the 2X the reporting limit for tetrachlorobiphenyl. The detected and nondetected tetrachlorobiphenyl results were qualified as estimated (J) and (UJ), respectively.

Notes

Samples SD-251-SS and SD-251-SS-Re were missing % moisture on the form 1s and EDD. The laboratory was contacted to provide this missing information.

Sample SD-271-03 was not listed on the chain of custody but was analyzed by the laboratory. This item is noted for completeness.

The laboratory reported non-detected sample results to the Method Detection Limit (MDL).

EXECUTIVE SUMMARY

Laboratory Performance Issues: Continuing calibration %Ds noncompliances were noted. Several samples had surrogate recoveries outside quality control limits. Internal standard noncompliance was noted in sample SD-250-02. Nondetected results in sample SD-265-02 were rejected because of a poor surrogate recovery. Many samples were qualified because of noncompliant surrogate recoveries and the sample results were qualified as estimated.

Other Factors Affecting Data Quality: MS noncompliances were noted in samples SD-263-01, SD-264-01 and SD-271-01. Several samples contained less than 30% solids. Field duplicate imprecision was noted in the field duplicate pair SD-Dup-05 and SD-262-SS. Positive results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J).

The data for these analyses were reviewed with reference to EPA Method 680 and the USEPA National Functional Guidelines for Organic Data Validation (June 2008).

Ann Cognetti

Tetra Tech
Ann Cognetti
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:

Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 05220	NSAMPLE	SD-250-01			SD-250-02			SD-250-03			SD-250-SS		
SDG: 680-102521-1	LAB_ID	680-102521-2			680-102521-3			680-102521-4			680-102521-1		
FRACTION: PCB	SAMP_DATE	6/18/2014			6/18/2014			6/18/2014			6/18/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	30.8			40.2			46.4			25.2		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		40	UJ	CR	61	U		27	UJ	C	48	UJ	CRY
DICHLOROBIPHENYLS		17	UJ	R	26	U		11	U		20	UJ	RY
HEPTACHLOROBIPHENYLS		340	J	PR	2400	J	N	3600			190	J	PRY
HEXACHLOROBIPHENYL		670	J	R	2500			4000			340	J	PRY
MONOCHLOROBIPHENYLS		9.3	UJ	R	14	U		6.1	U		11	UJ	RY
NONACHLOROBIPHENYLS		160	UJ	CR	240	U		110	UJ	C	190	UJ	CRY
OCTACHLOROBIPHENYLS		26	UJ	R	540	J	NP	410			31	UJ	RY
PENTACHLOROBIPHENYLS		940	J	R	5100			4000			140	J	PRY
TETRACHLOROBIPHENYLS		2200	J	R	37000			18000			410	J	RY
TRICHLOROBIPHENYLS		68	J	PR	2500			1300			9.9	UJ	RY

PROJ_NO: 05220	NSAMPLE	SD-251-01			SD-251-02			SD-251-03			SD-251-SS-RE		
SDG: 680-102521-1	LAB_ID	680-102521-6			680-102521-7			680-102521-8			680-102521-5		
FRACTION: PCB	SAMP_DATE	6/18/2014			6/18/2014			6/18/2014			6/18/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	42.5			49.1			56.3			25.2		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		5.8	UJ	C	5.1	UJ	C	4.4	UJ	C	10	UJ	CR
DICHLOROBIPHENYLS		2.4	U		2.1	U		1.9	U		4.4	UJ	R
HEPTACHLOROBIPHENYLS		3.5	U		3.1	U		2.7	U		1700	J	R
HEXACHLOROBIPHENYL		2.3	U		2	U		1.8	U		1100	J	R
MONOCHLOROBIPHENYLS		1.3	U		1.2	U		1	U		2.4	UJ	R
NONACHLOROBIPHENYLS		23	UJ	C	20	UJ	C	18	UJ	C	41	UJ	CR
OCTACHLOROBIPHENYLS		3.7	U		3.2	U		2.8	U		140	J	R
PENTACHLOROBIPHENYLS		2.4	U		5.2	J	P	1.8	U		580	J	R
TETRACHLOROBIPHENYLS		60			8.2	J	P	2.6	J	P	740	J	R
TRICHLOROBIPHENYLS		3.1	J	P	1	U		0.9	U		19	J	PR

PROJ_NO: 05220	NSAMPLE	SD-262-01			SD-262-02			SD-262-03			SD-262-SS		
SDG: 680-102521-1	LAB_ID	680-102521-10			680-102521-11			680-102521-12			680-102521-9		
FRACTION: PCB	SAMP_DATE	6/18/2014			6/18/2014			6/18/2014			6/18/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	33.9			40.9			49.4			23.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		36	UJ	C	6.1	UJ	C	5	UJ	C	11	UJ	CRY
DICHLOROBIPHENYLS		15	U		2.6	U		2.1	U		4.5	UJ	RY
HEPTACHLOROBIPHENYLS		22	U		3.7	U		3	U		98	J	PRY
HEXACHLOROBIPHENYL		140	J	P	2.4	U		2	U		150	J	RY
MONOCHLOROBIPHENYLS		8.3	U		1.4	U		1.1	U		2.5	UJ	RY
NONACHLOROBIPHENYLS		140	UJ	C	24	UJ	C	20	UJ	C	43	UJ	CRY
OCTACHLOROBIPHENYLS		23	U		3.9	U		3.2	U		6.8	UJ	RY
PENTACHLOROBIPHENYLS		91	J	P	2.5	U		2.1	U		200	J	RY
TETRACHLOROBIPHENYLS		150	J	P	2.7	U		2.2	U		330	J	GRY
TRICHLOROBIPHENYLS		12	J	P	1.3	U		1	U		2.2	UJ	RY

PROJ_NO: 05220	NSAMPLE	SD-263-01			SD-263-02-RE			SD-263-03			SD-263-SS		
SDG: 680-102521-1	LAB_ID	680-102521-15			680-102521-16			680-102521-17			680-102521-14		
FRACTION: PCB	SAMP_DATE	6/18/2014			6/18/2014			6/18/2014			6/18/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	25.8			36.2			59.4			20.2		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		9.5	UJ	DY	14	UJ	C	4.2	U		61	UJ	Y
DICHLOROBIPHENYLS		4	UJ	DY	5.8	U		1.8	U		26	UJ	Y
HEPTACHLOROBIPHENYLS		470	J	DY	580			2.5	U		83	J	PY
HEXACHLOROBIPHENYL		670	J	DY	270			1.7	U		240	J	PY
MONOCHLOROBIPHENYLS		2.2	UJ	DY	3.1	U		0.96	U		14	UJ	Y
NONACHLOROBIPHENYLS		38	UJ	DY	55	UJ	C	17	U		240	UJ	Y
OCTACHLOROBIPHENYLS		6.1	UJ	DY	130	J	P	2.7	U		39	UJ	Y
PENTACHLOROBIPHENYLS		920	J	DY	930			4.8	J	P	38	J	PY
TETRACHLOROBIPHENYLS		3300	J	DY	6200			30	J	P	180	J	PY
TRICHLOROBIPHENYLS		200	J	DY	470			4.3	J	P	12	UJ	Y

PROJ_NO: 05220	NSAMPLE	SD-264-01			SD-264-02			SD-264-03			SD-264-SS		
SDG: 680-102521-1	LAB_ID	680-102521-19			680-102521-20			680-102521-21			680-102521-18		
FRACTION: PCB	SAMP_DATE	6/18/2014			6/18/2014			6/18/2014			6/18/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	29.2			33.4			52.9			26.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		8.5	UJ	DY	74	U		3.1	U		9.2	UJ	RY
DICHLOROBIPHENYLS		3.6	UJ	DY	31	U		1.3	U		3.9	UJ	RY
HEPTACHLOROBIPHENYLS		870	J	DY	610	J	P	1.9	U		95	J	PRY
HEXACHLOROBIPHENYL		1200	J	DY	650			1.2	U		98	J	RY
MONOCHLOROBIPHENYLS		2	UJ	DY	17	U		0.72	U		2.1	UJ	RY
NONACHLOROBIPHENYLS		34	UJ	DY	300	U		12	U		37	UJ	RY
OCTACHLOROBIPHENYLS		35	J	DPY	47	U		2	U		5.9	UJ	RY
PENTACHLOROBIPHENYLS		1300	J	DY	2300			1.3	U		70	J	PRY
TETRACHLOROBIPHENYLS		2700	J	DY	12000			56			92	J	RY
TRICHLOROBIPHENYLS		1.7	UJ	DY	850			0.64	U		1.9	UJ	RY

PROJ_NO: 05220	NSAMPLE	SD-265-01			SD-265-02			SD-265-03			SD-265-SS		
SDG: 680-102521-1	LAB_ID	680-102521-23			680-102521-24			680-102521-25			680-102521-22		
FRACTION: PCB	SAMP_DATE	6/18/2014			6/18/2014			6/18/2014			6/18/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	26.3			30.9			35.0			21.2		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		6.3	UJ	RY	5.4	UR	R	24	U		39	UJ	Y
DICHLOROBIPHENYLS		2.7	UJ	RY	2.3	UR	R	10	U		17	UJ	Y
HEPTACHLOROBIPHENYLS		130	J	RY	69	J	R	240	J	P	140	J	PY
HEXACHLOROBIPHENYL		170	J	RY	97	J	R	360			200	J	PY
MONOCHLOROBIPHENYLS		1.4	UJ	RY	1.2	UR	R	5.4	U		9	UJ	Y
NONACHLOROBIPHENYLS		25	UJ	RY	21	UR	R	94	U		160	UJ	Y
OCTACHLOROBIPHENYLS		17	J	PRY	9.9	J	PR	57	J	P	25	UJ	Y
PENTACHLOROBIPHENYLS		120	J	RY	79	J	R	790			97	J	PY
TETRACHLOROBIPHENYLS		250	J	RY	170	J	R	4500			300	J	PY
TRICHLOROBIPHENYLS		1.3	UJ	RY	2.8	J	PR	300			8	UJ	Y

PROJ_NO: 05220	NSAMPLE	SD-268-01			SD-268-02			SD-268-03			SD-268-SS-RE		
SDG: 680-102521-1	LAB_ID	680-102521-27			680-102521-28			680-102521-29			680-102521-26		
FRACTION: PCB	SAMP_DATE	6/18/2014			6/18/2014			6/18/2014			6/18/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	34.8			48.1			50.3			30.3		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		48	U		17	U		3.3	U		41	UJ	C
DICHLOROBIPHENYLS		20	U		7.2	U		1.4	U		17	U	
HEPTACHLOROBIPHENYLS		3400			10	U		2	U		9100		
HEXACHLOROBIPHENYL		3600			75	J	P	1.3	U		5400		
MONOCHLOROBIPHENYLS		11	U		3.9	U		0.75	U		9.4	U	
NONACHLOROBIPHENYLS		190	U		68	U		13	U		160	UJ	C
OCTACHLOROBIPHENYLS		410	J	P	11	U		2.1	U		1300		
PENTACHLOROBIPHENYLS		2800			99	J	P	1.3	U		5100		
TETRACHLOROBIPHENYLS		11000			150			5.6	J	P	20000		
TRICHLOROBIPHENYLS		670			69			0.67	U		1300		

PROJ_NO: 05220	NSAMPLE	SD-269-01			SD-269-02-RE			SD-269-03			SD-269-SS-RE		
SDG: 680-102521-1	LAB_ID	680-102521-36			680-102521-37			680-102521-38			680-102521-35		
FRACTION: PCB	SAMP_DATE	6/18/2014			6/18/2014			6/18/2014			6/18/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	32.5			41.8			70.5			32.6		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		51	U		5.9	UJ	C	2.3	U		76	U	
DICHLOROBIPHENYLS		21	U		2.5	U		0.99	U		36	J	P
HEPTACHLOROBIPHENYLS		31	U		3.6	U		1.4	U		5600		
HEXACHLOROBIPHENYL		20	U		20	J	P	0.93	U		6300		
MONOCHLOROBIPHENYLS		12	U		1.4	U		0.54	U		17	U	
NONACHLOROBIPHENYLS		200	U		24	UJ	C	9.3	U		300	U	
OCTACHLOROBIPHENYLS		32	U		3.8	U		1.5	U		750	J	P
PENTACHLOROBIPHENYLS		21	U		26	J	P	0.96	U		5700		
TETRACHLOROBIPHENYLS		220	J	P	7.7	J	P	1	U		35000		
TRICHLOROBIPHENYLS		10	U		2.4	J	P	0.48	U		2800		

PROJ_NO: 05220	NSAMPLE	SD-270-01-RE			SD-270-02-RE			SD-270-03			SD-270-SS-RE		
SDG: 680-102521-1	LAB_ID	680-102521-31			680-102521-32			680-102521-33			680-102521-30		
FRACTION: PCB	SAMP_DATE	6/18/2014			6/18/2014			6/18/2014			6/18/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	35.9			56.1			73.4			33.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		35	UJ	C	4.4	UJ	C	2.3	U		75	UJ	C
DICHLOROBIPHENYLS		15	U		1.9	U		0.95	U		32	U	
HEPTACHLOROBIPHENYLS		1100			2.7	U		4.7	J	P	26000		
HEXACHLOROBIPHENYL		890			13	J	P	6.8	J	P	25000		
MONOCHLOROBIPHENYLS		7.9	U		1	U		0.52	U		17	U	
NONACHLOROBIPHENYLS		140	UJ	C	18	UJ	C	8.9	U		360	J	CP
OCTACHLOROBIPHENYLS		79	J	P	2.8	U		1.4	U		3400		
PENTACHLOROBIPHENYLS		1300			13	J	P	5.2	J	P	16000		
TETRACHLOROBIPHENYLS		5500			49			34			34000		
TRICHLOROBIPHENYLS		490			3.3	J	P	2.2	J	P	1800		

PROJ_NO: 05220	NSAMPLE	SD-271-01			SD-271-02			SD-271-SS-RE			SD-273-01-RE		
SDG: 680-102521-1	LAB_ID	680-102521-40			680-102521-41			680-102521-39			680-102521-43		
FRACTION: PCB	SAMP_DATE	6/18/2014			6/18/2014			6/18/2014			6/18/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	37.7			72.5			30.4			34.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		4.4	UJ	D	1.1	U		8.1	UJ	C	7.2	UJ	C
DICHLOROBIPHENYLS		1.8	UJ	D	0.48	U		6.6	J	P	3	U	
HEPTACHLOROBIPHENYLS		210	J	D	0.69	U		370			600		
HEXACHLOROBIPHENYL		250	J	D	0.45	U		570			360		
MONOCHLOROBIPHENYLS		1	UJ	D	0.26	U		1.9	U		1.6	U	
NONACHLOROBIPHENYLS		17	UJ	D	4.5	U		32	UJ	C	29	UJ	C
OCTACHLOROBIPHENYLS		38	J	DP	0.73	U		34	J	P	170		
PENTACHLOROBIPHENYLS		250	J	D	0.65	J	P	980			1000		
TETRACHLOROBIPHENYLS		1400	J	D	3.6	J	P	6200			1900		
TRICHLOROBIPHENYLS		100	J	D	0.54	J	P	420			87		

PROJ_NO: 05220	NSAMPLE	SD-273-02			SD-273-03-RE			SD-273-SS			SD-DUP05		
SDG: 680-102521-1	LAB_ID	680-102521-44			680-102521-45			680-102521-42			680-102521-13		
FRACTION: PCB	SAMP_DATE	6/18/2014			6/18/2014			6/18/2014			6/18/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			FD		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	82.8			52.7			28.4			22.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		10	U		4.7	U		29	UJ	Y	110	UJ	Y
DICHLOROBIPHENYLS		4.2	U		2	U		12	UJ	Y			
HEPTACHLOROBIPHENYLS		6	U		2.8	U		480	J	Y			
HEXACHLOROBIPHENYL		4	U		1.9	U		780	J	Y			
MONOCHLOROBIPHENYLS		2.3	U		1.1	U		6.6	UJ	Y			
NONACHLOROBIPHENYLS		40	U		19	U		120	UJ	Y			
OCTACHLOROBIPHENYLS		6.4	U		3	U		45	J	PY			
PENTACHLOROBIPHENYLS		4.1	U		1.9	U		400	J	Y			
TETRACHLOROBIPHENYLS		12	J	P	3	J	P	3600	J	Y			
TRICHLOROBIPHENYLS		2	U		0.96	U		250	J	Y			

PROJ_NO: 05220	NSAMPLE	SD-DUP05			SD-DUP06-RE					
SDG: 680-102521-1	LAB_ID	680-102521-13			680-102521-34					
FRACTION: PCB	SAMP_DATE	6/18/2014			6/18/2014					
MEDIA: SEDIMENT	QC_TYPE	FD			FD					
	UNITS	UG/KG			UG/KG					
	PCT_SOLIDS	22.0			62.2					
	DUP_OF	SD-262-SS						SD-270-02		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL					4	UJ	C			
DICHLOROBIPHENYLS		48	UJ	Y				1.7	U	
HEPTACHLOROBIPHENYLS		68	UJ	Y				2.4	U	
HEXACHLOROBIPHENYL		45	UJ	Y				1.6	U	
MONOCHLOROBIPHENYLS		26	UJ	Y				0.91	U	
NONACHLOROBIPHENYLS		450	UJ	Y				16	UJ	C
OCTACHLOROBIPHENYLS		72	UJ	Y				2.5	U	
PENTACHLOROBIPHENYLS		46	UJ	Y				6.6	J	P
TETRACHLOROBIPHENYLS		50	UJ	GY				1.8	U	
TRICHLOROBIPHENYLS		23	UJ	Y				1.2	J	P

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102521-1
SDG No.: 680102521-1
Client Sample ID: SD-250-01
Lab Sample ID: 680-102521-2
Matrix: Solid
Lab File ID: XG2112.D
Analysis Method: 680
Date Collected: 06/18/2014 08:00
Extract. Method: 680
Date Extracted: 07/16/2014 12:47
Sample wt/vol: 10.00(g)
Date Analyzed: 07/21/2014 19:21
Con. Extract Vol.: 1(mL)
Dilution Factor: 5
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 69.2
GPC Cleanup:(Y/N) N
Analysis Batch No.: 340118
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	40	U	830	40
25512-42-9	Dichlorobiphenyl	17	U	160	17
28655-71-2	Heptachlorobiphenyl	340	J	490	24
26601-64-9	Hexachlorobiphenyl	670		330	16
27323-18-8	Monochlorobiphenyl	9.3	U	160	9.3
53742-07-7	Nonachlorobiphenyl	160	U	830	160
55722-26-4	Octachlorobiphenyl	26	U	490	26
25429-29-2	Pentachlorobiphenyl	940		330	17
26914-33-0	Tetrachlorobiphenyl	2200		330	18
25323-68-6	Trichlorobiphenyl	68	J	160	8.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	27	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-250-01 RE | Lab Sample ID: 680-102521-2 RE

Matrix: Solid | Lab File ID: XG2614.D

Analysis Method: 680 | Date Collected: 06/18/2014 08:00

Extract. Method: 680 | Date Extracted: 07/25/2014 14:50

Sample wt/vol: 10.02(g) | Date Analyzed: 07/27/2014 01:45

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 69.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341015 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	*DCB Decachlorobiphenyl*	*40*	*U*	*830*	*40*
25512-42-9	*Dichlorobiphenyl*	*17*	*U*	*160*	*17*
28655-71-2	*Heptachlorobiphenyl*	*64*	*J*	*490*	*24*
26601-64-9	*Hexachlorobiphenyl*	*180*	*J*	*330*	*16*
27323-18-8	*Monochlorobiphenyl*	*9.2*	*U*	*160*	*9.2*
53742-07-7	*Nonachlorobiphenyl*	*160*	*U*	*830*	*160*
55722-26-4	*Octachlorobiphenyl*	*26*	*U*	*490*	*26*
25429-29-2	*Pentachlorobiphenyl*	*97*	*J*	*330*	*17*
26914-33-0	*Tetrachlorobiphenyl*	*590*		*330*	*18*
25323-68-6	*Trichlorobiphenyl*	*18*	*J*	*160*	*8.3*

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	8	*X*	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-250-02 | Lab Sample ID: 680-102521-3

Matrix: Solid | Lab File ID: XG2406.D

Analysis Method: 680 | Date Collected: 06/18/2014 08:05

Extract. Method: 680 | Date Extracted: 07/16/2014 12:47

Sample wt/vol: 10.16(g) | Date Analyzed: 07/24/2014 22:24

Con. Extract Vol.: 1(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 59.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340817 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	61	U	1200	61
25512-42-9	Dichlorobiphenyl	26	U	240	26
28655-71-2	Heptachlorobiphenyl	2400		730	37
26601-64-9	Hexachlorobiphenyl	2500		490	24
27323-18-8	Monochlorobiphenyl	14	U	240	14
53742-07-7	Nonachlorobiphenyl	240	U	1200	240
55722-26-4	Octachlorobiphenyl	540	J	730	39
25429-29-2	Pentachlorobiphenyl	5100		490	25
26914-33-0	Tetrachlorobiphenyl	37000		490	27
25323-68-6	Trichlorobiphenyl	2500		240	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-250-03 | Lab Sample ID: 680-102521-4

Matrix: Solid | Lab File ID: XG2114.D

Analysis Method: 680 | Date Collected: 06/18/2014 08:10

Extract. Method: 680 | Date Extracted: 07/16/2014 12:47

Sample wt/vol: 10.10(g) | Date Analyzed: 07/21/2014 20:18

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 53.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340118 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	27	U	540	27
25512-42-9	Dichlorobiphenyl	11	U	110	11
28655-71-2	Heptachlorobiphenyl	3600		320	16
26601-64-9	Hexachlorobiphenyl	4000		210	11
27323-18-8	Monochlorobiphenyl	6.1	U	110	6.1
53742-07-7	Nonachlorobiphenyl	110	U	540	110
55722-26-4	Octachlorobiphenyl	410		320	17
25429-29-2	Pentachlorobiphenyl	4000		210	11
26914-33-0	Tetrachlorobiphenyl	18000		210	12
25323-68-6	Trichlorobiphenyl	1300		110	5.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	38		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102521-1
SDG No.: 680102521-1
Client Sample ID: SD-250-SS
Lab Sample ID: 680-102521-1
Matrix: Solid
Lab File ID: XG2111.D
Analysis Method: 680
Date Collected: 06/18/2014 07:55
Extract. Method: 680
Date Extracted: 07/16/2014 12:47
Sample wt/vol: 10.20(g)
Date Analyzed: 07/21/2014 18:53
Con. Extract Vol.: 1(mL)
Dilution Factor: 5
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 74.8
GPC Cleanup:(Y/N) N
Analysis Batch No.: 340118
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	48	U	990	48
25512-42-9	Dichlorobiphenyl	20	U	190	20
28655-71-2	Heptachlorobiphenyl	190	J	580	29
26601-64-9	Hexachlorobiphenyl	340	J	390	19
27323-18-8	Monochlorobiphenyl	11	U	190	11
53742-07-7	Nonachlorobiphenyl	190	U	990	190
55722-26-4	Octachlorobiphenyl	31	U	580	31
25429-29-2	Pentachlorobiphenyl	140	J	390	20
26914-33-0	Tetrachlorobiphenyl	410		390	22
25323-68-6	Trichlorobiphenyl	9.9	U	190	9.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	24	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-250-SS RE | Lab Sample ID: 680-102521-1 RE

Matrix: Solid | Lab File ID: XG2613.D

Analysis Method: 680 | Date Collected: 06/18/2014 07:55

Extract. Method: 680 | Date Extracted: 07/25/2014 14:50

Sample wt/vol: 10.04(g) | Date Analyzed: 07/27/2014 01:17

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 74.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341015 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	49	U	1000	49
25512-42-9	Dichlorobiphenyl	21	U	200	21
28655-71-2	Heptachlorobiphenyl	30	U	590	30
26601-64-9	Hexachlorobiphenyl	43	J	400	20
27323-18-8	Monochlorobiphenyl	11	U	200	11
53742-07-7	Nonachlorobiphenyl	200	U	1000	200
55722-26-4	Octachlorobiphenyl	31	U	590	31
25429-29-2	Pentachlorobiphenyl	20	U	400	20
26914-33-0	Tetrachlorobiphenyl	110	J	400	22
25323-68-6	Trichlorobiphenyl	10	U	200	10

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	8	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-251-01 | Lab Sample ID: 680-102521-6

Matrix: Solid | Lab File ID: XG2116.D

Analysis Method: 680 | Date Collected: 06/18/2014 08:35

Extract. Method: 680 | Date Extracted: 07/16/2014 12:47

Sample wt/vol: 10.13(g) | Date Analyzed: 07/21/2014 21:15

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 57.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340118 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	5.8	U	120	5.8
25512-42-9	Dichlorobiphenyl	2.4	U	23	2.4
28655-71-2	Heptachlorobiphenyl	3.5	U	70	3.5
26601-64-9	Hexachlorobiphenyl	2.3	U	47	2.3
27323-18-8	Monochlorobiphenyl	1.3	U	23	1.3
53742-07-7	Nonachlorobiphenyl	23	U	120	23
55722-26-4	Octachlorobiphenyl	3.7	U	70	3.7
25429-29-2	Pentachlorobiphenyl	2.4	U	47	2.4
26914-33-0	Tetrachlorobiphenyl	60		47	2.6
25323-68-6	Trichlorobiphenyl	3.1	J	23	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	32		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-251-02 | Lab Sample ID: 680-102521-7

Matrix: Solid | Lab File ID: XG2117.D

Analysis Method: 680 | Date Collected: 06/18/2014 08:40

Extract. Method: 680 | Date Extracted: 07/16/2014 12:47

Sample wt/vol: 9.99(g) | Date Analyzed: 07/21/2014 21:44

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 50.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340118 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	5.1	U	100	5.1
25512-42-9	Dichlorobiphenyl	2.1	U	20	2.1
28655-71-2	Heptachlorobiphenyl	3.1	U	61	3.1
26601-64-9	Hexachlorobiphenyl	2.0	U	41	2.0
27323-18-8	Monochlorobiphenyl	1.2	U	20	1.2
53742-07-7	Nonachlorobiphenyl	20	U	100	20
55722-26-4	Octachlorobiphenyl	3.2	U	61	3.2
25429-29-2	Pentachlorobiphenyl	5.2	J	41	2.1
26914-33-0	Tetrachlorobiphenyl	8.2	J	41	2.3
25323-68-6	Trichlorobiphenyl	1.0	U	20	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	36		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-251-03 | Lab Sample ID: 680-102521-8

Matrix: Solid | Lab File ID: XG2118.D

Analysis Method: 680 | Date Collected: 06/18/2014 08:45

Extract. Method: 680 | Date Extracted: 07/16/2014 12:47

Sample wt/vol: 10.03(g) | Date Analyzed: 07/21/2014 22:12

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 43.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340118 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	4.4	U	90	4.4
25512-42-9	Dichlorobiphenyl	1.9	U	18	1.9
28655-71-2	Heptachlorobiphenyl	2.7	U	53	2.7
26601-64-9	Hexachlorobiphenyl	1.8	U	36	1.8
27323-18-8	Monochlorobiphenyl	1.0	U	18	1.0
53742-07-7	Nonachlorobiphenyl	18	U	90	18
55722-26-4	Octachlorobiphenyl	2.8	U	53	2.8
25429-29-2	Pentachlorobiphenyl	1.8	U	36	1.8
26914-33-0	Tetrachlorobiphenyl	2.6	J	36	2.0
25323-68-6	Trichlorobiphenyl	0.90	U	18	0.90

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	53		30-130

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Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-251-SS | Lab Sample ID: 680-102521-5

Matrix: Solid | Lab File ID: XG2115.D

Analysis Method: 680 | Date Collected: 06/18/2014 08:30

Extract. Method: 680 | Date Extracted: 07/16/2014 12:47

Sample wt/vol: 10.01(g) | Date Analyzed: 07/21/2014 20:47

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 49% AC 8/25/14 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340118 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	10	U	210	10
25512-42-9	Dichlorobiphenyl	4.4	U	41	4.4
28655-71-2	Heptachlorobiphenyl	13	J	130	6.3
26601-64-9	Hexachlorobiphenyl	35	J	84	4.1
27323-18-8	Monochlorobiphenyl	2.4	U	41	2.4
53742-07-7	Nonachlorobiphenyl	41	U	210	41
55722-26-4	Octachlorobiphenyl	6.6	U	130	6.6
25429-29-2	Pentachlorobiphenyl	4.3	U	84	4.3
26914-33-0	Tetrachlorobiphenyl	31	J	84	4.6
25323-68-6	Trichlorobiphenyl	2.1	U	41	2.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	24	X	30-130

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Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-251-SS RE | Lab Sample ID: 680-102521-5 RE

Matrix: Solid | Lab File ID: XG2615.D

Analysis Method: 680 | Date Collected: 06/18/2014 08:30

Extract. Method: 680 | Date Extracted: 07/25/2014 14:50

Sample wt/vol: 10.07(g) | Date Analyzed: 07/27/2014 02:14

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 49% AC 8/25/14 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341015 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	10	U	210	10
25512-42-9	Dichlorobiphenyl	4.4	U	41	4.4
28655-71-2	Heptachlorobiphenyl	1700		120	6.2
26601-64-9	Hexachlorobiphenyl	1100		83	4.1
27323-18-8	Monochlorobiphenyl	2.4	U	41	2.4
53742-07-7	Nonachlorobiphenyl	41	U	210	41
55722-26-4	Octachlorobiphenyl	140		120	6.6
25429-29-2	Pentachlorobiphenyl	580		83	4.2
26914-33-0	Tetrachlorobiphenyl	740		83	4.6
25323-68-6	Trichlorobiphenyl	19	J	41	2.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	21	X	30-130

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Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-262-01 | Lab Sample ID: 680-102521-10

Matrix: Solid | Lab File ID: XG2120.D

Analysis Method: 680 | Date Collected: 06/18/2014 09:20

Extract. Method: 680 | Date Extracted: 07/16/2014 12:47

Sample wt/vol: 10.07(g) | Date Analyzed: 07/21/2014 23:09

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 66.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340118 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	36	U	750	36
25512-42-9	Dichlorobiphenyl	15	U	140	15
28655-71-2	Heptachlorobiphenyl	22	U	440	22
26601-64-9	Hexachlorobiphenyl	140	J	290	14
27323-18-8	Monochlorobiphenyl	8.3	U	140	8.3
53742-07-7	Nonachlorobiphenyl	140	U	750	140
55722-26-4	Octachlorobiphenyl	23	U	440	23
25429-29-2	Pentachlorobiphenyl	91	J	290	15
26914-33-0	Tetrachlorobiphenyl	150	J	290	16
25323-68-6	Trichlorobiphenyl	12	J	140	7.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	32		30-130

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Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-262-02 | Lab Sample ID: 680-102521-11

Matrix: Solid | Lab File ID: XG2121.D

Analysis Method: 680 | Date Collected: 06/18/2014 09:25

Extract. Method: 680 | Date Extracted: 07/16/2014 12:47

Sample wt/vol: 9.96(g) | Date Analyzed: 07/21/2014 23:37

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 59.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340118 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	6.1	U	130	6.1
25512-42-9	Dichlorobiphenyl	2.6	U	24	2.6
28655-71-2	Heptachlorobiphenyl	3.7	U	74	3.7
26601-64-9	Hexachlorobiphenyl	2.4	U	49	2.4
27323-18-8	Monochlorobiphenyl	1.4	U	24	1.4
53742-07-7	Nonachlorobiphenyl	24	U	130	24
55722-26-4	Octachlorobiphenyl	3.9	U	74	3.9
25429-29-2	Pentachlorobiphenyl	2.5	U	49	2.5
26914-33-0	Tetrachlorobiphenyl	2.7	U	49	2.7
25323-68-6	Trichlorobiphenyl	1.3	U	24	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	39		30-130

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Lab Name: TestAmerica Savannah
Job No.: 680-102521-1
SDG No.: 680102521-1
Client Sample ID: SD-262-03
Lab Sample ID: 680-102521-12
Matrix: Solid
Lab File ID: XG2122.D
Analysis Method: 680
Date Collected: 06/18/2014 09:30
Extract. Method: 680
Date Extracted: 07/16/2014 12:47
Sample wt/vol: 10.06(g)
Date Analyzed: 07/22/2014 00:06
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 50.6
GPC Cleanup:(Y/N) N
Analysis Batch No.: 340118
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	5.0	U	100	5.0
25512-42-9	Dichlorobiphenyl	2.1	U	20	2.1
28655-71-2	Heptachlorobiphenyl	3.0	U	60	3.0
26601-64-9	Hexachlorobiphenyl	2.0	U	40	2.0
27323-18-8	Monochlorobiphenyl	1.1	U	20	1.1
53742-07-7	Nonachlorobiphenyl	20	U	100	20
55722-26-4	Octachlorobiphenyl	3.2	U	60	3.2
25429-29-2	Pentachlorobiphenyl	2.1	U	40	2.1
26914-33-0	Tetrachlorobiphenyl	2.2	U	40	2.2
25323-68-6	Trichlorobiphenyl	1.0	U	20	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	41		30-130

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Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-262-SS | Lab Sample ID: 680-102521-9

Matrix: Solid | Lab File ID: XG2119.D

Analysis Method: 680 | Date Collected: 06/18/2014 09:15

Extract. Method: 680 | Date Extracted: 07/16/2014 12:47

Sample wt/vol: 10.08(g) | Date Analyzed: 07/21/2014 22:41

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 77.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340118 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	11	U	220	11
25512-42-9	Dichlorobiphenyl	4.5	U	43	4.5
28655-71-2	Heptachlorobiphenyl	98	J	130	6.5
26601-64-9	Hexachlorobiphenyl	150		87	4.3
27323-18-8	Monochlorobiphenyl	2.5	U	43	2.5
53742-07-7	Nonachlorobiphenyl	43	U	220	43
55722-26-4	Octachlorobiphenyl	6.8	U	130	6.8
25429-29-2	Pentachlorobiphenyl	200		87	4.4
26914-33-0	Tetrachlorobiphenyl	330		87	4.8
25323-68-6	Trichlorobiphenyl	2.2	U	43	2.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	10	X	30-130

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Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-262-SS RE | Lab Sample ID: 680-102521-9 RE

Matrix: Solid | Lab File ID: XG2616.D

Analysis Method: 680 | Date Collected: 06/18/2014 09:15

Extract. Method: 680 | Date Extracted: 07/25/2014 14:50

Sample wt/vol: 10.00(g) | Date Analyzed: 07/27/2014 02:42

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 77.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341015 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	11	U	220	11
25512-42-9	Dichlorobiphenyl	4.6	U	43	4.6
28655-71-2	Heptachlorobiphenyl	59	J	130	6.5
26601-64-9	Hexachlorobiphenyl	65	J	87	4.3
27323-18-8	Monochlorobiphenyl	2.5	U	43	2.5
53742-07-7	Nonachlorobiphenyl	43	U	220	43
55722-26-4	Octachlorobiphenyl	6.9	U	130	6.9
25429-29-2	Pentachlorobiphenyl	110		87	4.4
26914-33-0	Tetrachlorobiphenyl	210		87	4.8
25323-68-6	Trichlorobiphenyl	2.2	U	43	2.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	8	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-263-01 | Lab Sample ID: 680-102521-15

Matrix: Solid | Lab File ID: XG2308.D

Analysis Method: 680 | Date Collected: 06/18/2014 10:40

Extract. Method: 680 | Date Extracted: 07/16/2014 12:47

Sample wt/vol: 10.19(g) | Date Analyzed: 07/23/2014 13:23

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 74.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340459 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	9.5	U	190	9.5
25512-42-9	Dichlorobiphenyl	4.0	U	38	4.0
28655-71-2	Heptachlorobiphenyl	470		110	5.7
26601-64-9	Hexachlorobiphenyl	670		77	3.8
27323-18-8	Monochlorobiphenyl	2.2	U	38	2.2
53742-07-7	Nonachlorobiphenyl	38	U	190	38
55722-26-4	Octachlorobiphenyl	6.1	U	110	6.1
25429-29-2	Pentachlorobiphenyl	920		77	3.9
26914-33-0	Tetrachlorobiphenyl	3300		77	4.2
25323-68-6	Trichlorobiphenyl	200		38	1.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	41		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102521-1
SDG No.: 680102521-1
Client Sample ID: SD-263-02
Lab Sample ID: 680-102521-16
Matrix: Solid
Lab File ID: XG2309.D
Analysis Method: 680
Date Collected: 06/18/2014 10:45
Extract. Method: 680
Date Extracted: 07/16/2014 12:47
Sample wt/vol: 9.99(g)
Date Analyzed: 07/23/2014 13:52
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 63.8
GPC Cleanup:(Y/N) N
Analysis Batch No.: 340459
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	6.9	U	140	6.9
25512-42-9	Dichlorobiphenyl	3.5	J	27	2.9
28655-71-2	Heptachlorobiphenyl	640		83	4.1
26601-64-9	Hexachlorobiphenyl	880		56	2.7
27323-18-8	Monochlorobiphenyl	1.6	U	27	1.6
53742-07-7	Nonachlorobiphenyl	27	U	140	27
55722-26-4	Octachlorobiphenyl	190		83	4.4
25429-29-2	Pentachlorobiphenyl	1000		56	2.8
26914-33-0	Tetrachlorobiphenyl	4700		56	3.1
25323-68-6	Trichlorobiphenyl	400		27	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	22	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-263-02 RE | Lab Sample ID: 680-102521-16 RE

Matrix: Solid | Lab File ID: XG2642.D

Analysis Method: 680 | Date Collected: 06/18/2014 10:45

Extract. Method: 680 | Date Extracted: 07/25/2014 14:50

Sample wt/vol: 10.02(g) | Date Analyzed: 07/27/2014 15:12

Con. Extract Vol.: 1(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 63.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341016 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	14	U	280	14
25512-42-9	Dichlorobiphenyl	5.8	U	55	5.8
28655-71-2	Heptachlorobiphenyl	580		170	8.3
26601-64-9	Hexachlorobiphenyl	270		110	5.5
27323-18-8	Monochlorobiphenyl	3.1	U	55	3.1
53742-07-7	Nonachlorobiphenyl	55	U	280	55
55722-26-4	Octachlorobiphenyl	130	J	170	8.8
25429-29-2	Pentachlorobiphenyl	930		110	5.6
26914-33-0	Tetrachlorobiphenyl	6200		110	6.1
25323-68-6	Trichlorobiphenyl	470		55	2.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	32		30-130

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Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-263-03 | Lab Sample ID: 680-102521-17

Matrix: Solid | Lab File ID: XG2310.D

Analysis Method: 680 | Date Collected: 06/18/2014 10:50

Extract. Method: 680 | Date Extracted: 07/16/2014 12:47

Sample wt/vol: 9.97(g) | Date Analyzed: 07/23/2014 14:21

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 40.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340459 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	4.2	U	86	4.2
25512-42-9	Dichlorobiphenyl	1.8	U	17	1.8
28655-71-2	Heptachlorobiphenyl	2.5	U	51	2.5
26601-64-9	Hexachlorobiphenyl	1.7	U	34	1.7
27323-18-8	Monochlorobiphenyl	0.96	U	17	0.96
53742-07-7	Nonachlorobiphenyl	17	U	86	17
55722-26-4	Octachlorobiphenyl	2.7	U	51	2.7
25429-29-2	Pentachlorobiphenyl	4.8	J	34	1.7
26914-33-0	Tetrachlorobiphenyl	30	J	34	1.9
25323-68-6	Trichlorobiphenyl	4.3	J	17	0.86

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	62		30-130

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GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-263-SS | Lab Sample ID: 680-102521-14

Matrix: Solid | Lab File ID: XG2307.D

Analysis Method: 680 | Date Collected: 06/18/2014 10:35

Extract. Method: 680 | Date Extracted: 07/16/2014 12:47

Sample wt/vol: 10.14(g) | Date Analyzed: 07/23/2014 12:55

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 79.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340459 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	61	U	1200	61
25512-42-9	Dichlorobiphenyl	26	U	240	26
28655-71-2	Heptachlorobiphenyl	83	J	730	37
26601-64-9	Hexachlorobiphenyl	240	J	490	24
27323-18-8	Monochlorobiphenyl	14	U	240	14
53742-07-7	Nonachlorobiphenyl	240	U	1200	240
55722-26-4	Octachlorobiphenyl	39	U	730	39
25429-29-2	Pentachlorobiphenyl	38	J	490	25
26914-33-0	Tetrachlorobiphenyl	180	J	490	27
25323-68-6	Trichlorobiphenyl	12	U	240	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	32		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102521-1
SDG No.: 680102521-1
Client Sample ID: SD-264-01
Lab Sample ID: 680-102521-19
Matrix: Solid
Lab File ID: XG2938.D
Analysis Method: 680
Date Collected: 06/18/2014 11:05
Extract. Method: 680
Date Extracted: 07/29/2014 14:28
Sample wt/vol: 10.00(g)
Date Analyzed: 07/30/2014 15:45
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 70.8
GPC Cleanup:(Y/N) N
Analysis Batch No.: 341486
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	8.5	U	170	8.5
25512-42-9	Dichlorobiphenyl	3.6	U	34	3.6
28655-71-2	Heptachlorobiphenyl	870		100	5.1
26601-64-9	Hexachlorobiphenyl	1200		69	3.4
27323-18-8	Monochlorobiphenyl	2.0	U	34	2.0
53742-07-7	Nonachlorobiphenyl	34	U	170	34
55722-26-4	Octachlorobiphenyl	35	J	100	5.4
25429-29-2	Pentachlorobiphenyl	1300		69	3.5
26914-33-0	Tetrachlorobiphenyl	2700		69	3.8
25323-68-6	Trichlorobiphenyl	1.7	U	34	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	64		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-264-02 | Lab Sample ID: 680-102521-20

Matrix: Solid | Lab File ID: XG2408.D

Analysis Method: 680 | Date Collected: 06/18/2014 11:10

Extract. Method: 680 | Date Extracted: 07/16/2014 12:47

Sample wt/vol: 10.02(g) | Date Analyzed: 07/24/2014 23:22

Con. Extract Vol.: 1(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 66.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340817 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	74	U	1500	74
25512-42-9	Dichlorobiphenyl	31	U	300	31
28655-71-2	Heptachlorobiphenyl	610	J	900	45
26601-64-9	Hexachlorobiphenyl	650		600	30
27323-18-8	Monochlorobiphenyl	17	U	300	17
53742-07-7	Nonachlorobiphenyl	300	U	1500	300
55722-26-4	Octachlorobiphenyl	47	U	900	47
25429-29-2	Pentachlorobiphenyl	2300		600	30
26914-33-0	Tetrachlorobiphenyl	12000		600	33
25323-68-6	Trichlorobiphenyl	850		300	15

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102521-1
SDG No.: 680102521-1
Client Sample ID: SD-264-03
Lab Sample ID: 680-102521-21
Matrix: Solid
Lab File ID: XG2319.D
Analysis Method: 680
Date Collected: 06/18/2014 11:15
Extract. Method: 680
Date Extracted: 07/17/2014 12:54
Sample wt/vol: 15.00(g)
Date Analyzed: 07/23/2014 18:40
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 47.1
GPC Cleanup:(Y/N) N
Analysis Batch No.: 340459
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	3.1	U	64	3.1
25512-42-9	Dichlorobiphenyl	1.3	U	12	1.3
28655-71-2	Heptachlorobiphenyl	1.9	U	38	1.9
26601-64-9	Hexachlorobiphenyl	1.2	U	25	1.2
27323-18-8	Monochlorobiphenyl	0.72	U	12	0.72
53742-07-7	Nonachlorobiphenyl	12	U	64	12
55722-26-4	Octachlorobiphenyl	2.0	U	38	2.0
25429-29-2	Pentachlorobiphenyl	1.3	U	25	1.3
26914-33-0	Tetrachlorobiphenyl	56		25	1.4
25323-68-6	Trichlorobiphenyl	0.64	U	12	0.64

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	49		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-264-SS | Lab Sample ID: 680-102521-18

Matrix: Solid | Lab File ID: XG2311.D

Analysis Method: 680 | Date Collected: 06/18/2014 11:00

Extract. Method: 680 | Date Extracted: 07/16/2014 12:47

Sample wt/vol: 10.08(g) | Date Analyzed: 07/23/2014 14:49

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 73.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340459 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	9.2	U	190	9.2
25512-42-9	Dichlorobiphenyl	3.9	U	37	3.9
28655-71-2	Heptachlorobiphenyl	95	J	110	5.6
26601-64-9	Hexachlorobiphenyl	98		74	3.7
27323-18-8	Monochlorobiphenyl	2.1	U	37	2.1
53742-07-7	Nonachlorobiphenyl	37	U	190	37
55722-26-4	Octachlorobiphenyl	5.9	U	110	5.9
25429-29-2	Pentachlorobiphenyl	70	J	74	3.8
26914-33-0	Tetrachlorobiphenyl	92		74	4.1
25323-68-6	Trichlorobiphenyl	1.9	U	37	1.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	13	X	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-264-SS RE | Lab Sample ID: 680-102521-18 RE

Matrix: Solid | Lab File ID: XG2618.D

Analysis Method: 680 | Date Collected: 06/18/2014 11:00

Extract. Method: 680 | Date Extracted: 07/25/2014 14:50

Sample wt/vol: 10.04(g) | Date Analyzed: 07/27/2014 03:40

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 73.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341015 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	9.3	U	190	9.3
25512-42-9	Dichlorobiphenyl	3.9	U	37	3.9
28655-71-2	Heptachlorobiphenyl	5.6	U	110	5.6
26601-64-9	Hexachlorobiphenyl	8.0	J	75	3.7
27323-18-8	Monochlorobiphenyl	2.1	U	37	2.1
53742-07-7	Nonachlorobiphenyl	37	U	190	37
55722-26-4	Octachlorobiphenyl	5.9	U	110	5.9
25429-29-2	Pentachlorobiphenyl	3.8	U	75	3.8
26914-33-0	Tetrachlorobiphenyl	13	J	75	4.1
25323-68-6	Trichlorobiphenyl	1.9	U	37	1.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	3	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-265-01 | Lab Sample ID: 680-102521-23

Matrix: Solid | Lab File ID: XG2321.D

Analysis Method: 680 | Date Collected: 06/18/2014 12:00

Extract. Method: 680 | Date Extracted: 07/17/2014 12:54

Sample wt/vol: 14.98(g) | Date Analyzed: 07/23/2014 19:37

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 73.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340459 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	6.3	U	130	6.3
25512-42-9	Dichlorobiphenyl	2.7	U	25	2.7
28655-71-2	Heptachlorobiphenyl	130		76	3.8
26601-64-9	Hexachlorobiphenyl	170		51	2.5
27323-18-8	Monochlorobiphenyl	1.4	U	25	1.4
53742-07-7	Nonachlorobiphenyl	25	U	130	25
55722-26-4	Octachlorobiphenyl	17	J	76	4.0
25429-29-2	Pentachlorobiphenyl	120		51	2.6
26914-33-0	Tetrachlorobiphenyl	250		51	2.8
25323-68-6	Trichlorobiphenyl	1.3	U	25	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	17	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-265-01 RE | Lab Sample ID: 680-102521-23 RE

Matrix: Solid | Lab File ID: XG2619.D

Analysis Method: 680 | Date Collected: 06/18/2014 12:00

Extract. Method: 680 | Date Extracted: 07/25/2014 14:50

Sample wt/vol: 10.00(g) | Date Analyzed: 07/27/2014 04:08

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 73.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341015 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	9.5	U	190	9.5
25512-42-9	Dichlorobiphenyl	4.0	U	38	4.0
28655-71-2	Heptachlorobiphenyl	160		110	5.7
26601-64-9	Hexachlorobiphenyl	94		76	3.8
27323-18-8	Monochlorobiphenyl	2.2	U	38	2.2
53742-07-7	Nonachlorobiphenyl	38	U	190	38
55722-26-4	Octachlorobiphenyl	6.0	U	110	6.0
25429-29-2	Pentachlorobiphenyl	120		76	3.9
26914-33-0	Tetrachlorobiphenyl	190		76	4.2
25323-68-6	Trichlorobiphenyl	1.9	U	38	1.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	12	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-265-02 | Lab Sample ID: 680-102521-24

Matrix: Solid | Lab File ID: XG2322.D

Analysis Method: 680 | Date Collected: 06/18/2014 12:05

Extract. Method: 680 | Date Extracted: 07/17/2014 12:54

Sample wt/vol: 15.01(g) | Date Analyzed: 07/23/2014 20:06

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 69.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340459 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	5.4	U	110	5.4
25512-42-9	Dichlorobiphenyl	2.3	U	21	2.3
28655-71-2	Heptachlorobiphenyl	69		65	3.2
26601-64-9	Hexachlorobiphenyl	97		43	2.1
27323-18-8	Monochlorobiphenyl	1.2	U	21	1.2
53742-07-7	Nonachlorobiphenyl	21	U	110	21
55722-26-4	Octachlorobiphenyl	9.9	J	65	3.4
25429-29-2	Pentachlorobiphenyl	79		43	2.2
26914-33-0	Tetrachlorobiphenyl	170		43	2.4
25323-68-6	Trichlorobiphenyl	2.8	J	21	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	9	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-265-02 RE | Lab Sample ID: 680-102521-24 RE

Matrix: Solid | Lab File ID: XG2643.D

Analysis Method: 680 | Date Collected: 06/18/2014 12:05

Extract. Method: 680 | Date Extracted: 07/25/2014 14:50

Sample wt/vol: 10.05(g) | Date Analyzed: 07/27/2014 15:41

Con. Extract Vol.: 1(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 69.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341016 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	*DCB Decachlorobiphenyl*	*80*	*U*	*1600*	*80*
25512-42-9	*Dichlorobiphenyl*	*34*	*U*	*320*	*34*
28655-71-2	*Heptachlorobiphenyl*	*48*	*U*	*970*	*48*
26601-64-9	*Hexachlorobiphenyl*	*32*	*U*	*650*	*32*
27323-18-8	*Monochlorobiphenyl*	*18*	*U*	*320*	*18*
53742-07-7	*Nonachlorobiphenyl*	*320*	*U*	*1600*	*320*
55722-26-4	*Octachlorobiphenyl*	*51*	*U*	*970*	*51*
25429-29-2	*Pentachlorobiphenyl*	*33*	*U*	*650*	*33*
26914-33-0	*Tetrachlorobiphenyl*	*36*	*U*	*650*	*36*
25323-68-6	*Trichlorobiphenyl*	*16*	*U*	*320*	*16*

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	*D*	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102521-1
SDG No.: 680102521-1
Client Sample ID: SD-265-03
Lab Sample ID: 680-102521-25
Matrix: Solid
Lab File ID: XG2323.D
Analysis Method: 680
Date Collected: 06/18/2014 12:10
Extract. Method: 680
Date Extracted: 07/17/2014 12:54
Sample wt/vol: 15.00(g)
Date Analyzed: 07/23/2014 20:35
Con. Extract Vol.: 1(mL)
Dilution Factor: 5
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 65.0
GPC Cleanup:(Y/N) N
Analysis Batch No.: 340459
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	24	U	490	24
25512-42-9	Dichlorobiphenyl	10	U	94	10
28655-71-2	Heptachlorobiphenyl	240	J	290	14
26601-64-9	Hexachlorobiphenyl	360		190	9.4
27323-18-8	Monochlorobiphenyl	5.4	U	94	5.4
53742-07-7	Nonachlorobiphenyl	94	U	490	94
55722-26-4	Octachlorobiphenyl	57	J	290	15
25429-29-2	Pentachlorobiphenyl	790		190	9.7
26914-33-0	Tetrachlorobiphenyl	4500		190	11
25323-68-6	Trichlorobiphenyl	300		94	4.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	27	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-265-03 RE | Lab Sample ID: 680-102521-25 RE

Matrix: Solid | Lab File ID: XG2644.D

Analysis Method: 680 | Date Collected: 06/18/2014 12:10

Extract. Method: 680 | Date Extracted: 07/25/2014 14:50

Sample wt/vol: 10.01(g) | Date Analyzed: 07/27/2014 16:09

Con. Extract Vol.: 1(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 65.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341016 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	*DCB Decachlorobiphenyl*	*71*	*U*	*1500*	*71*
25512-42-9	*Dichlorobiphenyl*	*30*	*U*	*280*	*30*
28655-71-2	*Heptachlorobiphenyl*	*43*	*U*	*860*	*43*
26601-64-9	*Hexachlorobiphenyl*	*440*	*J*	*570*	*28*
27323-18-8	*Monochlorobiphenyl*	*16*	*U*	*280*	*16*
53742-07-7	*Nonachlorobiphenyl*	*280*	*U*	*1500*	*280*
55722-26-4	*Octachlorobiphenyl*	*45*	*U*	*860*	*45*
25429-29-2	*Pentachlorobiphenyl*	*520*	*J*	*570*	*29*
26914-33-0	*Tetrachlorobiphenyl*	*4800*		*570*	*32*
25323-68-6	*Trichlorobiphenyl*	*310*		*280*	*15*

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	*D*	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-265-SS | Lab Sample ID: 680-102521-22

Matrix: Solid | Lab File ID: XG2320.D

Analysis Method: 680 | Date Collected: 06/18/2014 11:55

Extract. Method: 680 | Date Extracted: 07/17/2014 12:54

Sample wt/vol: 14.99(g) | Date Analyzed: 07/23/2014 19:09

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 78.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340459 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	39	U	800	39
25512-42-9	Dichlorobiphenyl	17	U	160	17
28655-71-2	Heptachlorobiphenyl	140	J	470	24
26601-64-9	Hexachlorobiphenyl	200	J	320	16
27323-18-8	Monochlorobiphenyl	9.0	U	160	9.0
53742-07-7	Nonachlorobiphenyl	160	U	800	160
55722-26-4	Octachlorobiphenyl	25	U	470	25
25429-29-2	Pentachlorobiphenyl	97	J	320	16
26914-33-0	Tetrachlorobiphenyl	300	J	320	17
25323-68-6	Trichlorobiphenyl	8.0	U	160	8.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	42		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-268-01 | Lab Sample ID: 680-102521-27

Matrix: Solid | Lab File ID: XG2409.D

Analysis Method: 680 | Date Collected: 06/18/2014 13:25

Extract. Method: 680 | Date Extracted: 07/17/2014 12:54

Sample wt/vol: 15.02(g) | Date Analyzed: 07/24/2014 23:51

Con. Extract Vol.: 1(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 65.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340817 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	48	U	980	48
25512-42-9	Dichlorobiphenyl	20	U	190	20
28655-71-2	Heptachlorobiphenyl	3400		570	29
26601-64-9	Hexachlorobiphenyl	3600		380	19
27323-18-8	Monochlorobiphenyl	11	U	190	11
53742-07-7	Nonachlorobiphenyl	190	U	980	190
55722-26-4	Octachlorobiphenyl	410	J	570	30
25429-29-2	Pentachlorobiphenyl	2800		380	20
26914-33-0	Tetrachlorobiphenyl	11000		380	21
25323-68-6	Trichlorobiphenyl	670		190	9.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-268-02 | Lab Sample ID: 680-102521-28

Matrix: Solid | Lab File ID: XG2335.D

Analysis Method: 680 | Date Collected: 06/18/2014 13:30

Extract. Method: 680 | Date Extracted: 07/17/2014 12:54

Sample wt/vol: 15.05(g) | Date Analyzed: 07/24/2014 02:54

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 51.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340579 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	17	U	350	17
25512-42-9	Dichlorobiphenyl	7.2	U	68	7.2
28655-71-2	Heptachlorobiphenyl	10	U	210	10
26601-64-9	Hexachlorobiphenyl	75	J	140	6.8
27323-18-8	Monochlorobiphenyl	3.9	U	68	3.9
53742-07-7	Nonachlorobiphenyl	68	U	350	68
55722-26-4	Octachlorobiphenyl	11	U	210	11
25429-29-2	Pentachlorobiphenyl	99	J	140	7.0
26914-33-0	Tetrachlorobiphenyl	150		140	7.7
25323-68-6	Trichlorobiphenyl	69		68	3.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	43		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-268-03 | Lab Sample ID: 680-102521-29

Matrix: Solid | Lab File ID: XG2336.D

Analysis Method: 680 | Date Collected: 06/18/2014 13:35

Extract. Method: 680 | Date Extracted: 07/17/2014 12:54

Sample wt/vol: 15.12(g) | Date Analyzed: 07/24/2014 03:23

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 49.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340579 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	3.3	U	67	3.3
25512-42-9	Dichlorobiphenyl	1.4	U	13	1.4
28655-71-2	Heptachlorobiphenyl	2.0	U	39	2.0
26601-64-9	Hexachlorobiphenyl	1.3	U	26	1.3
27323-18-8	Monochlorobiphenyl	0.75	U	13	0.75
53742-07-7	Nonachlorobiphenyl	13	U	67	13
55722-26-4	Octachlorobiphenyl	2.1	U	39	2.1
25429-29-2	Pentachlorobiphenyl	1.3	U	26	1.3
26914-33-0	Tetrachlorobiphenyl	5.6	J	26	1.5
25323-68-6	Trichlorobiphenyl	0.67	U	13	0.67

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	54		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-268-SS | Lab Sample ID: 680-102521-26

Matrix: Solid | Lab File ID: XG2324.D

Analysis Method: 680 | Date Collected: 06/18/2014 13:20

Extract. Method: 680 | Date Extracted: 07/17/2014 12:54

Sample wt/vol: 15.04(g) | Date Analyzed: 07/23/2014 21:04

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 69.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340459 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	5.5	U	110	5.5
25512-42-9	Dichlorobiphenyl	2.7	J	22	2.3
28655-71-2	Heptachlorobiphenyl	3700		66	3.3
26601-64-9	Hexachlorobiphenyl	3500		44	2.2
27323-18-8	Monochlorobiphenyl	1.3	U	22	1.3
53742-07-7	Nonachlorobiphenyl	85	J	110	22
55722-26-4	Octachlorobiphenyl	700		66	3.5
25429-29-2	Pentachlorobiphenyl	1400		44	2.2
26914-33-0	Tetrachlorobiphenyl	4000		44	2.4
25323-68-6	Trichlorobiphenyl	220		22	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	9	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-268-SS RE | Lab Sample ID: 680-102521-26 RE

Matrix: Solid | Lab File ID: XG2645.D

Analysis Method: 680 | Date Collected: 06/18/2014 13:20

Extract. Method: 680 | Date Extracted: 07/25/2014 14:50

Sample wt/vol: 10.03(g) | Date Analyzed: 07/27/2014 16:38

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 69.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341016 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	41	U	840	41
25512-42-9	Dichlorobiphenyl	17	U	160	17
28655-71-2	Heptachlorobiphenyl	9100		490	25
26601-64-9	Hexachlorobiphenyl	5400		330	16
27323-18-8	Monochlorobiphenyl	9.4	U	160	9.4
53742-07-7	Nonachlorobiphenyl	160	U	840	160
55722-26-4	Octachlorobiphenyl	1300		490	26
25429-29-2	Pentachlorobiphenyl	5100		330	17
26914-33-0	Tetrachlorobiphenyl	20000		330	18
25323-68-6	Trichlorobiphenyl	1300		160	8.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	36		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-269-01 | Lab Sample ID: 680-102521-36

Matrix: Solid | Lab File ID: XG2412.D

Analysis Method: 680 | Date Collected: 06/18/2014 14:25

Extract. Method: 680 | Date Extracted: 07/17/2014 12:54

Sample wt/vol: 15.06(g) | Date Analyzed: 07/25/2014 01:18

Con. Extract Vol.: 1(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 67.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340817 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	51	U	1000	51
25512-42-9	Dichlorobiphenyl	21	U	200	21
28655-71-2	Heptachlorobiphenyl	31	U	610	31
26601-64-9	Hexachlorobiphenyl	20	U	410	20
27323-18-8	Monochlorobiphenyl	12	U	200	12
53742-07-7	Nonachlorobiphenyl	200	U	1000	200
55722-26-4	Octachlorobiphenyl	32	U	610	32
25429-29-2	Pentachlorobiphenyl	21	U	410	21
26914-33-0	Tetrachlorobiphenyl	220	J	410	23
25323-68-6	Trichlorobiphenyl	10	U	200	10

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-269-02 | Lab Sample ID: 680-102521-37

Matrix: Solid | Lab File ID: XG2344.D

Analysis Method: 680 | Date Collected: 06/18/2014 14:30

Extract. Method: 680 | Date Extracted: 07/17/2014 12:54

Sample wt/vol: 15.04(g) | Date Analyzed: 07/24/2014 07:11

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 58.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340579 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	4.0	U	81	4.0
25512-42-9	Dichlorobiphenyl	1.7	U	16	1.7
28655-71-2	Heptachlorobiphenyl	2.4	U	48	2.4
26601-64-9	Hexachlorobiphenyl	2.8	J	32	1.6
27323-18-8	Monochlorobiphenyl	0.91	U	16	0.91
53742-07-7	Nonachlorobiphenyl	16	U	81	16
55722-26-4	Octachlorobiphenyl	2.5	U	48	2.5
25429-29-2	Pentachlorobiphenyl	6.4	J	32	1.6
26914-33-0	Tetrachlorobiphenyl	2.6	J	32	1.8
25323-68-6	Trichlorobiphenyl	0.81	U	16	0.81

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	10	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-269-02 RE | Lab Sample ID: 680-102521-37 RE

Matrix: Solid | Lab File ID: XG2635.D

Analysis Method: 680 | Date Collected: 06/18/2014 14:30

Extract. Method: 680 | Date Extracted: 07/25/2014 14:50

Sample wt/vol: 10.05(g) | Date Analyzed: 07/27/2014 11:52

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 58.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341016 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	*DCB Decachlorobiphenyl*	*5.9*	*U*	*120*	*5.9*
25512-42-9	*Dichlorobiphenyl*	*2.5*	*U*	*24*	*2.5*
28655-71-2	*Heptachlorobiphenyl*	*3.6*	*U*	*71*	*3.6*
26601-64-9	*Hexachlorobiphenyl*	*20*	*J*	*48*	*2.4*
27323-18-8	*Monochlorobiphenyl*	*1.4*	*U*	*24*	*1.4*
53742-07-7	*Nonachlorobiphenyl*	*24*	*U*	*120*	*24*
55722-26-4	*Octachlorobiphenyl*	*3.8*	*U*	*71*	*3.8*
25429-29-2	*Pentachlorobiphenyl*	*26*	*J*	*48*	*2.4*
26914-33-0	*Tetrachlorobiphenyl*	*7.7*	*J*	*48*	*2.6*
25323-68-6	*Trichlorobiphenyl*	*2.4*	*J*	*24*	*1.2*

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	43		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102521-1
SDG No.: 680102521-1
Client Sample ID: SD-269-03
Lab Sample ID: 680-102521-38
Matrix: Solid
Lab File ID: XG2345.D
Analysis Method: 680
Date Collected: 06/18/2014 14:35
Extract. Method: 680
Date Extracted: 07/17/2014 12:54
Sample wt/vol: 15.05(g)
Date Analyzed: 07/24/2014 07:40
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 29.5
GPC Cleanup:(Y/N) N
Analysis Batch No.: 340579
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	2.3	U	48	2.3
25512-42-9	Dichlorobiphenyl	0.99	U	9.3	0.99
28655-71-2	Heptachlorobiphenyl	1.4	U	28	1.4
26601-64-9	Hexachlorobiphenyl	0.93	U	19	0.93
27323-18-8	Monochlorobiphenyl	0.54	U	9.3	0.54
53742-07-7	Nonachlorobiphenyl	9.3	U	48	9.3
55722-26-4	Octachlorobiphenyl	1.5	U	28	1.5
25429-29-2	Pentachlorobiphenyl	0.96	U	19	0.96
26914-33-0	Tetrachlorobiphenyl	1.0	U	19	1.0
25323-68-6	Trichlorobiphenyl	0.48	U	9.3	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	52		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-269-SS | Lab Sample ID: 680-102521-35

Matrix: Solid | Lab File ID: XG2411.D

Analysis Method: 680 | Date Collected: 06/18/2014 14:20

Extract. Method: 680 | Date Extracted: 07/17/2014 12:54

Sample wt/vol: 15.01(g) | Date Analyzed: 07/25/2014 00:49

Con. Extract Vol.: 1(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 67.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340817 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	10	U	210	10
25512-42-9	Dichlorobiphenyl	5.6	J	41	4.3
28655-71-2	Heptachlorobiphenyl	570		120	6.1
26601-64-9	Hexachlorobiphenyl	870		82	4.1
27323-18-8	Monochlorobiphenyl	2.3	U	41	2.3
53742-07-7	Nonachlorobiphenyl	41	U	210	41
55722-26-4	Octachlorobiphenyl	87	J	120	6.5
25429-29-2	Pentachlorobiphenyl	710		82	4.2
26914-33-0	Tetrachlorobiphenyl	2700		82	4.5
25323-68-6	Trichlorobiphenyl	400		41	2.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	7	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-269-SS RE | Lab Sample ID: 680-102521-35 RE

Matrix: Solid | Lab File ID: XG2763.D

Analysis Method: 680 | Date Collected: 06/18/2014 14:20

Extract. Method: 680 | Date Extracted: 07/25/2014 14:50

Sample wt/vol: 10.09(g) | Date Analyzed: 07/29/2014 03:13

Con. Extract Vol.: 1(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 67.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341035 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	76	U	1600	76
25512-42-9	Dichlorobiphenyl	36	J	300	32
28655-71-2	Heptachlorobiphenyl	5600		910	46
26601-64-9	Hexachlorobiphenyl	6300		610	30
27323-18-8	Monochlorobiphenyl	17	U	300	17
53742-07-7	Nonachlorobiphenyl	300	U	1600	300
55722-26-4	Octachlorobiphenyl	750	J	910	48
25429-29-2	Pentachlorobiphenyl	5700		610	31
26914-33-0	Tetrachlorobiphenyl	35000		610	34
25323-68-6	Trichlorobiphenyl	2800		300	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-270-01 | Lab Sample ID: 680-102521-31

Matrix: Solid | Lab File ID: XG2338.D

Analysis Method: 680 | Date Collected: 06/18/2014 13:45

Extract. Method: 680 | Date Extracted: 07/17/2014 12:54

Sample wt/vol: 15.00(g) | Date Analyzed: 07/24/2014 04:20

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 64.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340579 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	23	U	470	23
25512-42-9	Dichlorobiphenyl	9.8	U	92	9.8
28655-71-2	Heptachlorobiphenyl	280		280	14
26601-64-9	Hexachlorobiphenyl	350		190	9.2
27323-18-8	Monochlorobiphenyl	5.3	U	92	5.3
53742-07-7	Nonachlorobiphenyl	92	U	470	92
55722-26-4	Octachlorobiphenyl	53	J	280	15
25429-29-2	Pentachlorobiphenyl	970		190	9.5
26914-33-0	Tetrachlorobiphenyl	3000		190	10
25323-68-6	Trichlorobiphenyl	510		92	4.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	25	X	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-270-01 RE | Lab Sample ID: 680-102521-31 RE

Matrix: Solid | Lab File ID: XG2631.D

Analysis Method: 680 | Date Collected: 06/18/2014 13:45

Extract. Method: 680 | Date Extracted: 07/25/2014 14:50

Sample wt/vol: 10.02(g) | Date Analyzed: 07/27/2014 09:57

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 64.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341016 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	35	U	710	35
25512-42-9	Dichlorobiphenyl	15	U	140	15
28655-71-2	Heptachlorobiphenyl	1100		420	21
26601-64-9	Hexachlorobiphenyl	890		280	14
27323-18-8	Monochlorobiphenyl	7.9	U	140	7.9
53742-07-7	Nonachlorobiphenyl	140	U	710	140
55722-26-4	Octachlorobiphenyl	79	J	420	22
25429-29-2	Pentachlorobiphenyl	1300		280	14
26914-33-0	Tetrachlorobiphenyl	5500		280	15
25323-68-6	Trichlorobiphenyl	490		140	7.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	37		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102521-1
SDG No.: 680102521-1
Client Sample ID: SD-270-02
Lab Sample ID: 680-102521-32
Matrix: Solid
Lab File ID: XG2339.D
Analysis Method: 680
Date Collected: 06/18/2014 13:50
Extract. Method: 680
Date Extracted: 07/17/2014 12:54
Sample wt/vol: 15.16(g)
Date Analyzed: 07/24/2014 04:49
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 43.9
GPC Cleanup:(Y/N) N
Analysis Batch No.: 340579
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	2.9	U	60	2.9
25512-42-9	Dichlorobiphenyl	1.2	U	12	1.2
28655-71-2	Heptachlorobiphenyl	1.8	U	35	1.8
26601-64-9	Hexachlorobiphenyl	7.9	J	24	1.2
27323-18-8	Monochlorobiphenyl	1.8	J	12	0.67
53742-07-7	Nonachlorobiphenyl	12	U	60	12
55722-26-4	Octachlorobiphenyl	1.9	U	35	1.9
25429-29-2	Pentachlorobiphenyl	12	J	24	1.2
26914-33-0	Tetrachlorobiphenyl	9.5	J	24	1.3
25323-68-6	Trichlorobiphenyl	0.60	U	12	0.60

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	17	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-270-02 RE | Lab Sample ID: 680-102521-32 RE

Matrix: Solid | Lab File ID: XG2632.D

Analysis Method: 680 | Date Collected: 06/18/2014 13:50

Extract. Method: 680 | Date Extracted: 07/25/2014 14:50

Sample wt/vol: 10.03(g) | Date Analyzed: 07/27/2014 10:26

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 43.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341016 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	*DCB Decachlorobiphenyl*	*4.4*	*U*	*91*	*4.4*
25512-42-9	*Dichlorobiphenyl*	*1.9*	*U*	*18*	*1.9*
28655-71-2	*Heptachlorobiphenyl*	*2.7*	*U*	*53*	*2.7*
26601-64-9	*Hexachlorobiphenyl*	*13*	*J*	*36*	*1.8*
27323-18-8	*Monochlorobiphenyl*	*1.0*	*U*	*18*	*1.0*
53742-07-7	*Nonachlorobiphenyl*	*18*	*U*	*91*	*18*
55722-26-4	*Octachlorobiphenyl*	*2.8*	*U*	*53*	*2.8*
25429-29-2	*Pentachlorobiphenyl*	*13*	*J*	*36*	*1.8*
26914-33-0	*Tetrachlorobiphenyl*	*49*		*36*	*2.0*
25323-68-6	*Trichlorobiphenyl*	*3.3*	*J*	*18*	*0.91*

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	33		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102521-1
SDG No.: 680102521-1
Client Sample ID: SD-270-03
Lab Sample ID: 680-102521-33
Matrix: Solid
Lab File ID: XG2340.D
Analysis Method: 680
Date Collected: 06/18/2014 13:55
Extract. Method: 680
Date Extracted: 07/17/2014 12:54
Sample wt/vol: 15.08(g)
Date Analyzed: 07/24/2014 05:17
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 26.6
GPC Cleanup:(Y/N) N
Analysis Batch No.: 340579
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	2.3	U	46	2.3
25512-42-9	Dichlorobiphenyl	0.95	U	8.9	0.95
28655-71-2	Heptachlorobiphenyl	4.7	J	27	1.4
26601-64-9	Hexachlorobiphenyl	6.8	J	18	0.89
27323-18-8	Monochlorobiphenyl	0.52	U	8.9	0.52
53742-07-7	Nonachlorobiphenyl	8.9	U	46	8.9
55722-26-4	Octachlorobiphenyl	1.4	U	27	1.4
25429-29-2	Pentachlorobiphenyl	5.2	J	18	0.92
26914-33-0	Tetrachlorobiphenyl	34		18	1.0
25323-68-6	Trichlorobiphenyl	2.2	J	8.9	0.46

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	53		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102521-1
SDG No.: 680102521-1
Client Sample ID: SD-270-SS
Lab Sample ID: 680-102521-30
Matrix: Solid
Lab File ID: XG2410.D
Analysis Method: 680
Date Collected: 06/18/2014 13:40
Extract. Method: 680
Date Extracted: 07/17/2014 12:54
Sample wt/vol: 15.00(g)
Date Analyzed: 07/25/2014 00:20
Con. Extract Vol.: 1(mL)
Dilution Factor: 2
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 67.0
GPC Cleanup:(Y/N) N
Analysis Batch No.: 340817
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	10	U	210	10
25512-42-9	Dichlorobiphenyl	4.5	J	40	4.2
28655-71-2	Heptachlorobiphenyl	390		120	6.1
26601-64-9	Hexachlorobiphenyl	420		81	4.0
27323-18-8	Monochlorobiphenyl	2.3	U	40	2.3
53742-07-7	Nonachlorobiphenyl	40	U	210	40
55722-26-4	Octachlorobiphenyl	84	J	120	6.4
25429-29-2	Pentachlorobiphenyl	740		81	4.1
26914-33-0	Tetrachlorobiphenyl	4700		81	4.5
25323-68-6	Trichlorobiphenyl	330		40	2.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	12	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-270-SS RE | Lab Sample ID: 680-102521-30 RE

Matrix: Solid | Lab File ID: XG2646.D

Analysis Method: 680 | Date Collected: 06/18/2014 13:40

Extract. Method: 680 | Date Extracted: 07/25/2014 14:50

Sample wt/vol: 10.05(g) | Date Analyzed: 07/27/2014 17:07

Con. Extract Vol.: 1(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 67.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341016 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	75	U	1500	75
25512-42-9	Dichlorobiphenyl	32	U	300	32
28655-71-2	Heptachlorobiphenyl	26000		900	45
26601-64-9	Hexachlorobiphenyl	25000		610	30
27323-18-8	Monochlorobiphenyl	17	U	300	17
53742-07-7	Nonachlorobiphenyl	360	J	1500	300
55722-26-4	Octachlorobiphenyl	3400		900	48
25429-29-2	Pentachlorobiphenyl	16000		610	31
26914-33-0	Tetrachlorobiphenyl	34000		610	33
25323-68-6	Trichlorobiphenyl	1800		300	15

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102521-1
SDG No.: 680102521-1
Client Sample ID: SD-271-01
Lab Sample ID: 680-102521-40
Matrix: Solid
Lab File ID: XG2318.D
Analysis Method: 680
Date Collected: 06/18/2014 15:00
Extract. Method: 680
Date Extracted: 07/17/2014 12:54
Sample wt/vol: 15.15(g)
Date Analyzed: 07/23/2014 18:11
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 62.3
GPC Cleanup:(Y/N) N
Analysis Batch No.: 340459
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	4.4	U	89	4.4
25512-42-9	Dichlorobiphenyl	1.8	U	17	1.8
28655-71-2	Heptachlorobiphenyl	210		53	2.6
26601-64-9	Hexachlorobiphenyl	250		35	1.7
27323-18-8	Monochlorobiphenyl	1.0	U	17	1.0
53742-07-7	Nonachlorobiphenyl	17	U	89	17
55722-26-4	Octachlorobiphenyl	38	J	53	2.8
25429-29-2	Pentachlorobiphenyl	250		35	1.8
26914-33-0	Tetrachlorobiphenyl	1400		35	1.9
25323-68-6	Trichlorobiphenyl	100		17	0.89

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	12	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-271-02 | Lab Sample ID: 680-102521-41

Matrix: Solid | Lab File ID: XG2347.D

Analysis Method: 680 | Date Collected: 06/18/2014 15:05

Extract. Method: 680 | Date Extracted: 07/12/2014 13:20

Sample wt/vol: 30.02(g) | Date Analyzed: 07/24/2014 08:37

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 27.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340579 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	1.1	U	23	1.1
25512-42-9	Dichlorobiphenyl	0.48	U	4.5	0.48
28655-71-2	Heptachlorobiphenyl	0.69	U	14	0.69
26601-64-9	Hexachlorobiphenyl	0.45	U	9.2	0.45
27323-18-8	Monochlorobiphenyl	0.26	U	4.5	0.26
53742-07-7	Nonachlorobiphenyl	4.5	U	23	4.5
55722-26-4	Octachlorobiphenyl	0.73	U	14	0.73
25429-29-2	Pentachlorobiphenyl	0.65	J	9.2	0.47
26914-33-0	Tetrachlorobiphenyl	3.6	J	9.2	0.51
25323-68-6	Trichlorobiphenyl	0.54	J	4.5	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	68		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102521-1
SDG No.: 680102521-1
Client Sample ID: SD-271-SS
Lab Sample ID: 680-102521-39
Matrix: Solid
Lab File ID: XG2346.D
Analysis Method: 680
Date Collected: 06/18/2014 14:55
Extract. Method: 680
Date Extracted: 07/17/2014 12:54
Sample wt/vol: 15.04(g)
Date Analyzed: 07/24/2014 08:09
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 69.6
GPC Cleanup:(Y/N) N
Analysis Batch No.: 340579
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	5.4	U	110	5.4
25512-42-9	Dichlorobiphenyl	5.5	J	22	2.3
28655-71-2	Heptachlorobiphenyl	770		66	3.3
26601-64-9	Hexachlorobiphenyl	560		44	2.2
27323-18-8	Monochlorobiphenyl	1.2	U	22	1.2
53742-07-7	Nonachlorobiphenyl	22	U	110	22
55722-26-4	Octachlorobiphenyl	200		66	3.5
25429-29-2	Pentachlorobiphenyl	730		44	2.2
26914-33-0	Tetrachlorobiphenyl	3700		44	2.4
25323-68-6	Trichlorobiphenyl	240		22	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	22	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102521-1
SDG No.: 680102521-1
Client Sample ID: SD-271-SS RE
Lab Sample ID: 680-102521-39 RE
Matrix: Solid
Lab File ID: XG2636.D
Analysis Method: 680
Date Collected: 06/18/2014 14:55
Extract. Method: 680
Date Extracted: 07/25/2014 14:50
Sample wt/vol: 10.12(g)
Date Analyzed: 07/27/2014 12:20
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 69.6
GPC Cleanup:(Y/N) N
Analysis Batch No.: 341016
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	*DCB Decachlorobiphenyl*	*8.1*	*U*	*170*	*8.1*
25512-42-9	*Dichlorobiphenyl*	*6.6*	*J*	*32*	*3.4*
28655-71-2	*Heptachlorobiphenyl*	*370*		*98*	*4.9*
26601-64-9	*Hexachlorobiphenyl*	*570*		*65*	*3.2*
27323-18-8	*Monochlorobiphenyl*	*1.9*	*U*	*32*	*1.9*
53742-07-7	*Nonachlorobiphenyl*	*32*	*U*	*170*	*32*
55722-26-4	*Octachlorobiphenyl*	*34*	*J*	*98*	*5.2*
25429-29-2	*Pentachlorobiphenyl*	*980*		*65*	*3.3*
26914-33-0	*Tetrachlorobiphenyl*	*6200*		*65*	*3.6*
25323-68-6	*Trichlorobiphenyl*	*420*		*32*	*1.7*

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	37		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-273-01 | Lab Sample ID: 680-102521-43

Matrix: Solid | Lab File ID: XG2349.D

Analysis Method: 680 | Date Collected: 06/18/2014 15:30

Extract. Method: 680 | Date Extracted: 07/12/2014 13:20

Sample wt/vol: 30.14(g) | Date Analyzed: 07/24/2014 09:34

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 65.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340579 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	2.4	U	49	2.4
25512-42-9	Dichlorobiphenyl	3.8	J	9.5	1.0
28655-71-2	Heptachlorobiphenyl	91		29	1.4
26601-64-9	Hexachlorobiphenyl	130		19	0.95
27323-18-8	Monochlorobiphenyl	0.55	U	9.5	0.55
53742-07-7	Nonachlorobiphenyl	9.5	U	49	9.5
55722-26-4	Octachlorobiphenyl	19	J	29	1.5
25429-29-2	Pentachlorobiphenyl	260		19	0.98
26914-33-0	Tetrachlorobiphenyl	1800		19	1.1
25323-68-6	Trichlorobiphenyl	160		9.5	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	18	X	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-273-01 RE | Lab Sample ID: 680-102521-43 RE

Matrix: Solid | Lab File ID: XG2638.D

Analysis Method: 680 | Date Collected: 06/18/2014 15:30

Extract. Method: 680 | Date Extracted: 07/25/2014 14:50

Sample wt/vol: 10.03(g) | Date Analyzed: 07/27/2014 13:17

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 65.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341016 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	*DCB Decachlorobiphenyl*	*7.2*	*U*	*150*	*7.2*
25512-42-9	*Dichlorobiphenyl*	*3.0*	*U*	*29*	*3.0*
28655-71-2	*Heptachlorobiphenyl*	*600*		*87*	*4.3*
26601-64-9	*Hexachlorobiphenyl*	*360*		*58*	*2.9*
27323-18-8	*Monochlorobiphenyl*	*1.6*	*U*	*29*	*1.6*
53742-07-7	*Nonachlorobiphenyl*	*29*	*U*	*150*	*29*
55722-26-4	*Octachlorobiphenyl*	*170*		*87*	*4.6*
25429-29-2	*Pentachlorobiphenyl*	*1000*		*58*	*2.9*
26914-33-0	*Tetrachlorobiphenyl*	*1900*		*58*	*3.2*
25323-68-6	*Trichlorobiphenyl*	*87*		*29*	*1.5*

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	35		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-273-02 | Lab Sample ID: 680-102521-44

Matrix: Solid | Lab File ID: XG2933.D

Analysis Method: 680 | Date Collected: 06/18/2014 15:35

Extract. Method: 680 | Date Extracted: 07/12/2014 13:20

Sample wt/vol: 30.14(g) | Date Analyzed: 07/30/2014 13:22

Con. Extract Vol.: 1(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341486 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	10	U	200	10
25512-42-9	Dichlorobiphenyl	4.2	U	40	4.2
28655-71-2	Heptachlorobiphenyl	6.0	U	120	6.0
26601-64-9	Hexachlorobiphenyl	4.0	U	81	4.0
27323-18-8	Monochlorobiphenyl	2.3	U	40	2.3
53742-07-7	Nonachlorobiphenyl	40	U	200	40
55722-26-4	Octachlorobiphenyl	6.4	U	120	6.4
25429-29-2	Pentachlorobiphenyl	4.1	U	81	4.1
26914-33-0	Tetrachlorobiphenyl	12	J	81	4.4
25323-68-6	Trichlorobiphenyl	2.0	U	40	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102521-1
SDG No.: 680102521-1
Client Sample ID: SD-273-03
Lab Sample ID: 680-102521-45
Matrix: Solid
Lab File ID: XG2351.D
Analysis Method: 680
Date Collected: 06/18/2014 15:40
Extract. Method: 680
Date Extracted: 07/12/2014 13:20
Sample wt/vol: 30.01(g)
Date Analyzed: 07/24/2014 10:32
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 47.3
GPC Cleanup:(Y/N) N
Analysis Batch No.: 340579
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	1.6	U	32	1.6
25512-42-9	Dichlorobiphenyl	0.66	U	6.3	0.66
28655-71-2	Heptachlorobiphenyl	0.95	U	19	0.95
26601-64-9	Hexachlorobiphenyl	0.63	U	13	0.63
27323-18-8	Monochlorobiphenyl	0.36	U	6.3	0.36
53742-07-7	Nonachlorobiphenyl	6.3	U	32	6.3
55722-26-4	Octachlorobiphenyl	1.0	U	19	1.0
25429-29-2	Pentachlorobiphenyl	0.65	U	13	0.65
26914-33-0	Tetrachlorobiphenyl	0.70	U	13	0.70
25323-68-6	Trichlorobiphenyl	0.32	U	6.3	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	16	X	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-273-03 RE | Lab Sample ID: 680-102521-45 RE

Matrix: Solid | Lab File ID: XG2612.D

Analysis Method: 680 | Date Collected: 06/18/2014 15:40

Extract. Method: 680 | Date Extracted: 07/25/2014 14:50

Sample wt/vol: 10.05(g) | Date Analyzed: 07/27/2014 00:48

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 47.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341015 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	*DCB Decachlorobiphenyl*	*4.7*	*U*	*96*	*4.7*
25512-42-9	*Dichlorobiphenyl*	*2.0*	*U*	*19*	*2.0*
28655-71-2	*Heptachlorobiphenyl*	*2.8*	*U*	*57*	*2.8*
26601-64-9	*Hexachlorobiphenyl*	*1.9*	*U*	*38*	*1.9*
27323-18-8	*Monochlorobiphenyl*	*1.1*	*U*	*19*	*1.1*
53742-07-7	*Nonachlorobiphenyl*	*19*	*U*	*96*	*19*
55722-26-4	*Octachlorobiphenyl*	*3.0*	*U*	*57*	*3.0*
25429-29-2	*Pentachlorobiphenyl*	*1.9*	*U*	*38*	*1.9*
26914-33-0	*Tetrachlorobiphenyl*	*3.0*	*J*	*38*	*2.1*
25323-68-6	*Trichlorobiphenyl*	*0.96*	*U*	*19*	*0.96*

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	49		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-273-SS | Lab Sample ID: 680-102521-42

Matrix: Solid | Lab File ID: XG2413.D

Analysis Method: 680 | Date Collected: 06/18/2014 15:25

Extract. Method: 680 | Date Extracted: 07/12/2014 13:20

Sample wt/vol: 30.28(g) | Date Analyzed: 07/25/2014 01:47

Con. Extract Vol.: 1(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 71.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340817 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	29	U	590	29
25512-42-9	Dichlorobiphenyl	12	U	120	12
28655-71-2	Heptachlorobiphenyl	480		350	17
26601-64-9	Hexachlorobiphenyl	780		230	12
27323-18-8	Monochlorobiphenyl	6.6	U	120	6.6
53742-07-7	Nonachlorobiphenyl	120	U	590	120
55722-26-4	Octachlorobiphenyl	45	J	350	19
25429-29-2	Pentachlorobiphenyl	400		230	12
26914-33-0	Tetrachlorobiphenyl	3600		230	13
25323-68-6	Trichlorobiphenyl	250		120	5.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-273-SS RE | Lab Sample ID: 680-102521-42 RE

Matrix: Solid | Lab File ID: XG2637.D

Analysis Method: 680 | Date Collected: 06/18/2014 15:25

Extract. Method: 680 | Date Extracted: 07/25/2014 14:50

Sample wt/vol: 10.22(g) | Date Analyzed: 07/27/2014 12:49

Con. Extract Vol.: 1(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 71.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341016 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	*DCB Decachlorobiphenyl*	*86*	*U*	*1800*	*86*
25512-42-9	*Dichlorobiphenyl*	*36*	*U*	*340*	*36*
28655-71-2	*Heptachlorobiphenyl*	*210*	*J*	*1000*	*52*
26601-64-9	*Hexachlorobiphenyl*	*750*		*690*	*34*
27323-18-8	*Monochlorobiphenyl*	*20*	*U*	*340*	*20*
53742-07-7	*Nonachlorobiphenyl*	*340*	*U*	*1800*	*340*
55722-26-4	*Octachlorobiphenyl*	*55*	*U*	*1000*	*55*
25429-29-2	*Pentachlorobiphenyl*	*950*		*690*	*35*
26914-33-0	*Tetrachlorobiphenyl*	*6800*		*690*	*38*
25323-68-6	*Trichlorobiphenyl*	*420*		*340*	*18*

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	*D*	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102521-1
SDG No.: 680102521-1
Client Sample ID: SD-DUP05
Lab Sample ID: 680-102521-13
Matrix: Solid
Lab File ID: XG2407.D
Analysis Method: 680
Date Collected: 06/18/2014 00:00
Extract. Method: 680
Date Extracted: 07/16/2014 12:47
Sample wt/vol: 10.01(g)
Date Analyzed: 07/24/2014 22:53
Con. Extract Vol.: 1(mL)
Dilution Factor: 10
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 78.0
GPC Cleanup:(Y/N) N
Analysis Batch No.: 340817
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	110	U	2300	110
25512-42-9	Dichlorobiphenyl	48	U	450	48
28655-71-2	Heptachlorobiphenyl	68	U	1400	68
26601-64-9	Hexachlorobiphenyl	45	U	910	45
27323-18-8	Monochlorobiphenyl	26	U	450	26
53742-07-7	Nonachlorobiphenyl	450	U	2300	450
55722-26-4	Octachlorobiphenyl	72	U	1400	72
25429-29-2	Pentachlorobiphenyl	46	U	910	46
26914-33-0	Tetrachlorobiphenyl	50	U	910	50
25323-68-6	Trichlorobiphenyl	23	U	450	23

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-DUP06 | Lab Sample ID: 680-102521-34

Matrix: Solid | Lab File ID: XG2341.D

Analysis Method: 680 | Date Collected: 06/18/2014 00:00

Extract. Method: 680 | Date Extracted: 07/17/2014 12:54

Sample wt/vol: 15.20(g) | Date Analyzed: 07/24/2014 05:46

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 37.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340579 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	2.6	U	54	2.6
25512-42-9	Dichlorobiphenyl	1.1	U	10	1.1
28655-71-2	Heptachlorobiphenyl	1.6	U	32	1.6
26601-64-9	Hexachlorobiphenyl	3.0	J	21	1.0
27323-18-8	Monochlorobiphenyl	0.60	U	10	0.60
53742-07-7	Nonachlorobiphenyl	10	U	54	10
55722-26-4	Octachlorobiphenyl	1.7	U	32	1.7
25429-29-2	Pentachlorobiphenyl	12	J	21	1.1
26914-33-0	Tetrachlorobiphenyl	6.5	J	21	1.2
25323-68-6	Trichlorobiphenyl	0.54	U	10	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	25	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-DUP06 RE | Lab Sample ID: 680-102521-34 RE

Matrix: Solid | Lab File ID: XG2633.D

Analysis Method: 680 | Date Collected: 06/18/2014 00:00

Extract. Method: 680 | Date Extracted: 07/25/2014 14:50

Sample wt/vol: 10.12(g) | Date Analyzed: 07/27/2014 10:54

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 37.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341016 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	*DCB Decachlorobiphenyl*	*4.0*	*U*	*81*	*4.0*
25512-42-9	*Dichlorobiphenyl*	*1.7*	*U*	*16*	*1.7*
28655-71-2	*Heptachlorobiphenyl*	*2.4*	*U*	*48*	*2.4*
26601-64-9	*Hexachlorobiphenyl*	*1.6*	*U*	*32*	*1.6*
27323-18-8	*Monochlorobiphenyl*	*0.91*	*U*	*16*	*0.91*
53742-07-7	*Nonachlorobiphenyl*	*16*	*U*	*81*	*16*
55722-26-4	*Octachlorobiphenyl*	*2.5*	*U*	*48*	*2.5*
25429-29-2	*Pentachlorobiphenyl*	*6.6*	*J*	*32*	*1.6*
26914-33-0	*Tetrachlorobiphenyl*	*1.8*	*U*	*32*	*1.8*
25323-68-6	*Trichlorobiphenyl*	*1.2*	*J*	*16*	*0.81*

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	47		30-130

APPENDIX C

SUPPORT DOCUMENTATION

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: Sediments

Report Number: 680-102521-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 06/19/2014 and 06/21/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.4 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Samples SD-250-SS (680-102521-1), SD-250-01 (680-102521-2), SD-250-02 (680-102521-3), SD-250-03 (680-102521-4), SD-251-SS (680-102521-5), SD-251-01 (680-102521-6), SD-251-02 (680-102521-7), SD-251-03 (680-102521-8), SD-262-SS (680-102521-9), SD-262-01 (680-102521-10), SD-262-02 (680-102521-11), SD-262-03 (680-102521-12), SD-DUP05 (680-102521-13), SD-263-SS (680-102521-14), SD-263-01 (680-102521-15), SD-263-02 (680-102521-16), SD-263-03 (680-102521-17), SD-264-SS (680-102521-18), SD-264-01 (680-102521-19), SD-264-02 (680-102521-20), SD-264-03 (680-102521-21), SD-265-SS (680-102521-22), SD-265-01 (680-102521-23), SD-265-02 (680-102521-24), SD-265-03 (680-102521-25), SD-268-SS (680-102521-26), SD-268-01 (680-102521-27), SD-268-02 (680-102521-28), SD-268-03 (680-102521-29), SD-270-SS (680-102521-30), SD-270-01 (680-102521-31), SD-270-02 (680-102521-32), SD-270-03 (680-102521-33), SD-DUP06 (680-102521-34), SD-269-SS (680-102521-35), SD-269-01 (680-102521-36), SD-269-02 (680-102521-37), SD-269-03 (680-102521-38), SD-271-SS (680-102521-39), SD-271-01 (680-102521-40), SD-271-02 (680-102521-41), SD-273-SS (680-102521-42), SD-273-01 (680-102521-43), SD-273-02 (680-102521-44) and SD-273-03 (680-102521-45) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 680. The samples were prepared on 07/12/2014, 07/16/2014, 07/17/2014, 07/25/2014 and 07/29/2014 and analyzed on 07/21/2014, 07/22/2014, 07/23/2014, 07/24/2014, 07/25/2014, 07/27/2014, 07/29/2014 and 07/30/2014.

Internal standard (ISTD) response for the following sample(s) was outside of acceptance limits when compared to the area of the CCVIS,: (680-102521-19 MSD), (LCS 680-341361/12-A), (MB 680-341361/11-A). The 680 method allows that the sample also be compared to the average internal standard area of the calibration(ICISAV). When compared to the ICISAV the samples are within the area range for the internal standard.

The method blank for batch 340880 recovered low outside of control limits for the surrogate. The samples in the batch are reextracts. The original and reextract data are being reported per client request.

The following sample(s) was diluted due to the nature of the sample matrix: SD-250-02 (680-102521-3), SD-265-02 (680-102521-24), SD-265-03 (680-102521-25), SD-269-SS (680-102521-35), SD-270-SS (680-102521-30), SD-273-SS (680-102521-42), SD-273-02 (680-102521-44). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Surrogate recovery for the following sample(s) was outside control limits: SD-250-01 (680-102521-2), SD-250-SS (680-102521-1), SD-251-SS (680-102521-5), SD-262-SS (680-102521-9). Re-extraction and/or re-analysis was performed with concurring results. The samples were extracted at 10g and reextracted at 10g. Both sets of data have been reported.

Surrogate recovery for the following sample(s) was outside control limits: SD-263-02 (680-102521-16), SD-264-SS (680-102521-18), SD-265-01 (680-102521-23), SD-265-02 (680-102521-24). Re-extraction and/or re-analysis was performed with concurring results. Both sets of data have been reported per client request.
102521-16 and 18 were extracted at 10g and reextracted at 10g. 102521-23 and 24 were extracted at 15g and reextracted at 10g.

Surrogate recovery for the following sample(s) was outside acceptance limits: SD-265-03 (680-102521-25), SD-268-SS (680-102521-26). The results have been reported per client request. The samples were extracted at 15g and reextracted at 10g. The samples were reextracted in a batch with the method blank recovering low outside of limits for the surrogate. Per client request, both sets of data have been reported.

Surrogate recovery for the following sample(s) was outside control limits: SD-271-01 (680-102521-40), SD-271-01 (680-102521-40 MS), SD-271-01 (680-102521-40 MSD). The MS/MSD performed on the sample also recovered low for surrogates ; therefore, re-extraction and/or re-analysis was not performed.

Surrogate recovery for the following sample(s) was outside acceptance limits: SD-269-SS (680-102521-35), SD-270-SS (680-102521-30).

The results have been reported per client request. The samples were extracted at 15g and reextracted at 10g. The surrogate for the method blank for the reextract batch recovered low. Both sets of data have been reported per client request.

Surrogate recovery was outside acceptance limits for the following matrix spike/matrix spike duplicate (MS/MSD) sample(s): SD-263-01 (680-102521-15 MS), SD-263-01 (680-102521-15 MSD). The parent sample's surrogate recovery was within limits. The MS/MSD sample has been qualified and reported.

Surrogate recovery for the following sample(s) was outside acceptance limits: SD-269-02 (680-102521-37), SD-270-01 (680-102521-31), SD-270-02 (680-102521-32), SD-271-SS (680-102521-39), SD-273-01 (680-102521-43), SD-273-03 (680-102521-45), SD-DUP06 (680-102521-34). The results have been reported per client request. The samples were reextracted in a batch with a method blank that recovered low for the surrogate. Samples 102521-31,32,34,37 and 39 were extracted at 15g and reextracted at 10g. Samples 102521-42,43,45 were extracted at 30g then reextracted at 10g.

Surrogate recovery was outside acceptance limits for the following matrix spike/matrix spike duplicate (MS/MSD) sample(s): (680-102521-19 MSD). The parent sample's surrogate recovery was within limits. The MS/MSD sample has been qualified and reported.

Several analytes failed the recovery criteria low for the MS of sample 680-102468-43 in batch 680-339960.

For the MSD of sample 680-102468-43 in batch 680-339960, DCB Decachlorobiphenyl, Heptachlorobiphenyl, Monochlorobiphenyl and Octachlorobiphenyl exceeded the recovery criteria low. Tetrachlorobiphenyl recovered the recovery criteria high. Also, Several analytes exceeded the RPD limit.

Several analytes exceeded the recovery criteria low for the MS/MSD of sample SD-263-01MSD (680-102521-15) in batch 680-340118. Pentachlorobiphenyl, Tetrachlorobiphenyl and Trichlorobiphenyl exceeded the RPD limit.

Several analytes exceeded the recovery criteria low for the MSD of sample SD-264-01MSD (680-102521-19) in batch 680-341486. Several analytes exceeded the RPD limit.

Several analytes failed the recovery criteria low for the MS/MSD of sample SD-271-01 (680-102521-40) in batch 680-340459.

Refer to the QC report for details.

Samples SD-250-SS (680-102521-1)[5X], SD-250-01 (680-102521-2)[5X], SD-250-02 (680-102521-3)[10X], SD-250-03 (680-102521-4)[5X], SD-251-SS (680-102521-5)[5X], SD-262-01 (680-102521-10)[5X], SD-DUP05 (680-102521-13)[10X], SD-263-SS (680-102521-14)[5X], SD-263-02 (680-102521-16)[2X], SD-264-02 (680-102521-20)[10X], SD-265-SS (680-102521-22)[5X], SD-265-02 (680-102521-24)[10X], SD-265-03 (680-102521-25)[10X], SD-265-03 (680-102521-25)[5X], SD-268-SS (680-102521-26)[5X], SD-268-01 (680-102521-27)[10X], SD-268-02 (680-102521-28)[5X], SD-270-SS (680-102521-30)[10X], SD-270-SS (680-102521-30)[2X], SD-270-01 (680-102521-31)[5X], SD-269-SS (680-102521-35)[10X], SD-269-SS (680-102521-35)[2X], SD-269-01 (680-102521-36)[10X], SD-273-SS (680-102521-42)[10X] and SD-273-02 (680-102521-44)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

PERCENT SOLIDS/MOISTURE

Samples SD-250-SS (680-102521-1), SD-250-01 (680-102521-2), SD-250-02 (680-102521-3), SD-250-03 (680-102521-4), SD-251-SS (680-102521-5), SD-251-01 (680-102521-6), SD-251-02 (680-102521-7), SD-251-03 (680-102521-8), SD-262-SS (680-102521-9), SD-262-01 (680-102521-10), SD-262-02 (680-102521-11), SD-262-03 (680-102521-12), SD-DUP05 (680-102521-13), SD-263-SS (680-102521-14), SD-263-01 (680-102521-15), SD-263-02 (680-102521-16), SD-263-03 (680-102521-17), SD-264-SS (680-102521-18), SD-264-01 (680-102521-19), SD-264-02 (680-102521-20), SD-264-03 (680-102521-21), SD-265-SS (680-102521-22), SD-265-01 (680-102521-23), SD-265-02 (680-102521-24), SD-265-03 (680-102521-25), SD-268-SS (680-102521-26), SD-268-01 (680-102521-27), SD-268-02 (680-102521-28), SD-268-03 (680-102521-29), SD-270-SS (680-102521-30), SD-270-01 (680-102521-31), SD-270-02 (680-102521-32), SD-270-03 (680-102521-33), SD-DUP06 (680-102521-34), SD-269-SS (680-102521-35), SD-269-01 (680-102521-36), SD-269-02 (680-102521-37), SD-269-03 (680-102521-38), SD-271-SS (680-102521-39), SD-271-01 (680-102521-40), SD-271-02 (680-102521-41), SD-273-SS (680-102521-42), SD-273-01 (680-102521-43), SD-273-02 (680-102521-44) and SD-273-03 (680-102521-45) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 06/21/2014 and 07/19/2014.

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

SAMPLE SUMMARY

Client: Tetra Tech, Inc.

Job Number: 680-102521-1
Sdg Number: 680102521-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-102521-1	SD-250-SS	Solid	06/18/2014 0755	06/19/2014 0851
680-102521-2	SD-250-01	Solid	06/18/2014 0800	06/19/2014 0851
680-102521-3	SD-250-02	Solid	06/18/2014 0805	06/19/2014 0851
680-102521-4	SD-250-03	Solid	06/18/2014 0810	06/19/2014 0851
680-102521-5	SD-251-SS	Solid	06/18/2014 0830	06/21/2014 0837
680-102521-6	SD-251-01	Solid	06/18/2014 0835	06/19/2014 0851
680-102521-7	SD-251-02	Solid	06/18/2014 0840	06/19/2014 0851
680-102521-8	SD-251-03	Solid	06/18/2014 0845	06/19/2014 0851
680-102521-9	SD-262-SS	Solid	06/18/2014 0915	06/19/2014 0851
680-102521-10	SD-262-01	Solid	06/18/2014 0920	06/19/2014 0851
680-102521-11	SD-262-02	Solid	06/18/2014 0925	06/19/2014 0851
680-102521-12	SD-262-03	Solid	06/18/2014 0930	06/19/2014 0851
680-102521-13FD	SD-DUP05	Solid	06/18/2014 0000	06/19/2014 0851
680-102521-14	SD-263-SS	Solid	06/18/2014 1035	06/19/2014 0851
680-102521-15	SD-263-01	Solid	06/18/2014 1040	06/19/2014 0851
680-102521-15MS	SD-263-01	Solid	06/18/2014 1040	06/19/2014 0851
680-102521-15MSD	SD-263-01	Solid	06/18/2014 1040	06/19/2014 0851
680-102521-16	SD-263-02	Solid	06/18/2014 1045	06/19/2014 0851
680-102521-17	SD-263-03	Solid	06/18/2014 1050	06/19/2014 0851
680-102521-18	SD-264-SS	Solid	06/18/2014 1100	06/19/2014 0851
680-102521-19	SD-264-01	Solid	06/18/2014 1105	06/19/2014 0851
680-102521-20	SD-264-02	Solid	06/18/2014 1110	06/19/2014 0851
680-102521-21	SD-264-03	Solid	06/18/2014 1115	06/19/2014 0851
680-102521-22	SD-265-SS	Solid	06/18/2014 1155	06/19/2014 0851
680-102521-23	SD-265-01	Solid	06/18/2014 1200	06/19/2014 0851
680-102521-24	SD-265-02	Solid	06/18/2014 1205	06/19/2014 0851
680-102521-25	SD-265-03	Solid	06/18/2014 1210	06/19/2014 0851
680-102521-26	SD-268-SS	Solid	06/18/2014 1320	06/19/2014 0851
680-102521-27	SD-268-01	Solid	06/18/2014 1325	06/19/2014 0851
680-102521-28	SD-268-02	Solid	06/18/2014 1330	06/19/2014 0851
680-102521-29	SD-268-03	Solid	06/18/2014 1335	06/19/2014 0851
680-102521-30	SD-270-SS	Solid	06/18/2014 1340	06/19/2014 0851
680-102521-31	SD-270-01	Solid	06/18/2014 1345	06/19/2014 0851
680-102521-32	SD-270-02	Solid	06/18/2014 1350	06/19/2014 0851
680-102521-33	SD-270-03	Solid	06/18/2014 1355	06/19/2014 0851
680-102521-34FD	SD-DUP06	Solid	06/18/2014 0000	06/19/2014 0851
680-102521-35	SD-269-SS	Solid	06/18/2014 1420	06/19/2014 0851
680-102521-36	SD-269-01	Solid	06/18/2014 1425	06/19/2014 0851
680-102521-37	SD-269-02	Solid	06/18/2014 1430	06/19/2014 0851
680-102521-38	SD-269-03	Solid	06/18/2014 1435	06/19/2014 0851
680-102521-39	SD-271-SS	Solid	06/18/2014 1455	06/19/2014 0851
680-102521-40	SD-271-01	Solid	06/18/2014 1500	06/19/2014 0851
680-102521-40MS	SD-271-01	Solid	06/18/2014 1500	06/19/2014 0851
680-102521-40MSD	SD-271-01	Solid	06/18/2014 1500	06/19/2014 0851
680-102521-41	SD-271-02	Solid	06/18/2014 1505	06/19/2014 0851
680-102521-42	SD-273-SS	Solid	06/18/2014 1525	06/19/2014 0851
680-102521-43	SD-273-01	Solid	06/18/2014 1530	06/19/2014 0851
680-102521-44	SD-273-02	Solid	06/18/2014 1535	06/19/2014 0851
680-102521-45	SD-273-03	Solid	06/18/2014 1540	06/19/2014 0851

METHOD SUMMARY

Client: Tetra Tech, Inc.

Job Number: 680-102521-1
Sdg Number: 680102521-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Polychlorinated Biphenyls (PCBs) (GC/MS)	TAL SAV	EPA 680	
Extraction (Solid PCBs)	TAL SAV		EPA 680
Percent Moisture	TAL SAV	EPA Moisture	

Lab References:

TAL SAV = TestAmerica Savannah

Method References:

EPA = US Environmental Protection Agency

PCB

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Stu Cameron	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-56831-24906.43
Client Contact: Mike Martin	Phone: (703) 342-8389	E-Mail: jerry.lanier@testamericainc.com		Page: Page [redacted] 2 of 5
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone:	PO #: Purchase Order not required			
Email: Michael.Martin@tetratech.com	WO #:			
Project Name: Sediments	Project #: 68012942			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680 - Local Method / 8082	A01R_Th - Standard Target List	6020, 7470A	GA_01_R_Ra - (MOD) Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N		
SD-262-03	6/18/14	0930	C	Solid			X					
SD-DUP 05		0000	C	Solid			X					
SD-263-SS		1035	C	Solid			X					
SD-263-01		1040	C	Solid			X					MS/MSD
SD-263-02		1045	C	Solid			X					
SD-263-03		1050	C	Solid			X					
SD-264-SS		1100	C	Solid			X					
SD-264-01		1105	C	Solid			X					
SD-264-02		1110	C	Solid			X					
SD-264-03		1115	C	Solid			X					
SD-265-SS		1155	C	Solid			X					

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements: 680-102521

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 6/18/14 - 1600	Company: TT	Received by:	Date/Time: 6/18/14 1600	Company: TT
Relinquished by:	Date/Time: 6/18/14 1700	Company: TT	Received by:	Date/Time: 6/19/14 08:51	Company: TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 2.4°

59 PCBs

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Stu Cameron	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-56831-24906.42
Client Contact: Mike Martin	Phone: (703) 342-8389	E-Mail: jerry.lanier@testamericainc.com		Page: Page ~~12 of 16~~ 1 of 5
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone:	PO #: Purchase Order not required			
Email: MIchael.Martin@tetratech.com	WO #:			
Project Name: Sediments	Project #: 68012942			
Site:	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680 - Local Method 18082	A01R_Th - Standard Target List	6020, 7470A	GA_01_R_Ra - (MOD) Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	N	N	N	X	
SD-250-55	6/18/14	0755	C	Solid			X					
SD-250-01		0800	C	Solid			X					
SD-250-02		0805	C	Solid			X					
SD-250-03		0810	C	Solid			X					
SD-251-55		0830	C	Solid			X					
SD-251-01		0835	C	Solid			X					
SD-251-02		0840	C	Solid			X					
SD-251-03		0845	C	Solid			X					
SD-262-55		0915	C	Solid			X					
SD-262-01		0920	C	Solid			X					
SD-262-02		0925	C	Solid			X					

680-102521 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements: 680 - 102521

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/18/14 1600	TT	[signature]	6/18/14 1600	TA
[signature]	6/18/14 1700	TT	[signature]	6/19/14 0851	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 2.4 °C

PCBs

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Stu Cameron	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-56831-24906.43
Client Contact: Mike Martin	Phone: (703) 342-8389	E-Mail: jerry.lanier@testamericainc.com		Page: Page [redacted] 3 of 5
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone:	PO #: Purchase Order not required			
Email: MIchael.Martin@tetratech.com	WO #:			
Project Name: Sediments	Project #: 68012942			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680 - Local Method 8082	A01R_Th - Standard Target List	6020, 7470A	GA_01_R_Ra - (MOD) Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N		
SD-265-01	6/18/14	1210	C	Solid			X					
SD-265-02		1205	C	Solid			X					
SD-265-03		1210	C	Solid			X					
SD-268-SS		1320	C	Solid			X					
SD-268-01		1325	C	Solid			X					
SD-268-02		1330	C	Solid			X					
SD-268-03		1335	C	Solid			X					
SD-270-SS		1340	C	Solid			X					
SD-270-01		1345	C	Solid			X					
SD-270-02		1350	C	Solid			X					
SD-270-03		1355	C	Solid			X					

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements: 680-102521

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	6/18/14 1600	TT		6/18/14 1600	TT
	6/18/14 1700	TT		6/19/14 08:51	TT

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.4 °C

PCBs

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Stu Cameron	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-56831-24906.43
Client Contact: Mike Martin	Phone: (703) 342-8389	E-Mail: jerry.lanier@testamericainc.com		Page: Page 4 of 5
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone:	PO #: Purchase Order not required			
Email: Michael.Martin@tetratech.com	WO #:			
Project Name: Sediments	Project #: 68012942			
Site:	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680 - Local Method 8082	A01R_Th - Standard Target List	6020, 7470A	GA_01_R_Ra - (MOD) Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	N	N	N	X	
SD-DUP06	6/18/14	0000	C	Solid			X					
SD-269-SS		1420	C	Solid			X					
SD-269-01		1425	C	Solid			X					
SD-269-02		1430	C	Solid			X					
SD-269-03		1435	C	Solid			X					
SD-271-SS		1455	C	Solid			X					
SD-271-01		1500	C	Solid			X					MS/MSD
SD-271-02		1505	C	Solid			X					
~~SD-271-0~~ SD-273SS		1525	C	Solid			X					
SD-273-01		1530	C	Solid			X					
SD-273-02		1535	C	Solid			X					

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements: 680- 102521

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 6/18/14 - 1600	Company: TT	Received by:	Date/Time: 6/18/14 1600	Company: TT
Relinquished by:	Date/Time: 6/18/14 1700	Company: TT	Received by:	Date/Time: 6/19/14 08:51	Company: TT
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.4°

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Stu Cameron	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-56831-24906.43
Client Contact: Mike Martin	Phone: (703) 342-8389	E-Mail: jerry.lanier@testamericainc.com		Page: Page [redacted] 5 of 5
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone:	PO #: Purchase Order not required			
Email: Michael.Martin@tetratech.com	WO #:			
Project Name: Sediments	Project #: 68012942			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680 - Local Method 1808	A01R_Th - Standard Target List	6020, 7470A	GA_01_R_Ra - (MOD) Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	N	N	N	X	
SD-273-03	6/18/14	1540	C	Solid			X					
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements: 680-102521

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/18/14 1600	TT	[signature]	6/18/14 1600	TT
[signature]	6/18/14 1700	TT	[signature]	6/19/14 08:51	TT
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.4 at

HOLDTIME

SDG 680-102521-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	SD-262-SS	680-102521-9	NM	06/18/2014	07/16/2014	07/21/2014	28	5	33
PCB	UG/KG	SD-250-01	680-102521-2	NM	06/18/2014	07/16/2014	07/21/2014	28	5	33
PCB	UG/KG	SD-265-02	680-102521-24	NM	06/18/2014	07/17/2014	07/23/2014	29	6	35
PCB	UG/KG	SD-265-01	680-102521-23	NM	06/18/2014	07/25/2014	07/27/2014	37	2	39
PCB	UG/KG	SD-265-01	680-102521-23	NM	06/18/2014	07/17/2014	07/23/2014	29	6	35
PCB	UG/KG	SD-264-SS	680-102521-18	NM	06/18/2014	07/25/2014	07/27/2014	37	2	39
PCB	UG/KG	SD-264-SS	680-102521-18	NM	06/18/2014	07/16/2014	07/23/2014	28	7	35
PCB	UG/KG	SD-264-03	680-102521-21	NM	06/18/2014	07/17/2014	07/23/2014	29	6	35
PCB	UG/KG	SD-264-02	680-102521-20	NM	06/18/2014	07/16/2014	07/24/2014	28	8	36
PCB	UG/KG	SD-264-01	680-102521-19	NM	06/18/2014	07/29/2014	07/30/2014	41	1	42
PCB	UG/KG	SD-263-SS	680-102521-14	NM	06/18/2014	07/16/2014	07/23/2014	28	7	35
PCB	UG/KG	SD-263-03	680-102521-17	NM	06/18/2014	07/16/2014	07/23/2014	28	7	35
PCB	UG/KG	SD-263-02	680-102521-16	NM	06/18/2014	07/25/2014	07/27/2014	37	2	39
PCB	UG/KG	SD-263-02	680-102521-16	NM	06/18/2014	07/16/2014	07/23/2014	28	7	35
PCB	UG/KG	SD-265-03	680-102521-25	NM	06/18/2014	07/17/2014	07/23/2014	29	6	35

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	SD-251-03	680-102521-8	NM	06/18/2014	07/16/2014	07/21/2014	28	5	33
PCB	UG/KG	SD-250-01	680-102521-2	NM	06/18/2014	07/25/2014	07/27/2014	37	2	39
PCB	UG/KG	SD-250-02	680-102521-3	NM	06/18/2014	07/16/2014	07/24/2014	28	8	36
PCB	UG/KG	SD-250-03	680-102521-4	NM	06/18/2014	07/16/2014	07/21/2014	28	5	33
PCB	UG/KG	SD-250-SS	680-102521-1	NM	06/18/2014	07/16/2014	07/21/2014	28	5	33
PCB	UG/KG	SD-250-SS	680-102521-1	NM	06/18/2014	07/25/2014	07/27/2014	37	2	39
PCB	UG/KG	SD-263-01	680-102521-15	NM	06/18/2014	07/16/2014	07/23/2014	28	7	35
PCB	UG/KG	SD-251-02	680-102521-7	NM	06/18/2014	07/16/2014	07/21/2014	28	5	33
PCB	UG/KG	SD-262-SS	680-102521-9	NM	06/18/2014	07/25/2014	07/27/2014	37	2	39
PCB	UG/KG	SD-251-SS	680-102521-5	NM	06/18/2014	07/16/2014	07/21/2014	28	5	33
PCB	UG/KG	SD-251-SS	680-102521-5	NM	06/18/2014	07/25/2014	07/27/2014	37	2	39
PCB	UG/KG	SD-262-01	680-102521-10	NM	06/18/2014	07/16/2014	07/21/2014	28	5	33
PCB	UG/KG	SD-262-02	680-102521-11	NM	06/18/2014	07/16/2014	07/21/2014	28	5	33
PCB	UG/KG	SD-262-03	680-102521-12	NM	06/18/2014	07/16/2014	07/22/2014	28	6	34
PCB	UG/KG	SD-265-03	680-102521-25	NM	06/18/2014	07/25/2014	07/27/2014	37	2	39
PCB	UG/KG	SD-251-01	680-102521-6	NM	06/18/2014	07/16/2014	07/21/2014	28	5	33
PCB	UG/KG	SD-270-01	680-102521-31	NM	06/18/2014	07/25/2014	07/27/2014	37	2	39
PCB	UG/KG	SD-273-SS	680-102521-42	NM	06/18/2014	07/12/2014	07/25/2014	24	13	37

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	SD-273-03	680-102521-45	NM	06/18/2014	07/25/2014	07/27/2014	37	2	39
PCB	UG/KG	SD-273-03	680-102521-45	NM	06/18/2014	07/12/2014	07/24/2014	24	12	36
PCB	UG/KG	SD-273-02	680-102521-44	NM	06/18/2014	07/12/2014	07/30/2014	24	18	42
PCB	UG/KG	SD-273-01	680-102521-43	NM	06/18/2014	07/25/2014	07/27/2014	37	2	39
PCB	UG/KG	SD-273-01	680-102521-43	NM	06/18/2014	07/12/2014	07/24/2014	24	12	36
PCB	UG/KG	SD-271-SS	680-102521-39	NM	06/18/2014	07/25/2014	07/27/2014	37	2	39
PCB	UG/KG	SD-271-SS	680-102521-39	NM	06/18/2014	07/17/2014	07/24/2014	29	7	36
PCB	UG/KG	SD-271-02	680-102521-41	NM	06/18/2014	07/12/2014	07/24/2014	24	12	36
PCB	UG/KG	SD-271-01	680-102521-40	NM	06/18/2014	07/17/2014	07/23/2014	29	6	35
PCB	UG/KG	SD-270-SS	680-102521-30	NM	06/18/2014	07/25/2014	07/27/2014	37	2	39
PCB	UG/KG	SD-270-SS	680-102521-30	NM	06/18/2014	07/17/2014	07/25/2014	29	8	37
PCB	UG/KG	SD-270-03	680-102521-33	NM	06/18/2014	07/17/2014	07/24/2014	29	7	36
PCB	UG/KG	SD-265-02	680-102521-24	NM	06/18/2014	07/25/2014	07/27/2014	37	2	39
PCB	UG/KG	SD-269-02	680-102521-37	NM	06/18/2014	07/17/2014	07/24/2014	29	7	36
PCB	UG/KG	SD-265-SS	680-102521-22	NM	06/18/2014	07/17/2014	07/23/2014	29	6	35
PCB	UG/KG	SD-268-01	680-102521-27	NM	06/18/2014	07/17/2014	07/24/2014	29	7	36
PCB	UG/KG	SD-268-02	680-102521-28	NM	06/18/2014	07/17/2014	07/24/2014	29	7	36
PCB	UG/KG	SD-268-03	680-102521-29	NM	06/18/2014	07/17/2014	07/24/2014	29	7	36

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	SD-268-SS	680-102521-26	NM	06/18/2014	07/17/2014	07/23/2014	29	6	35
PCB	UG/KG	SD-270-02	680-102521-32	NM	06/18/2014	07/25/2014	07/27/2014	37	2	39
PCB	UG/KG	SD-269-01	680-102521-36	NM	06/18/2014	07/17/2014	07/25/2014	29	8	37
PCB	UG/KG	SD-270-02	680-102521-32	NM	06/18/2014	07/17/2014	07/24/2014	29	7	36
PCB	UG/KG	SD-269-02	680-102521-37	NM	06/18/2014	07/25/2014	07/27/2014	37	2	39
PCB	UG/KG	SD-269-03	680-102521-38	NM	06/18/2014	07/17/2014	07/24/2014	29	7	36
PCB	UG/KG	SD-269-SS	680-102521-35	NM	06/18/2014	07/17/2014	07/25/2014	29	8	37
PCB	UG/KG	SD-269-SS	680-102521-35	NM	06/18/2014	07/25/2014	07/29/2014	37	4	41
PCB	UG/KG	SD-270-01	680-102521-31	NM	06/18/2014	07/17/2014	07/24/2014	29	7	36
PCB	UG/KG	SD-273-SS	680-102521-42	NM	06/18/2014	07/25/2014	07/27/2014	37	2	39
PCB	UG/KG	SD-268-SS	680-102521-26	NM	06/18/2014	07/25/2014	07/27/2014	37	2	39

Field Duplicate Precision

ANALYTE	SD-Dup-05	SD-262-SS	RPD	DIFFERENCE
HEPTACHLOROBIPHENYLS	ND	98	200.00	30
HEXACHLOROBIPHENYL	ND	150	200.00	105
PENTACHLOROBIPHENYLS	ND	200	200.00	154
TETRACHLOROBIPHENYLS	ND	330	200.00	280

Field Duplicate Precision

ANALYTE	SD-Dup-06	SD-270-02	RPD	DIFFERENCE
HEXACHLOROBIPHENYL	ND	13	200.00	11.4
PENTACHLOROBIPHENYLS	6.6	13	65.31	6.4
TETRACHLOROBIPHENYLS	ND	49	200.00	47.2
TRICHLOROBIPHENYLS	1.2	3.3	93.33	2.1

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab File ID: XG1907.D DFTPP Injection Date: 07/19/2014

Instrument ID: CMSX DFTPP Injection Time: 21:51

Analysis Batch No.: 339932

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	54.3	
197	Less than 1 % of mass 198	0.2	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.9	
275	10 - 30% of mass 198	30.0	
365	Greater than 1% of mass 198	4.8	
441	Present but less than mass 443	13.3	(84.6)2
442	Greater than 40% of mass 198	86.0	
443	17 - 23% of mass 442	15.7	(18.3)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICISAV 680-339932/4	XG1909.D	07/19/2014	22:52
	IC 680-339932/5	XG1910.D	07/19/2014	23:20
	IC 680-339932/6	XG1911.D	07/19/2014	23:49
	IC 680-339932/7	XG1912.D	07/20/2014	00:17
	IC 680-339932/8	XG1913.D	07/20/2014	00:46
	ICV 680-339932/9	XG1914.D	07/20/2014	01:14

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102521-1 Analy Batch No.: 339932

SDG No.: 680102521-1

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2014 22:52 Calibration End Date: 07/20/2014 00:46 Calibration ID: 32129

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-339932/8	XG1913.D
Level 2	IC 680-339932/7	XG1912.D
Level 3	ICISAV 680-339932/4	XG1909.D
Level 4	IC 680-339932/6	XG1911.D
Level 5	IC 680-339932/5	XG1910.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.8353	0.8456	0.9098	0.8813	0.8734	Ave		0.8691				3.4		20.0			
Dichlorobiphenyl	0.5776	0.5823	0.6122	0.6067	0.5987	Ave		0.5955				2.5		20.0			
Trichlorobiphenyl	0.3996	0.4135	0.4348	0.4389	0.4410	Ave		0.4256				4.3		20.0			
PCB-104			0.3302			Ave		0.3302						30.0			
Tetrachlorobiphenyl	0.2755	0.2817	0.3033	0.2909	0.2951	Ave		0.2893				3.8		20.0			
Pentachlorobiphenyl	0.2123	0.2203	0.2262	0.2270	0.2357	Ave		0.2243				3.9		20.0			
PCB-77			0.4767			Ave		0.4767						30.0			
Hexachlorobiphenyl	0.1966	0.2022	0.2225	0.2132	0.2185	Ave		0.2106				5.2		20.0			
Heptachlorobiphenyl	0.1540	0.1656	0.1696	0.1700	0.1695	Ave		0.1657				4.1		20.0			
Octachlorobiphenyl	0.1373	0.1488	0.1535	0.1521	0.1669	Ave		0.1517				7.0		20.0			
PCB-208			0.0569			Ave		0.0569						30.0			
Nonachlorobiphenyl			0.0443			Ave		0.0363				11.0		20.0			
DCB Decachlorobiphenyl	0.0321	0.0328	0.0379	0.0370	0.0414	Ave		0.0363				11.0		20.0			
Decachlorobiphenyl-13C12	0.0407	0.0484	0.0517	0.0504	0.0567	Ave		0.0496				12.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab Sample ID: ICV 680-339932/9 Calibration Date: 07/20/2014 01:14

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG1914.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8287		0.953	1.00	-4.7	20.0
Dichlorobiphenyl	Ave	0.5955	0.5788		0.972	1.00	-2.8	20.0
Trichlorobiphenyl	Ave	0.4256	0.4300		1.01	1.00	1.0	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2870		1.98	2.00	-0.8	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2168		1.93	2.00	-3.3	20.0
Hexachlorobiphenyl	Ave	0.2106	0.2122		2.02	2.00	0.8	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1650		2.99	3.00	-0.4	20.0
Octachlorobiphenyl	Ave	0.1517	0.1560		3.08	3.00	2.8	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0351		4.84	5.00	-3.1	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab File ID: XG2002.D DFTPP Injection Date: 07/20/2014

Instrument ID: CMSX DFTPP Injection Time: 15:46

Analysis Batch No.: 339960

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	52.2	
197	Less than 1 % of mass 198	0.2	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.5	
275	10 - 30% of mass 198	28.8	
365	Greater than 1% of mass 198	4.2	
441	Present but less than mass 443	13.4	(84.0)2
442	Greater than 40% of mass 198	84.3	
443	17 - 23% of mass 442	16.0	(18.9)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-339960/3	XG2003.D	07/20/2014	16:16
	CCVIS 680-339960/4	XG2004.D	07/20/2014	16:47
	MB 680-338712/15-A	XG2012.D	07/20/2014	20:35
	LCS 680-338712/16-A	XG2013.D	07/20/2014	21:03
	CCV 680-339960/23	XG2025.D	07/21/2014	02:44

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab Sample ID: CCVIS 680-339960/4 Calibration Date: 07/20/2014 16:47

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2004.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8723		1.00	1.00	0.4	20.0
Dichlorobiphenyl	Ave	0.5955	0.5927		0.995	1.00	-0.5	20.0
Trichlorobiphenyl	Ave	0.4256	0.4215		0.990	1.00	-1.0	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2855		1.97	2.00	-1.3	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2086		1.86	2.00	-7.0	20.0
Hexachlorobiphenyl	Ave	0.2106	0.2050		1.95	2.00	-2.6	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1563		2.83	3.00	-5.7	20.0
Octachlorobiphenyl	Ave	0.1517	0.1399		2.77	3.00	-7.8	20.0
Nonachlorobiphenyl	Ave	0.0363	0.0503		5.55	4.00	38.7*	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0300		4.13	5.00	-17.4	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0402		4.05	5.00	-18.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab Sample ID: CCV 680-339960/23 Calibration Date: 07/21/2014 02:44

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2025.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8474		0.975	1.00	-2.5	20.0
Dichlorobiphenyl	Ave	0.5955	0.5905		0.992	1.00	-0.8	20.0
Trichlorobiphenyl	Ave	0.4256	0.4195		0.986	1.00	-1.4	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2829		1.96	2.00	-2.2	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2112		1.88	2.00	-5.8	20.0
Hexachlorobiphenyl	Ave	0.2106	0.2079		1.97	2.00	-1.3	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1593		2.88	3.00	-3.9	20.0
Octachlorobiphenyl	Ave	0.1517	0.1440		2.85	3.00	-5.1	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0310		4.27	5.00	-14.5	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0434		4.38	5.00	-12.4	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab File ID: XG2102.D DFTPP Injection Date: 07/21/2014

Instrument ID: CMSX DFTPP Injection Time: 14:32

Analysis Batch No.: 340118

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	52.7	
197	Less than 1 % of mass 198	0.0	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.5	
275	10 - 30% of mass 198	28.1	
365	Greater than 1% of mass 198	4.4	
441	Present but less than mass 443	12.4	(81.7)2
442	Greater than 40% of mass 198	80.2	
443	17 - 23% of mass 442	15.2	(19.0)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-340118/3	XG2103.D	07/21/2014	15:02
	CCVIS 680-340118/4	XG2104.D	07/21/2014	15:33
	MB 680-339176/21-A	XG2106.D	07/21/2014	16:30
	LCS 680-339176/22-A	XG2107.D	07/21/2014	16:59
SD-263-01 MS	680-102521-15 MS	XG2108.D	07/21/2014	17:28
SD-263-01 MSD	680-102521-15 MSD	XG2109.D	07/21/2014	17:56
SD-250-SS	680-102521-1	XG2111.D	07/21/2014	18:53
SD-250-01	680-102521-2	XG2112.D	07/21/2014	19:21
SD-250-03	680-102521-4	XG2114.D	07/21/2014	20:18
SD-251-SS	680-102521-5	XG2115.D	07/21/2014	20:47
SD-251-01	680-102521-6	XG2116.D	07/21/2014	21:15
SD-251-02	680-102521-7	XG2117.D	07/21/2014	21:44
SD-251-03	680-102521-8	XG2118.D	07/21/2014	22:12
SD-262-SS	680-102521-9	XG2119.D	07/21/2014	22:41
SD-262-01	680-102521-10	XG2120.D	07/21/2014	23:09
SD-262-02	680-102521-11	XG2121.D	07/21/2014	23:37
SD-262-03	680-102521-12	XG2122.D	07/22/2014	00:06
	CCV 680-340118/24	XG2124.D	07/22/2014	01:03

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab Sample ID: CCVIS 680-340118/4 Calibration Date: 07/21/2014 15:33

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2104.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8954		1.03	1.00	3.0	20.0
Dichlorobiphenyl	Ave	0.5955	0.6077		1.02	1.00	2.0	20.0
Trichlorobiphenyl	Ave	0.4256	0.4221		0.992	1.00	-0.8	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2907		2.01	2.00	0.5	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2026		1.81	2.00	-9.7	20.0
Hexachlorobiphenyl	Ave	0.2106	0.2026		1.92	2.00	-3.8	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1500		2.71	3.00	-9.5	20.0
Octachlorobiphenyl	Ave	0.1517	0.1284		2.54	3.00	-15.4	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0269		3.71	5.00	-25.8*	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0369		3.72	5.00	-25.6*	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab Sample ID: CCV 680-340118/24 Calibration Date: 07/22/2014 01:03

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2124.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8720		1.00	1.00	0.3	20.0
Dichlorobiphenyl	Ave	0.5955	0.6038		1.01	1.00	1.4	20.0
Trichlorobiphenyl	Ave	0.4256	0.4309		1.01	1.00	1.3	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2892		2.00	2.00	-0.0	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2181		1.94	2.00	-2.8	20.0
Hexachlorobiphenyl	Ave	0.2106	0.2127		2.02	2.00	1.0	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1622		2.94	3.00	-2.2	20.0
Octachlorobiphenyl	Ave	0.1517	0.1406		2.78	3.00	-7.3	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0293		4.03	5.00	-19.3	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0400		4.04	5.00	-19.3	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab File ID: XG2302.D DFTPP Injection Date: 07/23/2014

Instrument ID: CMSX DFTPP Injection Time: 10:28

Analysis Batch No.: 340459

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	51.3
197	Less than 1 % of mass 198	0.0
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.3
275	10 - 30% of mass 198	29.1
365	Greater than 1% of mass 198	4.2
441	Present but less than mass 443	14.1 (82.2)2
442	Greater than 40% of mass 198	90.1
443	17 - 23% of mass 442	17.2 (19.0)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-340459/3	XG2303.D	07/23/2014	10:58
	CCVIS 680-340459/4	XG2304.D	07/23/2014	11:29
SD-263-SS	680-102521-14	XG2307.D	07/23/2014	12:55
SD-263-01	680-102521-15	XG2308.D	07/23/2014	13:23
SD-263-02	680-102521-16	XG2309.D	07/23/2014	13:52
SD-263-03	680-102521-17	XG2310.D	07/23/2014	14:21
SD-264-SS	680-102521-18	XG2311.D	07/23/2014	14:49
	MB 680-339369/21-A	XG2314.D	07/23/2014	16:16
	LCS 680-339369/22-A	XG2315.D	07/23/2014	16:44
SD-271-01 MS	680-102521-40 MS	XG2316.D	07/23/2014	17:13
SD-271-01 MSD	680-102521-40 MSD	XG2317.D	07/23/2014	17:42
SD-271-01	680-102521-40	XG2318.D	07/23/2014	18:11
SD-264-03	680-102521-21	XG2319.D	07/23/2014	18:40
SD-265-SS	680-102521-22	XG2320.D	07/23/2014	19:09
SD-265-01	680-102521-23	XG2321.D	07/23/2014	19:37
SD-265-02	680-102521-24	XG2322.D	07/23/2014	20:06
SD-265-03	680-102521-25	XG2323.D	07/23/2014	20:35
SD-268-SS	680-102521-26	XG2324.D	07/23/2014	21:04
	CCV 680-340459/25	XG2325.D	07/23/2014	21:32

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab Sample ID: CCVIS 680-340459/4 Calibration Date: 07/23/2014 11:29

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2304.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8487		0.977	1.00	-2.3	20.0
Dichlorobiphenyl	Ave	0.5955	0.5709		0.959	1.00	-4.1	20.0
Trichlorobiphenyl	Ave	0.4256	0.3975		0.934	1.00	-6.6	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2692		1.86	2.00	-7.0	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2086		1.86	2.00	-7.0	20.0
Hexachlorobiphenyl	Ave	0.2106	0.2069		1.97	2.00	-1.7	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1530		2.77	3.00	-7.7	20.0
Octachlorobiphenyl	Ave	0.1517	0.1436		2.84	3.00	-5.4	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0367		5.07	5.00	1.3	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0503		5.07	5.00	1.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab Sample ID: CCV 680-340459/25 Calibration Date: 07/23/2014 21:32

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2325.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8091		0.931	1.00	-6.9	20.0
Dichlorobiphenyl	Ave	0.5955	0.5536		0.930	1.00	-7.0	20.0
Trichlorobiphenyl	Ave	0.4256	0.3908		0.918	1.00	-8.2	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2595		1.79	2.00	-10.3	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2058		1.83	2.00	-8.3	20.0
Hexachlorobiphenyl	Ave	0.2106	0.2003		1.90	2.00	-4.9	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1506		2.73	3.00	-9.1	20.0
Octachlorobiphenyl	Ave	0.1517	0.1460		2.89	3.00	-3.7	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0336		4.63	5.00	-7.4	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0472		4.76	5.00	-4.8	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab File ID: XG2330.D DFTPP Injection Date: 07/24/2014

Instrument ID: CMSX DFTPP Injection Time: 00:27

Analysis Batch No.: 340579

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	51.2
197	Less than 1 % of mass 198	0.0
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.6
275	10 - 30% of mass 198	29.4
365	Greater than 1% of mass 198	4.1
441	Present but less than mass 443	13.8 (81.4)2
442	Greater than 40% of mass 198	89.1
443	17 - 23% of mass 442	16.9 (19.0)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-340579/3	XG2331.D	07/24/2014	00:58
	CCVIS 680-340579/4	XG2332.D	07/24/2014	01:28
SD-268-02	680-102521-28	XG2335.D	07/24/2014	02:54
SD-268-03	680-102521-29	XG2336.D	07/24/2014	03:23
SD-270-01	680-102521-31	XG2338.D	07/24/2014	04:20
SD-270-02	680-102521-32	XG2339.D	07/24/2014	04:49
SD-270-03	680-102521-33	XG2340.D	07/24/2014	05:17
SD-DUP06	680-102521-34	XG2341.D	07/24/2014	05:46
SD-269-02	680-102521-37	XG2344.D	07/24/2014	07:11
SD-269-03	680-102521-38	XG2345.D	07/24/2014	07:40
SD-271-SS	680-102521-39	XG2346.D	07/24/2014	08:09
SD-271-02	680-102521-41	XG2347.D	07/24/2014	08:37
SD-273-01	680-102521-43	XG2349.D	07/24/2014	09:34
SD-273-03	680-102521-45	XG2351.D	07/24/2014	10:32
	CCV 680-340579/24	XG2352.D	07/24/2014	11:00

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab Sample ID: CCVIS 680-340579/4 Calibration Date: 07/24/2014 01:28

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2332.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8427		0.970	1.00	-3.0	20.0
Dichlorobiphenyl	Ave	0.5955	0.5745		0.965	1.00	-3.5	20.0
Trichlorobiphenyl	Ave	0.4256	0.4025		0.946	1.00	-5.4	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2654		1.83	2.00	-8.3	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2036		1.82	2.00	-9.2	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1968		1.87	2.00	-6.6	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1522		2.76	3.00	-8.2	20.0
Octachlorobiphenyl	Ave	0.1517	0.1382		2.73	3.00	-8.9	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0316		4.35	5.00	-12.9	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0444		4.48	5.00	-10.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab Sample ID: CCV 680-340579/24 Calibration Date: 07/24/2014 11:00

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2352.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8123		0.935	1.00	-6.5	20.0
Dichlorobiphenyl	Ave	0.5955	0.5586		0.938	1.00	-6.2	20.0
Trichlorobiphenyl	Ave	0.4256	0.3878		0.911	1.00	-8.9	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2616		1.81	2.00	-9.6	20.0
Pentachlorobiphenyl	Ave	0.2243	0.1992		1.78	2.00	-11.2	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1922		1.83	2.00	-8.7	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1483		2.68	3.00	-10.5	20.0
Octachlorobiphenyl	Ave	0.1517	0.1346		2.66	3.00	-11.2	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0298		4.10	5.00	-17.9	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0404		4.07	5.00	-18.5	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab File ID: XG2401.D DFTPP Injection Date: 07/24/2014

Instrument ID: CMSX DFTPP Injection Time: 20:22

Analysis Batch No.: 340817

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	47.9	
197	Less than 1 % of mass 198	0.3	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.7	
275	10 - 30% of mass 198	28.1	
365	Greater than 1% of mass 198	4.2	
441	Present but less than mass 443	8.2	(50.0)2
442	Greater than 40% of mass 198	84.4	
443	17 - 23% of mass 442	16.4	(19.5)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-340817/3	XG2403.D	07/24/2014	20:55
	CCVIS 680-340817/4	XG2404.D	07/24/2014	21:26
SD-250-02	680-102521-3	XG2406.D	07/24/2014	22:24
SD-DUP05	680-102521-13	XG2407.D	07/24/2014	22:53
SD-264-02	680-102521-20	XG2408.D	07/24/2014	23:22
SD-268-01	680-102521-27	XG2409.D	07/24/2014	23:51
SD-270-SS	680-102521-30	XG2410.D	07/25/2014	00:20
SD-269-SS	680-102521-35	XG2411.D	07/25/2014	00:49
SD-269-01	680-102521-36	XG2412.D	07/25/2014	01:18
SD-273-SS	680-102521-42	XG2413.D	07/25/2014	01:47
	CCV 680-340817/24	XG2424.D	07/25/2014	07:04

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab Sample ID: CCVIS 680-340817/4 Calibration Date: 07/24/2014 21:26

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2404.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.9678		1.11	1.00	11.4	20.0
Dichlorobiphenyl	Ave	0.5955	0.6292		1.06	1.00	5.7	20.0
Trichlorobiphenyl	Ave	0.4256	0.4222		0.992	1.00	-0.8	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2970		2.05	2.00	2.7	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2158		1.92	2.00	-3.8	20.0
Hexachlorobiphenyl	Ave	0.2106	0.2048		1.95	2.00	-2.7	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1633		2.96	3.00	-1.5	20.0
Octachlorobiphenyl	Ave	0.1517	0.1477		2.92	3.00	-2.6	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0355		4.90	5.00	-2.0	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0491		4.95	5.00	-1.0	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab Sample ID: CCV 680-340817/24 Calibration Date: 07/25/2014 07:04

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2424.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8198		0.943	1.00	-5.7	20.0
Dichlorobiphenyl	Ave	0.5955	0.5624		0.945	1.00	-5.5	20.0
Trichlorobiphenyl	Ave	0.4256	0.4042		0.950	1.00	-5.0	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2629		1.82	2.00	-9.1	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2071		1.85	2.00	-7.7	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1977		1.88	2.00	-6.1	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1616		2.93	3.00	-2.5	20.0
Octachlorobiphenyl	Ave	0.1517	0.1462		2.89	3.00	-3.6	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0335		4.62	5.00	-7.6	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0459		4.63	5.00	-7.4	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab File ID: XG2602.D DFTPP Injection Date: 07/26/2014

Instrument ID: CMSX DFTPP Injection Time: 19:57

Analysis Batch No.: 341015

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	50.8
197	Less than 1 % of mass 198	0.0
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.5
275	10 - 30% of mass 198	29.5
365	Greater than 1% of mass 198	4.8
441	Present but less than mass 443	14.9 (80.6)2
442	Greater than 40% of mass 198	97.6
443	17 - 23% of mass 442	18.4 (18.9)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-341015/3	XG2603.D	07/26/2014	20:28
	CCVIS 680-341015/4	XG2604.D	07/26/2014	20:58
	MB 680-340880/21-A	XG2608.D	07/26/2014	22:53
	LCS 680-340880/22-A	XG2609.D	07/26/2014	23:22
SD-273-03 MS RE	680-102521-45 MS RE	XG2610.D	07/26/2014	23:51
SD-273-03 MSD RE	680-102521-45 MSD RE	XG2611.D	07/27/2014	00:19
SD-273-03 RE	680-102521-45 RE	XG2612.D	07/27/2014	00:48
SD-250-SS RE	680-102521-1 RE	XG2613.D	07/27/2014	01:17
SD-250-01 RE	680-102521-2 RE	XG2614.D	07/27/2014	01:45
SD-251-SS RE	680-102521-5 RE	XG2615.D	07/27/2014	02:14
SD-262-SS RE	680-102521-9 RE	XG2616.D	07/27/2014	02:42
SD-264-SS RE	680-102521-18 RE	XG2618.D	07/27/2014	03:40
SD-265-01 RE	680-102521-23 RE	XG2619.D	07/27/2014	04:08
	CCV 680-341015/23	XG2623.D	07/27/2014	06:02

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab Sample ID: CCVIS 680-341015/4 Calibration Date: 07/26/2014 20:58

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2604.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8343		0.960	1.00	-4.0	20.0
Dichlorobiphenyl	Ave	0.5955	0.5627		0.945	1.00	-5.5	20.0
Trichlorobiphenyl	Ave	0.4256	0.4020		0.945	1.00	-5.5	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2673		1.85	2.00	-7.6	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2025		1.81	2.00	-9.7	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1919		1.82	2.00	-8.8	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1474		2.67	3.00	-11.1	20.0
Octachlorobiphenyl	Ave	0.1517	0.1349		2.67	3.00	-11.1	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0305		4.21	5.00	-15.8	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0414		4.18	5.00	-16.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab Sample ID: CCV 680-341015/23 Calibration Date: 07/27/2014 06:02

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2623.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8085		0.930	1.00	-7.0	20.0
Dichlorobiphenyl	Ave	0.5955	0.5626		0.945	1.00	-5.5	20.0
Trichlorobiphenyl	Ave	0.4256	0.3929		0.923	1.00	-7.7	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2611		1.80	2.00	-9.8	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2017		1.80	2.00	-10.1	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1889		1.79	2.00	-10.3	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1546		2.80	3.00	-6.8	20.0
Octachlorobiphenyl	Ave	0.1517	0.1382		2.73	3.00	-8.9	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0294		4.05	5.00	-19.0	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0415		4.19	5.00	-16.2	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab File ID: XG2626.D DFTPP Injection Date: 07/27/2014

Instrument ID: CMSX DFTPP Injection Time: 07:30

Analysis Batch No.: 341016

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	50.4	
197	Less than 1 % of mass 198	0.0	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.7	
275	10 - 30% of mass 198	28.7	
365	Greater than 1% of mass 198	4.2	
441	Present but less than mass 443	13.6	(80.9)2
442	Greater than 40% of mass 198	87.3	
443	17 - 23% of mass 442	16.8	(19.3)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-341016/3	XG2627.D	07/27/2014	08:01
	CCVIS 680-341016/4	XG2628.D	07/27/2014	08:31
SD-270-01 RE	680-102521-31 RE	XG2631.D	07/27/2014	09:57
SD-270-02 RE	680-102521-32 RE	XG2632.D	07/27/2014	10:26
SD-DUP06 RE	680-102521-34 RE	XG2633.D	07/27/2014	10:54
SD-269-02 RE	680-102521-37 RE	XG2635.D	07/27/2014	11:52
SD-271-SS RE	680-102521-39 RE	XG2636.D	07/27/2014	12:20
SD-273-SS RE	680-102521-42 RE	XG2637.D	07/27/2014	12:49
SD-273-01 RE	680-102521-43 RE	XG2638.D	07/27/2014	13:17
SD-263-02 RE	680-102521-16 RE	XG2642.D	07/27/2014	15:12
SD-265-02 RE	680-102521-24 RE	XG2643.D	07/27/2014	15:41
SD-265-03 RE	680-102521-25 RE	XG2644.D	07/27/2014	16:09
SD-268-SS RE	680-102521-26 RE	XG2645.D	07/27/2014	16:38
SD-270-SS RE	680-102521-30 RE	XG2646.D	07/27/2014	17:07
	CCV 680-341016/24	XG2649.D	07/27/2014	18:32

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab Sample ID: CCVIS 680-341016/4 Calibration Date: 07/27/2014 08:31

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2628.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8106		0.933	1.00	-6.7	20.0
Dichlorobiphenyl	Ave	0.5955	0.5587		0.938	1.00	-6.2	20.0
Trichlorobiphenyl	Ave	0.4256	0.3986		0.937	1.00	-6.3	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2623		1.81	2.00	-9.3	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2049		1.83	2.00	-8.6	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1967		1.87	2.00	-6.6	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1540		2.79	3.00	-7.1	20.0
Octachlorobiphenyl	Ave	0.1517	0.1405		2.78	3.00	-7.4	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0328		4.52	5.00	-9.7	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0440		4.44	5.00	-11.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab Sample ID: CCV 680-341016/24 Calibration Date: 07/27/2014 18:32

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2649.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8017		0.922	1.00	-7.8	20.0
Dichlorobiphenyl	Ave	0.5955	0.5372		0.902	1.00	-9.8	20.0
Trichlorobiphenyl	Ave	0.4256	0.3825		0.899	1.00	-10.1	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2566		1.77	2.00	-11.3	20.0
Pentachlorobiphenyl	Ave	0.2243	0.1991		1.78	2.00	-11.2	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1900		1.80	2.00	-9.8	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1465		2.65	3.00	-11.6	20.0
Octachlorobiphenyl	Ave	0.1517	0.1304		2.58	3.00	-14.0	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0287		3.95	5.00	-20.9*	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0399		4.03	5.00	-19.5	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab File ID: XG2755.D DFTPP Injection Date: 07/28/2014

Instrument ID: CMSX DFTPP Injection Time: 23:17

Analysis Batch No.: 341035

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	49.3
197	Less than 1 % of mass 198	0.2
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.7
275	10 - 30% of mass 198	29.3
365	Greater than 1% of mass 198	4.3
441	Present but less than mass 443	11.1 (57.5)2
442	Greater than 40% of mass 198	98.4
443	17 - 23% of mass 442	19.2 (19.6)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-341035/3	XG2756.D	07/28/2014	23:48
	CCVIS 680-341035/4	XG2757.D	07/29/2014	00:19
SD-269-SS RE	680-102521-35 RE	XG2763.D	07/29/2014	03:13
	CCV 680-341035/15	XG2768.D	07/29/2014	05:37

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab Sample ID: CCVIS 680-341035/4 Calibration Date: 07/29/2014 00:19

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2757.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8217		0.946	1.00	-5.4	20.0
Dichlorobiphenyl	Ave	0.5955	0.5489		0.922	1.00	-7.8	20.0
Trichlorobiphenyl	Ave	0.4256	0.3870		0.909	1.00	-9.1	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2653		1.83	2.00	-8.3	20.0
Pentachlorobiphenyl	Ave	0.2243	0.1976		1.76	2.00	-11.9	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1929		1.83	2.00	-8.4	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1563		2.83	3.00	-5.7	20.0
Octachlorobiphenyl	Ave	0.1517	0.1413		2.79	3.00	-6.9	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0323		4.45	5.00	-11.0	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0454		4.58	5.00	-8.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab Sample ID: CCV 680-341035/15 Calibration Date: 07/29/2014 05:37

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2768.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8152		0.938	1.00	-6.2	20.0
Dichlorobiphenyl	Ave	0.5955	0.5621		0.944	1.00	-5.6	20.0
Trichlorobiphenyl	Ave	0.4256	0.3947		0.927	1.00	-7.3	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2684		1.86	2.00	-7.2	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2062		1.84	2.00	-8.1	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1987		1.89	2.00	-5.6	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1598		2.89	3.00	-3.6	20.0
Octachlorobiphenyl	Ave	0.1517	0.1476		2.92	3.00	-2.7	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0349		4.81	5.00	-3.8	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0472		4.76	5.00	-4.9	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab File ID: XG2906.D DFTPP Injection Date: 07/29/2014

Instrument ID: CMSX DFTPP Injection Time: 22:19

Analysis Batch No.: 341490

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	51.8
197	Less than 1 % of mass 198	0.0
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.6
275	10 - 30% of mass 198	29.6
365	Greater than 1% of mass 198	4.6
441	Present but less than mass 443	15.1 (81.7)2
442	Greater than 40% of mass 198	93.1
443	17 - 23% of mass 442	18.4 (19.8)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICISAV 680-341490/3	XG2908.D	07/29/2014	23:20
	IC 680-341490/4	XG2909.D	07/29/2014	23:49
	IC 680-341490/5	XG2910.D	07/30/2014	00:17
	IC 680-341490/6	XG2911.D	07/30/2014	00:46
	IC 680-341490/7	XG2912.D	07/30/2014	01:15
	ICV 680-341490/8	XG2913.D	07/30/2014	01:43

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102521-1 Analy Batch No.: 341490

SDG No.: 680102521-1

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/29/2014 23:20 Calibration End Date: 07/30/2014 01:15 Calibration ID: 32707

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-341490/7	XG2912.D
Level 2	IC 680-341490/6	XG2911.D
Level 3	ICISAV 680-341490/3	XG2908.D
Level 4	IC 680-341490/5	XG2910.D
Level 5	IC 680-341490/4	XG2909.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.7921	0.7705	0.8099	0.7988	0.7964	Ave		0.7935				1.8		20.0			
Dichlorobiphenyl	0.5284	0.5186	0.5209	0.5416	0.5248	Ave		0.5269				1.7		20.0			
Trichlorobiphenyl	0.3754	0.3671	0.3622	0.3850	0.3830	Ave		0.3745				2.6		20.0			
PCB-104			0.2799			Ave		0.2799						30.0			
Tetrachlorobiphenyl	0.2501	0.2513	0.2524	0.2552	0.2537	Ave		0.2526				0.8		20.0			
Pentachlorobiphenyl	0.1969	0.1993	0.1832	0.2038	0.2132	Ave		0.1993				5.5		20.0			
PCB-77			0.3725			Ave		0.3725						30.0			
Hexachlorobiphenyl	0.1822	0.1911	0.1904	0.1957	0.2013	Ave		0.1922				3.7		20.0			
Heptachlorobiphenyl	0.1478	0.1500	0.1425	0.1568	0.1664	Ave		0.1527				6.0		20.0			
Octachlorobiphenyl	0.1288	0.1424	0.1289	0.1458	0.1571	Ave		0.1406				8.6		20.0			
PCB-208			0.0459			Ave		0.0459						30.0			
Nonachlorobiphenyl			0.0367			Ave		0.0349				9.9		20.0			
DCB Decachlorobiphenyl	0.0323	0.0337	0.0316	0.0368	0.0399	Ave		0.0349				9.9		20.0			
Decachlorobiphenyl-13C12	0.0428	0.0516	0.0426	0.0504	0.0560	Ave		0.0487				12.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab Sample ID: ICV 680-341490/8 Calibration Date: 07/30/2014 01:43

Instrument ID: CMSX Calib Start Date: 07/29/2014 23:20

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/30/2014 01:15

Lab File ID: XG2913.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7935	0.7728		0.974	1.00	-2.6	20.0
Dichlorobiphenyl	Ave	0.5269	0.5308		1.01	1.00	0.7	20.0
Trichlorobiphenyl	Ave	0.3745	0.3902		1.04	1.00	4.2	20.0
Tetrachlorobiphenyl	Ave	0.2526	0.2598		2.06	2.00	2.9	20.0
Pentachlorobiphenyl	Ave	0.1993	0.2014		2.02	2.00	1.1	20.0
Hexachlorobiphenyl	Ave	0.1922	0.1898		1.98	2.00	-1.2	20.0
Heptachlorobiphenyl	Ave	0.1527	0.1595		3.13	3.00	4.4	20.0
Octachlorobiphenyl	Ave	0.1406	0.1416		3.02	3.00	0.7	20.0
DCB Decachlorobiphenyl	Ave	0.0349	0.0347		4.98	5.00	-0.5	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab File ID: XG2929.D DFTPP Injection Date: 07/30/2014

Instrument ID: CMSX DFTPP Injection Time: 11:13

Analysis Batch No.: 341486

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	50.6
197	Less than 1 % of mass 198	0.0
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.7
275	10 - 30% of mass 198	28.3
365	Greater than 1% of mass 198	4.1
441	Present but less than mass 443	14.0 (77.5)2
442	Greater than 40% of mass 198	92.4
443	17 - 23% of mass 442	18.0 (19.5)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-341486/3	XG2930.D	07/30/2014	11:54
	CCVIS 680-341486/4	XG2931.D	07/30/2014	12:25
SD-273-02	680-102521-44	XG2933.D	07/30/2014	13:22
	MB 680-341361/11-A	XG2934.D	07/30/2014	13:50
	LCS 680-341361/12-A	XG2935.D	07/30/2014	14:19
SD-264-01 MS	680-102521-19 MS	XG2936.D	07/30/2014	14:48
SD-264-01 MSD	680-102521-19 MSD	XG2937.D	07/30/2014	15:16
SD-264-01	680-102521-19	XG2938.D	07/30/2014	15:45
	CCV 680-341486/25	XG2948.D	07/30/2014	20:32

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab Sample ID: CCVIS 680-341486/4 Calibration Date: 07/30/2014 12:25

Instrument ID: CMSX Calib Start Date: 07/29/2014 23:20

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/30/2014 01:15

Lab File ID: XG2931.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7935	0.7474		0.942	1.00	-5.8	20.0
Dichlorobiphenyl	Ave	0.5269	0.4977		0.945	1.00	-5.5	20.0
Trichlorobiphenyl	Ave	0.3745	0.3563		0.951	1.00	-4.9	20.0
Tetrachlorobiphenyl	Ave	0.2526	0.2392		1.89	2.00	-5.3	20.0
Pentachlorobiphenyl	Ave	0.1993	0.1878		1.89	2.00	-5.7	20.0
Hexachlorobiphenyl	Ave	0.1922	0.1832		1.91	2.00	-4.7	20.0
Heptachlorobiphenyl	Ave	0.1527	0.1420		2.79	3.00	-7.0	20.0
Octachlorobiphenyl	Ave	0.1406	0.1325		2.83	3.00	-5.8	20.0
DCB Decachlorobiphenyl	Ave	0.0349	0.0320		4.59	5.00	-8.2	20.0
Decachlorobiphenyl-13C12	Ave	0.0487	0.0438		4.50	5.00	-10.0	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab Sample ID: CCV 680-341486/25 Calibration Date: 07/30/2014 20:32

Instrument ID: CMSX Calib Start Date: 07/29/2014 23:20

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/30/2014 01:15

Lab File ID: XG2948.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7935	0.7557		0.952	1.00	-4.8	20.0
Dichlorobiphenyl	Ave	0.5269	0.5175		0.982	1.00	-1.8	20.0
Trichlorobiphenyl	Ave	0.3745	0.3666		0.979	1.00	-2.1	20.0
Tetrachlorobiphenyl	Ave	0.2526	0.2497		1.98	2.00	-1.1	20.0
Pentachlorobiphenyl	Ave	0.1993	0.2811		2.82	2.00	41.1*	20.0
Hexachlorobiphenyl	Ave	0.1922	0.1891		1.97	2.00	-1.6	20.0
Heptachlorobiphenyl	Ave	0.1527	0.1432		2.81	3.00	-6.2	20.0
Octachlorobiphenyl	Ave	0.1406	0.1364		2.91	3.00	-3.0	20.0
DCB Decachlorobiphenyl	Ave	0.0349	0.0317		4.55	5.00	-9.0	20.0
Decachlorobiphenyl-13C12	Ave	0.0487	0.0433		4.45	5.00	-11.0	20.0

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Matrix: Solid Level: Low

GC Column (1): DB-5MS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	13DCB	#
SD-250-SS	680-102521-1	24	X
SD-250-SS RE	680-102521-1 RE	8	X
SD-250-01	680-102521-2	27	X
SD-250-01 RE	680-102521-2 RE	8	X
SD-250-02	680-102521-3	0	D
SD-250-03	680-102521-4	38	
SD-251-SS	680-102521-5	24	X
SD-251-SS RE	680-102521-5 RE	21	X
SD-251-01	680-102521-6	32	
SD-251-02	680-102521-7	36	
SD-251-03	680-102521-8	53	
SD-262-SS	680-102521-9	10	X
SD-262-SS RE	680-102521-9 RE	8	X
SD-262-01	680-102521-10	32	
SD-262-02	680-102521-11	39	
SD-262-03	680-102521-12	41	
SD-DUP05	680-102521-13	0	D
SD-263-SS	680-102521-14	32	
SD-263-01	680-102521-15	41	
SD-263-02	680-102521-16	22	X
SD-263-02 RE	680-102521-16 RE	32	
SD-263-03	680-102521-17	62	
SD-264-SS	680-102521-18	13	X
SD-264-SS RE	680-102521-18 RE	3	X
SD-264-01	680-102521-19	64	
SD-264-02	680-102521-20	0	D
SD-264-03	680-102521-21	49	
SD-265-SS	680-102521-22	42	
SD-265-01	680-102521-23	17	X
SD-265-01 RE	680-102521-23 RE	12	X
SD-265-02	680-102521-24	9	X
SD-265-02 RE	680-102521-24 RE	0	D
SD-265-03	680-102521-25	27	X
SD-265-03 RE	680-102521-25 RE	0	D
SD-268-SS	680-102521-26	9	X

13DCB = Decachlorobiphenyl-13C12

QC LIMITS
30-130

Column to be used to flag recovery values

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Matrix: Solid Level: Low

GC Column (1): DB-5MS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	13DCB	#
SD-268-SS RE	680-102521-26 RE	36	
SD-268-01	680-102521-27	0	D
SD-268-02	680-102521-28	43	
SD-268-03	680-102521-29	54	
SD-270-SS	680-102521-30	12	X
SD-270-SS RE	680-102521-30 RE	0	D
SD-270-01	680-102521-31	25	X
SD-270-01 RE	680-102521-31 RE	37	
SD-270-02	680-102521-32	17	X
SD-270-02 RE	680-102521-32 RE	33	
SD-270-03	680-102521-33	53	
SD-DUP06	680-102521-34	25	X
SD-DUP06 RE	680-102521-34 RE	47	
SD-269-SS	680-102521-35	7	X
SD-269-SS RE	680-102521-35 RE	0	D
SD-269-01	680-102521-36	0	D
SD-269-02	680-102521-37	10	X
SD-269-02 RE	680-102521-37 RE	43	
SD-269-03	680-102521-38	52	
SD-271-SS	680-102521-39	22	X
SD-271-SS RE	680-102521-39 RE	37	
SD-271-01	680-102521-40	12	X
SD-271-02	680-102521-41	68	
SD-273-SS	680-102521-42	0	D
SD-273-SS RE	680-102521-42 RE	0	D
SD-273-01	680-102521-43	18	X
SD-273-01 RE	680-102521-43 RE	35	
SD-273-02	680-102521-44	0	D
SD-273-03	680-102521-45	16	X
SD-273-03 RE	680-102521-45 RE	49	
	MB 680-338712/15-A	51	
	MB 680-339176/21-A	40	
	MB 680-339369/21-A	58	

QC LIMITS
30-130

13DCB = Decachlorobiphenyl-13C12

Column to be used to flag recovery values

FORM II 680

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Matrix: Solid Level: Low

GC Column (1): DB-5MS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	13DCB	#
	MB 680-340880/21-A	21	X
	MB 680-341361/11-A	34	*
	LCS 680-338712/16-A	69	
	LCS 680-339176/22-A	70	
	LCS 680-339369/22-A	42	
	LCS 680-340880/22-A	53	
	LCS 680-341361/12-A	47	*
SD-263-01 MS	680-102521-15 MS	13	X
SD-264-01 MS	680-102521-19 MS	55	
SD-271-01 MS	680-102521-40 MS	2	X
SD-273-03 MS RE	680-102521-45 MS RE	70	
SD-263-01 MSD	680-102521-15 MSD	19	X
SD-264-01 MSD	680-102521-19 MSD	16 *	X
SD-271-01 MSD	680-102521-40 MSD	2	X
SD-273-03 MSD RE	680-102521-45 MSD RE	46	

	QC LIMITS
13DCB = Decachlorobiphenyl-13C12	30-130

Column to be used to flag recovery values

FORM II 680

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab File ID: XG2314.D Lab Sample ID: MB 680-339369/21-A

Matrix: Solid Date Extracted: 07/17/2014 12:54

Instrument ID: CMSX Date Analyzed: 07/23/2014 16:16

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-339369/22-A	XG2315.D	07/23/2014 16:44
SD-271-01 MS	680-102521-40 MS	XG2316.D	07/23/2014 17:13
SD-271-01 MSD	680-102521-40 MSD	XG2317.D	07/23/2014 17:42
SD-271-01	680-102521-40	XG2318.D	07/23/2014 18:11
SD-264-03	680-102521-21	XG2319.D	07/23/2014 18:40
SD-265-SS	680-102521-22	XG2320.D	07/23/2014 19:09
SD-265-01	680-102521-23	XG2321.D	07/23/2014 19:37
SD-265-02	680-102521-24	XG2322.D	07/23/2014 20:06
SD-265-03	680-102521-25	XG2323.D	07/23/2014 20:35
SD-268-SS	680-102521-26	XG2324.D	07/23/2014 21:04
SD-268-02	680-102521-28	XG2335.D	07/24/2014 02:54
SD-268-03	680-102521-29	XG2336.D	07/24/2014 03:23
SD-270-01	680-102521-31	XG2338.D	07/24/2014 04:20
SD-270-02	680-102521-32	XG2339.D	07/24/2014 04:49
SD-270-03	680-102521-33	XG2340.D	07/24/2014 05:17
SD-DUP06	680-102521-34	XG2341.D	07/24/2014 05:46
SD-269-02	680-102521-37	XG2344.D	07/24/2014 07:11
SD-269-03	680-102521-38	XG2345.D	07/24/2014 07:40
SD-271-SS	680-102521-39	XG2346.D	07/24/2014 08:09
SD-268-01	680-102521-27	XG2409.D	07/24/2014 23:51
SD-270-SS	680-102521-30	XG2410.D	07/25/2014 00:20
SD-269-SS	680-102521-35	XG2411.D	07/25/2014 00:49
SD-269-01	680-102521-36	XG2412.D	07/25/2014 01:18

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102521-1
SDG No.: 680102521-1
Client Sample ID:
Lab Sample ID: MB 680-339369/21-A
Matrix: Solid
Lab File ID: XG2314.D
Analysis Method: 680
Date Collected:
Extract. Method: 680
Date Extracted: 07/17/2014 12:54
Sample wt/vol: 15.02(g)
Date Analyzed: 07/23/2014 16:16
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 340459
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	1.7	U	34	1.7
25512-42-9	Dichlorobiphenyl	0.70	U	6.6	0.70
28655-71-2	Heptachlorobiphenyl	1.0	U	20	1.0
26601-64-9	Hexachlorobiphenyl	0.66	U	13	0.66
27323-18-8	Monochlorobiphenyl	0.38	U	6.6	0.38
53742-07-7	Nonachlorobiphenyl	6.6	U	34	6.6
55722-26-4	Octachlorobiphenyl	1.1	U	20	1.1
25429-29-2	Pentachlorobiphenyl	0.68	U	13	0.68
26914-33-0	Tetrachlorobiphenyl	0.74	U	13	0.74
25323-68-6	Trichlorobiphenyl	0.34	U	6.6	0.34

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	58		30-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Matrix: Solid Level: Low Lab File ID: XG2315.D

Lab ID: LCS 680-339369/22-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	668	285	43	30-130	
Dichlorobiphenyl	134	59.4	45	30-130	
Heptachlorobiphenyl	401	185	46	40-140	
Hexachlorobiphenyl	267	124	47	40-140	
Monochlorobiphenyl	134	57.7	43	30-130	
Nonachlorobiphenyl	668	476	71	30-130	
Octachlorobiphenyl	401	179	45	40-140	
Pentachlorobiphenyl	267	121	45	40-140	
Tetrachlorobiphenyl	267	120	45	40-140	
Trichlorobiphenyl	134	59.5	45	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Matrix: Solid Level: Low Lab File ID: XG2316.D

Lab ID: 680-102521-40 MS Client ID: SD-271-01 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	1800	4.4 U	39.6 J	2	30-130	F1
Dichlorobiphenyl	360	1.8 U	7.74 J	2	30-130	F1
Heptachlorobiphenyl	1080	210	24.9 J	-17	40-140	F1
Hexachlorobiphenyl	720	250	37.8	-29	40-140	F1
Monochlorobiphenyl	360	1.0 U	7.19 J	2	30-130	F1
Nonachlorobiphenyl	1800	17 U	78.7 J	4	30-130	F1
Octachlorobiphenyl	1080	38 J	25.5 J	-1	40-140	F1
Pentachlorobiphenyl	720	250	49.4	-28	40-140	F1
Tetrachlorobiphenyl	720	1400	251	-157	40-140	F1
Trichlorobiphenyl	360	100	25.1	-21	30-130	F1

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Matrix: Solid Level: Low Lab File ID: XG2317.D

Lab ID: 680-102521-40 MSD Client ID: SD-271-01 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
DCB Decachlorobiphenyl	1680	37.9 J	2	4	50	30-130	F1
Dichlorobiphenyl	337	8.35 J	2	8	50	30-130	F1
Heptachlorobiphenyl	1010	25.9 J	-18	4	50	40-140	F1
Hexachlorobiphenyl	673	32.9 J	-32	14	50	40-140	F1
Monochlorobiphenyl	337	8.06 J	2	11	50	30-130	F1
Nonachlorobiphenyl	1680	76.2 J	5	3	50	30-130	F1
Octachlorobiphenyl	1010	25.5 J	-1	0	50	40-140	F1
Pentachlorobiphenyl	673	57.8	-29	16	50	40-140	F1
Tetrachlorobiphenyl	673	283	-164	12	50	40-140	F1
Trichlorobiphenyl	337	28.0	-22	11	50	30-130	F1

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab File ID: XG2608.D Lab Sample ID: MB 680-340880/21-A

Matrix: Solid Date Extracted: 07/25/2014 14:50

Instrument ID: CMSX Date Analyzed: 07/26/2014 22:53

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-340880/22-A	XG2609.D	07/26/2014 23:22
SD-273-03 MS RE	680-102521-45 MS RE	XG2610.D	07/26/2014 23:51
SD-273-03 MSD RE	680-102521-45 MSD RE	XG2611.D	07/27/2014 00:19
SD-273-03 RE	680-102521-45 RE	XG2612.D	07/27/2014 00:48
SD-250-SS RE	680-102521-1 RE	XG2613.D	07/27/2014 01:17
SD-250-01 RE	680-102521-2 RE	XG2614.D	07/27/2014 01:45
SD-251-SS RE	680-102521-5 RE	XG2615.D	07/27/2014 02:14
SD-262-SS RE	680-102521-9 RE	XG2616.D	07/27/2014 02:42
SD-264-SS RE	680-102521-18 RE	XG2618.D	07/27/2014 03:40
SD-265-01 RE	680-102521-23 RE	XG2619.D	07/27/2014 04:08
SD-270-01 RE	680-102521-31 RE	XG2631.D	07/27/2014 09:57
SD-270-02 RE	680-102521-32 RE	XG2632.D	07/27/2014 10:26
SD-DUP06 RE	680-102521-34 RE	XG2633.D	07/27/2014 10:54
SD-269-02 RE	680-102521-37 RE	XG2635.D	07/27/2014 11:52
SD-271-SS RE	680-102521-39 RE	XG2636.D	07/27/2014 12:20
SD-273-SS RE	680-102521-42 RE	XG2637.D	07/27/2014 12:49
SD-273-01 RE	680-102521-43 RE	XG2638.D	07/27/2014 13:17
SD-263-02 RE	680-102521-16 RE	XG2642.D	07/27/2014 15:12
SD-265-02 RE	680-102521-24 RE	XG2643.D	07/27/2014 15:41
SD-265-03 RE	680-102521-25 RE	XG2644.D	07/27/2014 16:09
SD-268-SS RE	680-102521-26 RE	XG2645.D	07/27/2014 16:38
SD-270-SS RE	680-102521-30 RE	XG2646.D	07/27/2014 17:07
SD-269-SS RE	680-102521-35 RE	XG2763.D	07/29/2014 03:13

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102521-1
SDG No.: 680102521-1
Client Sample ID:
Lab Sample ID: MB 680-340880/21-A
Matrix: Solid
Lab File ID: XG2608.D
Analysis Method: 680
Date Collected:
Extract. Method: 680
Date Extracted: 07/25/2014 14:50
Sample wt/vol: 30.04(g)
Date Analyzed: 07/26/2014 22:53
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 341015
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.83	U	17	0.83
25512-42-9	Dichlorobiphenyl	0.35	U	3.3	0.35
28655-71-2	Heptachlorobiphenyl	0.50	U	10	0.50
26601-64-9	Hexachlorobiphenyl	0.33	U	6.7	0.33
27323-18-8	Monochlorobiphenyl	0.19	U	3.3	0.19
53742-07-7	Nonachlorobiphenyl	3.3	U	17	3.3
55722-26-4	Octachlorobiphenyl	0.53	U	10	0.53
25429-29-2	Pentachlorobiphenyl	0.34	U	6.7	0.34
26914-33-0	Tetrachlorobiphenyl	0.37	U	6.7	0.37
25323-68-6	Trichlorobiphenyl	0.17	U	3.3	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	21	X	30-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Matrix: Solid Level: Low Lab File ID: XG2609.D

Lab ID: LCS 680-340880/22-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	333	199	60	30-130	
Dichlorobiphenyl	66.6	34.1	51	30-130	
Heptachlorobiphenyl	200	113	57	40-140	
Hexachlorobiphenyl	133	74.9	56	40-140	
Monochlorobiphenyl	66.6	33.2	50	30-130	
Nonachlorobiphenyl	333	290	87	30-130	
Octachlorobiphenyl	200	113	57	40-140	
Pentachlorobiphenyl	133	72.5	54	40-140	
Tetrachlorobiphenyl	133	68.4	51	40-140	
Trichlorobiphenyl	66.6	34.0	51	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Matrix: Solid Level: Low Lab File ID: XG2610.D

Lab ID: 680-102521-45 MS RE Client ID: SD-273-03 MS RE

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	1890	4.7 U	1390	73	30-130	
Dichlorobiphenyl	379	2.0 U	235	62	30-130	
Heptachlorobiphenyl	1140	2.8 U	864	76	40-140	
Hexachlorobiphenyl	758	1.9 U	562	74	40-140	
Monochlorobiphenyl	379	1.1 U	221	58	30-130	
Nonachlorobiphenyl	1890	19 U	2130	112	30-130	
Octachlorobiphenyl	1140	3.0 U	861	76	40-140	
Pentachlorobiphenyl	758	1.9 U	536	71	40-140	
Tetrachlorobiphenyl	758	3.0 J	497	65	40-140	
Trichlorobiphenyl	379	0.96 U	250	66	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Matrix: Solid Level: Low Lab File ID: XG2611.D

Lab ID: 680-102521-45 MSD RE Client ID: SD-273-03 MSD RE

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
DCB Decachlorobiphenyl	1880	881	47	45	50	30-130	
Dichlorobiphenyl	377	156	41	41	50	30-130	
Heptachlorobiphenyl	1130	592	52	37	50	40-140	
Hexachlorobiphenyl	753	381	51	39	50	40-140	
Monochlorobiphenyl	377	147	39	40	50	30-130	
Nonachlorobiphenyl	1880	1380	73	43	50	30-130	
Octachlorobiphenyl	1130	584	52	38	50	40-140	
Pentachlorobiphenyl	753	353	47	41	50	40-140	
Tetrachlorobiphenyl	753	320	42	43	50	40-140	
Trichlorobiphenyl	377	169	45	39	50	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab File ID: XG2934.D Lab Sample ID: MB 680-341361/11-A

Matrix: Solid Date Extracted: 07/29/2014 14:28

Instrument ID: CMSX Date Analyzed: 07/30/2014 13:50

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-341361/12-A	XG2935.D	07/30/2014 14:19
SD-264-01 MS	680-102521-19 MS	XG2936.D	07/30/2014 14:48
SD-264-01 MSD	680-102521-19 MSD	XG2937.D	07/30/2014 15:16
SD-264-01	680-102521-19	XG2938.D	07/30/2014 15:45

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: | Lab Sample ID: MB 680-341361/11-A

Matrix: Solid | Lab File ID: XG2934.D

Analysis Method: 680 | Date Collected:

Extract. Method: 680 | Date Extracted: 07/29/2014 14:28

Sample wt/vol: 30.05(g) | Date Analyzed: 07/30/2014 13:50

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341486 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.83	U	17	0.83
25512-42-9	Dichlorobiphenyl	0.35	U	3.3	0.35
28655-71-2	Heptachlorobiphenyl	0.50	U	10	0.50
26601-64-9	Hexachlorobiphenyl	0.33	U	6.7	0.33
27323-18-8	Monochlorobiphenyl	0.19	U	3.3	0.19
53742-07-7	Nonachlorobiphenyl	3.3	U	17	3.3
55722-26-4	Octachlorobiphenyl	0.53	U	10	0.53
25429-29-2	Pentachlorobiphenyl	0.34	U	6.7	0.34
26914-33-0	Tetrachlorobiphenyl	0.37	U	6.7	0.37
25323-68-6	Trichlorobiphenyl	0.17	U	3.3	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	34	*	30-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Matrix: Solid Level: Low Lab File ID: XG2935.D

Lab ID: LCS 680-341361/12-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	333	162	49	30-130	*
Dichlorobiphenyl	66.6	30.2	45	30-130	*
Heptachlorobiphenyl	200	101	51	40-140	*
Hexachlorobiphenyl	133	66.3	50	40-140	*
Monochlorobiphenyl	66.6	27.4	41	30-130	*
Nonachlorobiphenyl	333	249	75	30-130	*
Octachlorobiphenyl	200	101	51	40-140	*
Pentachlorobiphenyl	133	66.6	50	40-140	*
Tetrachlorobiphenyl	133	63.9	48	40-140	*
Trichlorobiphenyl	66.6	31.5	47	30-130	*

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Matrix: Solid Level: Low Lab File ID: XG2936.D

Lab ID: 680-102521-19 MS Client ID: SD-264-01 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	3420	8.5 U	1970	58	30-130	
Dichlorobiphenyl	684	3.6 U	433	63	30-130	
Heptachlorobiphenyl	2050	870	1860	48	40-140	
Hexachlorobiphenyl	1370	1200	2070	63	40-140	
Monochlorobiphenyl	684	2.0 U	384	56	30-130	
Nonachlorobiphenyl	3420	34 U	3170	93	30-130	
Octachlorobiphenyl	2050	35 J	1330	63	40-140	
Pentachlorobiphenyl	1370	1300	2220	67	40-140	
Tetrachlorobiphenyl	1370	2700	3500	55	40-140	
Trichlorobiphenyl	684	1.7 U	535	78	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Matrix: Solid Level: Low Lab File ID: XG2937.D

Lab ID: 680-102521-19 MSD Client ID: SD-264-01 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
DCB Decachlorobiphenyl	3420	558	16	112	50	30-130	* F1 F2
Dichlorobiphenyl	684	117	17	115	50	30-130	* F1 F2
Heptachlorobiphenyl	2050	589	-14	104	50	40-140	* F1 F2
Hexachlorobiphenyl	1370	547	-48	116	50	40-140	* F1 F2
Monochlorobiphenyl	684	104	15	115	50	30-130	* F1 F2
Nonachlorobiphenyl	3420	934	27	109	50	30-130	* F1 F2
Octachlorobiphenyl	2050	406	18	106	50	40-140	* F1 F2
Pentachlorobiphenyl	1370	571	-54	118	50	40-140	* F1 F2
Tetrachlorobiphenyl	1370	784	-143	127	50	40-140	* F1 F2
Trichlorobiphenyl	684	143	21	116	50	30-130	* F1 F2

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab File ID: XG2106.D Lab Sample ID: MB 680-339176/21-A

Matrix: Solid Date Extracted: 07/16/2014 12:47

Instrument ID: CMSX Date Analyzed: 07/21/2014 16:30

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-339176/22-A	XG2107.D	07/21/2014 16:59
SD-263-01 MS	680-102521-15 MS	XG2108.D	07/21/2014 17:28
SD-263-01 MSD	680-102521-15 MSD	XG2109.D	07/21/2014 17:56
SD-250-SS	680-102521-1	XG2111.D	07/21/2014 18:53
SD-250-01	680-102521-2	XG2112.D	07/21/2014 19:21
SD-250-03	680-102521-4	XG2114.D	07/21/2014 20:18
SD-251-SS	680-102521-5	XG2115.D	07/21/2014 20:47
SD-251-01	680-102521-6	XG2116.D	07/21/2014 21:15
SD-251-02	680-102521-7	XG2117.D	07/21/2014 21:44
SD-251-03	680-102521-8	XG2118.D	07/21/2014 22:12
SD-262-SS	680-102521-9	XG2119.D	07/21/2014 22:41
SD-262-01	680-102521-10	XG2120.D	07/21/2014 23:09
SD-262-02	680-102521-11	XG2121.D	07/21/2014 23:37
SD-262-03	680-102521-12	XG2122.D	07/22/2014 00:06
SD-263-SS	680-102521-14	XG2307.D	07/23/2014 12:55
SD-263-01	680-102521-15	XG2308.D	07/23/2014 13:23
SD-263-02	680-102521-16	XG2309.D	07/23/2014 13:52
SD-263-03	680-102521-17	XG2310.D	07/23/2014 14:21
SD-264-SS	680-102521-18	XG2311.D	07/23/2014 14:49
SD-250-02	680-102521-3	XG2406.D	07/24/2014 22:24
SD-DUP05	680-102521-13	XG2407.D	07/24/2014 22:53
SD-264-02	680-102521-20	XG2408.D	07/24/2014 23:22

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102521-1
SDG No.: 680102521-1
Client Sample ID:
Lab Sample ID: MB 680-339176/21-A
Matrix: Solid
Lab File ID: XG2106.D
Analysis Method: 680
Date Collected:
Extract. Method: 680
Date Extracted: 07/16/2014 12:47
Sample wt/vol: 15.00(g)
Date Analyzed: 07/21/2014 16:30
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 340118
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	1.7	U	34	1.7
25512-42-9	Dichlorobiphenyl	0.70	U	6.6	0.70
28655-71-2	Heptachlorobiphenyl	1.0	U	20	1.0
26601-64-9	Hexachlorobiphenyl	0.66	U	13	0.66
27323-18-8	Monochlorobiphenyl	0.38	U	6.6	0.38
53742-07-7	Nonachlorobiphenyl	6.6	U	34	6.6
55722-26-4	Octachlorobiphenyl	1.1	U	20	1.1
25429-29-2	Pentachlorobiphenyl	0.68	U	13	0.68
26914-33-0	Tetrachlorobiphenyl	0.74	U	13	0.74
25323-68-6	Trichlorobiphenyl	0.34	U	6.6	0.34

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	40		30-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Matrix: Solid Level: Low Lab File ID: XG2107.D

Lab ID: LCS 680-339176/22-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	668	442	66	30-130	
Dichlorobiphenyl	134	103	77	30-130	
Heptachlorobiphenyl	401	314	78	40-140	
Hexachlorobiphenyl	267	206	77	40-140	
Monochlorobiphenyl	134	101	76	30-130	
Nonachlorobiphenyl	668	775	116	30-130	
Octachlorobiphenyl	401	306	76	40-140	
Pentachlorobiphenyl	267	206	77	40-140	
Tetrachlorobiphenyl	267	211	79	40-140	
Trichlorobiphenyl	134	107	80	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Matrix: Solid Level: Low Lab File ID: XG2108.D

Lab ID: 680-102521-15 MS Client ID: SD-263-01 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	3980	9.5 U	499	13	30-130	F1
Dichlorobiphenyl	795	4.0 U	133	17	30-130	F1
Heptachlorobiphenyl	2390	470	537	3	40-140	F1
Hexachlorobiphenyl	1590	670	502	-11	40-140	F1
Monochlorobiphenyl	795	2.2 U	125	16	30-130	F1
Nonachlorobiphenyl	3980	38 U	918	23	30-130	F1
Octachlorobiphenyl	2390	6.1 U	358	15	40-140	F1
Pentachlorobiphenyl	1590	920	542	-24	40-140	F1
Tetrachlorobiphenyl	1590	3300	1060	-140	40-140	F1
Trichlorobiphenyl	795	200	162	-4	30-130	F1

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Matrix: Solid Level: Low Lab File ID: XG2109.D

Lab ID: 680-102521-15 MSD Client ID: SD-263-01 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
DCB Decachlorobiphenyl	3720	670	18	29	50	30-130	F1
Dichlorobiphenyl	744	170	23	25	50	30-130	F1
Heptachlorobiphenyl	2230	698	10	26	50	40-140	F1
Hexachlorobiphenyl	1490	693	1	32	50	40-140	F1
Monochlorobiphenyl	744	156	21	22	50	30-130	F1
Nonachlorobiphenyl	3720	1160	31	23	50	30-130	
Octachlorobiphenyl	2230	487	22	31	50	40-140	F1
Pentachlorobiphenyl	1490	962	3	56	50	40-140	F1 F2
Tetrachlorobiphenyl	1490	2730	-37	88	50	40-140	F1 F2
Trichlorobiphenyl	744	330	18	69	50	30-130	F1 F2

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Lab File ID: XG2012.D Lab Sample ID: MB 680-338712/15-A

Matrix: Solid Date Extracted: 07/12/2014 13:20

Instrument ID: CMSX Date Analyzed: 07/20/2014 20:35

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-338712/16-A	XG2013.D	07/20/2014 21:03
SD-271-02	680-102521-41	XG2347.D	07/24/2014 08:37
SD-273-01	680-102521-43	XG2349.D	07/24/2014 09:34
SD-273-03	680-102521-45	XG2351.D	07/24/2014 10:32
SD-273-SS	680-102521-42	XG2413.D	07/25/2014 01:47
SD-273-02	680-102521-44	XG2933.D	07/30/2014 13:22

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: | Lab Sample ID: MB 680-338712/15-A

Matrix: Solid | Lab File ID: XG2012.D

Analysis Method: 680 | Date Collected:

Extract. Method: 680 | Date Extracted: 07/12/2014 13:20

Sample wt/vol: 30.10(g) | Date Analyzed: 07/20/2014 20:35

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339960 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.83	U	17	0.83
25512-42-9	Dichlorobiphenyl	0.35	U	3.3	0.35
28655-71-2	Heptachlorobiphenyl	0.50	U	10	0.50
26601-64-9	Hexachlorobiphenyl	0.33	U	6.7	0.33
27323-18-8	Monochlorobiphenyl	0.19	U	3.3	0.19
53742-07-7	Nonachlorobiphenyl	3.3	U	17	3.3
55722-26-4	Octachlorobiphenyl	0.53	U	10	0.53
25429-29-2	Pentachlorobiphenyl	0.34	U	6.7	0.34
26914-33-0	Tetrachlorobiphenyl	0.37	U	6.7	0.37
25323-68-6	Trichlorobiphenyl	0.17	U	3.3	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	51		30-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Matrix: Solid Level: Low Lab File ID: XG2013.D

Lab ID: LCS 680-338712/16-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	332	243	73	30-130	
Dichlorobiphenyl	66.3	47.5	72	30-130	
Heptachlorobiphenyl	199	153	77	40-140	
Hexachlorobiphenyl	133	100	75	40-140	
Monochlorobiphenyl	66.3	45.5	69	30-130	
Nonachlorobiphenyl	332	385	116	30-130	
Octachlorobiphenyl	199	157	79	40-140	
Pentachlorobiphenyl	133	101	76	40-140	
Tetrachlorobiphenyl	133	95.3	72	40-140	
Trichlorobiphenyl	66.3	47.7	72	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Instrument ID: CMSX Calibration Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calibration End Date: 07/20/2014 00:46

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		160628	10.11	229918	16.23		
UPPER LIMIT		240942	10.61	344877	16.73		
LOWER LIMIT		80314	9.61	114959	15.73		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-339932/9		166018	10.11	232985	16.22		
CCVIS 680-339960/4		156930	10.13	160983	16.24		
MB 680-338712/15-A		147280	10.13	155989	16.24		
LCS 680-338712/16-A		139972	10.13	145084	16.24		
CCV 680-339960/23		146361	10.13	150656	16.24		
CCVIS 680-340118/4		152714	10.13	135608	16.24		
MB 680-339176/21-A		137516	10.13	115228	16.24		
LCS 680-339176/22-A		136593	10.13	129008	16.24		
680-102521-15 MS	SD-263-01 MS	126896	10.13	135163	16.24		
680-102521-15 MSD	SD-263-01 MSD	139120	10.13	157094	16.24		
680-102521-1	SD-250-SS	158437	10.13	172205	16.24		
680-102521-2	SD-250-01	153467	10.13	154191	16.24		
680-102521-4	SD-250-03	151186	10.13	162765	16.24		
680-102521-5	SD-251-SS	156057	10.13	154000	16.24		
680-102521-6	SD-251-01	150453	10.13	150341	16.24		
680-102521-7	SD-251-02	150432	10.13	153958	16.24		
680-102521-8	SD-251-03	137861	10.13	126980	16.24		
680-102521-9	SD-262-SS	144340	10.13	138662	16.24		
680-102521-10	SD-262-01	156931	10.13	157374	16.24		
680-102521-11	SD-262-02	154129	10.13	159156	16.24		
680-102521-12	SD-262-03	148104	10.13	139085	16.24		
CCV 680-340118/24		152797	10.13	138511	16.24		
CCVIS 680-340459/4		151625	10.05	174856	16.16		
680-102521-14	SD-263-SS	158929	10.05	186679	16.16		
680-102521-15	SD-263-01	137207	10.05	163341	16.16		
680-102521-16	SD-263-02	146681	10.05	175161	16.16		
680-102521-17	SD-263-03	148325	10.05	164394	16.16		
680-102521-18	SD-264-SS	152630	10.05	182815	16.16		
MB 680-339369/21-A		136504	10.05	142334	16.16		
LCS 680-339369/22-A		141946	10.05	148683	16.16		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Instrument ID: CMSX Calibration Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calibration End Date: 07/20/2014 00:46

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		160628	10.11	229918	16.23		
UPPER LIMIT		240942	10.61	344877	16.73		
LOWER LIMIT		80314	9.61	114959	15.73		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102521-40 MS	SD-271-01 MS	138602	10.05	159835	16.16		
680-102521-40 MSD	SD-271-01 MSD	149274	10.05	162109	16.16		
680-102521-40	SD-271-01	144760	10.05	183383	16.16		
680-102521-21	SD-264-03	166768	10.07	191320	16.16		
680-102521-22	SD-265-SS	161958	10.05	200300	16.16		
680-102521-23	SD-265-01	158941	10.05	189491	16.16		
680-102521-24	SD-265-02	168692	10.05	191423	16.16		
680-102521-25	SD-265-03	162325	10.05	187223	16.16		
680-102521-26	SD-268-SS	135068	10.05	169716	16.16		
CCV 680-340459/25		142389	10.07	161879	16.16		
CCVIS 680-340579/4		152615	10.05	152178	16.16		
680-102521-28	SD-268-02	154463	10.05	178848	16.16		
680-102521-29	SD-268-03	146902	10.05	174756	16.16		
680-102521-31	SD-270-01	160769	10.05	193424	16.16		
680-102521-32	SD-270-02	148070	10.05	182856	16.16		
680-102521-33	SD-270-03	150135	10.05	172182	16.16		
680-102521-34	SD-DUP06	139014	10.05	174581	16.16		
680-102521-37	SD-269-02	154631	10.05	168677	16.16		
680-102521-38	SD-269-03	137796	10.05	152488	16.16		
680-102521-39	SD-271-SS	138252	10.05	167388	16.16		
680-102521-41	SD-271-02	136752	10.05	162205	16.16		
680-102521-43	SD-273-01	147976	10.07	180659	16.16		
680-102521-45	SD-273-03	146207	10.07	155828	16.16		
CCV 680-340579/24		159741	10.05	164762	16.16		
CCVIS 680-340817/4		127048	9.98	129555	16.08		
680-102521-3	SD-250-02	150442	9.98	182340*	16.08	OK	
680-102521-13	SD-DUP05	143762	9.98	153102	16.08		
680-102521-20	SD-264-02	148172	9.98	165904	16.08		
680-102521-27	SD-268-01	138249	9.98	161604	16.08		
680-102521-30	SD-270-SS	149955	9.98	183101*	16.08	OK	

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Instrument ID: CMSX Calibration Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calibration End Date: 07/20/2014 00:46

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		160628	10.11	229918	16.23		
UPPER LIMIT		240942	10.61	344877	16.73		
LOWER LIMIT		80314	9.61	114959	15.73		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102521-35	SD-269-SS	145505	9.98	160062	16.08		
680-102521-36	SD-269-01	145127	9.98	164827	16.08		
680-102521-42	SD-273-SS	141042	9.98	156859	16.08		
CCV 680-340817/24		139441	9.98	163441	16.09		
CCVIS 680-341015/4		124030	9.91	126025	16.01		
MB 680-340880/21-A		106412	9.91	122373	16.01		
LCS 680-340880/22-A		109391	9.91	120547	16.01		
680-102521-45 MS RE	SD-273-03 MS RE	110325	9.91	116880	16.01		
680-102521-45 MSD RE	SD-273-03 MSD RE	121701	9.91	127419	16.01		
680-102521-45 RE	SD-273-03 RE	103809	9.91	118843	16.01		
680-102521-1 RE	SD-250-SS RE	118326	9.91	129375	16.01		
680-102521-2 RE	SD-250-01 RE	130080	9.91	140693	16.01		
680-102521-5 RE	SD-251-SS RE	127307	9.91	135480	16.01		
680-102521-9 RE	SD-262-SS RE	117566	9.91	137520	16.01		
680-102521-18 RE	SD-264-SS RE	128887	9.91	138188	16.01		
680-102521-23 RE	SD-265-01 RE	121986	9.91	138464	16.01		
CCV 680-341015/23		129921	9.91	134816	16.01		
CCVIS 680-341016/4		122752	9.91	127507	16.01		
680-102521-31 RE	SD-270-01 RE	133538	9.91	151508	16.01		
680-102521-32 RE	SD-270-02 RE	106386	9.91	125867	16.01		
680-102521-34 RE	SD-DUP06 RE	105258	9.91	127362	16.01		
680-102521-37 RE	SD-269-02 RE	103329	9.91	119010	16.02		
680-102521-39 RE	SD-271-SS RE	113054	9.91	137048	16.01		
680-102521-42 RE	SD-273-SS RE	123784	9.91	137575	16.01		
680-102521-43 RE	SD-273-01 RE	114208	9.91	145193	16.01		
680-102521-16 RE	SD-263-02 RE	122763	9.91	136014	16.01		
680-102521-24 RE	SD-265-02 RE	123932	9.91	127888	16.01		
680-102521-25 RE	SD-265-03 RE	130659	9.91	152458	16.01		
680-102521-26 RE	SD-268-SS RE	129155	9.91	152401	16.01		
680-102521-30 RE	SD-270-SS RE	142585	9.91	161777	16.01		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Instrument ID: CMSX Calibration Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calibration End Date: 07/20/2014 00:46

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		160628	10.11	229918	16.23		
UPPER LIMIT		240942	10.61	344877	16.73		
LOWER LIMIT		80314	9.61	114959	15.73		
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 680-341016/24		130503	9.91	139114	16.01		
CCVIS 680-341035/4		134601	9.84	144937	15.92		
680-102521-35 RE	SD-269-SS RE	141231	9.84	167093	15.92		
CCV 680-341035/15		133837	9.84	149601	15.92		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Sample No.: CCVIS 680-339960/4 Date Analyzed: 07/20/2014 16:47

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG2004.D Heated Purge: (Y/N) N

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		156930	10.13	160983	16.24		
UPPER LIMIT		204009	10.63	209278	16.74		
LOWER LIMIT		109851	9.63	112688	15.74		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-338712/15-A		147280	10.13	155989	16.24		
LCS 680-338712/16-A		139972	10.13	145084	16.24		
CCV 680-339960/23		146361	10.13	150656	16.24		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Sample No.: CCVIS 680-340118/4 Date Analyzed: 07/21/2014 15:33

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG2104.D Heated Purge: (Y/N) N

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		152714	10.13	135608	16.24		
UPPER LIMIT		198528	10.63	176290	16.74		
LOWER LIMIT		106900	9.63	94926	15.74		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-339176/21-A		137516	10.13	115228	16.24		
LCS 680-339176/22-A		136593	10.13	129008	16.24		
680-102521-15 MS	SD-263-01 MS	126896	10.13	135163	16.24		
680-102521-15 MSD	SD-263-01 MSD	139120	10.13	157094	16.24		
680-102521-1	SD-250-SS	158437	10.13	172205	16.24		
680-102521-2	SD-250-01	153467	10.13	154191	16.24		
680-102521-4	SD-250-03	151186	10.13	162765	16.24		
680-102521-5	SD-251-SS	156057	10.13	154000	16.24		
680-102521-6	SD-251-01	150453	10.13	150341	16.24		
680-102521-7	SD-251-02	150432	10.13	153958	16.24		
680-102521-8	SD-251-03	137861	10.13	126980	16.24		
680-102521-9	SD-262-SS	144340	10.13	138662	16.24		
680-102521-10	SD-262-01	156931	10.13	157374	16.24		
680-102521-11	SD-262-02	154129	10.13	159156	16.24		
680-102521-12	SD-262-03	148104	10.13	139085	16.24		
CCV 680-340118/24		152797	10.13	138511	16.24		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Sample No.: CCVIS 680-340459/4 Date Analyzed: 07/23/2014 11:29

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG2304.D Heated Purge: (Y/N) N

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		151625	10.05	174856	16.16		
UPPER LIMIT		197113	10.55	227313	16.66		
LOWER LIMIT		106138	9.55	122399	15.66		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102521-14	SD-263-SS	158929	10.05	186679	16.16		
680-102521-15	SD-263-01	137207	10.05	163341	16.16		
680-102521-16	SD-263-02	146681	10.05	175161	16.16		
680-102521-17	SD-263-03	148325	10.05	164394	16.16		
680-102521-18	SD-264-SS	152630	10.05	182815	16.16		
MB 680-339369/21-A		136504	10.05	142334	16.16		
LCS 680-339369/22-A		141946	10.05	148683	16.16		
680-102521-40 MS	SD-271-01 MS	138602	10.05	159835	16.16		
680-102521-40 MSD	SD-271-01 MSD	149274	10.05	162109	16.16		
680-102521-40	SD-271-01	144760	10.05	183383	16.16		
680-102521-21	SD-264-03	166768	10.07	191320	16.16		
680-102521-22	SD-265-SS	161958	10.05	200300	16.16		
680-102521-23	SD-265-01	158941	10.05	189491	16.16		
680-102521-24	SD-265-02	168692	10.05	191423	16.16		
680-102521-25	SD-265-03	162325	10.05	187223	16.16		
680-102521-26	SD-268-SS	135068	10.05	169716	16.16		
CCV 680-340459/25		142389	10.07	161879	16.16		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Sample No.: CCVIS 680-340579/4 Date Analyzed: 07/24/2014 01:28

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG2332.D Heated Purge: (Y/N) N

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		152615	10.05	152178	16.16		
UPPER LIMIT		198400	10.55	197831	16.66		
LOWER LIMIT		106831	9.55	106525	15.66		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102521-28	SD-268-02	154463	10.05	178848	16.16		
680-102521-29	SD-268-03	146902	10.05	174756	16.16		
680-102521-31	SD-270-01	160769	10.05	193424	16.16		
680-102521-32	SD-270-02	148070	10.05	182856	16.16		
680-102521-33	SD-270-03	150135	10.05	172182	16.16		
680-102521-34	SD-DUP06	139014	10.05	174581	16.16		
680-102521-37	SD-269-02	154631	10.05	168677	16.16		
680-102521-38	SD-269-03	137796	10.05	152488	16.16		
680-102521-39	SD-271-SS	138252	10.05	167388	16.16		
680-102521-41	SD-271-02	136752	10.05	162205	16.16		
680-102521-43	SD-273-01	147976	10.07	180659	16.16		
680-102521-45	SD-273-03	146207	10.07	155828	16.16		
CCV 680-340579/24		159741	10.05	164762	16.16		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Sample No.: CCVIS 680-340817/4 Date Analyzed: 07/24/2014 21:26

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG2404.D Heated Purge: (Y/N) N

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		127048	9.98	129555	16.08		
UPPER LIMIT		165162	10.48	168422	16.58		
LOWER LIMIT		88934	9.48	90689	15.58		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102521-3	SD-250-02 ✓	150442	9.98	182340*	16.08		
680-102521-13	SD-DUP05	143762	9.98	153102	16.08		
680-102521-20	SD-264-02	148172	9.98	165904	16.08		
680-102521-27	SD-268-01	138249	9.98	161604	16.08		
680-102521-30	SD-270-SS ✓	149955	9.98	183101*	16.08	NOT USED	
680-102521-35	SD-269-SS	145505	9.98	160062	16.08		
680-102521-36	SD-269-01	145127	9.98	164827	16.08		
680-102521-42	SD-273-SS	141042	9.98	156859	16.08		
CCV 680-340817/24		139441	9.98	163441	16.09		

+50%

245161

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Sample No.: CCVIS 680-341015/4 Date Analyzed: 07/26/2014 20:58

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG2604.D Heated Purge: (Y/N) N

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		124030	9.91	126025	16.01		
UPPER LIMIT		161239	10.41	163833	16.51		
LOWER LIMIT		86821	9.41	88218	15.51		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-340880/21-A		106412	9.91	122373	16.01		
LCS 680-340880/22-A		109391	9.91	120547	16.01		
680-102521-45 MS RE	SD-273-03 MS RE	110325	9.91	116880	16.01		
680-102521-45 MSD RE	SD-273-03 MSD RE	121701	9.91	127419	16.01		
680-102521-45 RE	SD-273-03 RE	103809	9.91	118843	16.01		
680-102521-1 RE	SD-250-SS RE	118326	9.91	129375	16.01		
680-102521-2 RE	SD-250-01 RE	130080	9.91	140693	16.01		
680-102521-5 RE	SD-251-SS RE	127307	9.91	135480	16.01		
680-102521-9 RE	SD-262-SS RE	117566	9.91	137520	16.01		
680-102521-18 RE	SD-264-SS RE	128887	9.91	138188	16.01		
680-102521-23 RE	SD-265-01 RE	121986	9.91	138464	16.01		
CCV 680-341015/23		129921	9.91	134816	16.01		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Sample No.: CCVIS 680-341016/4 Date Analyzed: 07/27/2014 08:31

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG2628.D Heated Purge: (Y/N) N

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		122752	9.91	127507	16.01		
UPPER LIMIT		159578	10.41	165759	16.51		
LOWER LIMIT		85926	9.41	89255	15.51		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102521-31 RE	SD-270-01 RE	133538	9.91	151508	16.01		
680-102521-32 RE	SD-270-02 RE	106386	9.91	125867	16.01		
680-102521-34 RE	SD-DUP06 RE	105258	9.91	127362	16.01		
680-102521-37 RE	SD-269-02 RE	103329	9.91	119010	16.02		
680-102521-39 RE	SD-271-SS RE	113054	9.91	137048	16.01		
680-102521-42 RE	SD-273-SS RE	123784	9.91	137575	16.01		
680-102521-43 RE	SD-273-01 RE	114208	9.91	145193	16.01		
680-102521-16 RE	SD-263-02 RE	122763	9.91	136014	16.01		
680-102521-24 RE	SD-265-02 RE	123932	9.91	127888	16.01		
680-102521-25 RE	SD-265-03 RE	130659	9.91	152458	16.01		
680-102521-26 RE	SD-268-SS RE	129155	9.91	152401	16.01		
680-102521-30 RE	SD-270-SS RE	142585	9.91	161777	16.01		
CCV 680-341016/24		130503	9.91	139114	16.01		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Instrument ID: CMSX Calibration Start Date: 07/29/2014 23:20

GC Column: DB-5MS ID: 0.25(mm) Calibration End Date: 07/30/2014 01:15

Calibration ID: 32707

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		146426	9.77	207821	15.85		
UPPER LIMIT		219639	10.27	311732	16.35		
LOWER LIMIT		73213	9.27	103911	15.35		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-341490/8		132962	9.77	182303	15.85		
CCVIS 680-341486/4		153596	9.78	178136	15.86		
680-102521-44	SD-273-02	133113	9.78	157033	15.86		
MB 680-341361/11-A		97803*	9.78	101835*	15.86		
LCS 680-341361/12-A		100926*	9.78	104813*	15.86		
680-102521-19 MS	SD-264-01 MS	120161	9.78	137081	15.86		
680-102521-19 MSD	SD-264-01 MSD	102293*	9.78	117878*	15.86		
680-102521-19	SD-264-01	119549	9.78	137761	15.86		
CCV 680-341486/25		159901	9.78	181465	15.86		

-50% 90,732

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102521-1

SDG No.: 680102521-1

Sample No.: CCVIS 680-341486/4 Date Analyzed: 07/30/2014 12:25

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG2931.D Heated Purge: (Y/N) N

Calibration ID: 32707

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		153596	9.78	178136	15.86		
UPPER LIMIT		199675	10.28	231577	16.36		
LOWER LIMIT		107517	9.28	124695	15.36		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102521-44	SD-273-02	133113	9.78	157033	15.86		
MB 680-341361/11-A		97803*	9.78	101835*	15.86		
LCS 680-341361/12-A		100926*	9.78	104813*	15.86		
680-102521-19 MS	SD-264-01 MS	120161	9.78	137081	15.86		
680-102521-19 MSD	SD-264-01 MSD	102293*	9.78	117878*	15.86		
680-102521-19	SD-264-01	119549	9.78	137761	15.86		
CCV 680-341486/25		159901	9.78	181465	15.86		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

SAMPLE ID **SD-269-SS-Re**

SAMPLE CALC for tetrachlorobiphenyl

IS AREA	DILUTION	COMPOUND OF INTEREST AREA	IS AMOUNT (ug/mL)	Final Extract Volume (mL)	AVE RRF	CONCENTRATION PPB
141231	10	621760	0.75	1	0.2893	34697.39

Sample Weight (g)
10.09

Percent Solids
32.6

Sample Calculation

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102521-1

SDG No.: 680102521-1

Client Sample ID: SD-269-SS RE | Lab Sample ID: 680-102521-35 RE

Matrix: Solid | Lab File ID: XG2763.D

Analysis Method: 680 | Date Collected: 06/18/2014 14:20

Extract. Method: 680 | Date Extracted: 07/25/2014 14:50

Sample wt/vol: 10.09(g) | Date Analyzed: 07/29/2014 03:13

Con. Extract Vol.: 1(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 67.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341035 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	76	U	1600	76
25512-42-9	Dichlorobiphenyl	36	J	300	32
28655-71-2	Heptachlorobiphenyl	5600		910	46
26601-64-9	Hexachlorobiphenyl	6300		610	30
27323-18-8	Monochlorobiphenyl	17	U	300	17
53742-07-7	Nonachlorobiphenyl	300	U	1600	300
55722-26-4	Octachlorobiphenyl	750	J	910	48
25429-29-2	Pentachlorobiphenyl	5700		610	31
26914-33-0	Tetrachlorobiphenyl	35000		610	34
25323-68-6	Trichlorobiphenyl	2800		300	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

Report Date: 29-Jul-2014 09:06:43 Chrom Revision: 2.2 24-Jul-2014 14:43:32

Sample Calculation

TestAmerica Savannah
Target Compound Quantitation Report

Data File: \\SAVCHROM\ChromData\CMSX\20140727-11357.b\XG2763.D
Lims ID: 680-102521-A-35-B Lab Sample ID: 680-102521-35
Client ID: SD-269-SS
Sample Type: Client
Inject. Date: 29-Jul-2014 03:13:30 ALS Bottle#: 52 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info: 680-102521-A-35-B DL=10
Misc. Info.: 680-0011357-010
Operator ID: nmd Instrument ID: CMSX

Method: \\SAVCHROM\ChromData\CMSX\20140727-11357.b\680_CMSX.m
Limit Group: 680
Last Update: 29-Jul-2014 09:06:12 Calib Date: 20-Jul-2014 00:46:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\SAVCHROM\ChromData\CMSX\20140719-11146.b\XG1913.D

Column 1 : Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: davisn Date: 29-Jul-2014 06:53:39

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
A 24 Dichlorobiphenyl	222	9.105	8.187	- 10.024	0	1312	0.0117	
* 5 Phenanthrene-d10	188	9.840	9.840	0.0	66	141231	0.7500	
A 25 Trichlorobiphenyl	256	10.717	9.409	- 12.026	0	74578	0.9306	
A 26 Tetrachlorobiphenyl	292	12.199	10.504	-13.894	0	621760	11.4	
A 27 Pentachlorobiphenyl	326	13.593	11.768	-15.418	0	78921	1.87	
A 28 1,1'-Biphenyl, hexachloro-	360	14.873	12.928	-16.819	0	81798	2.06	
* 15 Chrysene-d12	240	15.918	15.918	0.0	100	167093	0.7500	
A 29 1,1'-Biphenyl, heptachloro-	394	16.001	14.540	-17.462	0	57761	1.85	
A 30 1,1'-Biphenyl, octachloro-	430	17.081	16.015	-18.147	0	7013	0.2455	

Reagents:

SM-680istd_00028 Amount Added: 30.00 Units: uL Run Reagent

Sample Calculation

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102521-1 Analy Batch No.: 339932

SDG No.: 680102521-1

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2014 22:52 Calibration End Date: 07/20/2014 00:46 Calibration ID: 32129

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-339932/8	XG1913.D
Level 2	IC 680-339932/7	XG1912.D
Level 3	ICISAV 680-339932/4	XG1909.D
Level 4	IC 680-339932/6	XG1911.D
Level 5	IC 680-339932/5	XG1910.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.8353	0.8456	0.9098	0.8813	0.8734	Ave		0.8691				3.4		20.0			
Dichlorobiphenyl	0.5776	0.5823	0.6122	0.6067	0.5987	Ave		0.5955				2.5		20.0			
Trichlorobiphenyl	0.3996	0.4135	0.4348	0.4389	0.4410	Ave		0.4256				4.3		20.0			
PCB-104			0.3302			Ave		0.3302						30.0			
Tetrachlorobiphenyl	0.2755	0.2817	0.3033	0.2909	0.2951	Ave		0.2893				3.8		20.0			
Pentachlorobiphenyl	0.2123	0.2203	0.2262	0.2270	0.2357	Ave		0.2243				3.9		20.0			
PCB-77			0.4767			Ave		0.4767						30.0			
Hexachlorobiphenyl	0.1966	0.2022	0.2225	0.2132	0.2185	Ave		0.2106				5.2		20.0			
Heptachlorobiphenyl	0.1540	0.1656	0.1696	0.1700	0.1695	Ave		0.1657				4.1		20.0			
Octachlorobiphenyl	0.1373	0.1488	0.1535	0.1521	0.1669	Ave		0.1517				7.0		20.0			
PCB-208			0.0569			Ave		0.0569						30.0			
Nonachlorobiphenyl			0.0443			Ave		0.0363				11.0		20.0			
DCB Decachlorobiphenyl	0.0321	0.0328	0.0379	0.0370	0.0414	Ave		0.0363				11.0		20.0			
Decachlorobiphenyl-13C12	0.0407	0.0484	0.0517	0.0504	0.0567	Ave		0.0496				12.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

TETRA TECH **INTERNAL CORRESPONDENCE**

TO:	**M. MARTIN**	**DATE:**	**AUGUST 29, 2014**
FROM:	**MICHELLE L. ALLEN**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PCB HOMOLOGS/AROCLOR MIXTURES LOCKHEED MARTIN CORPORATION (LMC) – SEDIMENT INVESTIGATION SDG 680-102558-1**

SAMPLES: 31/Sediment/PCB Homologs

SD-252-SS	SD-253-SS	SD-254-SS
SD-255-SS	SD-260-01	SD-260-02
SD-260-03	SD-260-SS	SD-261-01
SD-261-02	SD-261-03	SD-261-SS
SD-266-01	SD-266-02	SD-266-03
SD-266-SS	SD-267-01	SD-267-02
SD-267-03	SD-267-SS	SD-272-01
SD-272-02	SD-272-SS	SD-274-01
SD-274-03	SD-274-SS	SD-27402
SD-275-SS	SD-276-SS	SD-Dup07
SD-Dup08		

6/Sediment/PCB

SD-252-SS	SD-253-SS	SD-254-SS
SD-255-SS	SD-275-SS	SD-276-SS

Overview

The sample set for LMC, SDG 680-102558-1 consisted of thirty-one (31) sediment environmental samples. All thirty-one (31) sediment samples were analyzed for polychlorinated biphenyls (PCB) homologs. Six (6) sediment samples were analyzed for Aroclor mixtures. Two field duplicate sample pairs were included in this SDG: SD-Dup07/SD-272-01 and SD-Dup08/SD-255-SS.

The samples were collected by Tetra Tech, Inc. on June 19, 2014 and analyzed by TestAmerica, Inc. All analyses were conducted in accordance with SW846 Method 8082A and EPA Method 680 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times/sample preservation, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, laboratory control sample results, matrix spike/matrix spike duplicate results, internal standard areas and recoveries, field duplicate precision, chromatographic resolution, compound identification, and detection limits. Areas of concern are listed below.

Major

- The surrogate spike compound, dechlorobiphenyl-13C12 (13DCB), had a Percent Recovery (%R) below 10% in sample SD-267-SS. According to the laboratory case narrative, the sample was re-extracted and reanalyzed with similar results. Only the original analysis was reported. The detected and non-detected reported for the PCB homologs in this sample were qualified as estimated, (J) and rejected, (UR), respectively.

Minor

- The Percent Solids (% Solids) was less than 30% in the following samples:

Sample	% Solids
SD-254-SS	29.5
SD-260-SS	29.3
SD-261-SS	21.6
SD-266-01	23.5
SD-266-02	27.5
SD-266-SS	21.1
SD-267-SS	20.6

  The detected and non-detected results reported for the PCB homologs and Aroclors (sample SD254-SS) in these samples were qualified as estimated, (J) and (UJ), respectively.

- The closing Continuing Calibration Verification (CCV) performed on instrument CMSX on 07/30/14 @ 20:32 had a Percent Difference (%D) for pentachlorobiphenyl greater than the 20% quality control limit. Samples SD-255-SS, SD-261-03, SD-266-01, SD-267-03, and SD-Dup08 were affected. The detected and non-detected results reported for pentachlorobiphenyl in these samples were qualified as estimated, (J) and (UJ), respectively.

- The surrogate spike compound, 13DCB, had %Rs below the lower quality control limit in samples SD-267-02, SD-266-SS, and SD-266-03. According to the laboratory case narrative, the sample was re-extracted and reanalyzed with similar results. Only the original analysis was reported. The detected and non-detected reported for the PCB homologs in this sample were qualified as estimated, (J) and rejected, (UR), respectively.

- The internal standard areas for chrysene-d12 were above the 130% quality control limit in sample SD-274-SS and below the 70% quality control limit in sample SD-266-01. The detected and non-detected results reported for the PCB homologs associated with these internal standards were qualified as estimated, (J) and (UJ), respectively.

- The internal standard areas for phenanthrene-d10 and chrysene-d12 were below the 70% quality control limit in samples SD-255-SS and SD-261-03. The detected and non-detected results reported for the PCB homologs associated with these internal standards were qualified as estimated, (J) and (UJ), respectively.

- The Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses performed on sample SD-276-SS had %Rs for hexachlorobiphenyl, pentachlorobiphenyl, and tetrachlorobiphenyl below the lower quality control limits. The detected results reported these PCB homologs in the parent sample were qualified as estimated, (J).

- Detected results reported below the RL limit but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

Samples SD-253-SS, SD-254-SS, SD-260-01, SD-260-SS, SD-261-01, SD-261-02, SD-261-SS, SD-266-02, and SD-267-01 were not qualified for low surrogate %Rs because these samples were analyzed at 10X dilutions.

The following samples were diluted due to sample matrix and/or concentrations of PCB homologs.

Sample	Dilution
SD-253-SS	10X
SD-254-SS	10X
SD-260-01	10X
SD-260-SS	10X
Sample	Dilution
SD-261-01	10X
SD-261-02	10X
SD-261-SS	10X
SD-266-02	10X
SD-267-01	10X
SD-274-01	5X
SD-274-SS	5X
SD-27402	5X

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: The %Solids exceeded 30% in some samples. A closing CCV had a %D for pentachlorobiphenyl above 20%. One sample had the surrogate 13DCB below 10%. Three samples in the PCB homolog fraction had low surrogate %Rs. Several samples had high internal standard areas.

Other Factors Affecting Data Quality: Many samples were diluted. The MS/MSD analyses had noncompliant %Rs. Results below the RL were estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Review" (June 2008) and SW846 Method 8082A and EPA Method 680 analytical and reporting protocols. The text of this report has been formulated to address only those areas affecting data quality.

Tetra Tech, Inc.
Michelle L. Allen
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 05220	NSAMPLE	SD-252-SS			SD-253-SS			SD-254-SS			SD-255-SS-RE		
SDG: 680-102558-1	LAB_ID	680-102558-27			680-102558-28			680-102558-29			680-102558-30		
FRACTION: PCB	SAMP_DATE	6/19/2014			6/19/2014			6/19/2014			6/19/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	31.8			34.6			29.5			36.2		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		7.7	U		69	U		83	UJ	Y	6.9	UJ	N
DICHLOROBIPHENYLS		3.3	U		29	U		35	UJ	Y	2.9	UJ	N
HEPTACHLOROBIPHENYLS		97			42	U		100	J	PY	4.1	UJ	N
HEXACHLOROBIPHENYL		110			53	J	P	480	J	PY	2.7	UJ	N
MONOCHLOROBIPHENYLS		1.8	U		16	U		19	UJ	Y	1.6	UJ	N
NONACHLOROBIPHENYLS		31	U		280	U		330	UJ	Y	27	UJ	N
OCTACHLOROBIPHENYLS		4.9	U		44	U		53	UJ	Y	4.4	UJ	N
PENTACHLOROBIPHENYLS		160			28	U		34	UJ	Y	2.8	UJ	CN
TETRACHLOROBIPHENYLS		230			67	J	P	1000	J	Y	4.4	J	NP
TRICHLOROBIPHENYLS		1.6	U		14	U		27	J	PY	1.4	UJ	N

PROJ_NO: 05220	NSAMPLE	SD-260-01			SD-260-02			SD-260-03			SD-260-SS		
SDG: 680-102558-1	LAB_ID	680-102558-6			680-102558-7			680-102558-8			680-102558-5		
FRACTION: PCB	SAMP_DATE	6/19/2014			6/19/2014			6/19/2014			6/19/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	32.0			53.7			40.2			29.3		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		78	U		4.6	U		6.2	U		85	UJ	Y
DICHLOROBIPHENYLS		33	U		1.9	U		2.6	U		36	UJ	Y
HEPTACHLOROBIPHENYLS		47	U		2.8	U		3.7	U		110	J	PY
HEXACHLOROBIPHENYL		180	J	P	1.8	U		2.4	U		520	J	PY
MONOCHLOROBIPHENYLS		18	U		1.1	U		1.4	U		19	UJ	Y
NONACHLOROBIPHENYLS		310	U		18	U		24	U		340	UJ	Y
OCTACHLOROBIPHENYLS		50	U		2.9	U		3.9	U		54	UJ	Y
PENTACHLOROBIPHENYLS		170	J	P	1.9	U		2.5	U		390	J	PY
TETRACHLOROBIPHENYLS		580	J	P	2	U		2.7	U		1300	J	Y
TRICHLOROBIPHENYLS		58	J	P	0.94	U		1.3	U		52	J	PY

PROJ_NO: 05220	NSAMPLE	SD-261-01			SD-261-02			SD-261-03			SD-261-SS		
SDG: 680-102558-1	LAB_ID	680-102558-22			680-102558-23			680-102558-24			680-102558-21		
FRACTION: PCB	SAMP_DATE	6/19/2014			6/19/2014			6/19/2014			6/19/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	30.5			37.2			42.7			21.6		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		81	U		64	U		5.8	UJ	N	110	UJ	Y
DICHLOROBIPHENYLS		34	U		27	U		2.5	UJ	N	48	UJ	Y
HEPTACHLOROBIPHENYLS		49	U		39	U		3.5	UJ	N	68	UJ	Y
HEXACHLOROBIPHENYL		370	J	P	26	U		2.3	UJ	N	45	UJ	Y
MONOCHLOROBIPHENYLS		19	U		15	U		1.3	UJ	N	26	UJ	Y
NONACHLOROBIPHENYLS		320	U		260	U		23	UJ	N	450	UJ	Y
OCTACHLOROBIPHENYLS		52	U		41	U		3.7	UJ	N	72	UJ	Y
PENTACHLOROBIPHENYLS		700			26	U		2.4	UJ	CN	46	UJ	Y
TETRACHLOROBIPHENYLS		3100			29	U		2.6	UJ	N	50	UJ	Y
TRICHLOROBIPHENYLS		190	J	P	13	U		1.2	UJ	N	23	UJ	Y

PROJ_NO: 05220	NSAMPLE	SD-266-01			SD-266-02			SD-266-03			SD-266-SS		
SDG: 680-102558-1	LAB_ID	680-102558-18			680-102558-19			680-102558-20			680-102558-17		
FRACTION: PCB	SAMP_DATE	6/19/2014			6/19/2014			6/19/2014			6/19/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	23.5			27.5			42.9			21.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		11	UJ	NY	89	UJ	Y	5.7	UJ	R	12	UJ	RY
DICHLOROBIPHENYLS		4.5	UJ	Y	38	UJ	Y	2.4	UJ	R	4.9	UJ	RY
HEPTACHLOROBIPHENYLS		450	J	NY	54	UJ	Y	3.5	UJ	R	41	J	PRY
HEXACHLOROBIPHENYL		580	J	Y	300	J	PY	14	J	PR	57	J	PRY
MONOCHLOROBIPHENYLS		2.4	UJ	Y	20	UJ	Y	1.3	UJ	R	2.7	UJ	RY
NONACHLOROBIPHENYLS		42	UJ	NY	360	UJ	Y	23	UJ	R	46	UJ	RY
OCTACHLOROBIPHENYLS		6.8	UJ	NY	57	UJ	Y	3.7	UJ	R	7.5	UJ	RY
PENTACHLOROBIPHENYLS		360	J	CY	460	J	PY	15	J	PR	15	J	PRY
TETRACHLOROBIPHENYLS		720	J	Y	970	J	Y	73	J	R	44	J	PRY
TRICHLOROBIPHENYLS		2.2	UJ	Y	26	J	PY	3.1	J	PR	2.4	UJ	RY

PROJ_NO: 05220	NSAMPLE	SD-267-01			SD-267-02			SD-267-03			SD-267-SS		
SDG: 680-102558-1	LAB_ID	680-102558-14			680-102558-15			680-102558-16			680-102558-13		
FRACTION: PCB	SAMP_DATE	6/19/2014			6/19/2014			6/19/2014			6/19/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	33.1			31.1			45.8			20.6		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		75	U		7.9	UJ	R	5.4	U		12	UR	RY
DICHLOROBIPHENYLS		31	U		5.2	J	PR	2.3	U		5.1	UR	RY
HEPTACHLOROBIPHENYLS		5200			13	J	PR	3.3	U		47	J	PRY
HEXACHLOROBIPHENYL		8200			96	J	R	35	J	P	71	J	PRY
MONOCHLOROBIPHENYLS		17	U		1.8	UJ	R	1.2	U		2.7	UR	RY
NONACHLOROBIPHENYLS		300	U		31	UJ	R	22	U		48	UR	RY
OCTACHLOROBIPHENYLS		1100			5	UJ	R	3.5	U		7.7	UR	RY
PENTACHLOROBIPHENYLS		9000			270	J	R	120	J	C	16	J	PRY
TETRACHLOROBIPHENYLS		31000			930	J	R	57			130	J	RY
TRICHLOROBIPHENYLS		1600			120	J	R	1.1	U		2.5	UR	RY

PROJ_NO: 05220	NSAMPLE	SD-272-01						SD-272-02			SD-272-SS		
SDG: 680-102558-1	LAB_ID	680-102558-11						680-102558-12			680-102558-10		
FRACTION: PCB	SAMP_DATE	6/19/2014						6/19/2014			6/19/2014		
MEDIA: SEDIMENT	QC_TYPE	NM						NM			NM		
	UNITS	UG/KG						UG/KG			UG/KG		
	PCT_SOLIDS	78.3						81.3			78.3		
	DUP_OF				SD-272-01								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		3.2	U					3	U		3.2	U	
DICHLOROBIPHENYLS					1.3	U		1.3	U		1.3	U	
HEPTACHLOROBIPHENYLS					1.9	U		1.8	U		8.1	J	P
HEXACHLOROBIPHENYL					1.3	U		1.2	U		17	J	P
MONOCHLOROBIPHENYLS					0.73	U		0.7	U		0.72	U	
NONACHLOROBIPHENYLS					13	U		12	U		13	U	
OCTACHLOROBIPHENYLS					2	U		1.9	U		2	U	
PENTACHLOROBIPHENYLS					1.3	U		1.2	U		1.3	U	
TETRACHLOROBIPHENYLS					1.9	J	P	1.4	U		200		
TRICHLOROBIPHENYLS					0.65	U		0.62	U		17		

PROJ_NO: 05220	NSAMPLE	SD-274-01			SD-274-02			SD-274-03			SD-274-SS		
SDG: 680-102558-1	LAB_ID	680-102558-2			680-102558-3			680-102558-4			680-102558-1		
FRACTION: PCB	SAMP_DATE	6/19/2014			6/19/2014			6/19/2014			6/19/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	33.4			33.8			50.3			30.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		36	U		36	U		4.8	U		40	UJ	N
DICHLOROBIPHENYLS		15	U		15	U		2	U		17	U	
HEPTACHLOROBIPHENYLS		62	J	P	22	U		2.9	U		240	J	NP
HEXACHLOROBIPHENYL		370			120	J	P	3.1	J	P	750		
MONOCHLOROBIPHENYLS		8.3	U		8.3	U		16	J	P	9.3	U	
NONACHLOROBIPHENYLS		140	U		140	U		19	U		160	U	
OCTACHLOROBIPHENYLS		23	U		23	U		3.1	U		26	U	
PENTACHLOROBIPHENYLS		870			50	J	P	3.9	J	P	1700		
TETRACHLOROBIPHENYLS		4600			130	J	P	2.1	U		8100		
TRICHLOROBIPHENYLS		330			11	J	P	0.99	U		530		

PROJ_NO: 05220	NSAMPLE	SD-275-SS			SD-276-SS			SD-DUP07			SD-DUP08		
SDG: 680-102558-1	LAB_ID	680-102558-26			680-102558-25			680-102558-9			680-102558-31		
FRACTION: PCB	SAMP_DATE	6/19/2014			6/19/2014			6/19/2014			6/19/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			FD			FD		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	33.4			31.0			79.1			36.2		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		7.5	U		8	U		3.1	U		6.9	U	
DICHLOROBIPHENYLS		3.1	U		3.4	U		1.3	U				
HEPTACHLOROBIPHENYLS		180			320			1.9	U				
HEXACHLOROBIPHENYL		250			540	J	D	1.3	U				
MONOCHLOROBIPHENYLS		1.7	U		1.8	U		0.72	U				
NONACHLOROBIPHENYLS		30	U		32	U		13	U				
OCTACHLOROBIPHENYLS		4.8	U		5.1	U		2	U				
PENTACHLOROBIPHENYLS		160			450	J	D	1.3	U				
TETRACHLOROBIPHENYLS		450			550	J	D	1.8	J	P			
TRICHLOROBIPHENYLS		1.5	U		20	J	P	0.64	U				

PROJ_NO: 05220	NSAMPLE	SD-DUP08		
SDG: 680-102558-1	LAB_ID	680-102558-31		
FRACTION: PCB	SAMP_DATE	6/19/2014		
MEDIA: SEDIMENT	QC_TYPE	FD		
	UNITS	UG/KG		
	PCT_SOLIDS	36.2		
	DUP_OF	SD-255-SS		
PARAMETER		RESULT	VQL	QLCD
DECACHLOROBIPHENYL				
DICHLOROBIPHENYLS		2.9	U	
HEPTACHLOROBIPHENYLS		4.1	U	
HEXACHLOROBIPHENYL		2.7	U	
MONOCHLOROBIPHENYLS		1.6	U	
NONACHLOROBIPHENYLS		27	U	
OCTACHLOROBIPHENYLS		4.4	U	
PENTACHLOROBIPHENYLS		2.8	UJ	C
TETRACHLOROBIPHENYLS		3.1	U	
TRICHLOROBIPHENYLS		1.4	U	

PROJ_NO: 05220	NSAMPLE	SD-252-SS			SD-253-SS-RE			SD-254-SS-RE			SD-255-SS		
SDG: 680-102558-1	LAB_ID	680-102558-27			680-102558-28			680-102558-29			680-102558-30		
FRACTION: PEST/PCB	SAMP_DATE	6/19/2014			6/19/2014			6/19/2014			6/19/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	31.8			34.6			29.5			36.2		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		51	U		47	U		56	UJ	Y	44	U	
AROCLOR-1221		70	U		64	U		76	UJ	Y	61	U	
AROCLOR-1232		24	U		22	U		26	UJ	Y	21	U	
AROCLOR-1242		23	U		21	U		25	UJ	Y	20	U	
AROCLOR-1248		38	U		35	U		42	UJ	Y	33	U	
AROCLOR-1254		46	U		43	U		51	UJ	Y	40	U	
AROCLOR-1260		990			890			960	J	Y	840		

PROJ_NO: 05220	NSAMPLE	SD-275-SS			SD-276-SS		
SDG: 680-102558-1	LAB_ID	680-102558-26			680-102558-25		
FRACTION: PEST/PCB	SAMP_DATE	6/19/2014			6/19/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	33.4			31.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		49	U		53	U	
AROCLOR-1221		67	U		72	U	
AROCLOR-1232		23	U		25	U	
AROCLOR-1242		22	U		24	U	
AROCLOR-1248		37	U		39	U	
AROCLOR-1254		45	U		48	U	
AROCLOR-1260		920			1200		

Appendix B

Results as Reported by the Laboratory

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-252-SS**

Lab Sample ID: 680-102558-27
Client Matrix: Solid
% Moisture: 68.2

Date Sampled: 06/19/2014 1335
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341490	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-341037	Lab File ID:	XG2924.D
Dilution:	1.0			Initial Weight/Volume:	10.13 g
Analysis Date:	07/30/2014 0833			Final Weight/Volume:	1 mL
Prep Date:	07/28/2014 1355			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		7.7	U	7.7	160
Dichlorobiphenyl		3.3	U	3.3	31
Heptachlorobiphenyl		97		4.6	93
Hexachlorobiphenyl		110		3.1	62
Monochlorobiphenyl		1.8	U	1.8	31
Nonachlorobiphenyl		31	U	31	160
Octachlorobiphenyl		4.9	U	4.9	93
Pentachlorobiphenyl		160		3.2	62
Tetrachlorobiphenyl		230		3.4	62
Trichlorobiphenyl		1.6	U	1.6	31

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	35		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-253-SS**

Lab Sample ID: 680-102558-28
Client Matrix: Solid
% Moisture: 65.4

Date Sampled: 06/19/2014 1340
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341034	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339371	Lab File ID:	XG2751.D
Dilution:	10			Initial Weight/Volume:	10.37 g
Analysis Date:	07/28/2014 2119			Final Weight/Volume:	1 mL
Prep Date:	07/21/2014 1706			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		69	U	69	1400
Dichlorobiphenyl		29	U	29	280
Heptachlorobiphenyl		42	U	42	840
Hexachlorobiphenyl		53	J	28	560
Monochlorobiphenyl		16	U	16	280
Nonachlorobiphenyl		280	U	280	1400
Octachlorobiphenyl		44	U	44	840
Pentachlorobiphenyl		28	U	28	560
Tetrachlorobiphenyl		67	J	31	560
Trichlorobiphenyl		14	U	14	280

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	0	D	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-254-SS**

Lab Sample ID: 680-102558-29
Client Matrix: Solid
% Moisture: 70.5

Date Sampled: 06/19/2014 1450
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341035	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339371	Lab File ID:	XG2760.D
Dilution:	10			Initial Weight/Volume:	10.20 g
Analysis Date:	07/29/2014 0146			Final Weight/Volume:	1 mL
Prep Date:	07/21/2014 1706			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		83	U	83	1700
Dichlorobiphenyl		35	U	35	330
Heptachlorobiphenyl		100	J	50	1000
Hexachlorobiphenyl		480	J	33	670
Monochlorobiphenyl		19	U	19	330
Nonachlorobiphenyl		330	U	330	1700
Octachlorobiphenyl		53	U	53	1000
Pentachlorobiphenyl		34	U	34	670
Tetrachlorobiphenyl		1000		37	670
Trichlorobiphenyl		27	J	17	330

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	0	D	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-255-SS**

Lab Sample ID: 680-102558-30
Client Matrix: Solid
% Moisture: 63.8

Date Sampled: 06/19/2014 1505
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341486	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-341361	Lab File ID:	XG2941.D
Dilution:	1.0			Initial Weight/Volume:	10.00 g
Analysis Date:	07/30/2014 1711			Final Weight/Volume:	1 mL
Prep Date:	07/29/2014 1428			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		6.9	U *	6.9	140
Dichlorobiphenyl		2.9	U *	2.9	27
Heptachlorobiphenyl		4.1	U *	4.1	83
Hexachlorobiphenyl		2.7	U *	2.7	56
Monochlorobiphenyl		1.6	U *	1.6	27
Nonachlorobiphenyl		27	U *	27	140
Octachlorobiphenyl		4.4	U *	4.4	83
Pentachlorobiphenyl		2.8	U *	2.8	56
Tetrachlorobiphenyl		4.4	J *	3.1	56
Trichlorobiphenyl		1.4	U *	1.4	27

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	66	*	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-260-01**

Lab Sample ID: 680-102558-6
Client Matrix: Solid
% Moisture: 68.0

Date Sampled: 06/19/2014 0830
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341033	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339370	Lab File ID:	XG2718.D
Dilution:	10			Initial Weight/Volume:	10.02 g
Analysis Date:	07/28/2014 0537			Final Weight/Volume:	1 mL
Prep Date:	07/22/2014 1812			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		78	U	78	1600
Dichlorobiphenyl		33	U	33	310
Heptachlorobiphenyl		47	U	47	940
Hexachlorobiphenyl		180	J	31	630
Monochlorobiphenyl		18	U	18	310
Nonachlorobiphenyl		310	U	310	1600
Octachlorobiphenyl		50	U	50	940
Pentachlorobiphenyl		170	J	32	630
Tetrachlorobiphenyl		580	J	35	630
Trichlorobiphenyl		58	J	16	310

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	0	D	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-260-02**

Lab Sample ID: 680-102558-7
Client Matrix: Solid
% Moisture: 46.3

Date Sampled: 06/19/2014 0835
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341033	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339370	Lab File ID:	XG2719.D
Dilution:	1.0			Initial Weight/Volume:	10.09 g
Analysis Date:	07/28/2014 0605			Final Weight/Volume:	1 mL
Prep Date:	07/22/2014 1812			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		4.6	U	4.6	94
Dichlorobiphenyl		1.9	U	1.9	18
Heptachlorobiphenyl		2.8	U	2.8	55
Hexachlorobiphenyl		1.8	U	1.8	37
Monochlorobiphenyl		1.1	U	1.1	18
Nonachlorobiphenyl		18	U	18	94
Octachlorobiphenyl		2.9	U	2.9	55
Pentachlorobiphenyl		1.9	U	1.9	37
Tetrachlorobiphenyl		2.0	U	2.0	37
Trichlorobiphenyl		0.94	U	0.94	18

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	41		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-260-03**

Lab Sample ID: 680-102558-8
Client Matrix: Solid
% Moisture: 59.8

Date Sampled: 06/19/2014 0840
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341033	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339370	Lab File ID:	XG2720.D
Dilution:	1.0			Initial Weight/Volume:	10.06 g
Analysis Date:	07/28/2014 0634			Final Weight/Volume:	1 mL
Prep Date:	07/22/2014 1812			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		6.2	U	6.2	130
Dichlorobiphenyl		2.6	U	2.6	24
Heptachlorobiphenyl		3.7	U	3.7	74
Hexachlorobiphenyl		2.4	U	2.4	50
Monochlorobiphenyl		1.4	U	1.4	24
Nonachlorobiphenyl		24	U	24	130
Octachlorobiphenyl		3.9	U	3.9	74
Pentachlorobiphenyl		2.5	U	2.5	50
Tetrachlorobiphenyl		2.7	U	2.7	50
Trichlorobiphenyl		1.3	U	1.3	24

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	41		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-260-SS**

Lab Sample ID: 680-102558-5
Client Matrix: Solid
% Moisture: 70.7

Date Sampled: 06/19/2014 0825
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341033	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339370	Lab File ID:	XG2717.D
Dilution:	10			Initial Weight/Volume:	10.05 g
Analysis Date:	07/28/2014 0508			Final Weight/Volume:	1 mL
Prep Date:	07/22/2014 1812			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		85	U	85	1700
Dichlorobiphenyl		36	U	36	340
Heptachlorobiphenyl		110	J	51	1000
Hexachlorobiphenyl		520	J	34	680
Monochlorobiphenyl		19	U	19	340
Nonachlorobiphenyl		340	U	340	1700
Octachlorobiphenyl		54	U	54	1000
Pentachlorobiphenyl		390	J	35	680
Tetrachlorobiphenyl		1300		38	680
Trichlorobiphenyl		52	J	17	340

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	0	D	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-261-01**

Lab Sample ID: 680-102558-22
Client Matrix: Solid
% Moisture: 69.5

Date Sampled: 06/19/2014 1105
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341034	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339371	Lab File ID:	XG2745.D
Dilution:	10			Initial Weight/Volume:	10.08 g
Analysis Date:	07/28/2014 1823			Final Weight/Volume:	1 mL
Prep Date:	07/21/2014 1706			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		81	U	81	1700
Dichlorobiphenyl		34	U	34	320
Heptachlorobiphenyl		49	U	49	980
Hexachlorobiphenyl		370	J	32	650
Monochlorobiphenyl		19	U	19	320
Nonachlorobiphenyl		320	U	320	1700
Octachlorobiphenyl		52	U	52	980
Pentachlorobiphenyl		700		33	650
Tetrachlorobiphenyl		3100		36	650
Trichlorobiphenyl		190	J	17	320

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	0	D	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-261-02**

Lab Sample ID: 680-102558-23
Client Matrix: Solid
% Moisture: 62.8

Date Sampled: 06/19/2014 1110
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341490	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339371	Lab File ID:	XG2917.D
Dilution:	10			Initial Weight/Volume:	10.39 g
Analysis Date:	07/30/2014 0338			Final Weight/Volume:	1 mL
Prep Date:	07/21/2014 1706			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		64	U	64	1300
Dichlorobiphenyl		27	U	27	260
Heptachlorobiphenyl		39	U	39	780
Hexachlorobiphenyl		26	U	26	520
Monochlorobiphenyl		15	U	15	260
Nonachlorobiphenyl		260	U	260	1300
Octachlorobiphenyl		41	U	41	780
Pentachlorobiphenyl		26	U	26	520
Tetrachlorobiphenyl		29	U	29	520
Trichlorobiphenyl		13	U	13	260

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	0	D	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-261-03**

Lab Sample ID: 680-102558-24
Client Matrix: Solid
% Moisture: 57.3

Date Sampled: 06/19/2014 1115
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341486	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-341361	Lab File ID:	XG2940.D
Dilution:	1.0			Initial Weight/Volume:	10.02 g
Analysis Date:	07/30/2014 1642			Final Weight/Volume:	1 mL
Prep Date:	07/29/2014 1428			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		5.8	U *	5.8	120
Dichlorobiphenyl		2.5	U *	2.5	23
Heptachlorobiphenyl		3.5	U *	3.5	70
Hexachlorobiphenyl		2.3	U *	2.3	47
Monochlorobiphenyl		1.3	U *	1.3	23
Nonachlorobiphenyl		23	U *	23	120
Octachlorobiphenyl		3.7	U *	3.7	70
Pentachlorobiphenyl		2.4	U *	2.4	47
Tetrachlorobiphenyl		2.6	U *	2.6	47
Trichlorobiphenyl		1.2	U *	1.2	23

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	41	*	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-261-SS**

Lab Sample ID: 680-102558-21
Client Matrix: Solid
% Moisture: 78.4

Date Sampled: 06/19/2014 1100
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341490	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339371	Lab File ID:	XG2916.D
Dilution:	10			Initial Weight/Volume:	10.23 g
Analysis Date:	07/30/2014 0309			Final Weight/Volume:	1 mL
Prep Date:	07/21/2014 1706			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		110	U	110	2300
Dichlorobiphenyl		48	U	48	450
Heptachlorobiphenyl		68	U	68	1400
Hexachlorobiphenyl		45	U	45	910
Monochlorobiphenyl		26	U	26	450
Nonachlorobiphenyl		450	U	450	2300
Octachlorobiphenyl		72	U	72	1400
Pentachlorobiphenyl		46	U	46	910
Tetrachlorobiphenyl		50	U	50	910
Trichlorobiphenyl		23	U	23	450

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	0	D	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-266-01**

Lab Sample ID: 680-102558-18
Client Matrix: Solid
% Moisture: 76.5

Date Sampled: 06/19/2014 1035
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341486	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-341361	Lab File ID:	XG2943.D
Dilution:	1.0			Initial Weight/Volume:	10.02 g
Analysis Date:	07/30/2014 1809			Final Weight/Volume:	1 mL
Prep Date:	07/29/2014 1428			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		11	U	11	220
Dichlorobiphenyl		4.5	U	4.5	42
Heptachlorobiphenyl		450		6.4	130
Hexachlorobiphenyl		580		4.2	85
Monochlorobiphenyl		2.4	U	2.4	42
Nonachlorobiphenyl		42	U	42	220
Octachlorobiphenyl		6.8	U	6.8	130
Pentachlorobiphenyl		360		4.3	85
Tetrachlorobiphenyl		720		4.7	85
Trichlorobiphenyl		2.2	U	2.2	42

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	44		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-266-02**

Lab Sample ID: 680-102558-19
Client Matrix: Solid
% Moisture: 72.5

Date Sampled: 06/19/2014 1040
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341034	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339370	Lab File ID:	XG2738.D
Dilution:	10			Initial Weight/Volume:	10.11 g
Analysis Date:	07/28/2014 1458			Final Weight/Volume:	1 mL
Prep Date:	07/22/2014 1812			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		89	U	89	1800
Dichlorobiphenyl		38	U	38	360
Heptachlorobiphenyl		54	U	54	1100
Hexachlorobiphenyl		300	J	36	720
Monochlorobiphenyl		20	U	20	360
Nonachlorobiphenyl		360	U	360	1800
Octachlorobiphenyl		57	U	57	1100
Pentachlorobiphenyl		460	J	37	720
Tetrachlorobiphenyl		970		40	720
Trichlorobiphenyl		26	J	18	360

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	0	D	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-266-03**

Lab Sample ID: 680-102558-20
Client Matrix: Solid
% Moisture: 57.1

Date Sampled: 06/19/2014 1045
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341033	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339370	Lab File ID:	XG2712.D
Dilution:	1.0			Initial Weight/Volume:	10.13 g
Analysis Date:	07/28/2014 0245			Final Weight/Volume:	1 mL
Prep Date:	07/22/2014 1812			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		5.7	U	5.7	120
Dichlorobiphenyl		2.4	U	2.4	23
Heptachlorobiphenyl		3.5	U	3.5	69
Hexachlorobiphenyl		14	J	2.3	46
Monochlorobiphenyl		1.3	U	1.3	23
Nonachlorobiphenyl		23	U	23	120
Octachlorobiphenyl		3.7	U	3.7	69
Pentachlorobiphenyl		15	J	2.3	46
Tetrachlorobiphenyl		73		2.6	46
Trichlorobiphenyl		3.1	J	1.2	23

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	13	X	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-266-SS**

Lab Sample ID: 680-102558-17
Client Matrix: Solid
% Moisture: 78.9

Date Sampled: 06/19/2014 1030
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341034	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339370	Lab File ID:	XG2736.D
Dilution:	1.0			Initial Weight/Volume:	10.13 g
Analysis Date:	07/28/2014 1401			Final Weight/Volume:	1 mL
Prep Date:	07/22/2014 1812			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		12	U	12	240
Dichlorobiphenyl		4.9	U	4.9	46
Heptachlorobiphenyl		41	J	7.0	140
Hexachlorobiphenyl		57	J	4.6	94
Monochlorobiphenyl		2.7	U	2.7	46
Nonachlorobiphenyl		46	U	46	240
Octachlorobiphenyl		7.5	U	7.5	140
Pentachlorobiphenyl		15	J	4.8	94
Tetrachlorobiphenyl		44	J	5.2	94
Trichlorobiphenyl		2.4	U	2.4	46

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	11	X	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-267-01**

Lab Sample ID: 680-102558-14
Client Matrix: Solid
% Moisture: 66.9

Date Sampled: 06/19/2014 1005
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341034	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339370	Lab File ID:	XG2733.D
Dilution:	10			Initial Weight/Volume:	10.09 g
Analysis Date:	07/28/2014 1234			Final Weight/Volume:	1 mL
Prep Date:	07/22/2014 1812			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		75	U	75	1500
Dichlorobiphenyl		31	U	31	300
Heptachlorobiphenyl		5200		45	900
Hexachlorobiphenyl		8200		30	600
Monochlorobiphenyl		17	U	17	300
Nonachlorobiphenyl		300	U	300	1500
Octachlorobiphenyl		1100		48	900
Pentachlorobiphenyl		9000		31	600
Tetrachlorobiphenyl		31000		33	600
Trichlorobiphenyl		1600		15	300

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	0	D	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-267-02**

Lab Sample ID: 680-102558-15
Client Matrix: Solid
% Moisture: 68.9

Date Sampled: 06/19/2014 1010
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341034	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339370	Lab File ID:	XG2734.D
Dilution:	1.0			Initial Weight/Volume:	10.16 g
Analysis Date:	07/28/2014 1303			Final Weight/Volume:	1 mL
Prep Date:	07/22/2014 1812			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		7.9	U	7.9	160
Dichlorobiphenyl		5.2	J	3.3	31
Heptachlorobiphenyl		13	J	4.7	95
Hexachlorobiphenyl		96		3.1	64
Monochlorobiphenyl		1.8	U	1.8	31
Nonachlorobiphenyl		31	U	31	160
Octachlorobiphenyl		5.0	U	5.0	95
Pentachlorobiphenyl		270		3.2	64
Tetrachlorobiphenyl		930		3.5	64
Trichlorobiphenyl		120		1.6	31

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	10	X	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-267-03**

Lab Sample ID: 680-102558-16
Client Matrix: Solid
% Moisture: 54.2

Date Sampled: 06/19/2014 1015
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341486	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-341361	Lab File ID:	XG2939.D
Dilution:	1.0			Initial Weight/Volume:	10.00 g
Analysis Date:	07/30/2014 1614			Final Weight/Volume:	1 mL
Prep Date:	07/29/2014 1428			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		5.4	U	5.4	110
Dichlorobiphenyl		2.3	U	2.3	22
Heptachlorobiphenyl		3.3	U	3.3	66
Hexachlorobiphenyl		35	J	2.2	44
Monochlorobiphenyl		1.2	U	1.2	22
Nonachlorobiphenyl		22	U	22	110
Octachlorobiphenyl		3.5	U	3.5	66
Pentachlorobiphenyl		120		2.2	44
Tetrachlorobiphenyl		57		2.4	44
Trichlorobiphenyl		1.1	U	1.1	22

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	88		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-267-SS**

Lab Sample ID: 680-102558-13
Client Matrix: Solid
% Moisture: 79.4

Date Sampled: 06/19/2014 1000
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341033	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339370	Lab File ID:	XG2725.D
Dilution:	1.0			Initial Weight/Volume:	10.10 g
Analysis Date:	07/28/2014 0857			Final Weight/Volume:	1 mL
Prep Date:	07/22/2014 1812			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		12	U	12	250
Dichlorobiphenyl		5.1	U	5.1	48
Heptachlorobiphenyl		47	J	7.2	140
Hexachlorobiphenyl		71	J	4.8	97
Monochlorobiphenyl		2.7	U	2.7	48
Nonachlorobiphenyl		48	U	48	250
Octachlorobiphenyl		7.7	U	7.7	140
Pentachlorobiphenyl		16	J	4.9	97
Tetrachlorobiphenyl		130		5.3	97
Trichlorobiphenyl		2.5	U	2.5	48

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	9	X	30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-272-01**

Lab Sample ID: 680-102558-11
Client Matrix: Solid
% Moisture: 21.7

Date Sampled: 06/19/2014 0930
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341033	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339370	Lab File ID:	XG2723.D
Dilution:	1.0			Initial Weight/Volume:	10.02 g
Analysis Date:	07/28/2014 0800			Final Weight/Volume:	1 mL
Prep Date:	07/22/2014 1812			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		3.2	U	3.2	65
Dichlorobiphenyl		1.3	U	1.3	13
Heptachlorobiphenyl		1.9	U	1.9	38
Hexachlorobiphenyl		1.3	U	1.3	26
Monochlorobiphenyl		0.73	U	0.73	13
Nonachlorobiphenyl		13	U	13	65
Octachlorobiphenyl		2.0	U	2.0	38
Pentachlorobiphenyl		1.3	U	1.3	26
Tetrachlorobiphenyl		1.9	J	1.4	26
Trichlorobiphenyl		0.65	U	0.65	13

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	50		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-272-02**

Lab Sample ID: 680-102558-12
Client Matrix: Solid
% Moisture: 18.7

Date Sampled: 06/19/2014 0935
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341033	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339370	Lab File ID:	XG2724.D
Dilution:	1.0			Initial Weight/Volume:	10.09 g
Analysis Date:	07/28/2014 0829			Final Weight/Volume:	1 mL
Prep Date:	07/22/2014 1812			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		3.0	U	3.0	62
Dichlorobiphenyl		1.3	U	1.3	12
Heptachlorobiphenyl		1.8	U	1.8	37
Hexachlorobiphenyl		1.2	U	1.2	25
Monochlorobiphenyl		0.70	U	0.70	12
Nonachlorobiphenyl		12	U	12	62
Octachlorobiphenyl		1.9	U	1.9	37
Pentachlorobiphenyl		1.2	U	1.2	25
Tetrachlorobiphenyl		1.4	U	1.4	25
Trichlorobiphenyl		0.62	U	0.62	12

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	63		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-272-SS**

Lab Sample ID: 680-102558-10
Client Matrix: Solid
% Moisture: 21.7

Date Sampled: 06/19/2014 0925
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341033	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339370	Lab File ID:	XG2722.D
Dilution:	1.0			Initial Weight/Volume:	10.04 g
Analysis Date:	07/28/2014 0731			Final Weight/Volume:	1 mL
Prep Date:	07/22/2014 1812			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		3.2	U	3.2	65
Dichlorobiphenyl		1.3	U	1.3	13
Heptachlorobiphenyl		8.1	J	1.9	38
Hexachlorobiphenyl		17	J	1.3	26
Monochlorobiphenyl		0.72	U	0.72	13
Nonachlorobiphenyl		13	U	13	65
Octachlorobiphenyl		2.0	U	2.0	38
Pentachlorobiphenyl		1.3	U	1.3	26
Tetrachlorobiphenyl		200		1.4	26
Trichlorobiphenyl		17		0.65	13

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	66		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-274-01**

Lab Sample ID: 680-102558-2
Client Matrix: Solid
% Moisture: 66.6

Date Sampled: 06/19/2014 0800
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341033	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339370	Lab File ID:	XG2714.D
Dilution:	5.0			Initial Weight/Volume:	10.27 g
Analysis Date:	07/28/2014 0342			Final Weight/Volume:	1 mL
Prep Date:	07/22/2014 1812			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		36	U	36	740
Dichlorobiphenyl		15	U	15	140
Heptachlorobiphenyl		62	J	22	440
Hexachlorobiphenyl		370		14	290
Monochlorobiphenyl		8.3	U	8.3	140
Nonachlorobiphenyl		140	U	140	740
Octachlorobiphenyl		23	U	23	440
Pentachlorobiphenyl		870		15	290
Tetrachlorobiphenyl		4600		16	290
Trichlorobiphenyl		330		7.4	140

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	35		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-27402**

Lab Sample ID: 680-102558-3
Client Matrix: Solid
% Moisture: 66.2

Date Sampled: 06/19/2014 0805
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341033	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339370	Lab File ID:	XG2715.D
Dilution:	5.0			Initial Weight/Volume:	10.15 g
Analysis Date:	07/28/2014 0411			Final Weight/Volume:	1 mL
Prep Date:	07/22/2014 1812			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		36	U	36	740
Dichlorobiphenyl		15	U	15	140
Heptachlorobiphenyl		22	U	22	440
Hexachlorobiphenyl		120	J	14	290
Monochlorobiphenyl		8.3	U	8.3	140
Nonachlorobiphenyl		140	U	140	740
Octachlorobiphenyl		23	U	23	440
Pentachlorobiphenyl		50	J	15	290
Tetrachlorobiphenyl		130	J	16	290
Trichlorobiphenyl		11	J	7.4	140

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	53		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-274-03**

Lab Sample ID: 680-102558-4
Client Matrix: Solid
% Moisture: 49.7

Date Sampled: 06/19/2014 0810
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341033	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339370	Lab File ID:	XG2716.D
Dilution:	1.0			Initial Weight/Volume:	10.27 g
Analysis Date:	07/28/2014 0440			Final Weight/Volume:	1 mL
Prep Date:	07/22/2014 1812			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		4.8	U	4.8	99
Dichlorobiphenyl		2.0	U	2.0	19
Heptachlorobiphenyl		2.9	U	2.9	58
Hexachlorobiphenyl		3.1	J	1.9	39
Monochlorobiphenyl		16	J	1.1	19
Nonachlorobiphenyl		19	U	19	99
Octachlorobiphenyl		3.1	U	3.1	58
Pentachlorobiphenyl		3.9	J	2.0	39
Tetrachlorobiphenyl		2.1	U	2.1	39
Trichlorobiphenyl		0.99	U	0.99	19

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	50		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-274-SS**

Lab Sample ID: 680-102558-1
Client Matrix: Solid
% Moisture: 69.9

Date Sampled: 06/19/2014 0755
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341033	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339370	Lab File ID:	XG2713.D
Dilution:	5.0			Initial Weight/Volume:	10.25 g
Analysis Date:	07/28/2014 0314			Final Weight/Volume:	1 mL
Prep Date:	07/22/2014 1812			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		40	U	40	830
Dichlorobiphenyl		17	U	17	160
Heptachlorobiphenyl		240	J	24	490
Hexachlorobiphenyl		750		16	330
Monochlorobiphenyl		9.3	U	9.3	160
Nonachlorobiphenyl		160	U	160	830
Octachlorobiphenyl		26	U	26	490
Pentachlorobiphenyl		1700		17	330
Tetrachlorobiphenyl		8100		18	330
Trichlorobiphenyl		530		8.3	160

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	37		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-275-SS**

Lab Sample ID: 680-102558-26
Client Matrix: Solid
% Moisture: 66.6

Date Sampled: 06/19/2014 1320
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341490	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-341037	Lab File ID:	XG2923.D
Dilution:	1.0			Initial Weight/Volume:	9.99 g
Analysis Date:	07/30/2014 0804			Final Weight/Volume:	1 mL
Prep Date:	07/28/2014 1355			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		7.5	U	7.5	150
Dichlorobiphenyl		3.1	U	3.1	30
Heptachlorobiphenyl		180		4.5	90
Hexachlorobiphenyl		250		3.0	60
Monochlorobiphenyl		1.7	U	1.7	30
Nonachlorobiphenyl		30	U	30	150
Octachlorobiphenyl		4.8	U	4.8	90
Pentachlorobiphenyl		160		3.1	60
Tetrachlorobiphenyl		450		3.3	60
Trichlorobiphenyl		1.5	U	1.5	30

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	36		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-276-SS**

Lab Sample ID: 680-102558-25
Client Matrix: Solid
% Moisture: 69.0

Date Sampled: 06/19/2014 1220
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341490	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-341037	Lab File ID:	XG2922.D
Dilution:	1.0			Initial Weight/Volume:	10.09 g
Analysis Date:	07/30/2014 0601			Final Weight/Volume:	1 mL
Prep Date:	07/28/2014 1355			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		8.0	U	8.0	160
Dichlorobiphenyl		3.4	U	3.4	32
Heptachlorobiphenyl		320		4.8	96
Hexachlorobiphenyl		540		3.2	64
Monochlorobiphenyl		1.8	U	1.8	32
Nonachlorobiphenyl		32	U	32	160
Octachlorobiphenyl		5.1	U	5.1	96
Pentachlorobiphenyl		450		3.3	64
Tetrachlorobiphenyl		550		3.6	64
Trichlorobiphenyl		20	J	1.6	32

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	48		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-Dup07**

Lab Sample ID: 680-102558-9FD
Client Matrix: Solid
% Moisture: 20.9

Date Sampled: 06/19/2014 0000
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341033	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-339370	Lab File ID:	XG2721.D
Dilution:	1.0			Initial Weight/Volume:	10.00 g
Analysis Date:	07/28/2014 0703			Final Weight/Volume:	1 mL
Prep Date:	07/22/2014 1812			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		3.1	U	3.1	64
Dichlorobiphenyl		1.3	U	1.3	13
Heptachlorobiphenyl		1.9	U	1.9	38
Hexachlorobiphenyl		1.3	U	1.3	25
Monochlorobiphenyl		0.72	U	0.72	13
Nonachlorobiphenyl		13	U	13	64
Octachlorobiphenyl		2.0	U	2.0	38
Pentachlorobiphenyl		1.3	U	1.3	25
Tetrachlorobiphenyl		1.8	J	1.4	25
Trichlorobiphenyl		0.64	U	0.64	13

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	74		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-Dup08**

Lab Sample ID: 680-102558-31FD
Client Matrix: Solid
% Moisture: 63.8

Date Sampled: 06/19/2014 0000
Date Received: 06/20/2014 0935

680 Polychlorinated Biphenyls (PCBs) (GC/MS)

Analysis Method:	680	Analysis Batch:	680-341486	Instrument ID:	CMSX
Prep Method:	680	Prep Batch:	680-341361	Lab File ID:	XG2942.D
Dilution:	1.0			Initial Weight/Volume:	10.01 g
Analysis Date:	07/30/2014 1740			Final Weight/Volume:	1 mL
Prep Date:	07/29/2014 1428			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
DCB Decachlorobiphenyl		6.9	U	6.9	140
Dichlorobiphenyl		2.9	U	2.9	27
Heptachlorobiphenyl		4.1	U	4.1	83
Hexachlorobiphenyl		2.7	U	2.7	55
Monochlorobiphenyl		1.6	U	1.6	27
Nonachlorobiphenyl		27	U	27	140
Octachlorobiphenyl		4.4	U	4.4	83
Pentachlorobiphenyl		2.8	U	2.8	55
Tetrachlorobiphenyl		3.1	U	3.1	55
Trichlorobiphenyl		1.4	U	1.4	27

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl-13C12	64		30 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-252-SS**

Lab Sample ID: 680-102558-27
Client Matrix: Solid
% Moisture: 68.2

Date Sampled: 06/19/2014 1335
Date Received: 06/20/2014 0935

8081B/8082A Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analysis Method:	8081B/8082A	Analysis Batch:	680-341704	Instrument ID:	CSGZ
Prep Method:	3546	Prep Batch:	680-341037	Initial Weight/Volume:	10.13 g
Dilution:	10			Final Weight/Volume:	1 mL
Analysis Date:	07/30/2014 2317			Injection Volume:	1 uL
Prep Date:	07/28/2014 1355			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		51	U	51	150
PCB-1221		70	U	70	150
PCB-1232		24	U	24	150
PCB-1242		23	U	23	150
PCB-1248		38	U	38	150
PCB-1254		46	U	46	150
PCB-1260		990		45	150

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl			
Tetrachloro-m-xylene	86		46 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-253-SS**

Lab Sample ID: 680-102558-28
Client Matrix: Solid
% Moisture: 65.4

Date Sampled: 06/19/2014 1340
Date Received: 06/20/2014 0935

8081B/8082A Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analysis Method:	8081B/8082A	Analysis Batch:	680-341704	Instrument ID:	CSGZ
Prep Method:	3546	Prep Batch:	680-341037	Initial Weight/Volume:	10.17 g
Dilution:	10			Final Weight/Volume:	1 mL
Analysis Date:	07/30/2014 2332			Injection Volume:	1 uL
Prep Date:	07/28/2014 1355			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		47	U	47	140
PCB-1221		64	U	64	140
PCB-1232		22	U	22	140
PCB-1242		21	U	21	140
PCB-1248		35	U	35	140
PCB-1254		43	U	43	140
PCB-1260		890		41	140

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl			
Tetrachloro-m-xylene	82		46 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-254-SS**

Lab Sample ID: 680-102558-29
Client Matrix: Solid
% Moisture: 70.5

Date Sampled: 06/19/2014 1450
Date Received: 06/20/2014 0935

8081B/8082A Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analysis Method:	8081B/8082A	Analysis Batch:	680-341704	Instrument ID:	CSGZ
Prep Method:	3546	Prep Batch:	680-341037	Initial Weight/Volume:	10.03 g
Dilution:	10			Final Weight/Volume:	1 mL
Analysis Date:	07/30/2014 2348			Injection Volume:	1 uL
Prep Date:	07/28/2014 1355			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		56	U	56	170
PCB-1221		76	U	76	170
PCB-1232		26	U	26	170
PCB-1242		25	U	25	170
PCB-1248		42	U	42	170
PCB-1254		51	U	51	170
PCB-1260		960		49	170

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl			
Tetrachloro-m-xylene	84		46 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-255-SS**

Lab Sample ID: 680-102558-30
Client Matrix: Solid
% Moisture: 63.8

Date Sampled: 06/19/2014 1505
Date Received: 06/20/2014 0935

8081B/8082A Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analysis Method:	8081B/8082A	Analysis Batch:	680-340443	Instrument ID:	CSGZ
Prep Method:	3546	Prep Batch:	680-339371	Initial Weight/Volume:	10.25 g
Dilution:	10			Final Weight/Volume:	1 mL
Analysis Date:	07/23/2014 1204			Injection Volume:	1 uL
Prep Date:	07/21/2014 1706			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		44	U	44	130
PCB-1221		61	U	61	130
PCB-1232		21	U	21	130
PCB-1242		20	U	20	130
PCB-1248		33	U	33	130
PCB-1254		40	U	40	130
PCB-1260		840		39	130

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl			
Tetrachloro-m-xylene	65		46 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-275-SS**

Lab Sample ID: 680-102558-26
Client Matrix: Solid
% Moisture: 66.6

Date Sampled: 06/19/2014 1320
Date Received: 06/20/2014 0935

8081B/8082A Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analysis Method:	8081B/8082A	Analysis Batch:	680-341704	Instrument ID:	CSGZ
Prep Method:	3546	Prep Batch:	680-341037	Initial Weight/Volume:	9.99 g
Dilution:	10			Final Weight/Volume:	1 mL
Analysis Date:	07/30/2014 2301			Injection Volume:	1 uL
Prep Date:	07/28/2014 1355			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		49	U	49	150
PCB-1221		67	U	67	150
PCB-1232		23	U	23	150
PCB-1242		22	U	22	150
PCB-1248		37	U	37	150
PCB-1254		45	U	45	150
PCB-1260		920		43	150

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl			
Tetrachloro-m-xylene	71		46 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

Client Sample ID: **SD-276-SS**

Lab Sample ID: 680-102558-25
Client Matrix: Solid
% Moisture: 69.0

Date Sampled: 06/19/2014 1220
Date Received: 06/20/2014 0935

8081B/8082A Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analysis Method:	8081B/8082A	Analysis Batch:	680-341704	Instrument ID:	CSGZ
Prep Method:	3546	Prep Batch:	680-341037	Initial Weight/Volume:	10.09 g
Dilution:	10			Final Weight/Volume:	1 mL
Analysis Date:	07/30/2014 2245			Injection Volume:	1 uL
Prep Date:	07/28/2014 1355			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		53	U	53	160
PCB-1221		72	U	72	160
PCB-1232		25	U	25	160
PCB-1242		24	U	24	160
PCB-1248		39	U	39	160
PCB-1254		48	U	48	160
PCB-1260		1200		46	160

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl			
Tetrachloro-m-xylene	79		46 - 130

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-252-SS**

Lab Sample ID: 680-102558-27
Client Matrix: Solid

Date Sampled: 06/19/2014 1335
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	68		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-253-SS**

Lab Sample ID: 680-102558-28
Client Matrix: Solid

Date Sampled: 06/19/2014 1340
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	65		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-254-SS**

Lab Sample ID: 680-102558-29
Client Matrix: Solid

Date Sampled: 06/19/2014 1450
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	70		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-255-SS**

Lab Sample ID: 680-102558-30
Client Matrix: Solid

Date Sampled: 06/19/2014 1505
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	64		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-260-01**

Lab Sample ID: 680-102558-6
Client Matrix: Solid

Date Sampled: 06/19/2014 0830
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	68		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-260-02**

Lab Sample ID: 680-102558-7
Client Matrix: Solid

Date Sampled: 06/19/2014 0835
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	46		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-260-03**

Lab Sample ID: 680-102558-8
Client Matrix: Solid

Date Sampled: 06/19/2014 0840
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	60		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-260-SS**

Lab Sample ID: 680-102558-5
Client Matrix: Solid

Date Sampled: 06/19/2014 0825
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	71		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-261-01**

Lab Sample ID: 680-102558-22
Client Matrix: Solid

Date Sampled: 06/19/2014 1105
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	69		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-261-02**

Lab Sample ID: 680-102558-23
Client Matrix: Solid

Date Sampled: 06/19/2014 1110
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	63		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-261-03**

Lab Sample ID: 680-102558-24
Client Matrix: Solid

Date Sampled: 06/19/2014 1115
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	57		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-261-SS**

Lab Sample ID: 680-102558-21
Client Matrix: Solid

Date Sampled: 06/19/2014 1100
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	78		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-266-01**

Lab Sample ID: 680-102558-18
Client Matrix: Solid

Date Sampled: 06/19/2014 1035
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	77		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-266-02**

Lab Sample ID: 680-102558-19
Client Matrix: Solid

Date Sampled: 06/19/2014 1040
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	72		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-266-03**

Lab Sample ID: 680-102558-20
Client Matrix: Solid

Date Sampled: 06/19/2014 1045
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	57		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-266-SS**

Lab Sample ID: 680-102558-17
Client Matrix: Solid

Date Sampled: 06/19/2014 1030
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	79		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-267-01**

Lab Sample ID: 680-102558-14
Client Matrix: Solid

Date Sampled: 06/19/2014 1005
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	67		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-267-02**

Lab Sample ID: 680-102558-15
Client Matrix: Solid

Date Sampled: 06/19/2014 1010
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	69		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-267-03**

Lab Sample ID: 680-102558-16
Client Matrix: Solid

Date Sampled: 06/19/2014 1015
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	54		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-267-SS**

Lab Sample ID: 680-102558-13
Client Matrix: Solid

Date Sampled: 06/19/2014 1000
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	79		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-272-01**

Lab Sample ID: 680-102558-11
Client Matrix: Solid

Date Sampled: 06/19/2014 0930
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	22		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-272-02**

Lab Sample ID: 680-102558-12
Client Matrix: Solid

Date Sampled: 06/19/2014 0935
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	19		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-272-SS**

Lab Sample ID: 680-102558-10
Client Matrix: Solid

Date Sampled: 06/19/2014 0925
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	22		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-274-01**

Lab Sample ID: 680-102558-2
Client Matrix: Solid

Date Sampled: 06/19/2014 0800
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	67		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-27402**

Lab Sample ID: 680-102558-3
Client Matrix: Solid

Date Sampled: 06/19/2014 0805
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	66		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-274-03**

Lab Sample ID: 680-102558-4
Client Matrix: Solid

Date Sampled: 06/19/2014 0810
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	50		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-274-SS**

Lab Sample ID: 680-102558-1
Client Matrix: Solid

Date Sampled: 06/19/2014 0755
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	70		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-275-SS**

Lab Sample ID: 680-102558-26
Client Matrix: Solid

Date Sampled: 06/19/2014 1320
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	67		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-276-SS**

Lab Sample ID: 680-102558-25
Client Matrix: Solid

Date Sampled: 06/19/2014 1220
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	69		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-Dup07**

Lab Sample ID: 680-102558-9FD
Client Matrix: Solid

Date Sampled: 06/19/2014 0000
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	21		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
Sdg Number: 680102558-1

General Chemistry

Client Sample ID: **SD-Dup08**

Lab Sample ID: 680-102558-31FD
Client Matrix: Solid

Date Sampled: 06/19/2014 0000
Date Received: 06/20/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	64		%	0.010	0.010	1.0	Moisture

Analysis Batch: 680-335719 Analysis Date: 06/23/2014 1140 DryWt Corrected: N

Appendix C

Support Documentation

MRC SEDIMENT INVESTIGATION
SEDIMENT DATA
680-102558-1

FRACTION	CHEMICAL	SD-Dup07	UNITS	SD-272-01	RPD	D
PCB	TETRACHLOROBIPHENYLS	1.8 J	UG/KG	1.9 J	5.41	0.10

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

MRC SEDIMENT INVESTIGATION
SEDIMENT DATA
680-102558-1

FRACTION	CHEMICAL	SD-Dup08	UNITS	SD-255-SS-RE	RPD	D
PCB	TETRACHLOROBIPHENYLS	ND	UG/KG	4.4 J	200.00	4.40

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Stu Cameron	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-56831-24906.43
Client Contact: Mike Martin	Phone: (703) 342-8389	E-Mail: jerry.lanier@testamericainc.com		Page: Page [redacted] 1 of 3
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone:	PO #: Purchase Order not required			
Email: Michael.Martin@tetratech.com	WO #:			
Project Name: Sediments	Project #: 68012942			
Site:	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680 - Local Method	A01R_Th - Standard Target List	6020, 7470A	GA_01_R_Ra - (MOD) Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N		
SD-274-SS	6/19/14	0755	C	Solid			X					
SD-274-01		0800	C	Solid			X					
SD-274-02		0805	C	Solid			X					
SD-274-03		0810	C	Solid			X					
SD-260-SS		0825	C	Solid			X					
SD-260-01		0830	C	Solid			X					
SD-260-02		0835	C	Solid			X					
SD-260-03		0840	C	Solid			X					
SD-DUP07		0000	C	Solid			X					
SD-272-SS		0925	C	Solid			X					
SD-272-01		0930	C	Solid			X					

680-102558 Chain of Custody

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [X] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): [ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months

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

Special Instructions/QC Requirements: 680-102558

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/19/14 1600	TT	[signature]	6/19/14 1620	TA
[signature]	6/19/14 1730	TT	[signature]	6/20/14 09:35	TA

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.2°C

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Stu Cameron	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-56831-24906.43
Client Contact: Mike Martin	Phone: (703) 342-8389	E-Mail: jerry.lanier@testamericainc.com		Page: Page 2 of 3
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone:	PO #: Purchase Order not required			
Email: Michael.Martin@tetratech.com	WO #:			
Project Name: Sediments	Project #: 68012942			
Site:	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680 - Local Method / 8021	A01R_Th - Standard Target List	6020, 7470A	GA_01_R_Ra - (MOD) Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N		
SD-272-02	6/19/14	0935	C	Solid			X					
SD-267-55		1000	C	Solid			X					
SD-267-01		1005	C	Solid			X					
SD-267-02		1010	C	Solid			X					
SD-267-03		1015	C	Solid			X					
SD-266-55		1030	C	Solid			X					
SD-266-01		1035	C	Solid			X					
SD-266-02		1040	C	Solid			X					
SD-266-03		1045	C	Solid			X					
SD-261-55		1100	C	Solid			X					
SD-261-01		1105	C	Solid			X					

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements: 680-102558

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/19/14 - 1600	TT	[signature]	6/19/14 1620	TT
[signature]	6/19/14 1730	TT	[signature]	6/20/14 09:35	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.2°C

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Stu Cameron	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-56831-24906.43
Client Contact: Mike Martin	Phone: (703) 342-8389	E-Mail: jerry.lanier@testamericainc.com		Page: Page [redacted] 3 of 3
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone:	PO #: Purchase Order not required			
Email: Michael.Martin@tetratech.com	WO #:			
Project Name: Sediments	Project #: 68012942			
Site:	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680 - Local Method / 8082	A01R_Th - Standard Target List	6020, 7470A	GA_01_R_Ra - (MOD) Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N		
SD-261-02	6/19/14	1110	C	Solid			X					
SD-261-03	6/19/14	1115	C	Solid			X					
SD-276-SS		1220	C	Solid			X					
SD-251-SS		1320	C	Solid			X					
SD-252-SS		1335	C	Solid			X					
SD-253-SS		1340	C	Solid			X					
SD-254-SS		1450	C	Solid			X					
SD-255-SS		1505	C	Solid			X					
SD-DUP08		0000	C	Solid			X					
				Solid								
				Solid								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements: 680.10255 8

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/19/14 1610	TT	[signature]	6/19/14 1620	TT
[signature]	6/19/14 1730	TT	[signature]	6/20/14 09:35	TT

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.2 °C

LMC - MRC
SDG 680-102558-1

SAMPLE IDENTIFICATION	SD-267-01
COMPOUND	TETRACHLOROBIPHENYL
COMPOUND AREA	562906
INTERNAL STANDARD AMOUNT (ng)	0.75
DILUTION FACTOR	10
INTERNAL STANDARD AREA	139455
AVERAGE RRF	0.2893
% SOLIDS	0.331
WEIGHT OF SAMPLE (g)	10.09
VOLUME EXTRACT (µl)	1000
VOLUME INJECTED (µl)	1
ng to µg	1000
g to Kg	1000
CONCENTRATION =	31333 ng/g OR µg/Kg

562906*0.75ng*1000µl*10*1µg*1000g/(139455*0.2893*10.09g*1µl*0.331*1000ng*1Kg)

Report Date: 29-Jul-2014 09:02:56 Chrom Revision: 2.2 24-Jul-2014 14:43:32

TestAmerica Savannah
Target Compound Quantitation Report

10.09g/1ml
DF = 10X

Data File: \\SAVCHROM\ChromData\CMSX\20140727-11356.b\XG2733.D
Lims ID: 680-102558-A-14-A Lab Sample ID: 680-102558-14
Client ID: SD-267-01
Sample Type: Client
Inject. Date: 28-Jul-2014 12:34:30 ALS Bottle#: 25 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info: 680-102558-A-14-A DL=10
Misc. Info.: 680-0011356-006
Operator ID: nmd Instrument ID: CMSX

$\overline{RRF}$ = 0.2893
% solid = 33.1%

Method: \\SAVCHROM\ChromData\CMSX\20140727-11356.b\680_CMSX.m
Limit Group: 680
Last Update: 29-Jul-2014 09:02:45 Calib Date: 20-Jul-2014 00:46:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\SAVCHROM\ChromData\CMSX\20140719-11146.b\XG1913.D

Column 1 : Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: davisn Date: 29-Jul-2014 09:02:55

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
* 5 Phenanthrene-d10	188	9.840	9.840	0.0	66	139455	0.7500	
A 25 Trichlorobiphenyl	256	10.717	9.409 -	12.026	0	43026	0.5437	
A 26 Tetrachlorobiphenyl	292	12.199	10.505 -	13.894	0	562906	10.5	
A 27 Pentachlorobiphenyl	326	13.593	11.768 -	15.418	0	125787	3.02	
A 28 1,1'-Biphenyl, hexachloro-	360	14.874	12.928 -	16.819	0	107580	2.75	
* 15 Chrysene-d12	240	15.918	15.918	0.0	100	162535	0.7500	
A 29 1,1'-Biphenyl, heptachloro-	394	15.990	14.529 -	17.451	0	53745	1.74	
A 30 1,1'-Biphenyl, octachloro-	430	17.075	16.015 -	18.136	0	10015	0.3551	

Reagents:

SM-680istd_00028 Amount Added: 30.00 Units: uL Run Reagent

Report Date: 31-Jul-2014 10:10:39 Chrom Revision: 2.2 24-Jul-2014 14:43:32

TestAmerica Savannah
Target Compound Quantitation Report

Data File: \\SAVCHROM\ChromData\CSGZ\20140730-11463.b\ZG30032.D
Lims ID: 680-102558-A-25-B Lab Sample ID: 680-102558-25
Client ID: SD-276-SS
Sample Type: Client
Inject. Date: 30-Jul-2014 22:45:57 ALS Bottle#: 32 Worklist Smp#: 32
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0011463-032
Operator ID: LIMS import Instrument ID: CSGZ

10.09 g / 1 ml
% solid = 31%
DF = 10x

Method: \\SAVCHROM\ChromData\CSGZ\20140730-11463.b\PestPCB_CSGZ.m
Limit Group: 8081B_8082A
Last Update: 31-Jul-2014 10:10:30 Calib Date: 28-Jul-2014 19:11:51
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\SAVCHROM\ChromData\CSGZ\20140728-11389.b\ZG28018.D

Column 1 : Rtx CLPesticides I (0.32 mm) Det: GC ECD1A
Column 2 : Rtx CLPesticides II (0.32 mm) Det: GC ECD2B
Process Host: XAWRK022

First Level Reviewer: kellarj Date: 31-Jul-2014 09:50:08

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
* 1 1-Bromo-2-nitrobenzene						
→ 1	3.272	3.271	0.001	37850181	0.0800	
2	3.545	3.544	0.001	70772835	0.0800	
					RPD = 0.00	
$ 3 Tetrachloro-m-xylene						
1	3.898	3.897	0.001	18415277	0.0374	
2	4.382	4.381	0.001	35968347	0.0397	
					RPD = 5.94	
34 PCB-1260						M
1	7.028	7.029	-0.001	9364771	0.3804	M
1	7.059	7.059	0.000	4976388	0.3710	M
1	7.216	7.217	-0.001	5208351	0.4098	M
→ 1	7.385	7.385	0.000	21608297	0.3718	M RRF = 0.1228
1	7.572	7.573	-0.001	11880514	0.4128	M
		Average of Peak Amounts =			0.3891	
2	7.676	7.676	0.000	18780226	0.3695	M
2	7.714	7.714	0.000	10261122	0.3580	M
2	7.881	7.882	-0.001	19520123	0.3457	M
2	7.931	7.932	-0.001	11750124	0.4163	M
2	8.037	8.038	-0.001	43624597	0.3635	M
		Average of Peak Amounts =			0.3706	
					RPD = 4.89	
$ 45 DCB Decachlorobiphenyl						
1	8.291	8.292	-0.001	49560851	0.1057	
2	9.028	9.030	-0.002	101982199	0.1016	
					RPD = 3.97	

$$\frac{0.3891\ \mu g}{1\ ml} \times \frac{1\ ml}{10.09\ g} \times \frac{1}{.31} \times \frac{1000\ g}{1\ kg} \times 10$$

$$= 1243.96\ \mu g / kg$$

$$\frac{21608297 \times 0.08}{37850181 \times 0.1228} = 0.3719\ \mu g/ml \checkmark$$

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

SGBNB_wk_00004	Amount Added:	0.10	Units: mL	Run Reagent

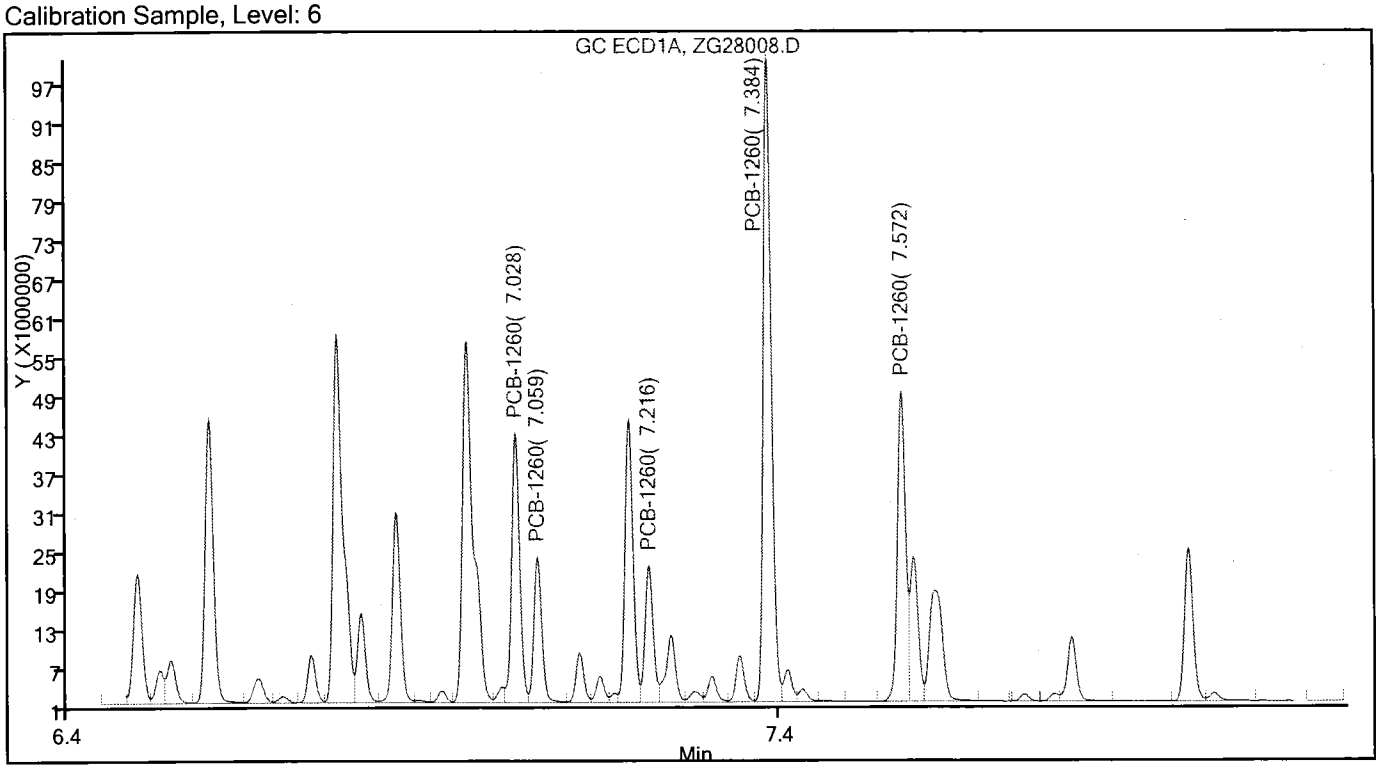
Report Date: 31-Jul-2014 10:10:39 Chrom Revision: 2.2 24-Jul-2014 14:43:32

TestAmerica Savannah

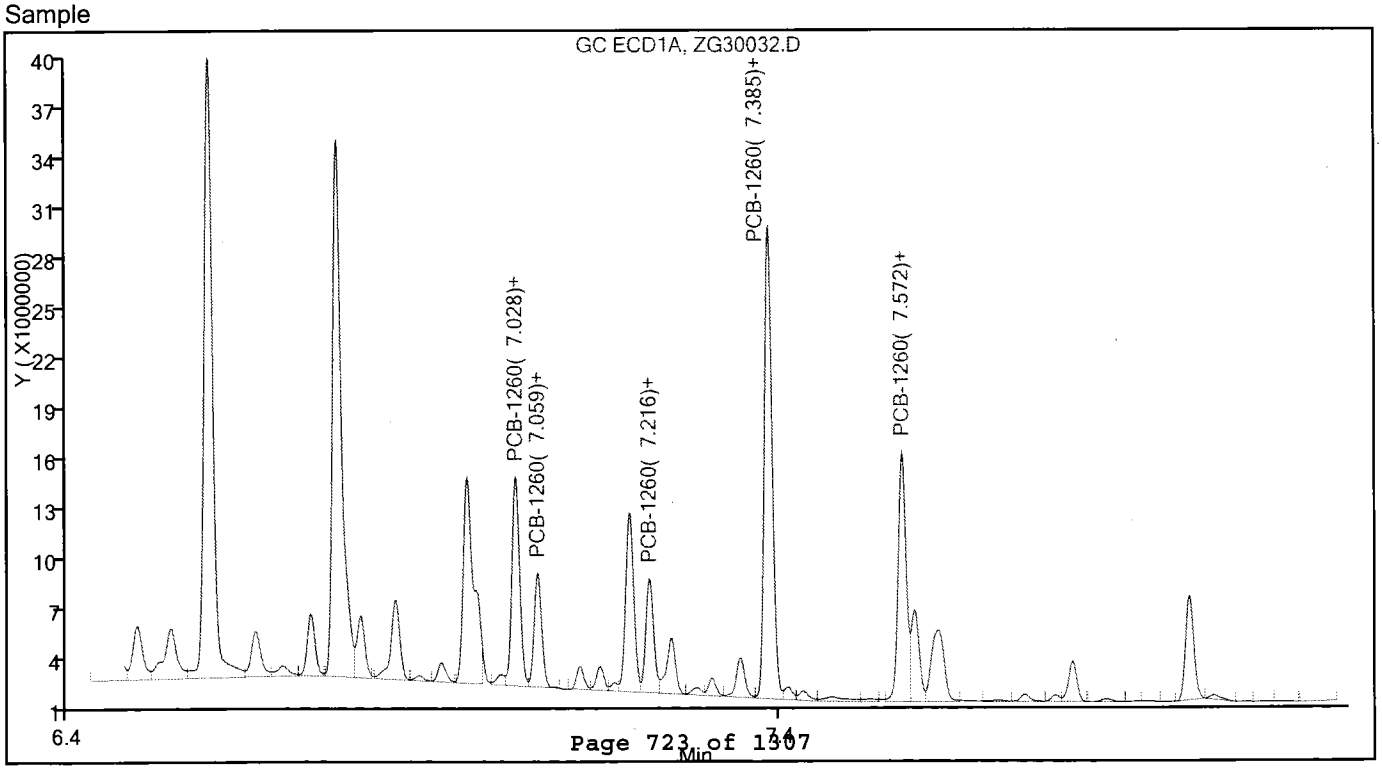
Data File:	\\SAVCHROM\ChromData\CSGZ\20140730-11463.b\ZG30032.D				
Injection Date:	30-Jul-2014 22:45:57	Instrument ID:	CSGZ		
Lims ID:	680-102558-A-25-B	Lab Sample ID:	680-102558-25		
Client ID:	SD-276-SS				
Operator ID:	LIMS import	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	PestPCB_CSGZ	Limit Group:	8081B_8082A		
Column:	Rtx CLPesticides I (0.32 mm)	Detector	GC ECD1A		

34 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 6



Sample

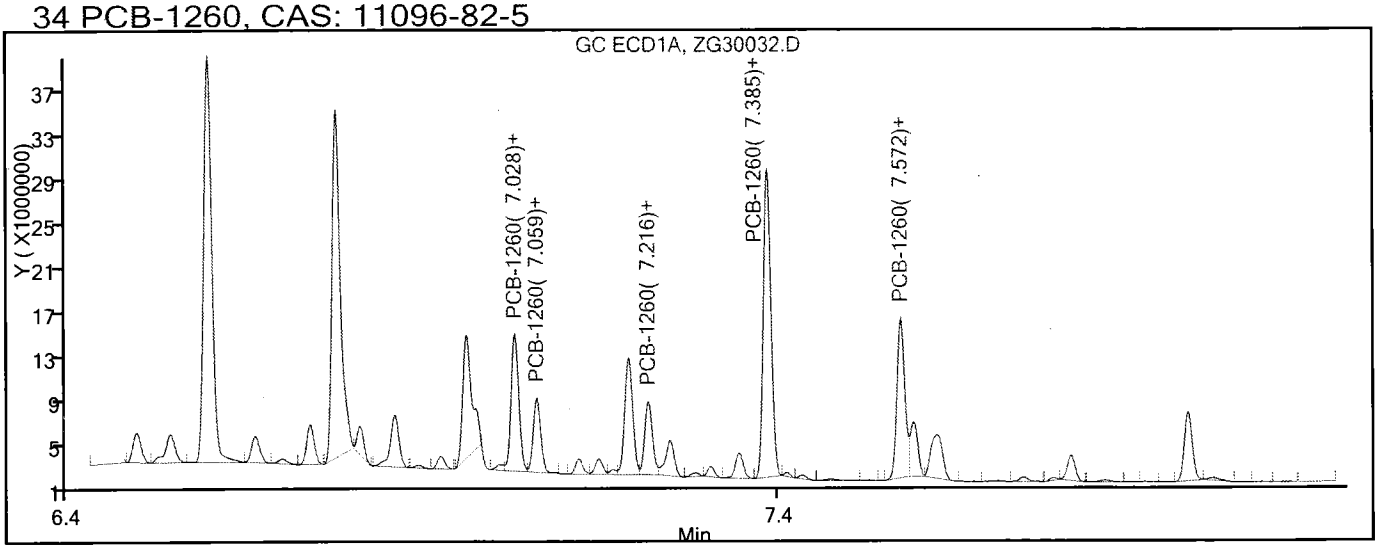


Report Date: 31-Jul-2014 10:10:39 Chrom Revision: 2.2 24-Jul-2014 14:43:32

TestAmerica Savannah

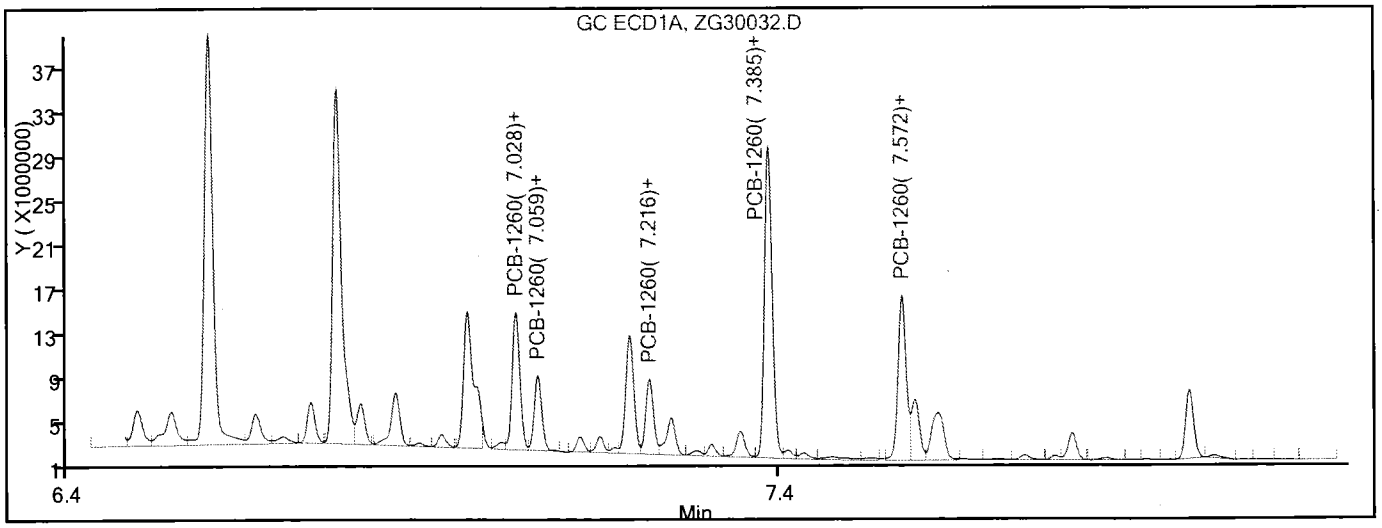
Data File:	\\SAVCHROM\ChromData\CSGZ\20140730-11463.b\ZG30032.D				
Injection Date:	30-Jul-2014 22:45:57	Instrument ID:	CSGZ		
Lims ID:	680-102558-A-25-B	Lab Sample ID:	680-102558-25		
Client ID:	SD-276-SS				
Operator ID:	LIMS import	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	PestPCB_CSGZ	Limit Group:	8081B_8082A		
Column:	Rtx CLPesticides I (0.32 mm)	Detector	GC ECD1A		

34 PCB-1260, CAS: 11096-82-5



Processing Integration Results

RT = 7.028	Response = 9241161	M
RT = 7.059	Response = 4921057	M
RT = 7.216	Response = 4989174	M
RT = 7.385	Response = 20982279	M
RT = 7.572	Response = 11177561	M



Manual Integration Results

RT = 7.028	Response = 9364771	M
RT = 7.059	Response = 4976388	M
RT = 7.216	Response = 5208351	M
RT = 7.385	Response = 21608297	M
RT = 7.572	Response = 11880514	M

Reviewer: kellarj, 31-Jul-2014 09:50:08

Audit Action: Assigned New Baseline

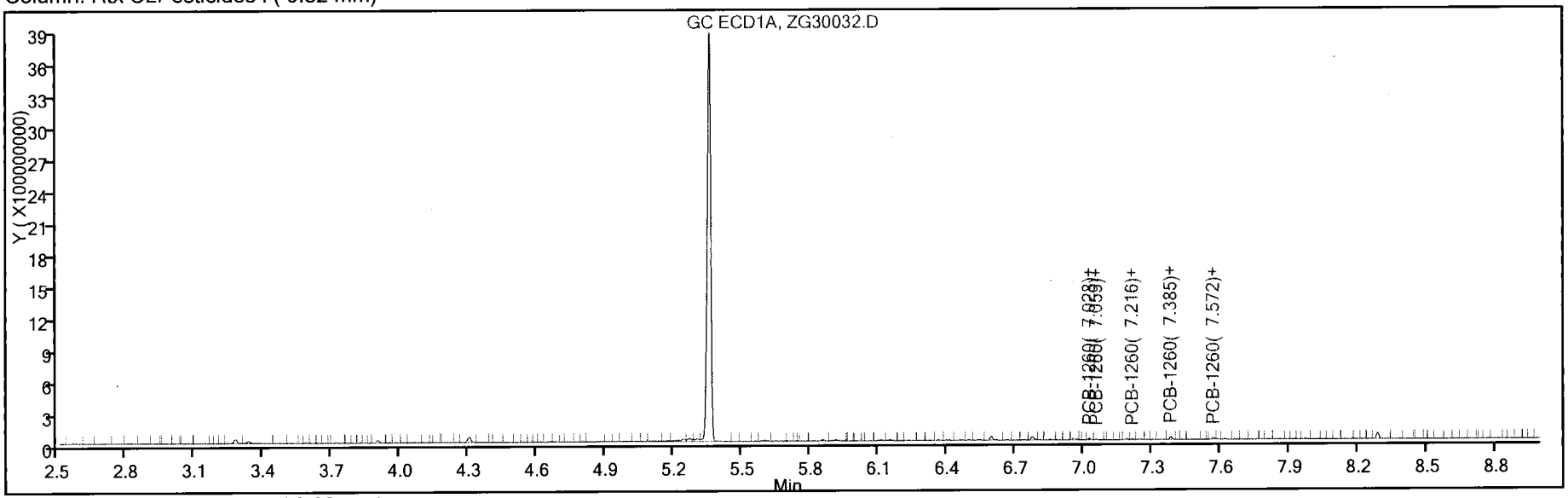
Audit Reason: Baseline

Report Date: 31-Jul-2014 10:10:39 Chrom Revision: 2.2 24-Jul-2014 14:43:32

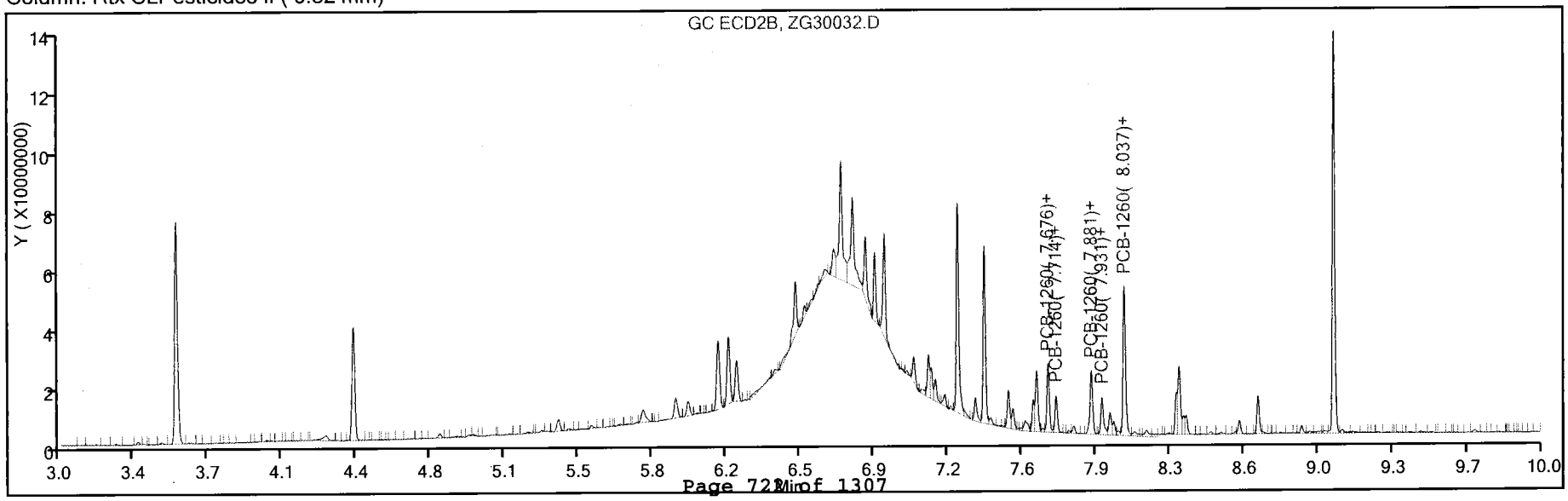
TestAmerica Savannah

Data File:	\\SAVCHROM\ChromData\CSGZ\20140730-11463.b\ZG30032.D				
Injection Date:	30-Jul-2014 22:45:57	Instrument ID:	CSGZ	Operator ID:	LIMS import
Lims ID:	680-102558-A-25-B	Lab Sample ID:	680-102558-25	Worklist Smp#:	32
Client ID:	SD-276-SS				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	32
Method:	PestPCB_CSGZ	Limit Group:	8081B_8082A		

Column: Rtx CLPesticides I (0.32 mm)



Column: Rtx CLPesticides II (0.32 mm)



Report Date: 31-Jul-2014 09:30:24 Chrom Revision: 2.2 24-Jul-2014 14:43:32

TestAmerica Savannah

Data File: \\SAVCHROM\ChromData\CSGZ\20140730-11463.b\ZG30028.D

Injection Date: 30-Jul-2014 21:43:50 Instrument ID: CSGZ Operator ID: LIMS import

Lims ID: ccvis ar4 Worklist Smp#: 28

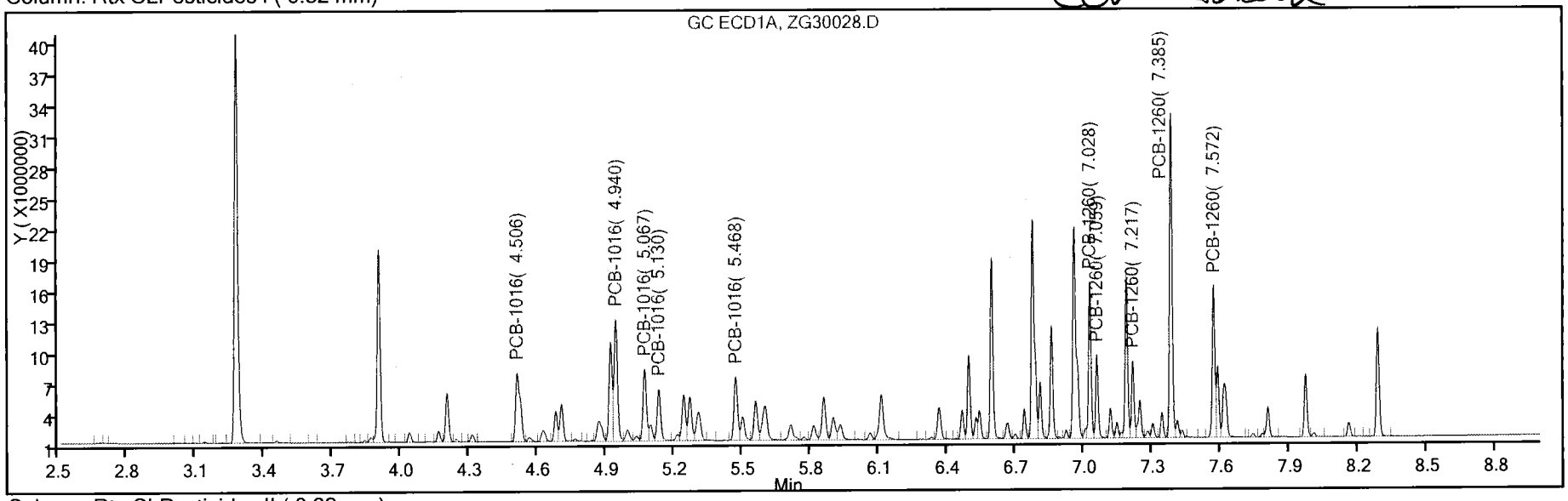
Client ID:

Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 28

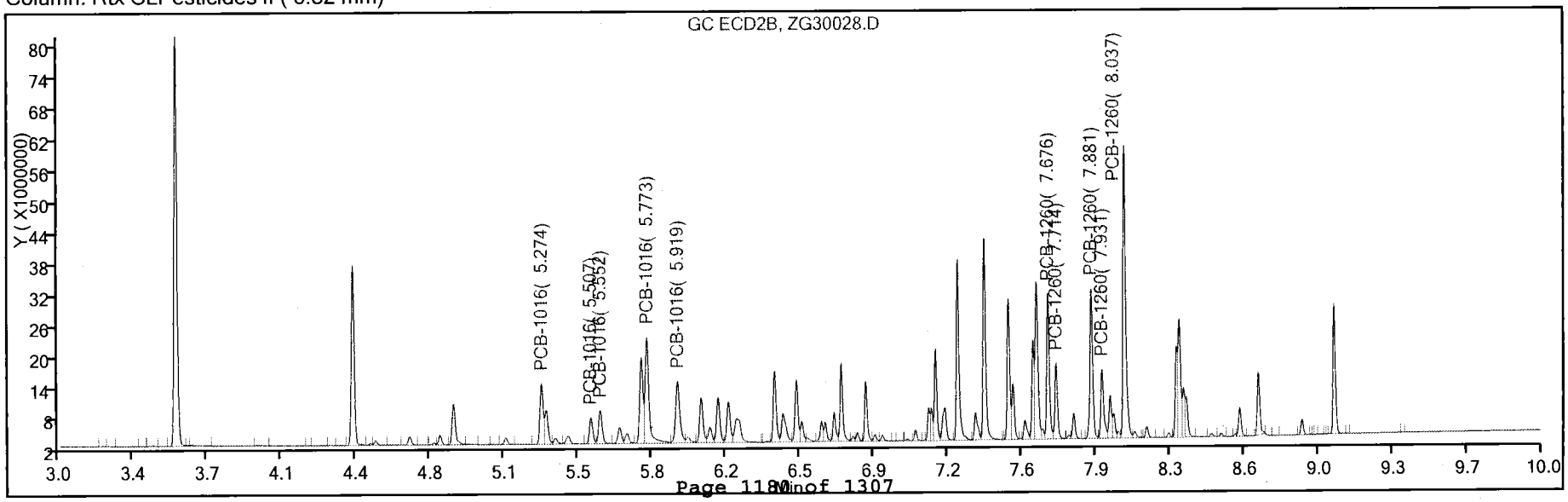
Method: PestPCB_CSGZ Limit Group: 8081B_8082A

CCV standard

Column: Rtx CLPesticides I (0.32 mm)



Column: Rtx CLPesticides II (0.32 mm)



Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 680-102558-1
SDG Number: 680102558-1

Login Number: 102558
List Number: 1
Creator: Kicklighter, Marilyn D

List Source: TestAmerica Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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 containers received 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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Job ID: 680-102558-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: Sediments

Report Number: 680-102558-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 06/20/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.2 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Samples SD-274-SS (680-102558-1), SD-274-01 (680-102558-2), SD-27402 (680-102558-3), SD-274-03 (680-102558-4), SD-260-SS (680-102558-5), SD-260-01 (680-102558-6), SD-260-02 (680-102558-7), SD-260-03 (680-102558-8), SD-Dup07 (680-102558-9), SD-272-SS (680-102558-10), SD-272-01 (680-102558-11), SD-272-02 (680-102558-12), SD-267-SS (680-102558-13), SD-267-01 (680-102558-14), SD-267-02 (680-102558-15), SD-267-03 (680-102558-16), SD-266-SS (680-102558-17), SD-266-01 (680-102558-18), SD-266-02 (680-102558-19), SD-266-03 (680-102558-20), SD-261-SS (680-102558-21), SD-261-01 (680-102558-22), SD-261-02 (680-102558-23), SD-261-03 (680-102558-24), SD-276-SS (680-102558-25), SD-275-SS (680-102558-26), SD-252-SS (680-102558-27), SD-253-SS (680-102558-28), SD-254-SS (680-102558-29), SD-255-SS (680-102558-30) and SD-Dup08 (680-102558-31) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 680. The samples were prepared on 07/21/2014, 07/22/2014, 07/28/2014 and 07/29/2014 and analyzed on 07/28/2014, 07/29/2014 and 07/30/2014.

Internal standard (ISTD) response for the following sample(s) was outside of acceptance limits when compared to the area of the CCVIS,: (680-102521-19 MSD), (LCS 680-341361/12-A), (MB 680-341361/11-A), SD-255-SS (680-102558-30), SD-261-03 (680-102558-24). The 680 method allows that the sample also be compared to the average internal standard area of the calibration(ICISAV). When compared to the ICISAV the samples are within the area range for the internal standard.

Surrogate recovery for the following sample(s) was outside control limits: SD-266-03 (680-102558-20), SD-267-SS (680-102558-13), SD-266-SS (680-102558-17), SD-267-02 (680-102558-15). Re-extraction and/or re-analysis was performed with concurring results. The original analysis has been reported. The original and reextract were done at 10g. Matrix interference is suspected.

The following sample(s) was diluted due to the nature of the sample matrix : (680-102600-5 MS), (680-102600-5 MSD), SD-253-SS (680-102558-28), SD-261-01 (680-102558-22), SD-266-02 (680-102558-19), SD-267-01 (680-102558-14), SD-Dup09 (680-102600-5), SD-254-SS (680-102558-29), SD-260-01 (680-102558-6), SD-260-SS (680-102558-5), SD-261-02 (680-102558-23), SD-261-SS (680-102558-21). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Several analytes exceeded the recovery criteria low for the MSD of sample 680-102521-19 in batch 680-341486. Several analytes exceeded the RPD limit.

Hexachlorobiphenyl, Pentachlorobiphenyl and Tetrachlorobiphenyl exceeded the recovery criteria low for the MS/MSD of sample SD-276-SS (680-102558-25) in batch 680-341490.

Several analytes failed the recovery criteria low for the MS/MSD of sample 680-102600-5 in batch 680-341034. Tetrachlorobiphenyl and

Job ID: 680-102558-1 (Continued)

Laboratory: TestAmerica Savannah (Continued)

Trichlorobiphenyl exceeded the RPD limit.

Samples SD-274-SS (680-102558-1)[5X], SD-274-01 (680-102558-2)[5X], SD-27402 (680-102558-3)[5X], SD-260-SS (680-102558-5) [10X], SD-260-01 (680-102558-6)[10X], SD-267-01 (680-102558-14)[10X], SD-266-02 (680-102558-19)[10X], SD-261-SS (680-102558-21) [10X], SD-261-01 (680-102558-22)[10X], SD-261-02 (680-102558-23)[10X], SD-253-SS (680-102558-28)[10X] and SD-254-SS (680-102558-29)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Refer to the QC report for details.

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

PESTICIDES AND PCBS

Samples SD-276-SS (680-102558-25), SD-275-SS (680-102558-26), SD-252-SS (680-102558-27), SD-253-SS (680-102558-28), SD-254-SS (680-102558-29) and SD-255-SS (680-102558-30) were analyzed for Pesticides and PCBs in accordance with EPA SW-846 Method 8081B_8082A. The samples were prepared on 07/21/2014 and 07/28/2014 and analyzed on 07/23/2014 and 07/30/2014.

The following sample(s) required a sulfuric acid clean-up, via EPA Method 3665A, to reduce matrix interferences: (680-102558-25 MS), (680-102558-25 MSD), SD-252-SS (680-102558-27), SD-253-SS (680-102558-28), SD-254-SS (680-102558-29), SD-275-SS (680-102558-26), SD-276-SS (680-102558-25).

The prep batch shows a final volume of 1mL for these extracts, because to the split of the extract for the 680 and 8082 methods. The extracts were split 0.5mL going to the 680 analysis and the other 0.5mL were brought up to a 5mL final volume to maintain routine 8082 RLs. The prep batch can only have one final volume listed. Therefore all 8082 samples start at 10 fold dilution to account for the final volume adjustment done by the extraction department.

This method incorporates 2nd column confirmation. Corrective action is not taken for surrogate/spike compounds unless results from both columns are unacceptable. Results outside criteria are qualified.

PCB-1016 exceeded the RPD limit for the MSD of sample SD-276-SSMSD (680-102558-25) in batch 680-341704.

Refer to the QC report for details.

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

PERCENT SOLIDS/MOISTURE

Samples SD-274-SS (680-102558-1), SD-274-01 (680-102558-2), SD-27402 (680-102558-3), SD-274-03 (680-102558-4), SD-260-SS (680-102558-5), SD-260-01 (680-102558-6), SD-260-02 (680-102558-7), SD-260-03 (680-102558-8), SD-Dup07 (680-102558-9), SD-272-SS (680-102558-10), SD-272-01 (680-102558-11), SD-272-02 (680-102558-12), SD-267-SS (680-102558-13), SD-267-01 (680-102558-14), SD-267-02 (680-102558-15), SD-267-03 (680-102558-16), SD-266-SS (680-102558-17), SD-266-01 (680-102558-18), SD-266-02 (680-102558-19), SD-266-03 (680-102558-20), SD-261-SS (680-102558-21), SD-261-01 (680-102558-22), SD-261-02 (680-102558-23), SD-261-03 (680-102558-24), SD-276-SS (680-102558-25), SD-275-SS (680-102558-26), SD-252-SS (680-102558-27), SD-253-SS (680-102558-28), SD-254-SS (680-102558-29), SD-255-SS (680-102558-30) and SD-Dup08 (680-102558-31) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 06/23/2014.

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

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: Sediments

TestAmerica Job ID: 680-102558-1
SDG: 680102558-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-102558-1	SD-274-SS	Solid	06/19/14 07:55	06/20/14 09:35
680-102558-2	SD-274-01	Solid	06/19/14 08:00	06/20/14 09:35
680-102558-3	SD-27402	Solid	06/19/14 08:05	06/20/14 09:35
680-102558-4	SD-274-03	Solid	06/19/14 08:10	06/20/14 09:35
680-102558-5	SD-260-SS	Solid	06/19/14 08:25	06/20/14 09:35
680-102558-6	SD-260-01	Solid	06/19/14 08:30	06/20/14 09:35
680-102558-7	SD-260-02	Solid	06/19/14 08:35	06/20/14 09:35
680-102558-8	SD-260-03	Solid	06/19/14 08:40	06/20/14 09:35
680-102558-9	SD-Dup07	Solid	06/19/14 00:00	06/20/14 09:35
680-102558-10	SD-272-SS	Solid	06/19/14 09:25	06/20/14 09:35
680-102558-11	SD-272-01	Solid	06/19/14 09:30	06/20/14 09:35
680-102558-12	SD-272-02	Solid	06/19/14 09:35	06/20/14 09:35
680-102558-13	SD-267-SS	Solid	06/19/14 10:00	06/20/14 09:35
680-102558-14	SD-267-01	Solid	06/19/14 10:05	06/20/14 09:35
680-102558-15	SD-267-02	Solid	06/19/14 10:10	06/20/14 09:35
680-102558-16	SD-267-03	Solid	06/19/14 10:15	06/20/14 09:35
680-102558-17	SD-266-SS	Solid	06/19/14 10:30	06/20/14 09:35
680-102558-18	SD-266-01	Solid	06/19/14 10:35	06/20/14 09:35
680-102558-19	SD-266-02	Solid	06/19/14 10:40	06/20/14 09:35
680-102558-20	SD-266-03	Solid	06/19/14 10:45	06/20/14 09:35
680-102558-21	SD-261-SS	Solid	06/19/14 11:00	06/20/14 09:35
680-102558-22	SD-261-01	Solid	06/19/14 11:05	06/20/14 09:35
680-102558-23	SD-261-02	Solid	06/19/14 11:10	06/20/14 09:35
680-102558-24	SD-261-03	Solid	06/19/14 11:15	06/20/14 09:35
680-102558-25	SD-276-SS	Solid	06/19/14 12:20	06/20/14 09:35
680-102558-26	SD-275-SS	Solid	06/19/14 13:20	06/20/14 09:35
680-102558-27	SD-252-SS	Solid	06/19/14 13:35	06/20/14 09:35
680-102558-28	SD-253-SS	Solid	06/19/14 13:40	06/20/14 09:35
680-102558-29	SD-254-SS	Solid	06/19/14 14:50	06/20/14 09:35
680-102558-30	SD-255-SS	Solid	06/19/14 15:05	06/20/14 09:35
680-102558-31	SD-Dup08	Solid	06/19/14 00:00	06/20/14 09:35

Method Summary

Client: Tetra Tech, Inc.
Project/Site: Sediments

TestAmerica Job ID: 680-102558-1
SDG: 680102558-1

Method	Method Description	Protocol	Laboratory
680	Polychlorinated Biphenyls (PCBs) (GC/MS)	EPA	TAL SAV
8081B/8082A	Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography	SW846	TAL SAV
Moisture	Percent Moisture	EPA	TAL SAV

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
*	ISTD response or retention time outside acceptable limits
F1	MS and/or MSD Recovery exceeds the control limits

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F2	MS/MSD RPD exceeds control limits

Glossary

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

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Sediments

TestAmerica Job ID: 680-102558-1
SDG: 680102558-1

GC/MS Semi VOA

Prep Batch: 339370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102558-1	SD-274-SS	Total/NA	Solid	680	
680-102558-2	SD-274-01	Total/NA	Solid	680	
680-102558-3	SD-27402	Total/NA	Solid	680	
680-102558-4	SD-274-03	Total/NA	Solid	680	
680-102558-5	SD-260-SS	Total/NA	Solid	680	
680-102558-6	SD-260-01	Total/NA	Solid	680	
680-102558-7	SD-260-02	Total/NA	Solid	680	
680-102558-8	SD-260-03	Total/NA	Solid	680	
680-102558-9	SD-Dup07	Total/NA	Solid	680	
680-102558-10	SD-272-SS	Total/NA	Solid	680	
680-102558-11	SD-272-01	Total/NA	Solid	680	
680-102558-12	SD-272-02	Total/NA	Solid	680	
680-102558-13	SD-267-SS	Total/NA	Solid	680	
680-102558-14	SD-267-01	Total/NA	Solid	680	
680-102558-15	SD-267-02	Total/NA	Solid	680	
680-102558-17	SD-266-SS	Total/NA	Solid	680	
680-102558-19	SD-266-02	Total/NA	Solid	680	
680-102558-20	SD-266-03	Total/NA	Solid	680	
680-102558-20 MS	SD-266-03	Total/NA	Solid	3546	
680-102558-20 MSD	SD-266-03	Total/NA	Solid	3546	
LCS 680-339370/22-A	Lab Control Sample	Total/NA	Solid	3546	
MB 680-339370/21-A	Method Blank	Total/NA	Solid	3546	

Prep Batch: 339371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102558-21	SD-261-SS	Total/NA	Solid	680	
680-102558-22	SD-261-01	Total/NA	Solid	680	
680-102558-23	SD-261-02	Total/NA	Solid	680	
680-102558-28	SD-253-SS	Total/NA	Solid	3546	
680-102558-29	SD-254-SS	Total/NA	Solid	3546	
LCS 680-339371/18-A	Lab Control Sample	Total/NA	Solid	3546	
MB 680-339371/17-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 341033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102558-1	SD-274-SS	Total/NA	Solid	680	339370
680-102558-2	SD-274-01	Total/NA	Solid	680	339370
680-102558-3	SD-27402	Total/NA	Solid	680	339370
680-102558-4	SD-274-03	Total/NA	Solid	680	339370
680-102558-5	SD-260-SS	Total/NA	Solid	680	339370
680-102558-6	SD-260-01	Total/NA	Solid	680	339370
680-102558-7	SD-260-02	Total/NA	Solid	680	339370
680-102558-8	SD-260-03	Total/NA	Solid	680	339370
680-102558-9	SD-Dup07	Total/NA	Solid	680	339370
680-102558-10	SD-272-SS	Total/NA	Solid	680	339370
680-102558-11	SD-272-01	Total/NA	Solid	680	339370
680-102558-12	SD-272-02	Total/NA	Solid	680	339370
680-102558-13	SD-267-SS	Total/NA	Solid	680	339370
680-102558-20	SD-266-03	Total/NA	Solid	680	339370
680-102558-20 MS	SD-266-03	Total/NA	Solid	680	339370
680-102558-20 MSD	SD-266-03	Total/NA	Solid	680	339370

GC/MS Semi VOA (Continued)

Analysis Batch: 341033 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-339370/22-A	Lab Control Sample	Total/NA	Solid	680	339370
MB 680-339370/21-A	Method Blank	Total/NA	Solid	680	339370

Analysis Batch: 341034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102558-14	SD-267-01	Total/NA	Solid	680	339370
680-102558-15	SD-267-02	Total/NA	Solid	680	339370
680-102558-17	SD-266-SS	Total/NA	Solid	680	339370
680-102558-19	SD-266-02	Total/NA	Solid	680	339370
680-102558-22	SD-261-01	Total/NA	Solid	680	339371
680-102558-28	SD-253-SS	Total/NA	Solid	680	339371
LCS 680-339371/18-A	Lab Control Sample	Total/NA	Solid	680	339371
MB 680-339371/17-A	Method Blank	Total/NA	Solid	680	339371

Analysis Batch: 341035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102558-29	SD-254-SS	Total/NA	Solid	680	339371

Prep Batch: 341037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102558-25	SD-276-SS	Total/NA	Solid	3546	
680-102558-25 MS	SD-276-SS	Total/NA	Solid	3546	
680-102558-25 MSD	SD-276-SS	Total/NA	Solid	3546	
680-102558-26	SD-275-SS	Total/NA	Solid	3546	
680-102558-27	SD-252-SS	Total/NA	Solid	3546	
LCS 680-341037/19-A	Lab Control Sample	Total/NA	Solid	3546	
MB 680-341037/18-A	Method Blank	Total/NA	Solid	3546	

Prep Batch: 341361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102558-16	SD-267-03	Total/NA	Solid	680	
680-102558-18	SD-266-01	Total/NA	Solid	680	
680-102558-24	SD-261-03	Total/NA	Solid	680	
680-102558-30	SD-255-SS	Total/NA	Solid	680	
680-102558-31	SD-Dup08	Total/NA	Solid	680	
LCS 680-341361/12-A	Lab Control Sample	Total/NA	Solid	3546	
MB 680-341361/11-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 341486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102558-16	SD-267-03	Total/NA	Solid	680	341361
680-102558-18	SD-266-01	Total/NA	Solid	680	341361
680-102558-24	SD-261-03	Total/NA	Solid	680	341361
680-102558-30	SD-255-SS	Total/NA	Solid	680	341361
680-102558-31	SD-Dup08	Total/NA	Solid	680	341361
LCS 680-341361/12-A	Lab Control Sample	Total/NA	Solid	680	341361
MB 680-341361/11-A	Method Blank	Total/NA	Solid	680	341361

Analysis Batch: 341490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102558-21	SD-261-SS	Total/NA	Solid	680	339371

GC/MS Semi VOA (Continued)

Analysis Batch: 341490 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102558-23	SD-261-02	Total/NA	Solid	680	339371
680-102558-25	SD-276-SS	Total/NA	Solid	680	341037
680-102558-25 MS	SD-276-SS	Total/NA	Solid	680	341037
680-102558-25 MSD	SD-276-SS	Total/NA	Solid	680	341037
680-102558-26	SD-275-SS	Total/NA	Solid	680	341037
680-102558-27	SD-252-SS	Total/NA	Solid	680	341037
LCS 680-341037/19-A	Lab Control Sample	Total/NA	Solid	680	341037
MB 680-341037/18-A	Method Blank	Total/NA	Solid	680	341037

GC Semi VOA

Prep Batch: 339371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102558-30	SD-255-SS	Total/NA	Solid	3546	
LCS 680-339371/21-A	Lab Control Sample	Total/NA	Solid	3546	
MB 680-339371/17-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 340443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102558-30	SD-255-SS	Total/NA	Solid	8081B/8082A	339371
LCS 680-339371/21-A	Lab Control Sample	Total/NA	Solid	8081B/8082A	339371
MB 680-339371/17-A	Method Blank	Total/NA	Solid	8081B/8082A	339371

Prep Batch: 341037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102558-25	SD-276-SS	Total/NA	Solid	3546	
680-102558-25 MS	SD-276-SS	Total/NA	Solid	3546	
680-102558-25 MSD	SD-276-SS	Total/NA	Solid	3546	
680-102558-26	SD-275-SS	Total/NA	Solid	3546	
680-102558-27	SD-252-SS	Total/NA	Solid	3546	
680-102558-28	SD-253-SS	Total/NA	Solid	3546	
680-102558-29	SD-254-SS	Total/NA	Solid	3546	
LCS 680-341037/22-A	Lab Control Sample	Total/NA	Solid	3546	
MB 680-341037/18-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 341704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102558-25	SD-276-SS	Total/NA	Solid	8081B/8082A	341037
680-102558-25 MS	SD-276-SS	Total/NA	Solid	8081B/8082A	341037
680-102558-25 MSD	SD-276-SS	Total/NA	Solid	8081B/8082A	341037
680-102558-26	SD-275-SS	Total/NA	Solid	8081B/8082A	341037
680-102558-27	SD-252-SS	Total/NA	Solid	8081B/8082A	341037
680-102558-28	SD-253-SS	Total/NA	Solid	8081B/8082A	341037
680-102558-29	SD-254-SS	Total/NA	Solid	8081B/8082A	341037
LCS 680-341037/22-A	Lab Control Sample	Total/NA	Solid	8081B/8082A	341037
MB 680-341037/18-A	Method Blank	Total/NA	Solid	8081B/8082A	341037

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Sediments

TestAmerica Job ID: 680-102558-1
SDG: 680102558-1

General Chemistry

Analysis Batch: 335719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-102558-1	SD-274-SS	Total/NA	Solid	Moisture	
680-102558-2	SD-274-01	Total/NA	Solid	Moisture	
680-102558-3	SD-27402	Total/NA	Solid	Moisture	
680-102558-4	SD-274-03	Total/NA	Solid	Moisture	
680-102558-5	SD-260-SS	Total/NA	Solid	Moisture	
680-102558-6	SD-260-01	Total/NA	Solid	Moisture	
680-102558-7	SD-260-02	Total/NA	Solid	Moisture	
680-102558-8	SD-260-03	Total/NA	Solid	Moisture	
680-102558-9	SD-Dup07	Total/NA	Solid	Moisture	
680-102558-10	SD-272-SS	Total/NA	Solid	Moisture	
680-102558-11	SD-272-01	Total/NA	Solid	Moisture	
680-102558-12	SD-272-02	Total/NA	Solid	Moisture	
680-102558-13	SD-267-SS	Total/NA	Solid	Moisture	
680-102558-14	SD-267-01	Total/NA	Solid	Moisture	
680-102558-15	SD-267-02	Total/NA	Solid	Moisture	
680-102558-16	SD-267-03	Total/NA	Solid	Moisture	
680-102558-17	SD-266-SS	Total/NA	Solid	Moisture	
680-102558-18	SD-266-01	Total/NA	Solid	Moisture	
680-102558-19	SD-266-02	Total/NA	Solid	Moisture	
680-102558-20	SD-266-03	Total/NA	Solid	Moisture	
680-102558-21	SD-261-SS	Total/NA	Solid	Moisture	
680-102558-22	SD-261-01	Total/NA	Solid	Moisture	
680-102558-23	SD-261-02	Total/NA	Solid	Moisture	
680-102558-24	SD-261-03	Total/NA	Solid	Moisture	
680-102558-25	SD-276-SS	Total/NA	Solid	Moisture	
680-102558-26	SD-275-SS	Total/NA	Solid	Moisture	
680-102558-27	SD-252-SS	Total/NA	Solid	Moisture	
680-102558-28	SD-253-SS	Total/NA	Solid	Moisture	
680-102558-29	SD-254-SS	Total/NA	Solid	Moisture	
680-102558-30	SD-255-SS	Total/NA	Solid	Moisture	
680-102558-31	SD-Dup08	Total/NA	Solid	Moisture	

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Matrix: Solid Level: Low

GC Column (1): DB-5MS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	13DCB	#	
SD-274-SS	680-102558-1	37		
SD-274-01	680-102558-2	35		
SD-27402	680-102558-3	53		
SD-274-03	680-102558-4	50		
SD-260-SS	680-102558-5	0	D	10X
SD-260-01	680-102558-6	0	D	10X
SD-260-02	680-102558-7	41		
SD-260-03	680-102558-8	41		
SD-Dup07	680-102558-9	74		
SD-272-SS	680-102558-10	66		
SD-272-01	680-102558-11	50		
SD-272-02	680-102558-12	63		
SD-267-SS	680-102558-13	9	X	
SD-267-01	680-102558-14	0	D	10X
SD-267-02	680-102558-15	10	X	
SD-267-03	680-102558-16	88		
SD-266-SS	680-102558-17	11	X	
SD-266-01	680-102558-18	44		
SD-266-02	680-102558-19	0	D	10X
SD-266-03	680-102558-20	13	X	
SD-261-SS	680-102558-21	0	D	10X
SD-261-01	680-102558-22	0	D	
SD-261-02	680-102558-23	0	D	
SD-261-03	680-102558-24	41	*	
SD-276-SS	680-102558-25	48		
SD-275-SS	680-102558-26	36		
SD-252-SS	680-102558-27	35		
SD-253-SS	680-102558-28	0	X	10X
SD-254-SS	680-102558-29	0	D	10X
SD-255-SS	680-102558-30	66	*	
SD-Dup08	680-102558-31	64		
	MB 680-339370/21-A	70		
	MB 680-339371/17-A	60		

13DCB = Decachlorobiphenyl-13C12

QC LIMITS
30-130

Column to be used to flag recovery values

FORM II 680

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Matrix: Solid Level: Low

GC Column (1): DB-5MS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	13DCB #
	MB 680-341037/18-A	72
	MB 680-341361/11-A	34 *
	LCS 680-339370/22-A	47
	LCS 680-339371/18-A	44
	LCS 680-341037/19-A	74
	LCS 680-341361/12-A	47 *
SD-266-03 MS	680-102558-20 MS	59
SD-276-SS MS	680-102558-25 MS	43
SD-266-03 MSD	680-102558-20 MSD	46
SD-276-SS MSD	680-102558-25 MSD	39

	QC LIMITS
13DCB = Decachlorobiphenyl-13C12	30-130

Column to be used to flag recovery values

FORM II 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Instrument ID: CMSX Calibration Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calibration End Date: 07/20/2014 00:46

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		160628	10.11	229918	16.23		
UPPER LIMIT		240942	10.61	344877	16.73		
LOWER LIMIT		80314	9.61	114959	15.73		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-339932/9		166018	10.11	232985	16.22		
CCVIS 680-341033/4		118899	9.83	136247	15.92		
MB 680-339370/21-A		125510	9.83	127957	15.92		
LCS 680-339370/22-A		137830	9.84	164097	15.92		
680-102558-20 MS	SD-266-03 MS	132662	9.84	150648	15.92		
680-102558-20 MSD	SD-266-03 MSD	136733	9.84	158026	15.92		
680-102558-20	SD-266-03	118363	9.84	119524	15.92		
680-102558-1	SD-274-SS	149927	9.84	179467*	15.92		
680-102558-2	SD-274-01	145191	9.84	165579	15.92		
680-102558-3	SD-27402	128402	9.84	151229	15.92		
680-102558-4	SD-274-03	134568	9.84	147547	15.92		
680-102558-5	SD-260-SS	132172	9.84	128771	15.92		
680-102558-6	SD-260-01	141421	9.84	151707	15.92		
680-102558-7	SD-260-02	112248	9.84	118698	15.92		
680-102558-8	SD-260-03	113070	9.84	127752	15.92		
680-102558-9	SD-Dup07	123311	9.84	135145	15.92		
680-102558-10	SD-272-SS	128838	9.84	152322	15.92		
680-102558-11	SD-272-01	114914	9.84	127664	15.92		
680-102558-12	SD-272-02	119063	9.84	129363	15.92		
680-102558-13	SD-267-SS	130578	9.84	154203	15.92		
CCV 680-341033/27		130432	9.84	152132	15.92		
CCVIS 680-341034/4		134567	9.84	142416	15.92		
680-102558-14	SD-267-01	139455	9.84	162535	15.92		
680-102558-15	SD-267-02	124920	9.84	140994	15.92		
680-102558-17	SD-266-SS	122701	9.84	129137	15.92		
680-102558-19	SD-266-02	133506	9.84	140516	15.92		
MB 680-339371/17-A		133026	9.84	152054	15.92		
LCS 680-339371/18-A		119963	9.84	125500	15.92		
680-102558-22	SD-261-01	135625	9.84	147269	15.92		
680-102558-28	SD-253-SS	145206	9.84	157827	15.92		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Instrument ID: CMSX Calibration Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calibration End Date: 07/20/2014 00:46

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		160628	10.11	229918	16.23		
UPPER LIMIT		240942	10.61	344877	16.73		
LOWER LIMIT		80314	9.61	114959	15.73		
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 680-341034/25		147760	9.84	157121	15.92		
CCVIS 680-341035/4		134601	9.84	144937	15.92		
680-102558-29	SD-254-SS	144140	9.84	157233	15.92		
CCV 680-341035/15		133837	9.84	149601	15.92		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Sample No.: CCVIS 680-341033/4 Date Analyzed: 07/27/2014 22:56

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG2704.D Heated Purge: (Y/N) N

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		118899	9.83	136247	15.92		
UPPER LIMIT		154569	10.33	177121	16.42		
LOWER LIMIT		83229	9.33	95373	15.42		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-339370/21-A		125510	9.83	127957	15.92		
LCS 680-339370/22-A		137830	9.84	164097	15.92		
680-102558-20 MS	SD-266-03 MS	132662	9.84	150648	15.92		
680-102558-20 MSD	SD-266-03 MSD	136733	9.84	158026	15.92		
680-102558-20	SD-266-03	118363	9.84	119524	15.92		
680-102558-1	SD-274-SS	149927	9.84	179467*	15.92		
680-102558-2	SD-274-01	145191	9.84	165579	15.92		
680-102558-3	SD-27402	128402	9.84	151229	15.92		
680-102558-4	SD-274-03	134568	9.84	147547	15.92		
680-102558-5	SD-260-SS	132172	9.84	128771	15.92		
680-102558-6	SD-260-01	141421	9.84	151707	15.92		
680-102558-7	SD-260-02	112248	9.84	118698	15.92		
680-102558-8	SD-260-03	113070	9.84	127752	15.92		
680-102558-9	SD-Dup07	123311	9.84	135145	15.92		
680-102558-10	SD-272-SS	128838	9.84	152322	15.92		
680-102558-11	SD-272-01	114914	9.84	127664	15.92		
680-102558-12	SD-272-02	119063	9.84	129363	15.92		
680-102558-13	SD-267-SS	130578	9.84	154203	15.92		
CCV 680-341033/27		130432	9.84	152132	15.92		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Sample No.: CCVIS 680-341034/4 Date Analyzed: 07/28/2014 11:36

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG2731.D Heated Purge: (Y/N) N

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		134567	9.84	142416	15.92		
UPPER LIMIT		174937	10.34	185141	16.42		
LOWER LIMIT		94197	9.34	99691	15.42		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102558-14	SD-267-01	139455	9.84	162535	15.92		
680-102558-15	SD-267-02	124920	9.84	140994	15.92		
680-102558-17	SD-266-SS	122701	9.84	129137	15.92		
680-102558-19	SD-266-02	133506	9.84	140516	15.92		
MB 680-339371/17-A		133026	9.84	152054	15.92		
LCS 680-339371/18-A		119963	9.84	125500	15.92		
680-102558-22	SD-261-01	135625	9.84	147269	15.92		
680-102558-28	SD-253-SS	145206	9.84	157827	15.92		
CCV 680-341034/25		147760	9.84	157121	15.92		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Instrument ID: CMSX Calibration Start Date: 07/29/2014 23:20

GC Column: DB-5MS ID: 0.25(mm) Calibration End Date: 07/30/2014 01:15

Calibration ID: 32707

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		146426	9.77	207821	15.85		
UPPER LIMIT		219639	10.27	311732	16.35		
LOWER LIMIT		73213	9.27	103911	15.35		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-341490/8		132962	9.77	182303	15.85		
680-102558-21	SD-261-SS	144958	9.77	170061	15.85		
680-102558-23	SD-261-02	145176	9.77	176750	15.85		
MB 680-341037/18-A		146590	9.77	185100	15.85		
LCS 680-341037/19-A		128668	9.77	144265	15.85		
680-102558-25 MS	SD-276-SS MS	170241	9.78	202484	15.86		
680-102558-25 MSD	SD-276-SS MSD	166070	9.78	190926	15.86		
680-102558-25	SD-276-SS	195004	9.78	251056	15.86		
680-102558-26	SD-275-SS	195217	9.78	217195	15.88		
680-102558-27	SD-252-SS	163210	9.78	189439	15.86		
CCV 680-341490/22		161910	9.78	198715	15.86		
CCVIS 680-341486/4		153596	9.78	178136	15.86		
MB 680-341361/11-A		97803*	9.78	101835*	15.86		
LCS 680-341361/12-A		100926*	9.78	104813*	15.86		
680-102558-16	SD-267-03	115700	9.78	139066	15.88		
680-102558-24	SD-261-03	94379*	9.78	104441*	15.86		
680-102558-30	SD-255-SS	100787*	9.78	119833*	15.86		
680-102558-31	SD-Dup08	110587	9.78	130326	15.86		
680-102558-18	SD-266-01	110868	9.78	123022*	15.86		
CCV 680-341486/25		159901	9.78	181465	15.86		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Sample No.: CCVIS 680-341486/4 Date Analyzed: 07/30/2014 12:25

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG2931.D Heated Purge: (Y/N) N

Calibration ID: 32707

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		153596	9.78	178136	15.86		
UPPER LIMIT		199675	10.28	231577	16.36		
LOWER LIMIT		107517	9.28	124695	15.36		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-341361/11-A		97803*	9.78	101835*	15.86		
LCS 680-341361/12-A		100926*	9.78	104813*	15.86		
680-102558-16	SD-267-03	115700	9.78	139066	15.88		
680-102558-24	SD-261-03	94379*	9.78	104441*	15.86		
680-102558-30	SD-255-SS	100787*	9.78	119833*	15.86		
680-102558-31	SD-Dup08	110587	9.78	130326	15.86		
680-102558-18	SD-266-01	110868	9.78	123022*	15.86		
CCV 680-341486/25		159901	9.78	181465	15.86		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab File ID: XG2708.D Lab Sample ID: MB 680-339370/21-A

Matrix: Solid Date Extracted: 07/22/2014 18:12

Instrument ID: CMSX Date Analyzed: 07/28/2014 00:51

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-339370/22-A	XG2709.D	07/28/2014 01:19
SD-266-03 MS	680-102558-20 MS	XG2710.D	07/28/2014 01:48
SD-266-03 MSD	680-102558-20 MSD	XG2711.D	07/28/2014 02:17
SD-266-03	680-102558-20	XG2712.D	07/28/2014 02:45
SD-274-SS	680-102558-1	XG2713.D	07/28/2014 03:14
SD-274-01	680-102558-2	XG2714.D	07/28/2014 03:42
SD-27402	680-102558-3	XG2715.D	07/28/2014 04:11
SD-274-03	680-102558-4	XG2716.D	07/28/2014 04:40
SD-260-SS	680-102558-5	XG2717.D	07/28/2014 05:08
SD-260-01	680-102558-6	XG2718.D	07/28/2014 05:37
SD-260-02	680-102558-7	XG2719.D	07/28/2014 06:05
SD-260-03	680-102558-8	XG2720.D	07/28/2014 06:34
SD-Dup07	680-102558-9	XG2721.D	07/28/2014 07:03
SD-272-SS	680-102558-10	XG2722.D	07/28/2014 07:31
SD-272-01	680-102558-11	XG2723.D	07/28/2014 08:00
SD-272-02	680-102558-12	XG2724.D	07/28/2014 08:29
SD-267-SS	680-102558-13	XG2725.D	07/28/2014 08:57
SD-267-01	680-102558-14	XG2733.D	07/28/2014 12:34
SD-267-02	680-102558-15	XG2734.D	07/28/2014 13:03
SD-266-SS	680-102558-17	XG2736.D	07/28/2014 14:01
SD-266-02	680-102558-19	XG2738.D	07/28/2014 14:58

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102558-1
SDG No.: 680102558-1
Client Sample ID:
Lab Sample ID: MB 680-339370/21-A
Matrix: Solid
Lab File ID: XG2708.D
Analysis Method: 680
Date Collected:
Extract. Method: 680
Date Extracted: 07/22/2014 18:12
Sample wt/vol: 30.00(g)
Date Analyzed: 07/28/2014 00:51
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 341033
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.83	U	17	0.83
25512-42-9	Dichlorobiphenyl	0.35	U	3.3	0.35
28655-71-2	Heptachlorobiphenyl	0.50	U	10	0.50
26601-64-9	Hexachlorobiphenyl	0.33	U	6.7	0.33
27323-18-8	Monochlorobiphenyl	0.19	U	3.3	0.19
53742-07-7	Nonachlorobiphenyl	3.3	U	17	3.3
55722-26-4	Octachlorobiphenyl	0.53	U	10	0.53
25429-29-2	Pentachlorobiphenyl	0.34	U	6.7	0.34
26914-33-0	Tetrachlorobiphenyl	0.37	U	6.7	0.37
25323-68-6	Trichlorobiphenyl	0.17	U	3.3	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	70		30-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Matrix: Solid Level: Low Lab File ID: XG2709.D

Lab ID: LCS 680-339370/22-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	333	159	48	30-130	
Dichlorobiphenyl	66.6	27.5	41	30-130	
Heptachlorobiphenyl	200	91.5	46	40-140	
Hexachlorobiphenyl	133	57.8	43	40-140	
Monochlorobiphenyl	66.6	26.4	40	30-130	
Nonachlorobiphenyl	333	245	74	30-130	
Octachlorobiphenyl	200	94.2	47	40-140	
Pentachlorobiphenyl	133	58.6	44	40-140	
Tetrachlorobiphenyl	133	54.6	41	40-140	
Trichlorobiphenyl	66.6	27.3	41	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Matrix: Solid Level: Low Lab File ID: XG2710.D

Lab ID: 680-102558-20 MS Client ID: SD-266-03 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	2270	5.7 U	1350	59	30-130	
Dichlorobiphenyl	455	2.4 U	283	62	30-130	
Heptachlorobiphenyl	1360	3.5 U	902	66	40-140	
Hexachlorobiphenyl	910	14 J	655	71	40-140	
Monochlorobiphenyl	455	1.3 U	265	58	30-130	
Nonachlorobiphenyl	2270	23 U	2140	94	30-130	
Octachlorobiphenyl	1360	3.7 U	865	63	40-140	
Pentachlorobiphenyl	910	15 J	654	70	40-140	
Tetrachlorobiphenyl	910	73	864	87	40-140	
Trichlorobiphenyl	455	3.1 J	302	66	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Matrix: Solid Level: Low Lab File ID: XG2711.D

Lab ID: 680-102558-20 MSD Client ID: SD-266-03 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
DCB Decachlorobiphenyl	2330	1110	48	19	50	30-130	
Dichlorobiphenyl	466	211	45	29	50	30-130	
Heptachlorobiphenyl	1400	671	48	29	50	40-140	
Hexachlorobiphenyl	931	515	54	24	50	40-140	
Monochlorobiphenyl	466	195	42	31	50	30-130	
Nonachlorobiphenyl	2330	1690	73	23	50	30-130	
Octachlorobiphenyl	1400	670	48	25	50	40-140	
Pentachlorobiphenyl	931	520	54	23	50	40-140	
Tetrachlorobiphenyl	931	737	71	16	50	40-140	
Trichlorobiphenyl	466	236	50	25	50	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab File ID: XG2739.D Lab Sample ID: MB 680-339371/17-A

Matrix: Solid Date Extracted: 07/21/2014 17:06

Instrument ID: CMSX Date Analyzed: 07/28/2014 15:28

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-339371/18-A	XG2740.D	07/28/2014 15:57
SD-261-01	680-102558-22	XG2745.D	07/28/2014 18:23
SD-253-SS	680-102558-28	XG2751.D	07/28/2014 21:19
SD-254-SS	680-102558-29	XG2760.D	07/29/2014 01:46
SD-261-SS	680-102558-21	XG2916.D	07/30/2014 03:09
SD-261-02	680-102558-23	XG2917.D	07/30/2014 03:38

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102558-1
SDG No.: 680102558-1
Client Sample ID:
Lab Sample ID: MB 680-339371/17-A
Matrix: Solid
Lab File ID: XG2739.D
Analysis Method: 680
Date Collected:
Extract. Method: 680
Date Extracted: 07/21/2014 17:06
Sample wt/vol: 30.04(g)
Date Analyzed: 07/28/2014 15:28
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 341034
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.83	U	17	0.83
25512-42-9	Dichlorobiphenyl	0.35	U	3.3	0.35
28655-71-2	Heptachlorobiphenyl	0.50	U	10	0.50
26601-64-9	Hexachlorobiphenyl	0.33	U	6.7	0.33
27323-18-8	Monochlorobiphenyl	0.19	U	3.3	0.19
53742-07-7	Nonachlorobiphenyl	3.3	U	17	3.3
55722-26-4	Octachlorobiphenyl	0.53	U	10	0.53
25429-29-2	Pentachlorobiphenyl	0.34	U	6.7	0.34
26914-33-0	Tetrachlorobiphenyl	0.37	U	6.7	0.37
25323-68-6	Trichlorobiphenyl	0.17	U	3.3	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	60		30-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Matrix: Solid Level: Low Lab File ID: XG2740.D

Lab ID: LCS 680-339371/18-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	332	150	45	30-130	
Dichlorobiphenyl	66.4	30.4	46	30-130	
Heptachlorobiphenyl	199	97.8	49	40-140	
Hexachlorobiphenyl	133	63.4	48	40-140	
Monochlorobiphenyl	66.4	29.3	44	30-130	
Nonachlorobiphenyl	332	235	71	30-130	
Octachlorobiphenyl	199	96.1	48	40-140	
Pentachlorobiphenyl	133	61.6	46	40-140	
Tetrachlorobiphenyl	133	61.8	47	40-140	
Trichlorobiphenyl	66.4	31.0	47	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab File ID: XG2918.D Lab Sample ID: MB 680-341037/18-A

Matrix: Solid Date Extracted: 07/28/2014 13:55

Instrument ID: CMSX Date Analyzed: 07/30/2014 04:06

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-341037/19-A	XG2919.D	07/30/2014 04:35
SD-276-SS MS	680-102558-25 MS	XG2920.D	07/30/2014 05:04
SD-276-SS MSD	680-102558-25 MSD	XG2921.D	07/30/2014 05:32
SD-276-SS	680-102558-25	XG2922.D	07/30/2014 06:01
SD-275-SS	680-102558-26	XG2923.D	07/30/2014 08:04
SD-252-SS	680-102558-27	XG2924.D	07/30/2014 08:33

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102558-1

SDG No.: 680102558-1

Client Sample ID: | Lab Sample ID: MB 680-341037/18-A

Matrix: Solid | Lab File ID: XG2918.D

Analysis Method: 680 | Date Collected:

Extract. Method: 680 | Date Extracted: 07/28/2014 13:55

Sample wt/vol: 30.00(g) | Date Analyzed: 07/30/2014 04:06

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341490 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.83	U	17	0.83
25512-42-9	Dichlorobiphenyl	0.35	U	3.3	0.35
28655-71-2	Heptachlorobiphenyl	0.50	U	10	0.50
26601-64-9	Hexachlorobiphenyl	0.33	U	6.7	0.33
27323-18-8	Monochlorobiphenyl	0.19	U	3.3	0.19
53742-07-7	Nonachlorobiphenyl	3.3	U	17	3.3
55722-26-4	Octachlorobiphenyl	0.53	U	10	0.53
25429-29-2	Pentachlorobiphenyl	0.34	U	6.7	0.34
26914-33-0	Tetrachlorobiphenyl	0.37	U	6.7	0.37
25323-68-6	Trichlorobiphenyl	0.17	U	3.3	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	72		30-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Matrix: Solid Level: Low Lab File ID: XG2919.D

Lab ID: LCS 680-341037/19-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	333	253	76	30-130	
Dichlorobiphenyl	66.6	46.4	70	30-130	
Heptachlorobiphenyl	200	153	77	40-140	
Hexachlorobiphenyl	133	97.4	73	40-140	
Monochlorobiphenyl	66.6	44.4	67	30-130	
Nonachlorobiphenyl	333	400	120	30-130	
Octachlorobiphenyl	200	157	78	40-140	
Pentachlorobiphenyl	133	103	77	40-140	
Tetrachlorobiphenyl	133	97.2	73	40-140	
Trichlorobiphenyl	66.6	48.0	72	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Matrix: Solid Level: Low Lab File ID: XG2920.D

Lab ID: 680-102558-25 MS Client ID: SD-276-SS MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	3200	8.0 U	1370	43	30-130	
Dichlorobiphenyl	640	3.4 U	292	46	30-130	
Heptachlorobiphenyl	1920	320	1140	43	40-140	
Hexachlorobiphenyl	1280	540	958	33	40-140	F1
Monochlorobiphenyl	640	1.8 U	275	43	30-130	
Nonachlorobiphenyl	3200	32 U	2150	67	30-130	
Octachlorobiphenyl	1920	5.1 U	889	46	40-140	
Pentachlorobiphenyl	1280	450	906	35	40-140	F1
Tetrachlorobiphenyl	1280	550	1050	39	40-140	F1
Trichlorobiphenyl	640	20 J	322	47	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Matrix: Solid Level: Low Lab File ID: XG2921.D

Lab ID: 680-102558-25 MSD Client ID: SD-276-SS MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
DCB Decachlorobiphenyl	3200	1320	41	4	50	30-130	
Dichlorobiphenyl	640	297	46	2	50	30-130	
Heptachlorobiphenyl	1920	1130	42	1	50	40-140	
Hexachlorobiphenyl	1280	959	33	0	50	40-140	F1
Monochlorobiphenyl	640	278	43	1	50	30-130	
Nonachlorobiphenyl	3200	2040	64	5	50	30-130	
Octachlorobiphenyl	1920	836	44	6	50	40-140	
Pentachlorobiphenyl	1280	938	38	4	50	40-140	F1
Tetrachlorobiphenyl	1280	1030	38	2	50	40-140	F1
Trichlorobiphenyl	640	314	46	3	50	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab File ID: XG2934.D Lab Sample ID: MB 680-341361/11-A

Matrix: Solid Date Extracted: 07/29/2014 14:28

Instrument ID: CMSX Date Analyzed: 07/30/2014 13:50

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-341361/12-A	XG2935.D	07/30/2014 14:19
SD-267-03	680-102558-16	XG2939.D	07/30/2014 16:14
SD-261-03	680-102558-24	XG2940.D	07/30/2014 16:42
SD-255-SS	680-102558-30	XG2941.D	07/30/2014 17:11
SD-Dup08	680-102558-31	XG2942.D	07/30/2014 17:40
SD-266-01	680-102558-18	XG2943.D	07/30/2014 18:09

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102558-1

SDG No.: 680102558-1

Client Sample ID: | Lab Sample ID: MB 680-341361/11-A

Matrix: Solid | Lab File ID: XG2934.D

Analysis Method: 680 | Date Collected:

Extract. Method: 680 | Date Extracted: 07/29/2014 14:28

Sample wt/vol: 30.05(g) | Date Analyzed: 07/30/2014 13:50

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341486 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.83	U	17	0.83
25512-42-9	Dichlorobiphenyl	0.35	U	3.3	0.35
28655-71-2	Heptachlorobiphenyl	0.50	U	10	0.50
26601-64-9	Hexachlorobiphenyl	0.33	U	6.7	0.33
27323-18-8	Monochlorobiphenyl	0.19	U	3.3	0.19
53742-07-7	Nonachlorobiphenyl	3.3	U	17	3.3
55722-26-4	Octachlorobiphenyl	0.53	U	10	0.53
25429-29-2	Pentachlorobiphenyl	0.34	U	6.7	0.34
26914-33-0	Tetrachlorobiphenyl	0.37	U	6.7	0.37
25323-68-6	Trichlorobiphenyl	0.17	U	3.3	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	34	*	30-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Matrix: Solid Level: Low Lab File ID: XG2935.D

Lab ID: LCS 680-341361/12-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	333	162	49	30-130	*
Dichlorobiphenyl	66.6	30.2	45	30-130	*
Heptachlorobiphenyl	200	101	51	40-140	*
Hexachlorobiphenyl	133	66.3	50	40-140	*
Monochlorobiphenyl	66.6	27.4	41	30-130	*
Nonachlorobiphenyl	333	249	75	30-130	*
Octachlorobiphenyl	200	101	51	40-140	*
Pentachlorobiphenyl	133	66.6	50	40-140	*
Tetrachlorobiphenyl	133	63.9	48	40-140	*
Trichlorobiphenyl	66.6	31.5	47	30-130	*

Column to be used to flag recovery and RPD values

FORM III 680

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab File ID: XG1907.D DFTPP Injection Date: 07/19/2014

Instrument ID: CMSX DFTPP Injection Time: 21:51

Analysis Batch No.: 339932

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	54.3	
197	Less than 1 % of mass 198	0.2	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.9	
275	10 - 30% of mass 198	30.0	
365	Greater than 1% of mass 198	4.8	
441	Present but less than mass 443	13.3	(84.6)2
442	Greater than 40% of mass 198	86.0	
443	17 - 23% of mass 442	15.7	(18.3)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICISAV 680-339932/4	XG1909.D	07/19/2014	22:52
	IC 680-339932/5	XG1910.D	07/19/2014	23:20
	IC 680-339932/6	XG1911.D	07/19/2014	23:49
	IC 680-339932/7	XG1912.D	07/20/2014	00:17
	IC 680-339932/8	XG1913.D	07/20/2014	00:46
	ICV 680-339932/9	XG1914.D	07/20/2014	01:14

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 339932

SDG No.: 680102558-1

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2014 22:52 Calibration End Date: 07/20/2014 00:46 Calibration ID: 32129

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-339932/8	XG1913.D
Level 2	IC 680-339932/7	XG1912.D
Level 3	ICISAV 680-339932/4	XG1909.D
Level 4	IC 680-339932/6	XG1911.D
Level 5	IC 680-339932/5	XG1910.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.8353	0.8456	0.9098	0.8813	0.8734	Ave		0.8691				3.4		20.0			
Dichlorobiphenyl	0.5776	0.5823	0.6122	0.6067	0.5987	Ave		0.5955				2.5		20.0			
Trichlorobiphenyl	0.3996	0.4135	0.4348	0.4389	0.4410	Ave		0.4256				4.3		20.0			
PCB-104			0.3302			Ave		0.3302						30.0			
Tetrachlorobiphenyl	0.2755	0.2817	0.3033	0.2909	0.2951	Ave		0.2893				3.8		20.0			
Pentachlorobiphenyl	0.2123	0.2203	0.2262	0.2270	0.2357	Ave		0.2243				3.9		20.0			
PCB-77			0.4767			Ave		0.4767						30.0			
Hexachlorobiphenyl	0.1966	0.2022	0.2225	0.2132	0.2185	Ave		0.2106				5.2		20.0			
Heptachlorobiphenyl	0.1540	0.1656	0.1696	0.1700	0.1695	Ave		0.1657				4.1		20.0			
Octachlorobiphenyl	0.1373	0.1488	0.1535	0.1521	0.1669	Ave		0.1517				7.0		20.0			
PCB-208			0.0569			Ave		0.0569						30.0			
Nonachlorobiphenyl			0.0443			Ave		0.0363				11.0		20.0			
DCB Decachlorobiphenyl	0.0321	0.0328	0.0379	0.0370	0.0414	Ave		0.0363				11.0		20.0			
Decachlorobiphenyl-13C12	0.0407	0.0484	0.0517	0.0504	0.0567	Ave		0.0496				12.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: ICV 680-339932/9 Calibration Date: 07/20/2014 01:14

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG1914.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8287		0.953	1.00	-4.7	20.0
Dichlorobiphenyl	Ave	0.5955	0.5788		0.972	1.00	-2.8	20.0
Trichlorobiphenyl	Ave	0.4256	0.4300		1.01	1.00	1.0	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2870		1.98	2.00	-0.8	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2168		1.93	2.00	-3.3	20.0
Hexachlorobiphenyl	Ave	0.2106	0.2122		2.02	2.00	0.8	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1650		2.99	3.00	-0.4	20.0
Octachlorobiphenyl	Ave	0.1517	0.1560		3.08	3.00	2.8	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0351		4.84	5.00	-3.1	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab File ID: XG2702.D DFTPP Injection Date: 07/27/2014

Instrument ID: CMSX DFTPP Injection Time: 21:55

Analysis Batch No.: 341033

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	51.8	
197	Less than 1 % of mass 198	0.0	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	7.1	
275	10 - 30% of mass 198	28.7	
365	Greater than 1% of mass 198	4.6	
441	Present but less than mass 443	10.2	(60.6)2
442	Greater than 40% of mass 198	89.2	
443	17 - 23% of mass 442	16.8	(18.8)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-341033/3	XG2703.D	07/27/2014	22:26
	CCVIS 680-341033/4	XG2704.D	07/27/2014	22:56
	MB 680-339370/21-A	XG2708.D	07/28/2014	00:51
	LCS 680-339370/22-A	XG2709.D	07/28/2014	01:19
SD-266-03 MS	680-102558-20 MS	XG2710.D	07/28/2014	01:48
SD-266-03 MSD	680-102558-20 MSD	XG2711.D	07/28/2014	02:17
SD-266-03	680-102558-20	XG2712.D	07/28/2014	02:45
SD-274-SS	680-102558-1	XG2713.D	07/28/2014	03:14
SD-274-01	680-102558-2	XG2714.D	07/28/2014	03:42
SD-27402	680-102558-3	XG2715.D	07/28/2014	04:11
SD-274-03	680-102558-4	XG2716.D	07/28/2014	04:40
SD-260-SS	680-102558-5	XG2717.D	07/28/2014	05:08
SD-260-01	680-102558-6	XG2718.D	07/28/2014	05:37
SD-260-02	680-102558-7	XG2719.D	07/28/2014	06:05
SD-260-03	680-102558-8	XG2720.D	07/28/2014	06:34
SD-Dup07	680-102558-9	XG2721.D	07/28/2014	07:03
SD-272-SS	680-102558-10	XG2722.D	07/28/2014	07:31
SD-272-01	680-102558-11	XG2723.D	07/28/2014	08:00
SD-272-02	680-102558-12	XG2724.D	07/28/2014	08:29
SD-267-SS	680-102558-13	XG2725.D	07/28/2014	08:57
	CCV 680-341033/27	XG2726.D	07/28/2014	09:31

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: CCVIS 680-341033/4 Calibration Date: 07/27/2014 22:56

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2704.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8309		0.956	1.00	-4.4	20.0
Dichlorobiphenyl	Ave	0.5955	0.5508		0.925	1.00	-7.5	20.0
Trichlorobiphenyl	Ave	0.4256	0.3840		0.902	1.00	-9.8	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2620		1.81	2.00	-9.4	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2019		1.80	2.00	-10.0	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1924		1.83	2.00	-8.6	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1495		2.71	3.00	-9.8	20.0
Octachlorobiphenyl	Ave	0.1517	0.1372		2.71	3.00	-9.5	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0339		4.68	5.00	-6.4	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0472		4.76	5.00	-4.8	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: CCV 680-341033/27 Calibration Date: 07/28/2014 09:31

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2726.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8366		0.963	1.00	-3.7	20.0
Dichlorobiphenyl	Ave	0.5955	0.5633		0.946	1.00	-5.4	20.0
Trichlorobiphenyl	Ave	0.4256	0.3909		0.919	1.00	-8.1	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2685		1.86	2.00	-7.2	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2024		1.81	2.00	-9.7	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1973		1.87	2.00	-6.3	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1531		2.77	3.00	-7.7	20.0
Octachlorobiphenyl	Ave	0.1517	0.1418		2.80	3.00	-6.5	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0364		5.02	5.00	0.4	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0490		4.94	5.00	-1.1	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab File ID: XG2729.D DFTPP Injection Date: 07/28/2014

Instrument ID: CMSX DFTPP Injection Time: 10:35

Analysis Batch No.: 341034

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	51.2
197	Less than 1 % of mass 198	0.2
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.7
275	10 - 30% of mass 198	29.8
365	Greater than 1% of mass 198	4.2
441	Present but less than mass 443	15.5 (80.3)2
442	Greater than 40% of mass 198	100.1
443	17 - 23% of mass 442	19.3 (19.3)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-341034/3	XG2730.D	07/28/2014	11:05
	CCVIS 680-341034/4	XG2731.D	07/28/2014	11:36
SD-267-01	680-102558-14	XG2733.D	07/28/2014	12:34
SD-267-02	680-102558-15	XG2734.D	07/28/2014	13:03
SD-266-SS	680-102558-17	XG2736.D	07/28/2014	14:01
SD-266-02	680-102558-19	XG2738.D	07/28/2014	14:58
	MB 680-339371/17-A	XG2739.D	07/28/2014	15:28
	LCS 680-339371/18-A	XG2740.D	07/28/2014	15:57
SD-261-01	680-102558-22	XG2745.D	07/28/2014	18:23
SD-253-SS	680-102558-28	XG2751.D	07/28/2014	21:19
	CCV 680-341034/25	XG2752.D	07/28/2014	21:48

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: CCVIS 680-341034/4 Calibration Date: 07/28/2014 11:36

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2731.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8349		0.961	1.00	-3.9	20.0
Dichlorobiphenyl	Ave	0.5955	0.5646		0.948	1.00	-5.2	20.0
Trichlorobiphenyl	Ave	0.4256	0.3934		0.924	1.00	-7.6	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2649		1.83	2.00	-8.4	20.0
Pentachlorobiphenyl	Ave	0.2243	0.1980		1.77	2.00	-11.7	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1922		1.83	2.00	-8.7	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1513		2.74	3.00	-8.7	20.0
Octachlorobiphenyl	Ave	0.1517	0.1378		2.72	3.00	-9.2	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0328		4.52	5.00	-9.7	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0453		4.57	5.00	-8.6	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: CCV 680-341034/25 Calibration Date: 07/28/2014 21:48

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2752.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.7860		0.904	1.00	-9.6	20.0
Dichlorobiphenyl	Ave	0.5955	0.5415		0.909	1.00	-9.1	20.0
Trichlorobiphenyl	Ave	0.4256	0.3805		0.894	1.00	-10.6	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2542		1.76	2.00	-12.1	20.0
Pentachlorobiphenyl	Ave	0.2243	0.1977		1.76	2.00	-11.9	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1883		1.79	2.00	-10.6	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1475		2.67	3.00	-11.0	20.0
Octachlorobiphenyl	Ave	0.1517	0.1329		2.63	3.00	-12.4	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0314		4.33	5.00	-13.5	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0427		4.30	5.00	-14.0	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab File ID: XG2755.D DFTPP Injection Date: 07/28/2014

Instrument ID: CMSX DFTPP Injection Time: 23:17

Analysis Batch No.: 341035

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	49.3	
197	Less than 1 % of mass 198	0.2	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.7	
275	10 - 30% of mass 198	29.3	
365	Greater than 1% of mass 198	4.3	
441	Present but less than mass 443	11.1	(57.5)2
442	Greater than 40% of mass 198	98.4	
443	17 - 23% of mass 442	19.2	(19.6)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-341035/3	XG2756.D	07/28/2014	23:48
	CCVIS 680-341035/4	XG2757.D	07/29/2014	00:19
SD-254-SS	680-102558-29	XG2760.D	07/29/2014	01:46
	CCV 680-341035/15	XG2768.D	07/29/2014	05:37

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: CCVIS 680-341035/4 Calibration Date: 07/29/2014 00:19

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2757.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8217		0.946	1.00	-5.4	20.0
Dichlorobiphenyl	Ave	0.5955	0.5489		0.922	1.00	-7.8	20.0
Trichlorobiphenyl	Ave	0.4256	0.3870		0.909	1.00	-9.1	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2653		1.83	2.00	-8.3	20.0
Pentachlorobiphenyl	Ave	0.2243	0.1976		1.76	2.00	-11.9	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1929		1.83	2.00	-8.4	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1563		2.83	3.00	-5.7	20.0
Octachlorobiphenyl	Ave	0.1517	0.1413		2.79	3.00	-6.9	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0323		4.45	5.00	-11.0	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0454		4.58	5.00	-8.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: CCV 680-341035/15 Calibration Date: 07/29/2014 05:37

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2768.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8152		0.938	1.00	-6.2	20.0
Dichlorobiphenyl	Ave	0.5955	0.5621		0.944	1.00	-5.6	20.0
Trichlorobiphenyl	Ave	0.4256	0.3947		0.927	1.00	-7.3	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2684		1.86	2.00	-7.2	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2062		1.84	2.00	-8.1	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1987		1.89	2.00	-5.6	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1598		2.89	3.00	-3.6	20.0
Octachlorobiphenyl	Ave	0.1517	0.1476		2.92	3.00	-2.7	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0349		4.81	5.00	-3.8	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0472		4.76	5.00	-4.9	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab File ID: XG2906.D DFTPP Injection Date: 07/29/2014

Instrument ID: CMSX DFTPP Injection Time: 22:19

Analysis Batch No.: 341490

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	51.8
197	Less than 1 % of mass 198	0.0
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.6
275	10 - 30% of mass 198	29.6
365	Greater than 1% of mass 198	4.6
441	Present but less than mass 443	15.1 (81.7)2
442	Greater than 40% of mass 198	93.1
443	17 - 23% of mass 442	18.4 (19.8)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-341490/2	XG2907.D	07/29/2014	22:49
	ICISAV 680-341490/3	XG2908.D	07/29/2014	23:20
	IC 680-341490/4	XG2909.D	07/29/2014	23:49
	IC 680-341490/5	XG2910.D	07/30/2014	00:17
	IC 680-341490/6	XG2911.D	07/30/2014	00:46
	IC 680-341490/7	XG2912.D	07/30/2014	01:15
	ICV 680-341490/8	XG2913.D	07/30/2014	01:43
SD-261-SS	680-102558-21	XG2916.D	07/30/2014	03:09
SD-261-02	680-102558-23	XG2917.D	07/30/2014	03:38
	MB 680-341037/18-A	XG2918.D	07/30/2014	04:06
	LCS 680-341037/19-A	XG2919.D	07/30/2014	04:35
SD-276-SS MS	680-102558-25 MS	XG2920.D	07/30/2014	05:04
SD-276-SS MSD	680-102558-25 MSD	XG2921.D	07/30/2014	05:32
SD-276-SS	680-102558-25	XG2922.D	07/30/2014	06:01
SD-275-SS	680-102558-26	XG2923.D	07/30/2014	08:04
SD-252-SS	680-102558-27	XG2924.D	07/30/2014	08:33
	CCV 680-341490/22	XG2927.D	07/30/2014	09:58

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 341490

SDG No.: 680102558-1

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/29/2014 23:20 Calibration End Date: 07/30/2014 01:15 Calibration ID: 32707

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-341490/7	XG2912.D
Level 2	IC 680-341490/6	XG2911.D
Level 3	ICISAV 680-341490/3	XG2908.D
Level 4	IC 680-341490/5	XG2910.D
Level 5	IC 680-341490/4	XG2909.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.7921	0.7705	0.8099	0.7988	0.7964	Ave		0.7935				1.8		20.0			
Dichlorobiphenyl	0.5284	0.5186	0.5209	0.5416	0.5248	Ave		0.5269				1.7		20.0			
Trichlorobiphenyl	0.3754	0.3671	0.3622	0.3850	0.3830	Ave		0.3745				2.6		20.0			
PCB-104			0.2799			Ave		0.2799						30.0			
Tetrachlorobiphenyl	0.2501	0.2513	0.2524	0.2552	0.2537	Ave		0.2526				0.8		20.0			
Pentachlorobiphenyl	0.1969	0.1993	0.1832	0.2038	0.2132	Ave		0.1993				5.5		20.0			
PCB-77			0.3725			Ave		0.3725						30.0			
Hexachlorobiphenyl	0.1822	0.1911	0.1904	0.1957	0.2013	Ave		0.1922				3.7		20.0			
Heptachlorobiphenyl	0.1478	0.1500	0.1425	0.1568	0.1664	Ave		0.1527				6.0		20.0			
Octachlorobiphenyl	0.1288	0.1424	0.1289	0.1458	0.1571	Ave		0.1406				8.6		20.0			
PCB-208			0.0459			Ave		0.0459						30.0			
Nonachlorobiphenyl			0.0367			Ave		0.0349				9.9		20.0			
DCB Decachlorobiphenyl	0.0323	0.0337	0.0316	0.0368	0.0399	Ave		0.0349				9.9		20.0			
Decachlorobiphenyl-13C12	0.0428	0.0516	0.0426	0.0504	0.0560	Ave		0.0487				12.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: ICV 680-341490/8 Calibration Date: 07/30/2014 01:43

Instrument ID: CMSX Calib Start Date: 07/29/2014 23:20

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/30/2014 01:15

Lab File ID: XG2913.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7935	0.7728		0.974	1.00	-2.6	20.0
Dichlorobiphenyl	Ave	0.5269	0.5308		1.01	1.00	0.7	20.0
Trichlorobiphenyl	Ave	0.3745	0.3902		1.04	1.00	4.2	20.0
Tetrachlorobiphenyl	Ave	0.2526	0.2598		2.06	2.00	2.9	20.0
Pentachlorobiphenyl	Ave	0.1993	0.2014		2.02	2.00	1.1	20.0
Hexachlorobiphenyl	Ave	0.1922	0.1898		1.98	2.00	-1.2	20.0
Heptachlorobiphenyl	Ave	0.1527	0.1595		3.13	3.00	4.4	20.0
Octachlorobiphenyl	Ave	0.1406	0.1416		3.02	3.00	0.7	20.0
DCB Decachlorobiphenyl	Ave	0.0349	0.0347		4.98	5.00	-0.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: CCV 680-341490/22 Calibration Date: 07/30/2014 09:58

Instrument ID: CMSX Calib Start Date: 07/29/2014 23:20

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/30/2014 01:15

Lab File ID: XG2927.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7935	0.7280		0.917	1.00	-8.3	20.0
Dichlorobiphenyl	Ave	0.5269	0.4890		0.928	1.00	-7.2	20.0
Trichlorobiphenyl	Ave	0.3745	0.3465		0.925	1.00	-7.5	20.0
Tetrachlorobiphenyl	Ave	0.2526	0.2372		1.88	2.00	-6.1	20.0
Pentachlorobiphenyl	Ave	0.1993	0.1861		1.87	2.00	-6.6	20.0
Hexachlorobiphenyl	Ave	0.1922	0.1841		1.92	2.00	-4.2	20.0
Heptachlorobiphenyl	Ave	0.1527	0.1448		2.85	3.00	-5.2	20.0
Octachlorobiphenyl	Ave	0.1406	0.1332		2.84	3.00	-5.3	20.0
DCB Decachlorobiphenyl	Ave	0.0349	0.0303		4.34	5.00	-13.1	20.0
Decachlorobiphenyl-13C12	Ave	0.0487	0.0429		4.41	5.00	-11.8	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab File ID: XG2929.D DFTPP Injection Date: 07/30/2014

Instrument ID: CMSX DFTPP Injection Time: 11:13

Analysis Batch No.: 341486

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	50.6	
197	Less than 1 % of mass 198	0.0	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.7	
275	10 - 30% of mass 198	28.3	
365	Greater than 1% of mass 198	4.1	
441	Present but less than mass 443	14.0	(77.5)2
442	Greater than 40% of mass 198	92.4	
443	17 - 23% of mass 442	18.0	(19.5)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-341486/3	XG2930.D	07/30/2014	11:54
	CCVIS 680-341486/4	XG2931.D	07/30/2014	12:25
	MB 680-341361/11-A	XG2934.D	07/30/2014	13:50
	LCS 680-341361/12-A	XG2935.D	07/30/2014	14:19
SD-267-03	680-102558-16	XG2939.D	07/30/2014	16:14
SD-261-03	680-102558-24	XG2940.D	07/30/2014	16:42
SD-255-SS	680-102558-30	XG2941.D	07/30/2014	17:11
SD-Dup08	680-102558-31	XG2942.D	07/30/2014	17:40
SD-266-01	680-102558-18	XG2943.D	07/30/2014	18:09
	CCV 680-341486/25	XG2948.D	07/30/2014	20:32

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: CCVIS 680-341486/4 Calibration Date: 07/30/2014 12:25

Instrument ID: CMSX Calib Start Date: 07/29/2014 23:20

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/30/2014 01:15

Lab File ID: XG2931.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7935	0.7474		0.942	1.00	-5.8	20.0
Dichlorobiphenyl	Ave	0.5269	0.4977		0.945	1.00	-5.5	20.0
Trichlorobiphenyl	Ave	0.3745	0.3563		0.951	1.00	-4.9	20.0
Tetrachlorobiphenyl	Ave	0.2526	0.2392		1.89	2.00	-5.3	20.0
Pentachlorobiphenyl	Ave	0.1993	0.1878		1.89	2.00	-5.7	20.0
Hexachlorobiphenyl	Ave	0.1922	0.1832		1.91	2.00	-4.7	20.0
Heptachlorobiphenyl	Ave	0.1527	0.1420		2.79	3.00	-7.0	20.0
Octachlorobiphenyl	Ave	0.1406	0.1325		2.83	3.00	-5.8	20.0
DCB Decachlorobiphenyl	Ave	0.0349	0.0320		4.59	5.00	-8.2	20.0
Decachlorobiphenyl-13C12	Ave	0.0487	0.0438		4.50	5.00	-10.0	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: CCV 680-341486/25 Calibration Date: 07/30/2014 20:32

Instrument ID: CMSX Calib Start Date: 07/29/2014 23:20

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/30/2014 01:15

Lab File ID: XG2948.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7935	0.7557		0.952	1.00	-4.8	20.0
Dichlorobiphenyl	Ave	0.5269	0.5175		0.982	1.00	-1.8	20.0
Trichlorobiphenyl	Ave	0.3745	0.3666		0.979	1.00	-2.1	20.0
Tetrachlorobiphenyl	Ave	0.2526	0.2497		1.98	2.00	-1.1	20.0
Pentachlorobiphenyl	Ave	0.1993	0.2811		2.82	2.00	41.1*	20.0
Hexachlorobiphenyl	Ave	0.1922	0.1891		1.97	2.00	-1.6	20.0
Heptachlorobiphenyl	Ave	0.1527	0.1432		2.81	3.00	-6.2	20.0
Octachlorobiphenyl	Ave	0.1406	0.1364		2.91	3.00	-3.0	20.0
DCB Decachlorobiphenyl	Ave	0.0349	0.0317		4.55	5.00	-9.0	20.0
Decachlorobiphenyl-13C12	Ave	0.0487	0.0433		4.45	5.00	-11.0	20.0

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Matrix: Solid Level: Low

GC Column (1): CLP I ID: 0.32 (mm) GC Column (2): CLP II ID: 0.32 (mm)

Client Sample ID	Lab Sample ID	TCX1 #	TCX2 #
SD-276-SS	680-102558-25		79
SD-275-SS	680-102558-26		71
SD-252-SS	680-102558-27		86
SD-253-SS	680-102558-28		82
SD-254-SS	680-102558-29		84
SD-255-SS	680-102558-30		65
	MB 680-339371/17-A		79
	MB 680-341037/18-A		93
	LCS 680-339371/21-A	54	
	LCS 680-341037/22-A		88
SD-276-SS MS	680-102558-25 MS		90
SD-276-SS MSD	680-102558-25 MSD		61

TCX = Tetrachloro-m-xylene

QC LIMITS
46-130

Column to be used to flag recovery values

FORM II 8081B/8082A

FORM VIII
GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Sample No.: ICIS 680-340181/5 Date Analyzed: 07/21/2014 19:11

Instrument ID: CSGZ GC Column: CLP I ID: 0.32(mm)

Lab File ID (Standard): ZG21013.D Heated Purge: (Y/N) N

Calibration ID: 32152

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		35350288	3.31				
UPPER LIMIT		70700576	3.81				
LOWER LIMIT		17675144	2.81				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-340181/9 CCV		36200734	3.31				
ICV 680-340181/16 CCV		35170399	3.31				
ICV 680-340181/23 CCV		34061059	3.31				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B/8082A

FORM VIII
GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Sample No.: ICIS 680-340181/5 Date Analyzed: 07/21/2014 19:11

Instrument ID: CSGZ GC Column: CLP II ID: 0.32(mm)

Lab File ID (Standard): ZG21013.D Heated Purge: (Y/N) N

Calibration ID: 32153

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		64278149	3.59				
UPPER LIMIT		128556298	4.09				
LOWER LIMIT		32139075	3.09				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-340181/9 CCV		66228634	3.59				
ICV 680-340181/16 CCV		64423466	3.59				
ICV 680-340181/23 CCV		62006695	3.59				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B/8082A

FORM VIII
GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Sample No.: CCVIS 680-340443/3 Date Analyzed: 07/23/2014 09:28

Instrument ID: CSGZ GC Column: CLP I ID: 0.32(mm)

Lab File ID (Standard): ZG23003.D Heated Purge: (Y/N) N

Calibration ID: 32222

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		38523180	3.31				
UPPER LIMIT		77046360	3.81				
LOWER LIMIT		19261590	2.81				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-339371/17-A		32301678	3.31				
LCS 680-339371/21-A		37000845	3.31				
680-102558-30	SD-255-SS	38953712	3.31				
CCV 680-340443/22		36667318	3.31				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B/8082A

FORM VIII
GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Sample No.: CCVIS 680-340443/3 Date Analyzed: 07/23/2014 09:28

Instrument ID: CSGZ GC Column: CLP II ID: 0.32(mm)

Lab File ID (Standard): ZG23003.D Heated Purge: (Y/N) N

Calibration ID: 32223

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		71815209	3.58				
UPPER LIMIT		143630418	4.08				
LOWER LIMIT		35907605	3.08				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-339371/17-A		61989948	3.58				
LCS 680-339371/21-A		71324301	3.58				
680-102558-30	SD-255-SS	71009530	3.58				
CCV 680-340443/22		67772445	3.58				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B/8082A

FORM VIII
GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Sample No.: ICIS 680-341212/5 Date Analyzed: 07/28/2014 17:07

Instrument ID: CSGZ GC Column: CLP I ID: 0.32(mm)

Lab File ID (Standard): ZG28010.D Heated Purge: (Y/N) N

Calibration ID: 32530

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		32474600	3.27				
UPPER LIMIT		64949200	3.77				
LOWER LIMIT		16237300	2.77				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-341212/9 CCV		34965796	3.27				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B/8082A

FORM VIII

GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Sample No.: ICIS 680-341212/5 Date Analyzed: 07/28/2014 17:07

Instrument ID: CSGZ GC Column: CLP II ID: 0.32(mm)

Lab File ID (Standard): ZG28010.D Heated Purge: (Y/N) N

Calibration ID: 32531

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		63636394	3.55				
UPPER LIMIT		127272788	4.05				
LOWER LIMIT		31818197	3.05				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-341212/9 CCV		65616848	3.55				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B/8082A

FORM VIII
GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Sample No.: CCVIS 680-341704/28 Date Analyzed: 07/30/2014 21:43

Instrument ID: CSGZ GC Column: CLP I ID: 0.32(mm)

Lab File ID (Standard): ZG30028.D Heated Purge: (Y/N) N

Calibration ID: 32570

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		39460530	3.27				
UPPER LIMIT		78921060	3.77				
LOWER LIMIT		19730265	2.77				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-341037/18-A		36099840	3.27				
LCS 680-341037/22-A		39781067	3.27				
680-102558-25	SD-276-SS	37850181	3.27				
680-102558-26	SD-275-SS	37794185	3.27				
680-102558-27	SD-252-SS	39680482	3.27				
680-102558-28	SD-253-SS	39772243	3.27				
680-102558-29	SD-254-SS	39728205	3.27				
680-102558-25 MS	SD-276-SS MS	41242290	3.27				
680-102558-25 MSD	SD-276-SS MSD	41619741	3.27				
CCV 680-341704/49		37366720	3.27				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B/8082A

FORM VIII
GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Sample No.: CCVIS 680-341704/28 Date Analyzed: 07/30/2014 21:43

Instrument ID: CSGZ GC Column: CLP II ID: 0.32(mm)

Lab File ID (Standard): ZG30028.D Heated Purge: (Y/N) N

Calibration ID: 32571

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		75728098	3.54				
UPPER LIMIT		151456196	4.04				
LOWER LIMIT		37864049	3.04				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-341037/18-A		69491669	3.54				
LCS 680-341037/22-A		77323572	3.54				
680-102558-25	SD-276-SS	70772835	3.55				
680-102558-26	SD-275-SS	71497803	3.54				
680-102558-27	SD-252-SS	74540349	3.54				
680-102558-28	SD-253-SS	74945474	3.54				
680-102558-29	SD-254-SS	73609019	3.55				
680-102558-25 MS	SD-276-SS MS	75418230	3.54				
680-102558-25 MSD	SD-276-SS MSD	75755873	3.54				
CCV 680-341704/49		71374548	3.54				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B/8082A

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Client Sample ID: SD-276-SS Lab Sample ID: 680-102558-25

Instrument ID (1): CSGZ Instrument ID (2): CSGZ

Date Analyzed (1): 07/30/2014 22:45 Date Analyzed (2): 07/30/2014 22:45

GC Column (1): CLP I ID: 0.32(mm) GC Column (2): CLP II ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1260	1	1	7.03	6.98	7.08	1220	1200	4.9
		2	7.06	7.01	7.11	1190		
		3	7.22	7.17	7.27	1310		
		4	7.39	7.34	7.44	1190		
		5	7.57	7.52	7.62	1320		
	2	1	7.68	7.63	7.73	1180	1200	
		2	7.71	7.66	7.76	1150		
		3	7.88	7.83	7.93	1110		
		4	7.93	7.88	7.98	1330		
		5	8.04	7.99	8.09	1160		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Client Sample ID: SD-275-SS Lab Sample ID: 680-102558-26

Instrument ID (1): CSGZ Instrument ID (2): CSGZ

Date Analyzed (1): 07/30/2014 23:01 Date Analyzed (2): 07/30/2014 23:01

GC Column (1): CLP I ID: 0.32(mm) GC Column (2): CLP II ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1260	1	1	7.03	6.98	7.08	970	920	10.5
		2	7.06	7.01	7.11	952		
		3	7.22	7.17	7.27	1010		
		4	7.38	7.34	7.44	801		
		5	7.57	7.52	7.62	892		
	2	1	7.68	7.63	7.73	902	830	
		2	7.71	7.66	7.76	808		
		3	7.88	7.83	7.93	750		
		4	7.93	7.88	7.98	937		
		5	8.04	7.99	8.09	764		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Client Sample ID: SD-252-SS Lab Sample ID: 680-102558-27

Instrument ID (1): CSGZ Instrument ID (2): CSGZ

Date Analyzed (1): 07/30/2014 23:17 Date Analyzed (2): 07/30/2014 23:17

GC Column (1): CLP I ID: 0.32(mm) GC Column (2): CLP II ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1260	1	1	7.03	6.98	7.08	1050	990	9.0
		2	7.06	7.01	7.11	1040		
		3	7.22	7.17	7.27	1040		
		4	7.39	7.34	7.44	852		
		5	7.57	7.52	7.62	946		
	2	1	7.68	7.63	7.73	1000	900	
		2	7.71	7.66	7.76	905		
		3	7.88	7.83	7.93	761		
		4	7.93	7.88	7.98	1000		
		5	8.04	7.99	8.09	829		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Client Sample ID: SD-253-SS Lab Sample ID: 680-102558-28

Instrument ID (1): CSGZ Instrument ID (2): CSGZ

Date Analyzed (1): 07/30/2014 23:32 Date Analyzed (2): 07/30/2014 23:32

GC Column (1): CLP I ID: 0.32(mm) GC Column (2): CLP II ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1260	1	1	7.03	6.98	7.08	940	890	7.0
		2	7.06	7.01	7.11	870		
		3	7.22	7.17	7.27	958		
		4	7.39	7.34	7.44	783		
		5	7.57	7.52	7.62	882		
	2	1	7.68	7.63	7.73	906	830	
		2	7.71	7.66	7.76	799		
		3	7.88	7.83	7.93	724		
		4	7.93	7.88	7.98	945		
		5	8.04	7.99	8.09	761		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Client Sample ID: SD-254-SS Lab Sample ID: 680-102558-29

Instrument ID (1): CSGZ Instrument ID (2): CSGZ

Date Analyzed (1): 07/30/2014 23:48 Date Analyzed (2): 07/30/2014 23:48

GC Column (1): CLP I ID: 0.32(mm) GC Column (2): CLP II ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1260	1	1	7.03	6.98	7.08	1000	960	10.5
		2	7.06	7.01	7.11	1060		
		3	7.22	7.17	7.27	953		
		4	7.39	7.34	7.44	848		
		5	7.57	7.52	7.62	941		
	2	1	7.68	7.63	7.73	925	860	
		2	7.71	7.66	7.76	893		
		3	7.88	7.83	7.93	749		
		4	7.93	7.88	7.98	931		
		5	8.04	7.99	8.09	820		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Client Sample ID: SD-255-SS Lab Sample ID: 680-102558-30

Instrument ID (1): CSGZ Instrument ID (2): CSGZ

Date Analyzed (1): 07/23/2014 12:04 Date Analyzed (2): 07/23/2014 12:04

GC Column (1): CLP I ID: 0.32(mm) GC Column (2): CLP II ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1260	1	1	7.06	7.01	7.11	810	840	7.3
		2	7.09	7.04	7.14	725		
		3	7.25	7.20	7.30	810		
		4	7.42	7.37	7.47	855		
		5	7.60	7.55	7.65	1020		
	2	1	7.71	7.66	7.76	814	790	
		2	7.75	7.70	7.80	755		
		3	7.91	7.87	7.97	665		
		4	7.96	7.92	8.02	885		
		5	8.07	8.02	8.12	809		

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: MB 680-339371/17-A

Matrix: Solid Date Extracted: 07/21/2014 17:06

Lab File ID:(1) ZG23005.D Lab File ID:(2) ZG23005.D

Date Analyzed:(1) 07/23/2014 10:00 Date Analyzed:(2) 07/23/2014 10:00

Instrument ID:(1) CSGZ Instrument ID:(2) CSGZ

GC Column:(1) CLP I ID: 0.32(mm) GC Column:(2) CLP II ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 680-339371/21-A	07/23/2014 10:31	07/23/2014 10:31
SD-255-SS	680-102558-30	07/23/2014 12:04	07/23/2014 12:04

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102558-1
SDG No.: 680102558-1
Client Sample ID:
Lab Sample ID: MB 680-339371/17-A
Matrix: Solid
Lab File ID: ZG23005.D
Analysis Method: 8081B/8082A
Date Collected:
Extraction Method: 3546
Date Extracted: 07/21/2014 17:06
Sample wt/vol: 30.04(g)
Date Analyzed: 07/23/2014 10:00
Con. Extract Vol.: 1(mL)
Dilution Factor: 10
Injection Volume: 1(uL)
GC Column: CLP I
ID: 0.32(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 340443
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	5.5	U	16	5.5
11104-28-2	PCB-1221	7.5	U	16	7.5
11141-16-5	PCB-1232	2.6	U	16	2.6
53469-21-9	PCB-1242	2.5	U	16	2.5
12672-29-6	PCB-1248	4.1	U	16	4.1
11097-69-1	PCB-1254	5.0	U	16	5.0
11096-82-5	PCB-1260	4.8	U	16	4.8

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-102558-1

SDG No.: 680102558-1

Client Sample ID:

Lab Sample ID: MB 680-339371/17-A

Matrix: Solid

Lab File ID: ZG23005.D

Analysis Method: 8081B/8082A

Date Collected:

Extraction Method: 3546

Date Extracted: 07/21/2014 17:06

Sample wt/vol: 30.04(g)

Date Analyzed: 07/23/2014 10:00

Con. Extract Vol.: 1(mL)

Dilution Factor: 10

Injection Volume: 1(uL)

GC Column: CLP II ID: 0.32(mm)

% Moisture:

GPC Cleanup:(Y/N) N

Analysis Batch No.: 340443

Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl			
877-09-8	Tetrachloro-m-xylene	79		46-130

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Matrix: Solid Level: Low Lab File ID: ZG23007.D

Lab ID: LCS 680-339371/21-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
PCB-1016	333	201	60	43-130	
PCB-1260	333	206	62	45-130	

Column to be used to flag recovery and RPD values

FORM III 8081B/8082A

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: MB 680-341037/18-A

Matrix: Solid Date Extracted: 07/28/2014 13:55

Lab File ID:(1) ZG30030.D Lab File ID:(2) ZG30030.D

Date Analyzed:(1) 07/30/2014 22:14 Date Analyzed:(2) 07/30/2014 22:14

Instrument ID:(1) CSGZ Instrument ID:(2) CSGZ

GC Column:(1) CLP I ID: 0.32(mm) GC Column:(2) CLP II ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 680-341037/22-A	07/30/2014 22:30	07/30/2014 22:30
SD-276-SS	680-102558-25	07/30/2014 22:45	07/30/2014 22:45
SD-275-SS	680-102558-26	07/30/2014 23:01	07/30/2014 23:01
SD-252-SS	680-102558-27	07/30/2014 23:17	07/30/2014 23:17
SD-253-SS	680-102558-28	07/30/2014 23:32	07/30/2014 23:32
SD-254-SS	680-102558-29	07/30/2014 23:48	07/30/2014 23:48
SD-276-SS MS	680-102558-25 MS	07/31/2014 02:23	07/31/2014 02:23
SD-276-SS MSD	680-102558-25 MSD	07/31/2014 02:39	07/31/2014 02:39

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102558-1
SDG No.: 680102558-1
Client Sample ID:
Lab Sample ID: MB 680-341037/18-A
Matrix: Solid
Lab File ID: ZG30030.D
Analysis Method: 8081B/8082A
Date Collected:
Extraction Method: 3546
Date Extracted: 07/28/2014 13:55
Sample wt/vol: 30.00(g)
Date Analyzed: 07/30/2014 22:14
Con. Extract Vol.: 1(mL)
Dilution Factor: 10
Injection Volume: 1(uL)
GC Column: CLP I
ID: 0.32(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 341704
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	5.5	U	17	5.5
11104-28-2	PCB-1221	7.5	U	17	7.5
11141-16-5	PCB-1232	2.6	U	17	2.6
53469-21-9	PCB-1242	2.5	U	17	2.5
12672-29-6	PCB-1248	4.1	U	17	4.1
11097-69-1	PCB-1254	5.0	U	17	5.0
11096-82-5	PCB-1260	4.8	U	17	4.8

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102558-1
SDG No.: 680102558-1
Client Sample ID:
Lab Sample ID: MB 680-341037/18-A
Matrix: Solid
Lab File ID: ZG30030.D
Analysis Method: 8081B/8082A
Date Collected:
Extraction Method: 3546
Date Extracted: 07/28/2014 13:55
Sample wt/vol: 30.00(g)
Date Analyzed: 07/30/2014 22:14
Con. Extract Vol.: 1(mL)
Dilution Factor: 10
Injection Volume: 1(uL)
GC Column: CLP II
ID: 0.32(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 341704
Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl			
877-09-8	Tetrachloro-m-xylene	93		46-130

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Matrix: Solid Level: Low Lab File ID: ZG30031.D

Lab ID: LCS 680-341037/22-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
PCB-1016	333	299	90	43-130	
PCB-1260	333	274	82	45-130	

Column to be used to flag recovery and RPD values

FORM III 8081B/8082A

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Matrix: Solid Level: Low Lab File ID: ZG30046.D

Lab ID: 680-102558-25 MS Client ID: SD-276-SS MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
PCB-1016	3190	53 U	4150	130	43-130	
PCB-1260	3190	1200	3840	81	45-130	

Column to be used to flag recovery and RPD values

FORM III 8081B/8082A

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Matrix: Solid Level: Low Lab File ID: ZG30047.D

Lab ID: 680-102558-25 MSD Client ID: SD-276-SS MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
PCB-1016	3180	2340	73	56	50	43-130	F2
PCB-1260	3180	2880	51	29	50	45-130	

Column to be used to flag recovery and RPD values

FORM III 8081B/8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Instrument ID: CSGZ Start Date: 07/21/2014 18:39

Analysis Batch Number: 340181 End Date: 07/22/2014 06:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 680-340181/3		07/21/2014 18:39	1	ZG21011.D	CLP I 0.32(mm)
IC 680-340181/3		07/21/2014 18:39	1	ZG21011.D	CLP II 0.32(mm)
IC 680-340181/4		07/21/2014 18:55	1	ZG21012.D	CLP I 0.32(mm)
IC 680-340181/4		07/21/2014 18:55	1	ZG21012.D	CLP II 0.32(mm)
ICIS 680-340181/5		07/21/2014 19:11	1	ZG21013.D	CLP I 0.32(mm)
ICIS 680-340181/5		07/21/2014 19:11	1	ZG21013.D	CLP II 0.32(mm)
IC 680-340181/6		07/21/2014 19:26	1	ZG21014.D	CLP I 0.32(mm)
IC 680-340181/6		07/21/2014 19:26	1	ZG21014.D	CLP II 0.32(mm)
IC 680-340181/7		07/21/2014 19:42	1	ZG21015.D	CLP I 0.32(mm)
IC 680-340181/7		07/21/2014 19:42	1	ZG21015.D	CLP II 0.32(mm)
IC 680-340181/8		07/21/2014 19:57	1	ZG21016.D	CLP I 0.32(mm)
IC 680-340181/8		07/21/2014 19:57	1	ZG21016.D	CLP II 0.32(mm)
ICV 680-340181/9 CCV		07/21/2014 20:13	1	ZG21017.D	CLP I 0.32(mm)
ICV 680-340181/9 CCV		07/21/2014 20:13	1	ZG21017.D	CLP II 0.32(mm)
IC 680-340181/10		07/21/2014 20:28	1	ZG21018.D	CLP I 0.32(mm)
IC 680-340181/10		07/21/2014 20:28	1	ZG21018.D	CLP II 0.32(mm)
IC 680-340181/11		07/21/2014 20:43	1	ZG21019.D	CLP I 0.32(mm)
IC 680-340181/11		07/21/2014 20:43	1	ZG21019.D	CLP II 0.32(mm)
IC 680-340181/12		07/21/2014 20:59	1	ZG21020.D	CLP I 0.32(mm)
IC 680-340181/12		07/21/2014 20:59	1	ZG21020.D	CLP II 0.32(mm)
IC 680-340181/13		07/21/2014 21:15	1	ZG21021.D	CLP I 0.32(mm)
IC 680-340181/13		07/21/2014 21:15	1	ZG21021.D	CLP II 0.32(mm)
IC 680-340181/14		07/21/2014 21:30	1	ZG21022.D	CLP I 0.32(mm)
IC 680-340181/14		07/21/2014 21:30	1	ZG21022.D	CLP II 0.32(mm)
IC 680-340181/15		07/21/2014 21:45	1	ZG21023.D	CLP I 0.32(mm)
IC 680-340181/15		07/21/2014 21:45	1	ZG21023.D	CLP II 0.32(mm)
ICV 680-340181/16 CCV		07/21/2014 22:01	1	ZG21024.D	CLP I 0.32(mm)
ICV 680-340181/16 CCV		07/21/2014 22:01	1	ZG21024.D	CLP II 0.32(mm)
IC 680-340181/17		07/21/2014 22:17	1	ZG21025.D	CLP I 0.32(mm)
IC 680-340181/17		07/21/2014 22:17	1	ZG21025.D	CLP II 0.32(mm)
IC 680-340181/18		07/21/2014 22:32	1	ZG21026.D	CLP I 0.32(mm)
IC 680-340181/18		07/21/2014 22:32	1	ZG21026.D	CLP II 0.32(mm)
IC 680-340181/19		07/21/2014 22:48	1	ZG21027.D	CLP I 0.32(mm)
IC 680-340181/19		07/21/2014 22:48	1	ZG21027.D	CLP II 0.32(mm)
IC 680-340181/20		07/21/2014 23:03	1	ZG21028.D	CLP I 0.32(mm)
IC 680-340181/20		07/21/2014 23:03	1	ZG21028.D	CLP II 0.32(mm)
IC 680-340181/21		07/21/2014 23:19	1	ZG21029.D	CLP I 0.32(mm)
IC 680-340181/21		07/21/2014 23:19	1	ZG21029.D	CLP II 0.32(mm)
IC 680-340181/22		07/21/2014 23:34	1	ZG21030.D	CLP I 0.32(mm)
IC 680-340181/22		07/21/2014 23:34	1	ZG21030.D	CLP II 0.32(mm)
ICV 680-340181/23 CCV		07/21/2014 23:50	1	ZG21031.D	CLP I 0.32(mm)
ICV 680-340181/23 CCV		07/21/2014 23:50	1	ZG21031.D	CLP II 0.32(mm)
IC 680-340181/24		07/22/2014 00:05	1	ZG21032.D	CLP I 0.32(mm)

8081B/8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Instrument ID: CSGZ Start Date: 07/21/2014 18:39

Analysis Batch Number: 340181 End Date: 07/22/2014 06:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 680-340181/24		07/22/2014 00:05	1	ZG21032.D	CLP II 0.32(mm)
IC 680-340181/25		07/22/2014 00:21	1	ZG21033.D	CLP I 0.32(mm)
IC 680-340181/25		07/22/2014 00:21	1	ZG21033.D	CLP II 0.32(mm)
PIBLK 680-340181/27		07/22/2014 00:52	1		CLP I 0.32(mm)
PIBLK 680-340181/27		07/22/2014 00:52	1		CLP II 0.32(mm)
ZZZZZ		07/22/2014 01:23	1		CLP I 0.32(mm)
ZZZZZ		07/22/2014 01:23	1		CLP II 0.32(mm)
ZZZZZ		07/22/2014 01:38	1		CLP I 0.32(mm)
ZZZZZ		07/22/2014 01:38	1		CLP II 0.32(mm)
ZZZZZ		07/22/2014 01:54	5		CLP I 0.32(mm)
ZZZZZ		07/22/2014 01:54	5		CLP II 0.32(mm)
ZZZZZ		07/22/2014 02:09	5		CLP I 0.32(mm)
ZZZZZ		07/22/2014 02:09	5		CLP II 0.32(mm)
ZZZZZ		07/22/2014 02:25	5		CLP I 0.32(mm)
ZZZZZ		07/22/2014 02:25	5		CLP II 0.32(mm)
ZZZZZ		07/22/2014 02:40	5		CLP I 0.32(mm)
ZZZZZ		07/22/2014 02:40	5		CLP II 0.32(mm)
ZZZZZ		07/22/2014 02:56	5		CLP I 0.32(mm)
ZZZZZ		07/22/2014 02:56	5		CLP II 0.32(mm)
ZZZZZ		07/22/2014 03:11	5		CLP I 0.32(mm)
ZZZZZ		07/22/2014 03:11	5		CLP II 0.32(mm)
ZZZZZ		07/22/2014 03:27	5		CLP I 0.32(mm)
ZZZZZ		07/22/2014 03:27	5		CLP II 0.32(mm)
ZZZZZ		07/22/2014 03:42	5		CLP I 0.32(mm)
ZZZZZ		07/22/2014 03:42	5		CLP II 0.32(mm)
ZZZZZ		07/22/2014 03:58	5		CLP I 0.32(mm)
ZZZZZ		07/22/2014 03:58	5		CLP II 0.32(mm)
ZZZZZ		07/22/2014 04:13	1		CLP I 0.32(mm)
ZZZZZ		07/22/2014 04:13	1		CLP II 0.32(mm)
ZZZZZ		07/22/2014 04:29	1		CLP I 0.32(mm)
ZZZZZ		07/22/2014 04:29	1		CLP II 0.32(mm)
ZZZZZ		07/22/2014 04:44	5		CLP I 0.32(mm)
ZZZZZ		07/22/2014 04:44	5		CLP II 0.32(mm)
ZZZZZ		07/22/2014 05:00	5		CLP I 0.32(mm)
ZZZZZ		07/22/2014 05:00	5		CLP II 0.32(mm)
CCV 680-340181/45		07/22/2014 05:31	1		CLP I 0.32(mm)
CCV 680-340181/45		07/22/2014 05:31	1		CLP II 0.32(mm)
CCV 680-340181/46		07/22/2014 05:46	1		CLP I 0.32(mm)
CCV 680-340181/46		07/22/2014 05:46	1		CLP II 0.32(mm)
CCV 680-340181/47		07/22/2014 06:02	1		CLP I 0.32(mm)
CCV 680-340181/47		07/22/2014 06:02	1		CLP II 0.32(mm)
PIBLK 680-340181/48		07/22/2014 06:17	1		CLP I 0.32(mm)
PIBLK 680-340181/48		07/22/2014 06:17	1		CLP II 0.32(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Instrument ID: CSGZ Start Date: 07/23/2014 09:28

Analysis Batch Number: 340443 End Date: 07/23/2014 14:40

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVIS 680-340443/3		07/23/2014 09:28	1	ZG23003.D	CLP I 0.32(mm)
CCVIS 680-340443/3		07/23/2014 09:28	1	ZG23003.D	CLP II 0.32(mm)
PIBLK 680-340443/4		07/23/2014 09:44	1	ZG23004.D	CLP I 0.32(mm)
PIBLK 680-340443/4		07/23/2014 09:44	1	ZG23004.D	CLP II 0.32(mm)
MB 680-339371/17-A		07/23/2014 10:00	10	ZG23005.D	CLP I 0.32(mm)
MB 680-339371/17-A		07/23/2014 10:00	10	ZG23005.D	CLP II 0.32(mm)
ZZZZZ		07/23/2014 10:15	10		CLP I 0.32(mm)
ZZZZZ		07/23/2014 10:15	10		CLP II 0.32(mm)
LCS 680-339371/21-A		07/23/2014 10:31	10	ZG23007.D	CLP I 0.32(mm)
LCS 680-339371/21-A		07/23/2014 10:31	10	ZG23007.D	CLP II 0.32(mm)
ZZZZZ		07/23/2014 10:46	10		CLP I 0.32(mm)
ZZZZZ		07/23/2014 10:46	10		CLP II 0.32(mm)
ZZZZZ		07/23/2014 11:02	10		CLP I 0.32(mm)
ZZZZZ		07/23/2014 11:02	10		CLP II 0.32(mm)
ZZZZZ		07/23/2014 11:17	10		CLP I 0.32(mm)
ZZZZZ		07/23/2014 11:17	10		CLP II 0.32(mm)
ZZZZZ		07/23/2014 11:33	10		CLP I 0.32(mm)
ZZZZZ		07/23/2014 11:33	10		CLP II 0.32(mm)
ZZZZZ		07/23/2014 11:48	10		CLP I 0.32(mm)
ZZZZZ		07/23/2014 11:48	10		CLP II 0.32(mm)
680-102558-30	SD-255-SS	07/23/2014 12:04	10	ZG23013.D	CLP I 0.32(mm)
680-102558-30	SD-255-SS	07/23/2014 12:04	10	ZG23013.D	CLP II 0.32(mm)
ZZZZZ		07/23/2014 12:19	10		CLP I 0.32(mm)
ZZZZZ		07/23/2014 12:19	10		CLP II 0.32(mm)
ZZZZZ		07/23/2014 12:35	10		CLP I 0.32(mm)
ZZZZZ		07/23/2014 12:35	10		CLP II 0.32(mm)
ZZZZZ		07/23/2014 12:51	10		CLP I 0.32(mm)
ZZZZZ		07/23/2014 12:51	10		CLP II 0.32(mm)
ZZZZZ		07/23/2014 13:06	10		CLP I 0.32(mm)
ZZZZZ		07/23/2014 13:06	10		CLP II 0.32(mm)
ZZZZZ		07/23/2014 13:22	10		CLP I 0.32(mm)
ZZZZZ		07/23/2014 13:22	10		CLP II 0.32(mm)
ZZZZZ		07/23/2014 13:37	10		CLP I 0.32(mm)
ZZZZZ		07/23/2014 13:37	10		CLP II 0.32(mm)
ZZZZZ		07/23/2014 13:53	10		CLP I 0.32(mm)
ZZZZZ		07/23/2014 13:53	10		CLP II 0.32(mm)
CCV 680-340443/22		07/23/2014 14:24	1	ZG23022.D	CLP I 0.32(mm)
CCV 680-340443/22		07/23/2014 14:24	1	ZG23022.D	CLP II 0.32(mm)
PIBLK 680-340443/23		07/23/2014 14:40	1	ZG23023.D	CLP I 0.32(mm)
PIBLK 680-340443/23		07/23/2014 14:40	1	ZG23023.D	CLP II 0.32(mm)

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 340181

SDG No.: 680102558-1

Instrument ID: CSGZ GC Column: CLP I ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/21/2014 18:39 Calibration End Date: 07/21/2014 19:57 Calibration ID: 32152

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-340181/8	ZG21016.D
Level 2	IC 680-340181/7	ZG21015.D
Level 3	IC 680-340181/6	ZG21014.D
Level 4	ICIS 680-340181/5	ZG21013.D
Level 5	IC 680-340181/4	ZG21012.D
Level 6	IC 680-340181/3	ZG21011.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1016 Peak 1	0.0468 0.0352	0.0423	0.0381	0.0367	0.0350	Lin2	0.0006	0.0352							0.9990		0.9900
PCB-1016 Peak 2	0.0520 0.0445	0.0479	0.0448	0.0443	0.0437	Ave		0.0462				7.0		20.0			
PCB-1016 Peak 3	0.0315 0.0253	0.0288	0.0266	0.0262	0.0250	Ave		0.0272				9.1		20.0			
PCB-1016 Peak 4	0.0257 0.0196	0.0246	0.0218	0.0212	0.0198	Lin2	0.0003	0.0201							0.9970		0.9900
PCB-1016 Peak 5	0.0284 0.0226	0.0264	0.0240	0.0233	0.0221	Ave		0.0245				10.0		20.0			
PCB-1260 Peak 1	0.0483 0.0368	0.0446	0.0409	0.0402	0.0365	Lin2	0.0006	0.0376							0.9980		0.9900
PCB-1260 Peak 2	0.0314 0.0203	0.0278	0.0246	0.0233	0.0207	Lin2	0.0005	0.0213							0.9950		0.9900
PCB-1260 Peak 3	0.0272 0.0186	0.0243	0.0218	0.0210	0.0184	Lin2	0.0004	0.0192							0.9960		0.9900
PCB-1260 Peak 4	0.0920 0.0805	0.0881	0.0857	0.0879	0.0790	Ave		0.0855				5.8		20.0			
PCB-1260 Peak 5	0.0442 0.0370	0.0413	0.0397	0.0406	0.0358	Ave		0.0398				7.6		20.0			
Tetrachloro-m-xylene	0.9489 1.0558	1.0311	0.9994	1.0400	1.0326	Ave		1.0179				3.8		20.0			
DCB Decachlorobiphenyl	0.6738 0.4954	0.7221	0.6681	0.6562	0.4952	Ave		0.6185				16.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 340181

SDG No.: 680102558-1

Instrument ID: CSGZ GC Column: CLP II ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/21/2014 18:39 Calibration End Date: 07/21/2014 19:57 Calibration ID: 32153

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-340181/8	ZG21016.D
Level 2	IC 680-340181/7	ZG21015.D
Level 3	IC 680-340181/6	ZG21014.D
Level 4	ICIS 680-340181/5	ZG21013.D
Level 5	IC 680-340181/4	ZG21012.D
Level 6	IC 680-340181/3	ZG21011.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1016 Peak 1	0.0303 0.0254	0.0282	0.0264	0.0261	0.0251	Ave		0.0269				7.3		20.0			
PCB-1016 Peak 2	0.0118 0.0110	0.0112	0.0109	0.0111	0.0108	Ave		0.0111				3.3		20.0			
PCB-1016 Peak 3	0.0170 0.0146	0.0160	0.0153	0.0153	0.0146	Ave		0.0155				6.0		20.0			
PCB-1016 Peak 4	0.0559 0.0500	0.0534	0.0503	0.0516	0.0497	Ave		0.0518				4.7		20.0			
PCB-1016 Peak 5	0.0357 0.0318	0.0339	0.0322	0.0326	0.0314	Ave		0.0329				4.9		20.0			
PCB-1260 Peak 1	0.0544 0.0421	0.0487	0.0469	0.0461	0.0418	Lin2	0.0006	0.0430							0.9980		0.9900
PCB-1260 Peak 2	0.0279 0.0224	0.0255	0.0251	0.0245	0.0222	Ave		0.0246				8.7		20.0			
PCB-1260 Peak 3	0.0538 0.0457	0.0504	0.0497	0.0498	0.0453	Ave		0.0491				6.5		20.0			
PCB-1260 Peak 4	0.0273 0.0221	0.0257	0.0250	0.0246	0.0220	Ave		0.0244				8.6		20.0			
PCB-1260 Peak 5	0.1057 0.0955	0.1032	0.1029	0.1052	0.0939	Ave		0.1011				5.0		20.0			
Tetrachloro-m-xylene	0.9145 1.0818	1.0258	1.0084	1.0571	1.0536	Ave		1.0235				5.8		20.0			
DCB Decachlorobiphenyl	0.7312 0.6105	0.8227	0.7887	0.7923	0.6042	Ave		0.7249				13.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 340181

SDG No.: 680102558-1

Instrument ID: CSGZ GC Column: CLP I ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/21/2014 20:28 Calibration End Date: 07/21/2014 21:45 Calibration ID: 32162

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-340181/15	ZG21023.D
Level 2	IC 680-340181/14	ZG21022.D
Level 3	IC 680-340181/13	ZG21021.D
Level 4	IC 680-340181/12	ZG21020.D
Level 5	IC 680-340181/11	ZG21019.D
Level 6	IC 680-340181/10	ZG21018.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1221 Peak 1	0.0117 0.0103	0.0127	0.0112	0.0113	0.0108	Ave		0.0113				7.3		20.0			
PCB-1221 Peak 2	0.0076 0.0064	0.0083	0.0074	0.0073	0.0068	Ave		0.0073				8.9		20.0			
PCB-1221 Peak 3	0.0274 0.0247	0.0292	0.0259	0.0269	0.0258	Ave		0.0267				5.8		20.0			
PCB-1254 Peak 1	0.0422 0.0316	0.0366	0.0356	0.0334	0.0331	Lin2	0.0005	0.0323							0.9990		0.9900
PCB-1254 Peak 2	0.0701 0.0548	0.0609	0.0602	0.0572	0.0570	Ave		0.0600				9.0		20.0			
PCB-1254 Peak 3	0.0667 0.0575	0.0589	0.0602	0.0587	0.0595	Ave		0.0603				5.4		20.0			
PCB-1254 Peak 4	0.0542 0.0428	0.0467	0.0465	0.0445	0.0447	Ave		0.0466				8.6		20.0			
PCB-1254 Peak 5	0.0253 0.0217	0.0223	0.0225	0.0221	0.0228	Ave		0.0228				5.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 340181

SDG No.: 680102558-1

Instrument ID: CSGZ GC Column: CLP II ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/21/2014 20:28 Calibration End Date: 07/21/2014 21:45 Calibration ID: 32163

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-340181/15	ZG21023.D
Level 2	IC 680-340181/14	ZG21022.D
Level 3	IC 680-340181/13	ZG21021.D
Level 4	IC 680-340181/12	ZG21020.D
Level 5	IC 680-340181/11	ZG21019.D
Level 6	IC 680-340181/10	ZG21018.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1221 Peak 1	0.0115 0.0109	0.0124	0.0112	0.0117	0.0113	Ave		0.0115				4.5		20.0			
PCB-1221 Peak 2	0.0071 0.0069	0.0080	0.0073	0.0075	0.0072	Ave		0.0073				5.2		20.0			
PCB-1221 Peak 3	0.0239 0.0228	0.0263	0.0235	0.0243	0.0234	Ave		0.0240				5.1		20.0			
PCB-1254 Peak 1	0.0552 0.0426	0.0492	0.0482	0.0459	0.0448	Ave		0.0477				9.2		20.0			
PCB-1254 Peak 2	0.0574 0.0461	0.0513	0.0512	0.0489	0.0483	Ave		0.0505				7.7		20.0			
PCB-1254 Peak 3	0.0882 0.0758	0.0797	0.0817	0.0774	0.0793	Ave		0.0804				5.4		20.0			
PCB-1254 Peak 4	0.0617 0.0504	0.0555	0.0554	0.0534	0.0532	Ave		0.0549				6.9		20.0			
PCB-1254 Peak 5	0.0332 0.0288	0.0306	0.0312	0.0296	0.0302	Ave		0.0306				4.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 340181

SDG No.: 680102558-1

Instrument ID: CSGZ GC Column: CLP I ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/21/2014 22:17 Calibration End Date: 07/21/2014 23:34 Calibration ID: 32172

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-340181/22	ZG21030.D
Level 2	IC 680-340181/21	ZG21029.D
Level 3	IC 680-340181/20	ZG21028.D
Level 4	IC 680-340181/19	ZG21027.D
Level 5	IC 680-340181/18	ZG21026.D
Level 6	IC 680-340181/17	ZG21025.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1248 Peak 1	0.0205 0.0153	0.0200	0.0178	0.0157	0.0154	Lin2	0.0003	0.0157							0.9940		0.9900
PCB-1248 Peak 2	0.0068 0.0049	0.0065	0.0059	0.0052	0.0051	Lin2	0.0001	0.0051							0.9950		0.9900
PCB-1248 Peak 3	0.0249 0.0209	0.0240	0.0218	0.0199	0.0204	Ave		0.0220				9.2		20.0			
PCB-1248 Peak 4	0.0123 0.0101	0.0123	0.0112	0.0100	0.0101	Ave		0.0110				9.8		20.0			
PCB-1248 Peak 5	0.0108 0.0089	0.0105	0.0105	0.0092	0.0091	Ave		0.0098				8.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 340181

SDG No.: 680102558-1

Instrument ID: CSGZ GC Column: CLP II ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/21/2014 22:17 Calibration End Date: 07/21/2014 23:34 Calibration ID: 32173

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-340181/22	ZG21030.D
Level 2	IC 680-340181/21	ZG21029.D
Level 3	IC 680-340181/20	ZG21028.D
Level 4	IC 680-340181/19	ZG21027.D
Level 5	IC 680-340181/18	ZG21026.D
Level 6	IC 680-340181/17	ZG21025.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1248 Peak 1	0.0139 0.0121	0.0142	0.0132	0.0121	0.0120	Ave		0.0129				7.5		20.0			
PCB-1248 Peak 2	0.0267 0.0235	0.0262	0.0250	0.0233	0.0233	Ave		0.0247				6.2		20.0			
PCB-1248 Peak 3	0.0310 0.0302	0.0311	0.0298	0.0282	0.0293	Ave		0.0299				3.7		20.0			
PCB-1248 Peak 4	0.0084 0.0079	0.0087	0.0084	0.0079	0.0081	Ave		0.0082				3.9		20.0			
PCB-1248 Peak 5	0.0229 0.0204	0.0228	0.0211	0.0194	0.0198	Ave		0.0211				7.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 340181

SDG No.: 680102558-1

Instrument ID: CSGZ GC Column: CLP I ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/22/2014 00:05 Calibration End Date: 07/22/2014 00:05 Calibration ID: 32212

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-340181/24	ZG21032.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
PCB-1232 Peak 1	0.0175					Ave		0.0175						20.0			
PCB-1232 Peak 2	0.0206					Ave		0.0206						20.0			
PCB-1232 Peak 3	0.0123					Ave		0.0123						20.0			
PCB-1232 Peak 4	0.0101					Ave		0.0101						20.0			
PCB-1232 Peak 5	0.0100					Ave		0.0100						20.0			
PCB-1262 Peak 1	0.0558					Ave		0.0558						20.0			
PCB-1262 Peak 2	0.0501					Ave		0.0501						20.0			
PCB-1262 Peak 3	0.0986					Ave		0.0986						20.0			
PCB-1262 Peak 4	0.0387					Ave		0.0387						20.0			
PCB-1262 Peak 5	0.0301					Ave		0.0301						20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 340181

SDG No.: 680102558-1

Instrument ID: CSGZ GC Column: CLP II ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/22/2014 00:05 Calibration End Date: 07/22/2014 00:05 Calibration ID: 32213

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-340181/24	ZG21032.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
PCB-1232 Peak 1	0.0129					Ave		0.0129						20.0			
PCB-1232 Peak 2	0.0051					Ave		0.0051						20.0			
PCB-1232 Peak 3	0.0073					Ave		0.0073						20.0			
PCB-1232 Peak 4	0.0237					Ave		0.0237						20.0			
PCB-1232 Peak 5	0.0150					Ave		0.0150						20.0			
PCB-1262 Peak 1	0.0654					Ave		0.0654						20.0			
PCB-1262 Peak 2	0.0587					Ave		0.0587						20.0			
PCB-1262 Peak 3	0.1159					Ave		0.1159						20.0			
PCB-1262 Peak 4	0.0530					Ave		0.0530						20.0			
PCB-1262 Peak 5	0.0362					Ave		0.0362						20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 340181

SDG No.: 680102558-1

Instrument ID: CSGZ GC Column: CLP I ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/22/2014 00:21 Calibration End Date: 07/22/2014 00:21 Calibration ID: 32222

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-340181/25	ZG21033.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
PCB-1242 Peak 1	0.0295					Ave		0.0295						20.0			
PCB-1242 Peak 2	0.0352					Ave		0.0352						20.0			
PCB-1242 Peak 3	0.0205					Ave		0.0205						20.0			
PCB-1242 Peak 4	0.0165					Ave		0.0165						20.0			
PCB-1242 Peak 5	0.0181					Ave		0.0181						20.0			
PCB-1268 Peak 1	0.1087					Ave		0.1087						20.0			
PCB-1268 Peak 2	0.1084					Ave		0.1084						20.0			
PCB-1268 Peak 3	0.0839					Ave		0.0839						20.0			
PCB-1268 Peak 4	0.0353					Ave		0.0353						20.0			
PCB-1268 Peak 5	0.2404					Ave		0.2404						20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 340181

SDG No.: 680102558-1

Instrument ID: CSGZ GC Column: CLP II ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/22/2014 00:21 Calibration End Date: 07/22/2014 00:21 Calibration ID: 32223

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-340181/25	ZG21033.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
PCB-1242 Peak 1	0.0206					Ave		0.0206						20.0			
PCB-1242 Peak 2	0.0087					Ave		0.0087						20.0			
PCB-1242 Peak 3	0.0122					Ave		0.0122						20.0			
PCB-1242 Peak 4	0.0408					Ave		0.0408						20.0			
PCB-1242 Peak 5	0.0257					Ave		0.0257						20.0			
PCB-1268 Peak 1	0.1322					Ave		0.1322						20.0			
PCB-1268 Peak 2	0.1234					Ave		0.1234						20.0			
PCB-1268 Peak 3	0.1025					Ave		0.1025						20.0			
PCB-1268 Peak 4	0.0406					Ave		0.0406						20.0			
PCB-1268 Peak 5	0.3049					Ave		0.3049						20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: ICV 680-340181/9 Calibration Date: 07/21/2014 20:13

Instrument ID: CSGZ Calib Start Date: 07/21/2014 18:39

GC Column: CLP I ID: 0.32(mm) Calib End Date: 07/21/2014 19:57

Lab File ID: ZG21017.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin2		0.0375		0.516	0.500	3.2	20.0
PCB-1016 Peak 2	Ave	0.0462	0.0462		0.500	0.500	-0.0	20.0
PCB-1016 Peak 3	Ave	0.0272	0.0263		0.483	0.500	-3.4	20.0
PCB-1016 Peak 4	Lin2		0.0213		0.513	0.500	2.5	20.0
PCB-1016 Peak 5	Ave	0.0245	0.0233		0.477	0.500	-4.6	20.0
PCB-1260 Peak 1	Lin2		0.0344		0.443	0.500	-11.4	20.0
PCB-1260 Peak 2	Lin2		0.0210		0.467	0.500	-6.6	20.0
PCB-1260 Peak 3	Lin2		0.0191		0.475	0.500	-4.9	20.0
PCB-1260 Peak 4	Ave	0.0855	0.0771		0.451	0.500	-9.9	20.0
PCB-1260 Peak 5	Ave	0.0398	0.0389		0.489	0.500	-2.2	20.0
Tetrachloro-m-xylene	Ave	1.018	0.8185		0.0257	0.0320	-19.6	20.0
DCB Decachlorobiphenyl	Ave	0.6185	0.5281		0.0273	0.0320	-14.6	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: ICV 680-340181/9 Calibration Date: 07/21/2014 20:13

Instrument ID: CSGZ Calib Start Date: 07/21/2014 18:39

GC Column: CLP II ID: 0.32(mm) Calib End Date: 07/21/2014 19:57

Lab File ID: ZG21017.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	0.0269	0.0263		0.488	0.500	-2.4	20.0
PCB-1016 Peak 2	Ave	0.0111	0.0113		0.508	0.500	1.6	20.0
PCB-1016 Peak 3	Ave	0.0155	0.0155		0.500	0.500	0.0	20.0
PCB-1016 Peak 4	Ave	0.0518	0.0525		0.506	0.500	1.2	20.0
PCB-1016 Peak 5	Ave	0.0329	0.0330		0.500	0.500	0.0	20.0
PCB-1260 Peak 1	Lin2		0.0389		0.439	0.500	-12.2	20.0
PCB-1260 Peak 2	Ave	0.0246	0.0220		0.446	0.500	-10.7	20.0
PCB-1260 Peak 3	Ave	0.0491	0.0450		0.458	0.500	-8.4	20.0
PCB-1260 Peak 4	Ave	0.0244	0.0218		0.447	0.500	-10.6	20.0
PCB-1260 Peak 5	Ave	0.1011	0.0929		0.460	0.500	-8.1	20.0
Tetrachloro-m-xylene	Ave	1.024	0.8286		0.0259	0.0320	-19.0	20.0
DCB Decachlorobiphenyl	Ave	0.7249	0.6398		0.0282	0.0320	-11.7	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: ICV 680-340181/16 Calibration Date: 07/21/2014 22:01

Instrument ID: CSGZ Calib Start Date: 07/21/2014 20:28

GC Column: CLP I ID: 0.32(mm) Calib End Date: 07/21/2014 21:45

Lab File ID: ZG21024.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Ave	0.0113	0.0105		0.463	0.500	-7.3	20.0
PCB-1221 Peak 2	Ave	0.0073	0.0070		0.479	0.500	-4.1	20.0
PCB-1221 Peak 3	Ave	0.0267	0.0257		0.483	0.500	-3.5	20.0
PCB-1254 Peak 1	Lin2		0.0326		0.489	0.500	-2.3	20.0
PCB-1254 Peak 2	Ave	0.0600	0.0563		0.469	0.500	-6.3	20.0
PCB-1254 Peak 3	Ave	0.0603	0.0576		0.478	0.500	-4.4	20.0
PCB-1254 Peak 4	Ave	0.0466	0.0437		0.470	0.500	-6.1	20.0
PCB-1254 Peak 5	Ave	0.0228	0.0217		0.475	0.500	-4.9	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: ICV 680-340181/16 Calibration Date: 07/21/2014 22:01

Instrument ID: CSGZ Calib Start Date: 07/21/2014 20:28

GC Column: CLP II ID: 0.32(mm) Calib End Date: 07/21/2014 21:45

Lab File ID: ZG21024.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Ave	0.0115	0.0111		0.482	0.500	-3.7	20.0
PCB-1221 Peak 2	Ave	0.0073	0.0071		0.486	0.500	-2.8	20.0
PCB-1221 Peak 3	Ave	0.0240	0.0231		0.481	0.500	-3.8	20.0
PCB-1254 Peak 1	Ave	0.0477	0.0451		0.473	0.500	-5.3	20.0
PCB-1254 Peak 2	Ave	0.0505	0.0479		0.474	0.500	-5.2	20.0
PCB-1254 Peak 3	Ave	0.0804	0.0777		0.483	0.500	-3.4	20.0
PCB-1254 Peak 4	Ave	0.0549	0.0520		0.473	0.500	-5.3	20.0
PCB-1254 Peak 5	Ave	0.0306	0.0296		0.484	0.500	-3.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: ICV 680-340181/23 Calibration Date: 07/21/2014 23:50

Instrument ID: CSGZ Calib Start Date: 07/21/2014 22:17

GC Column: CLP I ID: 0.32(mm) Calib End Date: 07/21/2014 23:34

Lab File ID: ZG21031.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Lin2		0.0151		0.462	0.500	-7.6	20.0
PCB-1248 Peak 2	Lin2		0.0047		0.443	0.500	-11.4	20.0
PCB-1248 Peak 3	Ave	0.0220	0.0202		0.459	0.500	-8.1	20.0
PCB-1248 Peak 4	Ave	0.0110	0.0096		0.436	0.500	-12.8	20.0
PCB-1248 Peak 5	Ave	0.0098	0.0091		0.461	0.500	-7.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah
Job No.: 680-102558-1
SDG No.: 680102558-1
Lab Sample ID: ICV 680-340181/23
Calibration Date: 07/21/2014 23:50
Instrument ID: CSGZ
Calib Start Date: 07/21/2014 22:17
GC Column: CLP II
ID: 0.32(mm)
Calib End Date: 07/21/2014 23:34
Lab File ID: ZG21031.D
Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Ave	0.0129	0.0118		0.456	0.500	-8.9	20.0
PCB-1248 Peak 2	Ave	0.0247	0.0232		0.470	0.500	-6.0	20.0
PCB-1248 Peak 3	Ave	0.0299	0.0310		0.518	0.500	3.5	20.0
PCB-1248 Peak 4	Ave	0.0082	0.0083		0.503	0.500	0.7	20.0
PCB-1248 Peak 5	Ave	0.0211	0.0221		0.524	0.500	4.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: CCVIS 680-340443/3 Calibration Date: 07/23/2014 09:28

Instrument ID: CSGZ Calib Start Date: 07/21/2014 18:39

GC Column: CLP I ID: 0.32(mm) Calib End Date: 07/21/2014 19:57

Lab File ID: ZG23003.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin2		0.0381		0.524	0.500	4.8	20.0
PCB-1016 Peak 2	Ave	0.0462	0.0470		0.509	0.500	1.7	20.0
PCB-1016 Peak 3	Ave	0.0272	0.0269		0.494	0.500	-1.2	20.0
PCB-1016 Peak 4	Lin2		0.0220		0.529	0.500	5.9	20.0
PCB-1016 Peak 5	Ave	0.0245	0.0240		0.491	0.500	-1.7	20.0
PCB-1260 Peak 1	Lin2		0.0396		0.511	0.500	2.3	20.0
PCB-1260 Peak 2	Lin2		0.0228		0.510	0.500	2.0	20.0
PCB-1260 Peak 3	Lin2		0.0205		0.511	0.500	2.3	20.0
PCB-1260 Peak 4	Ave	0.0855	0.0833		0.487	0.500	-2.6	20.0
PCB-1260 Peak 5	Ave	0.0398	0.0373		0.469	0.500	-6.2	20.0
Tetrachloro-m-xylene	Ave	1.018	1.066		0.0335	0.0320	4.7	20.0
DCB Decachlorobiphenyl	Ave	0.6185	0.5379		0.0278	0.0320	-13.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah
Job No.: 680-102558-1
SDG No.: 680102558-1
Lab Sample ID: CCVIS 680-340443/3
Calibration Date: 07/23/2014 09:28
Instrument ID: CSGZ
Calib Start Date: 07/21/2014 18:39
GC Column: CLP II
ID: 0.32(mm)
Calib End Date: 07/21/2014 19:57
Lab File ID: ZG23003.D
Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	0.0269	0.0265		0.491	0.500	-1.7	20.0
PCB-1016 Peak 2	Ave	0.0111	0.0114		0.512	0.500	2.4	20.0
PCB-1016 Peak 3	Ave	0.0155	0.0157		0.507	0.500	1.4	20.0
PCB-1016 Peak 4	Ave	0.0518	0.0531		0.512	0.500	2.4	20.0
PCB-1016 Peak 5	Ave	0.0329	0.0334		0.508	0.500	1.5	20.0
PCB-1260 Peak 1	Lin2		0.0452		0.511	0.500	2.3	20.0
PCB-1260 Peak 2	Ave	0.0246	0.0239		0.485	0.500	-3.0	20.0
PCB-1260 Peak 3	Ave	0.0491	0.0481		0.490	0.500	-2.0	20.0
PCB-1260 Peak 4	Ave	0.0244	0.0234		0.479	0.500	-4.3	20.0
PCB-1260 Peak 5	Ave	0.1011	0.0992		0.491	0.500	-1.8	20.0
Tetrachloro-m-xylene	Ave	1.024	1.082		0.0338	0.0320	5.7	20.0
DCB Decachlorobiphenyl	Ave	0.7249	0.6468		0.0285	0.0320	-10.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah
Job No.: 680-102558-1
SDG No.: 680102558-1
Lab Sample ID: CCV 680-340443/22
Calibration Date: 07/23/2014 14:24
Instrument ID: CSGZ
Calib Start Date: 07/21/2014 18:39
GC Column: CLP I
ID: 0.32(mm)
Calib End Date: 07/21/2014 19:57
Lab File ID: ZG23022.D
Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin2		0.0380		0.523	0.500	4.7	20.0
PCB-1016 Peak 2	Ave	0.0462	0.0469		0.508	0.500	1.5	20.0
PCB-1016 Peak 3	Ave	0.0272	0.0271		0.497	0.500	-0.7	20.0
PCB-1016 Peak 4	Lin2		0.0220		0.530	0.500	6.0	20.0
PCB-1016 Peak 5	Ave	0.0245	0.0241		0.492	0.500	-1.6	20.0
PCB-1260 Peak 1	Lin2		0.0389		0.503	0.500	0.6	20.0
PCB-1260 Peak 2	Lin2		0.0223		0.498	0.500	-0.3	20.0
PCB-1260 Peak 3	Lin2		0.0200		0.497	0.500	-0.5	20.0
PCB-1260 Peak 4	Ave	0.0855	0.0818		0.478	0.500	-4.3	20.0
PCB-1260 Peak 5	Ave	0.0398	0.0368		0.462	0.500	-7.6	20.0
Tetrachloro-m-xylene	Ave	1.018	1.073		0.0337	0.0320	5.4	20.0
DCB Decachlorobiphenyl	Ave	0.6185	0.5224		0.0270	0.0320	-15.5	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: CCV 680-340443/22 Calibration Date: 07/23/2014 14:24

Instrument ID: CSGZ Calib Start Date: 07/21/2014 18:39

GC Column: CLP II ID: 0.32(mm) Calib End Date: 07/21/2014 19:57

Lab File ID: ZG23022.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	0.0269	0.0267		0.496	0.500	-0.8	20.0
PCB-1016 Peak 2	Ave	0.0111	0.0114		0.512	0.500	2.4	20.0
PCB-1016 Peak 3	Ave	0.0155	0.0156		0.504	0.500	0.7	20.0
PCB-1016 Peak 4	Ave	0.0518	0.0529		0.510	0.500	2.1	20.0
PCB-1016 Peak 5	Ave	0.0329	0.0332		0.505	0.500	0.9	20.0
PCB-1260 Peak 1	Lin2		0.0439		0.497	0.500	-0.6	20.0
PCB-1260 Peak 2	Ave	0.0246	0.0230		0.468	0.500	-6.3	20.0
PCB-1260 Peak 3	Ave	0.0491	0.0465		0.474	0.500	-5.3	20.0
PCB-1260 Peak 4	Ave	0.0244	0.0227		0.465	0.500	-7.1	20.0
PCB-1260 Peak 5	Ave	0.1011	0.0954		0.472	0.500	-5.6	20.0
Tetrachloro-m-xylene	Ave	1.024	1.087		0.0340	0.0320	6.2	20.0
DCB Decachlorobiphenyl	Ave	0.7249	0.6005		0.0265	0.0320	-17.2	20.0

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Instrument ID: CSGZ Start Date: 07/28/2014 16:21

Analysis Batch Number: 341212 End Date: 07/28/2014 21:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PIBLK 680-341212/3		07/28/2014 16:21	1		CLP I 0.32(mm)
PIBLK 680-341212/3		07/28/2014 16:21	1		CLP II 0.32(mm)
IC 680-341212/29		07/28/2014 16:36	1	ZG28008.D	CLP I 0.32(mm)
IC 680-341212/29		07/28/2014 16:36	1	ZG28008.D	CLP II 0.32(mm)
IC 680-341212/4		07/28/2014 16:52	1	ZG28009.D	CLP I 0.32(mm)
IC 680-341212/4		07/28/2014 16:52	1	ZG28009.D	CLP II 0.32(mm)
ICIS 680-341212/5		07/28/2014 17:07	1	ZG28010.D	CLP I 0.32(mm)
ICIS 680-341212/5		07/28/2014 17:07	1	ZG28010.D	CLP II 0.32(mm)
IC 680-341212/6		07/28/2014 17:23	1	ZG28011.D	CLP I 0.32(mm)
IC 680-341212/6		07/28/2014 17:23	1	ZG28011.D	CLP II 0.32(mm)
IC 680-341212/7		07/28/2014 17:38	1	ZG28012.D	CLP I 0.32(mm)
IC 680-341212/7		07/28/2014 17:38	1	ZG28012.D	CLP II 0.32(mm)
IC 680-341212/8		07/28/2014 17:54	1	ZG28013.D	CLP I 0.32(mm)
IC 680-341212/8		07/28/2014 17:54	1	ZG28013.D	CLP II 0.32(mm)
ICV 680-341212/9 CCV		07/28/2014 18:09	1	ZG28014.D	CLP I 0.32(mm)
ICV 680-341212/9 CCV		07/28/2014 18:09	1	ZG28014.D	CLP II 0.32(mm)
IC 680-341212/10		07/28/2014 18:25	1	ZG28015.D	CLP I 0.32(mm)
IC 680-341212/10		07/28/2014 18:25	1	ZG28015.D	CLP II 0.32(mm)
IC 680-341212/11		07/28/2014 18:40	1	ZG28016.D	CLP I 0.32(mm)
IC 680-341212/11		07/28/2014 18:40	1	ZG28016.D	CLP II 0.32(mm)
IC 680-341212/12		07/28/2014 18:56	1	ZG28017.D	CLP I 0.32(mm)
IC 680-341212/12		07/28/2014 18:56	1	ZG28017.D	CLP II 0.32(mm)
IC 680-341212/13		07/28/2014 19:11	1	ZG28018.D	CLP I 0.32(mm)
IC 680-341212/13		07/28/2014 19:11	1	ZG28018.D	CLP II 0.32(mm)
PIBLK 680-341212/15		07/28/2014 19:27	1		CLP I 0.32(mm)
PIBLK 680-341212/15		07/28/2014 19:27	1		CLP II 0.32(mm)
ZZZZZ		07/28/2014 19:42	1		CLP I 0.32(mm)
ZZZZZ		07/28/2014 19:42	1		CLP II 0.32(mm)
ZZZZZ		07/28/2014 19:58	1		CLP I 0.32(mm)
ZZZZZ		07/28/2014 19:58	1		CLP II 0.32(mm)
ZZZZZ		07/28/2014 20:13	1		CLP I 0.32(mm)
ZZZZZ		07/28/2014 20:13	1		CLP II 0.32(mm)
ZZZZZ		07/28/2014 20:29	1		CLP I 0.32(mm)
ZZZZZ		07/28/2014 20:29	1		CLP II 0.32(mm)
ZZZZZ		07/28/2014 20:44	5		CLP I 0.32(mm)
ZZZZZ		07/28/2014 20:44	5		CLP II 0.32(mm)
ZZZZZ		07/28/2014 20:59	25		CLP I 0.32(mm)
ZZZZZ		07/28/2014 20:59	25		CLP II 0.32(mm)
CCV 680-341212/23		07/28/2014 21:30	1		CLP I 0.32(mm)
CCV 680-341212/23		07/28/2014 21:30	1		CLP II 0.32(mm)
PIBLK 680-341212/24		07/28/2014 21:46	1		CLP I 0.32(mm)
PIBLK 680-341212/24		07/28/2014 21:46	1		CLP II 0.32(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Instrument ID: CSGZ Start Date: 07/30/2014 21:43

Analysis Batch Number: 341704 End Date: 07/31/2014 03:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVIS 680-341704/28		07/30/2014 21:43	1	ZG30028.D	CLP I 0.32(mm)
CCVIS 680-341704/28		07/30/2014 21:43	1	ZG30028.D	CLP II 0.32(mm)
PIBLK 680-341704/29		07/30/2014 21:59	1	ZG30029.D	CLP I 0.32(mm)
PIBLK 680-341704/29		07/30/2014 21:59	1	ZG30029.D	CLP II 0.32(mm)
MB 680-341037/18-A		07/30/2014 22:14	10	ZG30030.D	CLP I 0.32(mm)
MB 680-341037/18-A		07/30/2014 22:14	10	ZG30030.D	CLP II 0.32(mm)
LCS 680-341037/22-A		07/30/2014 22:30	10	ZG30031.D	CLP I 0.32(mm)
LCS 680-341037/22-A		07/30/2014 22:30	10	ZG30031.D	CLP II 0.32(mm)
680-102558-25	SD-276-SS	07/30/2014 22:45	10	ZG30032.D	CLP I 0.32(mm)
680-102558-25	SD-276-SS	07/30/2014 22:45	10	ZG30032.D	CLP II 0.32(mm)
680-102558-26	SD-275-SS	07/30/2014 23:01	10	ZG30033.D	CLP I 0.32(mm)
680-102558-26	SD-275-SS	07/30/2014 23:01	10	ZG30033.D	CLP II 0.32(mm)
680-102558-27	SD-252-SS	07/30/2014 23:17	10	ZG30034.D	CLP I 0.32(mm)
680-102558-27	SD-252-SS	07/30/2014 23:17	10	ZG30034.D	CLP II 0.32(mm)
680-102558-28	SD-253-SS	07/30/2014 23:32	10	ZG30035.D	CLP I 0.32(mm)
680-102558-28	SD-253-SS	07/30/2014 23:32	10	ZG30035.D	CLP II 0.32(mm)
680-102558-29	SD-254-SS	07/30/2014 23:48	10	ZG30036.D	CLP I 0.32(mm)
680-102558-29	SD-254-SS	07/30/2014 23:48	10	ZG30036.D	CLP II 0.32(mm)
ZZZZZ		07/31/2014 00:03	10		CLP I 0.32(mm)
ZZZZZ		07/31/2014 00:03	10		CLP II 0.32(mm)
ZZZZZ		07/31/2014 00:19	10		CLP I 0.32(mm)
ZZZZZ		07/31/2014 00:19	10		CLP II 0.32(mm)
ZZZZZ		07/31/2014 00:35	10		CLP I 0.32(mm)
ZZZZZ		07/31/2014 00:35	10		CLP II 0.32(mm)
ZZZZZ		07/31/2014 00:50	10		CLP I 0.32(mm)
ZZZZZ		07/31/2014 00:50	10		CLP II 0.32(mm)
ZZZZZ		07/31/2014 01:06	10		CLP I 0.32(mm)
ZZZZZ		07/31/2014 01:06	10		CLP II 0.32(mm)
ZZZZZ		07/31/2014 01:21	10		CLP I 0.32(mm)
ZZZZZ		07/31/2014 01:21	10		CLP II 0.32(mm)
ZZZZZ		07/31/2014 01:37	10		CLP I 0.32(mm)
ZZZZZ		07/31/2014 01:37	10		CLP II 0.32(mm)
ZZZZZ		07/31/2014 01:52	10		CLP I 0.32(mm)
ZZZZZ		07/31/2014 01:52	10		CLP II 0.32(mm)
ZZZZZ		07/31/2014 02:08	10		CLP I 0.32(mm)
ZZZZZ		07/31/2014 02:08	10		CLP II 0.32(mm)
680-102558-25 MS	SD-276-SS MS	07/31/2014 02:23	10	ZG30046.D	CLP I 0.32(mm)
680-102558-25 MS	SD-276-SS MS	07/31/2014 02:23	10	ZG30046.D	CLP II 0.32(mm)
680-102558-25 MSD	SD-276-SS MSD	07/31/2014 02:39	10	ZG30047.D	CLP I 0.32(mm)
680-102558-25 MSD	SD-276-SS MSD	07/31/2014 02:39	10	ZG30047.D	CLP II 0.32(mm)
CCV 680-341704/49		07/31/2014 03:10	1	ZG30049.D	CLP I 0.32(mm)
CCV 680-341704/49		07/31/2014 03:10	1	ZG30049.D	CLP II 0.32(mm)
PIBLK 680-341704/50		07/31/2014 03:25	1	ZG30050.D	CLP I 0.32(mm)
PIBLK 680-341704/50		07/31/2014 03:25	1	ZG30050.D	CLP II 0.32(mm)

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 341212

SDG No.: 680102558-1

Instrument ID: CSGZ GC Column: CLP I ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 16:36 Calibration End Date: 07/28/2014 17:54 Calibration ID: 32530

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-341212/8	ZG28013.D
Level 2	IC 680-341212/7	ZG28012.D
Level 3	IC 680-341212/6	ZG28011.D
Level 4	ICIS 680-341212/5	ZG28010.D
Level 5	IC 680-341212/4	ZG28009.D
Level 6	IC 680-341212/29	ZG28008.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1016 Peak 1	0.0497 0.0367	0.0447	0.0400	0.0385	0.0369	Lin2	0.0007	0.0369							0.9990		0.9900
PCB-1016 Peak 2	0.0562 0.0481	0.0512	0.0476	0.0479	0.0472	Ave		0.0497				7.0		20.0			
PCB-1016 Peak 3	0.0353 0.0283	0.0321	0.0291	0.0285	0.0281	Lin2	0.0004	0.0278							1.0000		0.9900
PCB-1016 Peak 4	0.0273 0.0210	0.0257	0.0225	0.0217	0.0209	Lin2	0.0003	0.0210							0.9990		0.9900
PCB-1016 Peak 5	0.0330 0.0259	0.0304	0.0272	0.0264	0.0257	Lin2	0.0004	0.0257							0.9990		0.9900
PCB-1260 Peak 1	0.0638 0.0521	0.0566	0.0517	0.0509	0.0514	Lin2	0.0007	0.0503							0.9990		0.9900
PCB-1260 Peak 2	0.0372 0.0278	0.0323	0.0286	0.0276	0.0275	Lin2	0.0005	0.0270							1.0000		0.9900
PCB-1260 Peak 3	0.0349 0.0266	0.0303	0.0273	0.0261	0.0263	Lin2	0.0005	0.0258							1.0000		0.9900
PCB-1260 Peak 4	0.1315 0.1253	0.1211	0.1173	0.1193	0.1225	Ave		0.1228				4.1		20.0			
PCB-1260 Peak 5	0.0667 0.0617	0.0606	0.0578	0.0586	0.0596	Ave		0.0608				5.3		20.0			
Tetrachloro-m-xylene	0.9720 1.0768	1.0513	1.0207	1.0586	1.0576	Ave		1.0395				3.6		20.0			
DCB Decachlorobiphenyl	1.0083 0.9883	1.0511	0.9841	0.9581	0.9561	Ave		0.9910				3.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 341212

SDG No.: 680102558-1

Instrument ID: CSGZ GC Column: CLP II ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 16:36 Calibration End Date: 07/28/2014 17:54 Calibration ID: 32531

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-341212/8	ZG28013.D
Level 2	IC 680-341212/7	ZG28012.D
Level 3	IC 680-341212/6	ZG28011.D
Level 4	ICIS 680-341212/5	ZG28010.D
Level 5	IC 680-341212/4	ZG28009.D
Level 6	IC 680-341212/29	ZG28008.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1016 Peak 1	0.0296 0.0253	0.0274	0.0260	0.0257	0.0253	Ave		0.0266				6.4		20.0			
PCB-1016 Peak 2	0.0120 0.0113	0.0109	0.0109	0.0109	0.0110	Ave		0.0112				3.8		20.0			
PCB-1016 Peak 3	0.0176 0.0151	0.0159	0.0159	0.0155	0.0151	Ave		0.0159				5.8		20.0			
PCB-1016 Peak 4	0.0551 0.0527	0.0539	0.0532	0.0535	0.0527	Ave		0.0535				1.7		20.0			
PCB-1016 Peak 5	0.0365 0.0331	0.0339	0.0328	0.0327	0.0325	Ave		0.0336				4.4		20.0			
PCB-1260 Peak 1	0.0669 0.0574	0.0612	0.0572	0.0564	0.0570	Lin2	0.0005	0.0560							1.0000		0.9900
PCB-1260 Peak 2	0.0371 0.0308	0.0346	0.0310	0.0305	0.0304	Ave		0.0324				8.6		20.0			
PCB-1260 Peak 3	0.0684 0.0640	0.0649	0.0613	0.0615	0.0630	Ave		0.0638				4.1		20.0			
PCB-1260 Peak 4	0.0352 0.0312	0.0335	0.0305	0.0303	0.0307	Ave		0.0319				6.2		20.0			
PCB-1260 Peak 5	0.1404 0.1397	0.1343	0.1301	0.1328	0.1367	Ave		0.1357				3.0		20.0			
Tetrachloro-m-xylene	0.9069 1.0810	1.0235	1.0093	1.0557	1.0630	Ave		1.0232				6.1		20.0			
DCB Decachlorobiphenyl	1.0915 1.1455	1.2052	1.1309	1.1169	1.1183	Ave		1.1347				3.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 341212

SDG No.: 680102558-1

Instrument ID: CSGZ GC Column: CLP I ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 18:25 Calibration End Date: 07/28/2014 18:25 Calibration ID: 32540

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-341212/10	ZG28015.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
PCB-1221 Peak 1	0.0114					Ave		0.0114				7.3		20.0			
PCB-1221 Peak 2	0.0076					Ave		0.0073				8.9		20.0			
PCB-1221 Peak 3	0.0270					Ave		0.0267				5.8		20.0			
PCB-1254 Peak 1	0.0376					Lin2	0.0004	0.0334							0.9950		0.9900
PCB-1254 Peak 2	0.0656					Ave		0.0614				9.1		20.0			
PCB-1254 Peak 3	0.0706					Ave		0.0622				8.4		20.0			
PCB-1254 Peak 4	0.0544					Ave		0.0482				10.0		20.0			
PCB-1254 Peak 5	0.0288					Ave		0.0239				11.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 341212

SDG No.: 680102558-1

Instrument ID: CSGZ GC Column: CLP II ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 18:25 Calibration End Date: 07/28/2014 18:25 Calibration ID: 32541

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-341212/10	ZG28015.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
PCB-1221 Peak 1	0.0113					Ave		0.0114				4.5		20.0			
PCB-1221 Peak 2	0.0072					Ave		0.0073				5.1		20.0			
PCB-1221 Peak 3	0.0234					Ave		0.0239				5.2		20.0			
PCB-1254 Peak 1	0.0496					Ave		0.0483				9.0		20.0			
PCB-1254 Peak 2	0.0525					Ave		0.0511				7.5		20.0			
PCB-1254 Peak 3	0.0892					Ave		0.0823				6.4		20.0			
PCB-1254 Peak 4	0.0612					Ave		0.0562				7.9		20.0			
PCB-1254 Peak 5	0.0355					Ave		0.0316				7.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 341212

SDG No.: 680102558-1

Instrument ID: CSGZ GC Column: CLP I ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 18:40 Calibration End Date: 07/28/2014 18:40 Calibration ID: 32550

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-341212/11	ZG28016.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
PCB-1232 Peak 1	0.0180					Ave		0.0180						20.0			
PCB-1232 Peak 2	0.0213					Ave		0.0213						20.0			
PCB-1232 Peak 3	0.0133					Ave		0.0133						20.0			
PCB-1232 Peak 4	0.0102					Ave		0.0102						20.0			
PCB-1232 Peak 5	0.0113					Ave		0.0113						20.0			
PCB-1262 Peak 1	0.0706					Ave		0.0706						20.0			
PCB-1262 Peak 2	0.0658					Ave		0.0658						20.0			
PCB-1262 Peak 3	0.1344					Ave		0.1344						20.0			
PCB-1262 Peak 4	0.0533					Ave		0.0533						20.0			
PCB-1262 Peak 5	0.0448					Ave		0.0448						20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 341212

SDG No.: 680102558-1

Instrument ID: CSGZ GC Column: CLP II ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 18:40 Calibration End Date: 07/28/2014 18:40 Calibration ID: 32551

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-341212/11	ZG28016.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
PCB-1232 Peak 1	0.0127					Ave		0.0127						20.0			
PCB-1232 Peak 2	0.0051					Ave		0.0051						20.0			
PCB-1232 Peak 3	0.0075					Ave		0.0075						20.0			
PCB-1232 Peak 4	0.0242					Ave		0.0242						20.0			
PCB-1232 Peak 5	0.0151					Ave		0.0151						20.0			
PCB-1262 Peak 1	0.0796					Ave		0.0796						20.0			
PCB-1262 Peak 2	0.0733					Ave		0.0733						20.0			
PCB-1262 Peak 3	0.1481					Ave		0.1481						20.0			
PCB-1262 Peak 4	0.0668					Ave		0.0668						20.0			
PCB-1262 Peak 5	0.0547					Ave		0.0547						20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 341212

SDG No.: 680102558-1

Instrument ID: CSGZ GC Column: CLP I ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 18:56 Calibration End Date: 07/28/2014 18:56 Calibration ID: 32560

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-341212/12	ZG28017.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
PCB-1242 Peak 1	0.0306					Ave		0.0306						20.0			
PCB-1242 Peak 2	0.0374					Ave		0.0374						20.0			
PCB-1242 Peak 3	0.0224					Ave		0.0224						20.0			
PCB-1242 Peak 4	0.0169					Ave		0.0169						20.0			
PCB-1242 Peak 5	0.0213					Ave		0.0213						20.0			
PCB-1268 Peak 1	0.1610					Ave		0.1610						20.0			
PCB-1268 Peak 2	0.1518					Ave		0.1518						20.0			
PCB-1268 Peak 3	0.1263					Ave		0.1263						20.0			
PCB-1268 Peak 4	0.0534					Ave		0.0534						20.0			
PCB-1268 Peak 5	0.3887					Ave		0.3887						20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 341212

SDG No.: 680102558-1

Instrument ID: CSGZ GC Column: CLP II ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 18:56 Calibration End Date: 07/28/2014 18:56 Calibration ID: 32561

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-341212/12	ZG28017.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
PCB-1242 Peak 1	0.0204					Ave		0.0204						20.0			
PCB-1242 Peak 2	0.0086					Ave		0.0086						20.0			
PCB-1242 Peak 3	0.0128					Ave		0.0128						20.0			
PCB-1242 Peak 4	0.0428					Ave		0.0428						20.0			
PCB-1242 Peak 5	0.0262					Ave		0.0262						20.0			
PCB-1268 Peak 1	0.1859					Ave		0.1859						20.0			
PCB-1268 Peak 2	0.1759					Ave		0.1759						20.0			
PCB-1268 Peak 3	0.1493					Ave		0.1493						20.0			
PCB-1268 Peak 4	0.0609					Ave		0.0609						20.0			
PCB-1268 Peak 5	0.4761					Ave		0.4761						20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 341212

SDG No.: 680102558-1

Instrument ID: CSGZ GC Column: CLP I ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 19:11 Calibration End Date: 07/28/2014 19:11 Calibration ID: 32570

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-341212/13	ZG28018.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
PCB-1248 Peak 1	0.0164					Lin2	0.0003	0.0158							0.9950		0.9900
PCB-1248 Peak 2	0.0053					Lin2	0.0001	0.0052							0.9950		0.9900
PCB-1248 Peak 3	0.0213					Ave		0.0222				8.1		20.0			
PCB-1248 Peak 4	0.0109					Ave		0.0111				8.8		20.0			
PCB-1248 Peak 5	0.0090					Ave		0.0098				8.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102558-1 Analy Batch No.: 341212

SDG No.: 680102558-1

Instrument ID: CSGZ GC Column: CLP II ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 19:11 Calibration End Date: 07/28/2014 19:11 Calibration ID: 32571

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-341212/13	ZG28018.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1						B	M1	M2								
PCB-1248 Peak 1	0.0119					Ave		0.0129				7.8		20.0			
PCB-1248 Peak 2	0.0242					Ave		0.0248				5.7		20.0			
PCB-1248 Peak 3	0.0292					Ave		0.0301				2.8		20.0			
PCB-1248 Peak 4	0.0080					Ave		0.0083				3.6		20.0			
PCB-1248 Peak 5	0.0206					Ave		0.0213				6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: ICV 680-341212/9 Calibration Date: 07/28/2014 18:09

Instrument ID: CSGZ Calib Start Date: 07/28/2014 16:36

GC Column: CLP I ID: 0.32(mm) Calib End Date: 07/28/2014 17:54

Lab File ID: ZG28014.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin2		0.0390		0.511	0.500	2.3	20.0
PCB-1016 Peak 2	Ave	0.0497	0.0493		0.496	0.500	-0.9	20.0
PCB-1016 Peak 3	Lin2		0.0290		0.507	0.500	1.5	20.0
PCB-1016 Peak 4	Lin2		0.0219		0.505	0.500	1.1	20.0
PCB-1016 Peak 5	Lin2		0.0266		0.502	0.500	0.4	20.0
PCB-1260 Peak 1	Lin2		0.0447		0.431	0.500	-13.8	20.0
PCB-1260 Peak 2	Lin2		0.0256		0.456	0.500	-8.9	20.0
PCB-1260 Peak 3	Lin2		0.0246		0.461	0.500	-7.9	20.0
PCB-1260 Peak 4	Ave	0.1228	0.1081		0.440	0.500	-12.0	20.0
PCB-1260 Peak 5	Ave	0.0608	0.0579		0.476	0.500	-4.8	20.0
Tetrachloro-m-xylene	Ave	1.040	0.8218		0.0253	0.0320	-20.9*	20.0
DCB Decachlorobiphenyl	Ave	0.9910	0.8206		0.0265	0.0320	-17.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: ICV 680-341212/9 Calibration Date: 07/28/2014 18:09

Instrument ID: CSGZ Calib Start Date: 07/28/2014 16:36

GC Column: CLP II ID: 0.32(mm) Calib End Date: 07/28/2014 17:54

Lab File ID: ZG28014.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	0.0266	0.0262		0.492	0.500	-1.5	20.0
PCB-1016 Peak 2	Ave	0.0112	0.0114		0.510	0.500	1.9	20.0
PCB-1016 Peak 3	Ave	0.0159	0.0160		0.506	0.500	1.2	20.0
PCB-1016 Peak 4	Ave	0.0535	0.0552		0.515	0.500	3.1	20.0
PCB-1016 Peak 5	Ave	0.0336	0.0338		0.503	0.500	0.7	20.0
PCB-1260 Peak 1	Lin2		0.0499		0.436	0.500	-12.8	20.0
PCB-1260 Peak 2	Ave	0.0324	0.0285		0.440	0.500	-12.0	20.0
PCB-1260 Peak 3	Ave	0.0638	0.0581		0.455	0.500	-8.9	20.0
PCB-1260 Peak 4	Ave	0.0319	0.0282		0.442	0.500	-11.6	20.0
PCB-1260 Peak 5	Ave	0.1357	0.1230		0.453	0.500	-9.3	20.0
Tetrachloro-m-xylene	Ave	1.023	0.8294		0.0259	0.0320	-18.9	20.0
DCB Decachlorobiphenyl	Ave	1.135	0.9557		0.0270	0.0320	-15.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: CCVIS 680-341704/28 Calibration Date: 07/30/2014 21:43

Instrument ID: CSGZ Calib Start Date: 07/28/2014 16:36

GC Column: CLP I ID: 0.32(mm) Calib End Date: 07/28/2014 17:54

Lab File ID: ZG30028.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin2		0.0394		0.516	0.500	3.2	20.0
PCB-1016 Peak 2	Ave	0.0497	0.0506		0.509	0.500	1.7	20.0
PCB-1016 Peak 3	Lin2		0.0303		0.530	0.500	6.0	20.0
PCB-1016 Peak 4	Lin2		0.0223		0.513	0.500	2.6	20.0
PCB-1016 Peak 5	Lin2		0.0280		0.530	0.500	6.0	20.0
PCB-1260 Peak 1	Lin2		0.0481		0.464	0.500	-7.1	20.0
PCB-1260 Peak 2	Lin2		0.0254		0.453	0.500	-9.5	20.0
PCB-1260 Peak 3	Lin2		0.0242		0.451	0.500	-9.8	20.0
PCB-1260 Peak 4	Ave	0.1228	0.1018		0.414	0.500	-17.1	20.0
PCB-1260 Peak 5	Ave	0.0608	0.0483		0.397	0.500	-20.6*	20.0
Tetrachloro-m-xylene	Ave	1.040	1.074		0.0331	0.0320	3.3	20.0
DCB Decachlorobiphenyl	Ave	0.9910	0.5866		0.0189	0.0320	-40.8*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: CCVIS 680-341704/28 Calibration Date: 07/30/2014 21:43

Instrument ID: CSGZ Calib Start Date: 07/28/2014 16:36

GC Column: CLP II ID: 0.32(mm) Calib End Date: 07/28/2014 17:54

Lab File ID: ZG30028.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	0.0266	0.0270		0.508	0.500	1.6	20.0
PCB-1016 Peak 2	Ave	0.0112	0.0118		0.527	0.500	5.3	20.0
PCB-1016 Peak 3	Ave	0.0159	0.0163		0.513	0.500	2.6	20.0
PCB-1016 Peak 4	Ave	0.0535	0.0566		0.529	0.500	5.8	20.0
PCB-1016 Peak 5	Ave	0.0336	0.0352		0.523	0.500	4.7	20.0
PCB-1260 Peak 1	Lin2		0.0528		0.462	0.500	-7.7	20.0
PCB-1260 Peak 2	Ave	0.0324	0.0274		0.423	0.500	-15.3	20.0
PCB-1260 Peak 3	Ave	0.0638	0.0567		0.444	0.500	-11.2	20.0
PCB-1260 Peak 4	Ave	0.0319	0.0276		0.433	0.500	-13.4	20.0
PCB-1260 Peak 5	Ave	0.1357	0.1113		0.410	0.500	-18.0	20.0
Tetrachloro-m-xylene	Ave	1.023	1.096		0.0343	0.0320	7.1	20.0
DCB Decachlorobiphenyl	Ave	1.135	0.6554		0.0185	0.0320	-42.2*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102558-1

SDG No.: 680102558-1

Lab Sample ID: CCV 680-341704/49 Calibration Date: 07/31/2014 03:10

Instrument ID: CSGZ Calib Start Date: 07/28/2014 16:36

GC Column: CLP I ID: 0.32(mm) Calib End Date: 07/28/2014 17:54

Lab File ID: ZG30049.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin2		0.0376		0.491	0.500	-1.8	20.0
PCB-1016 Peak 2	Ave	0.0497	0.0476		0.478	0.500	-4.3	20.0
PCB-1016 Peak 3	Lin2		0.0283		0.495	0.500	-1.0	20.0
PCB-1016 Peak 4	Lin2		0.0208		0.477	0.500	-4.5	20.0
PCB-1016 Peak 5	Lin2		0.0259		0.488	0.500	-2.3	20.0
PCB-1260 Peak 1	Lin2		0.0451		0.436	0.500	-12.9	20.0
PCB-1260 Peak 2	Lin2		0.0239		0.424	0.500	-15.3	20.0
PCB-1260 Peak 3	Lin2		0.0227		0.424	0.500	-15.3	20.0
PCB-1260 Peak 4	Ave	0.1228	0.1007		0.410	0.500	-18.1	20.0
PCB-1260 Peak 5	Ave	0.0608	0.0495		0.407	0.500	-18.7	20.0
Tetrachloro-m-xylene	Ave	1.040	1.029		0.0317	0.0320	-1.0	20.0
DCB Decachlorobiphenyl	Ave	0.9910	0.7784		0.0251	0.0320	-21.5*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah
Job No.: 680-102558-1
SDG No.: 680102558-1
Lab Sample ID: CCV 680-341704/49
Calibration Date: 07/31/2014 03:10
Instrument ID: CSGZ
Calib Start Date: 07/28/2014 16:36
GC Column: CLP II
ID: 0.32(mm)
Calib End Date: 07/28/2014 17:54
Lab File ID: ZG30049.D
Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	0.0266	0.0259		0.487	0.500	-2.6	20.0
PCB-1016 Peak 2	Ave	0.0112	0.0113		0.506	0.500	1.1	20.0
PCB-1016 Peak 3	Ave	0.0159	0.0156		0.493	0.500	-1.4	20.0
PCB-1016 Peak 4	Ave	0.0535	0.0530		0.496	0.500	-0.9	20.0
PCB-1016 Peak 5	Ave	0.0336	0.0331		0.493	0.500	-1.3	20.0
PCB-1260 Peak 1	Lin2		0.0505		0.441	0.500	-11.7	20.0
PCB-1260 Peak 2	Ave	0.0324	0.0266		0.410	0.500	-18.0	20.0
PCB-1260 Peak 3	Ave	0.0638	0.0549		0.430	0.500	-14.0	20.0
PCB-1260 Peak 4	Ave	0.0319	0.0269		0.421	0.500	-15.9	20.0
PCB-1260 Peak 5	Ave	0.1357	0.1125		0.414	0.500	-17.1	20.0
Tetrachloro-m-xylene	Ave	1.023	1.054		0.0330	0.0320	3.0	20.0
DCB Decachlorobiphenyl	Ave	1.135	0.9030		0.0255	0.0320	-20.4*	20.0

Report Date: 22-Jul-2014 11:41:04 Chrom Revision: 2.2 24-Jun-2014 07:21:42

Standard

TestAmerica Savannah

Data File: \\SAVCHROM\ChromData\CSGZ\20140721-11196.b\ZG21017.D

Injection Date: 21-Jul-2014 20:13:07 Instrument ID: CSGZ Operator ID: LIMS import

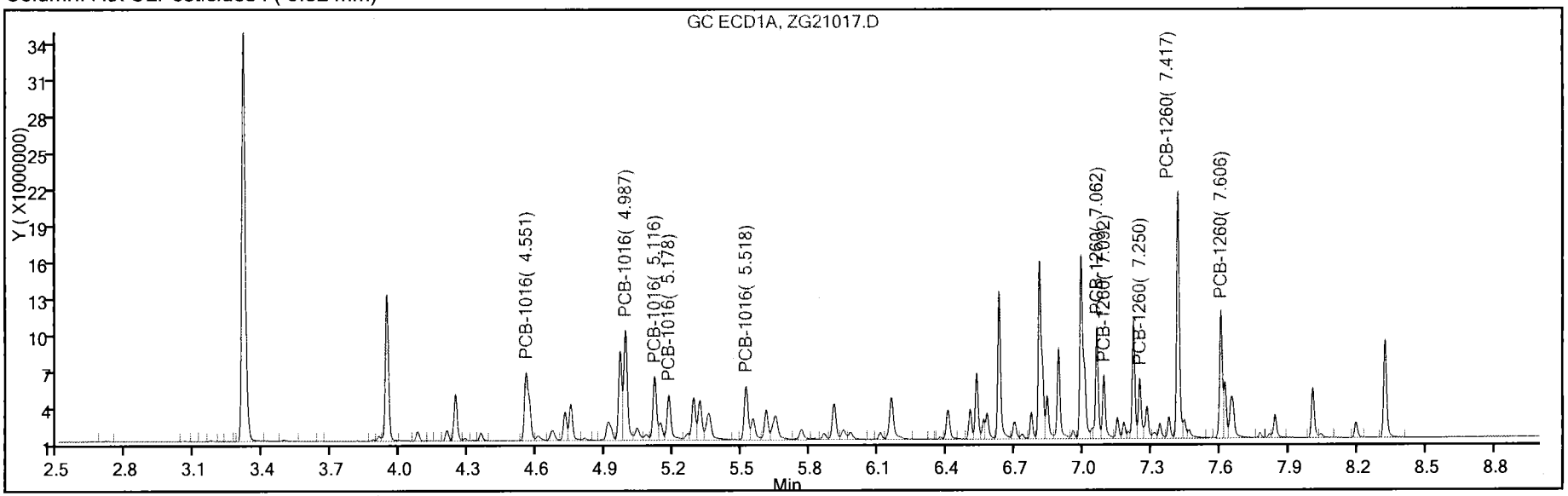
Lims ID: icv pcb Worklist Smp#: 9

Client ID:

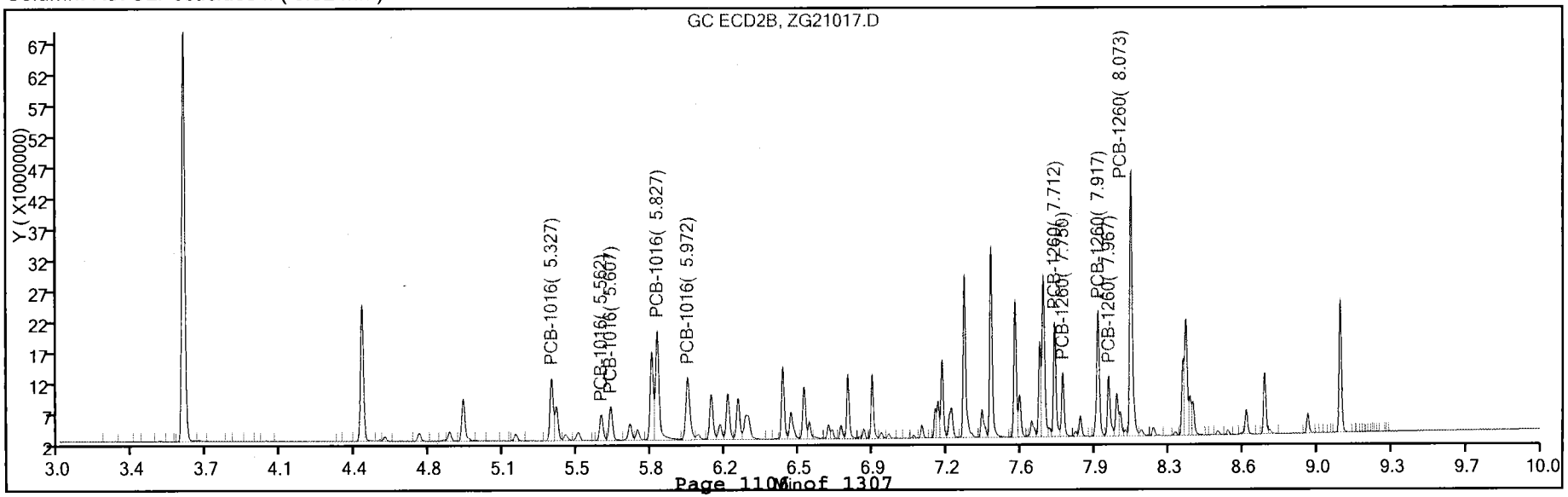
Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 17

Method: PestPCB_CSGZ Limit Group: 8081B_8082A

Column: Rtx CLPesticides I (0.32 mm)



Column: Rtx CLPesticides II (0.32 mm)

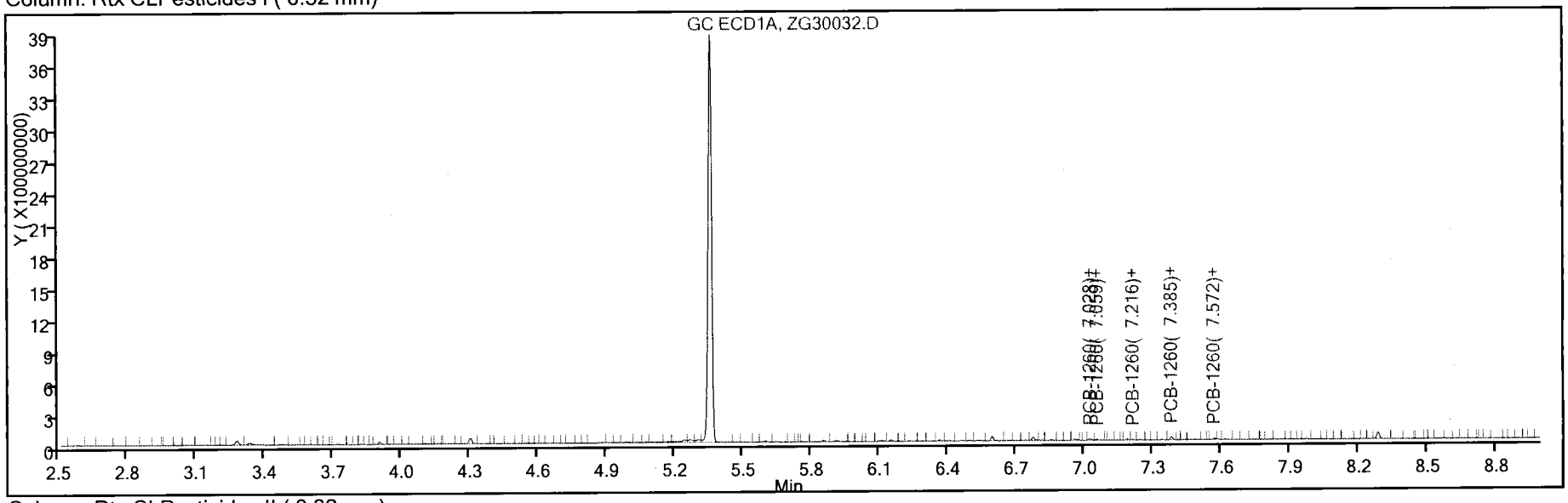


Report Date: 31-Jul-2014 10:10:39 Chrom Revision: 2.2 24-Jul-2014 14:43:32

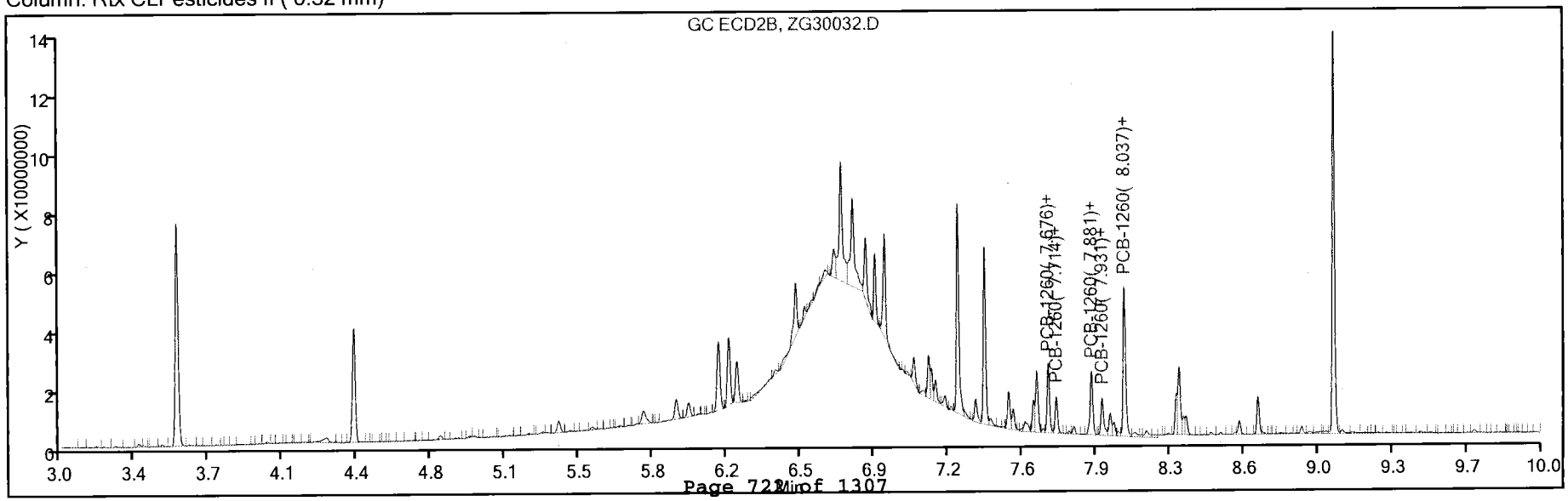
TestAmerica Savannah

Data File:	\\SAVCHROM\ChromData\CSGZ\20140730-11463.b\ZG30032.D				
Injection Date:	30-Jul-2014 22:45:57	Instrument ID:	CSGZ	Operator ID:	LIMS import
Lims ID:	680-102558-A-25-B	Lab Sample ID:	680-102558-25	Worklist Smp#:	32
Client ID:	SD-276-SS				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	32
Method:	PestPCB_CSGZ	Limit Group:	8081B_8082A		

Column: Rtx CLPesticides I (0.32 mm)



Column: Rtx CLPesticides II (0.32 mm)



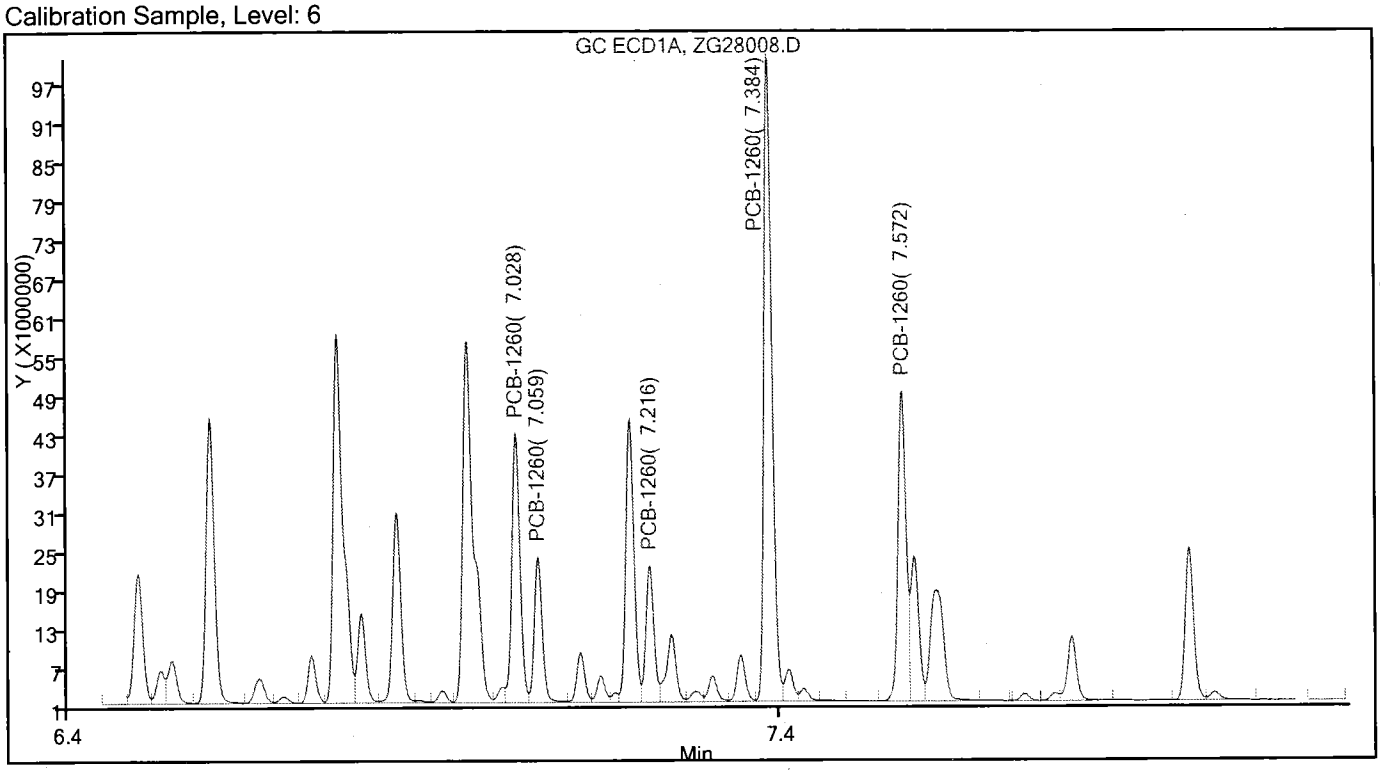
Report Date: 31-Jul-2014 10:10:39 Chrom Revision: 2.2 24-Jul-2014 14:43:32

TestAmerica Savannah

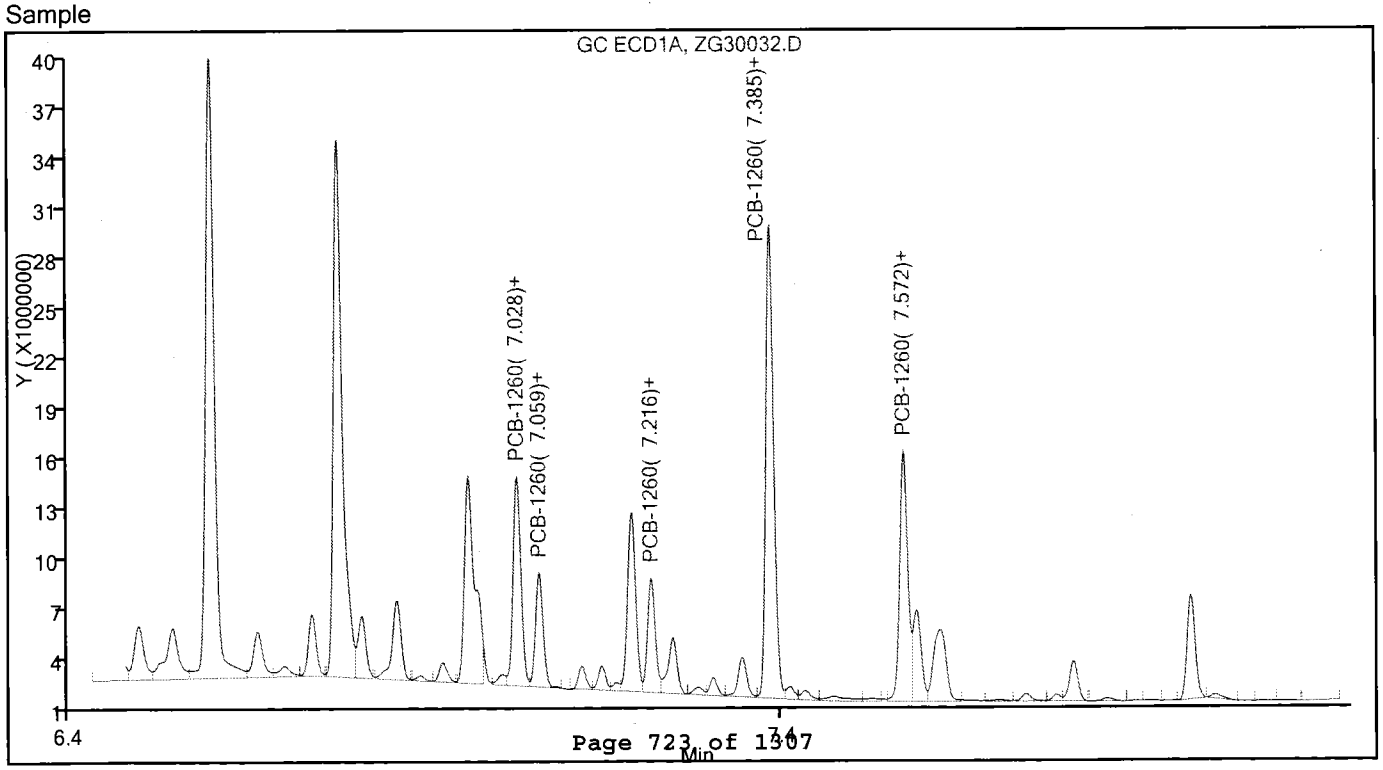
Data File:	\\SAVCHROM\ChromData\CSGZ\20140730-11463.b\ZG30032.D				
Injection Date:	30-Jul-2014 22:45:57	Instrument ID:	CSGZ		
Lims ID:	680-102558-A-25-B	Lab Sample ID:	680-102558-25		
Client ID:	SD-276-SS				
Operator ID:	LIMS import	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	PestPCB_CSGZ	Limit Group:	8081B_8082A		
Column:	Rtx CLPesticides I (0.32 mm)	Detector	GC ECD1A		

34 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 6



Sample

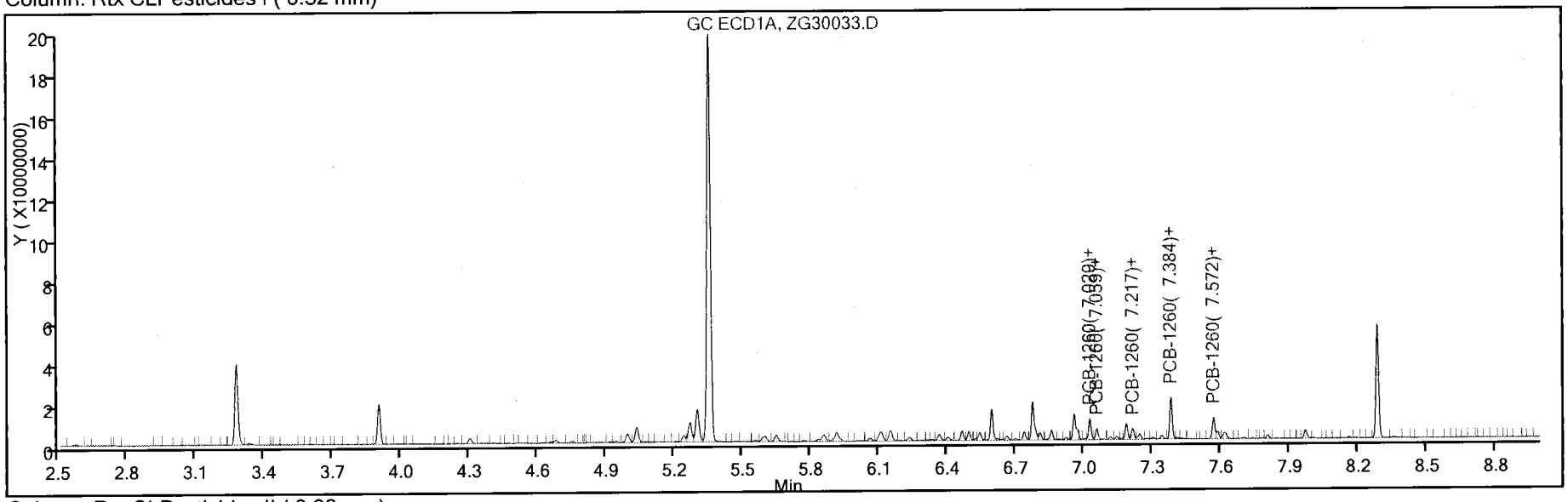


Report Date: 31-Jul-2014 10:10:40 Chrom Revision: 2.2 24-Jul-2014 14:43:32

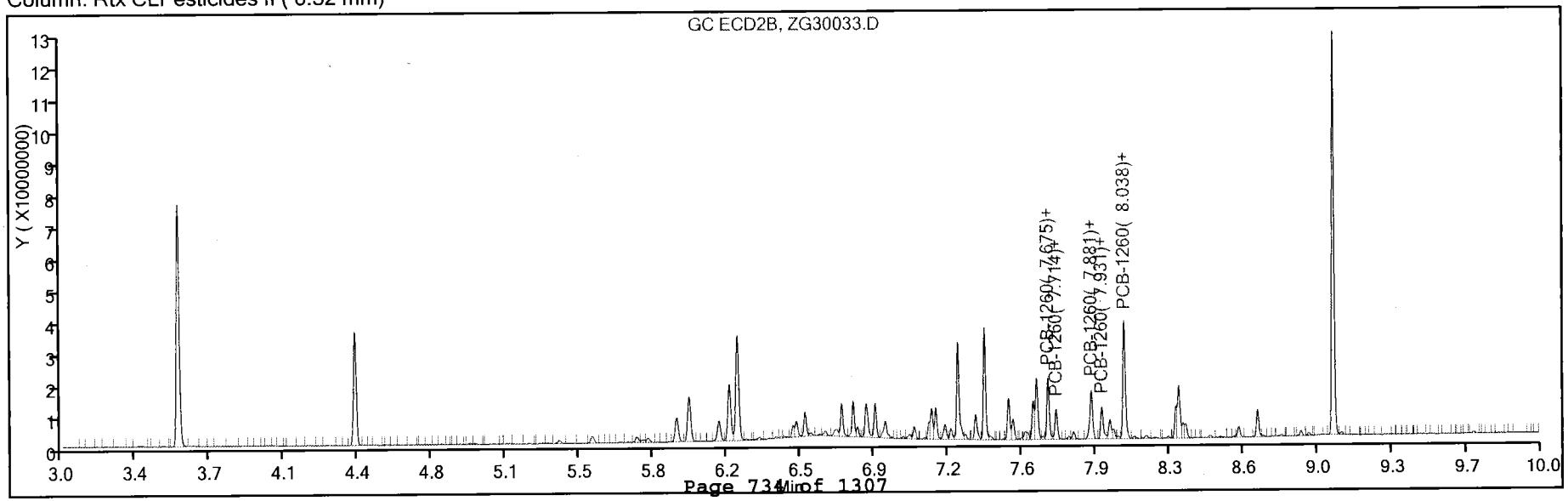
TestAmerica Savannah

Data File:	\\SAVCHROM\ChromData\CSGZ\20140730-11463.b\ZG30033.D				
Injection Date:	30-Jul-2014 23:01:34	Instrument ID:	CSGZ	Operator ID:	LIMS import
Lims ID:	680-102558-A-26-B	Lab Sample ID:	680-102558-26	Worklist Smp#:	33
Client ID:	SD-275-SS				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	33
Method:	PestPCB_CSGZ	Limit Group:	8081B_8082A		

Column: Rtx CLPesticides I (0.32 mm)



Column: Rtx CLPesticides II (0.32 mm)



Report Date: 31-Jul-2014 10:10:41 Chrom Revision: 2.2 24-Jul-2014 14:43:32

TestAmerica Savannah

Data File:	\\SAVCHROM\ChromData\CSGZ\20140730-11463.b\ZG30033.D				
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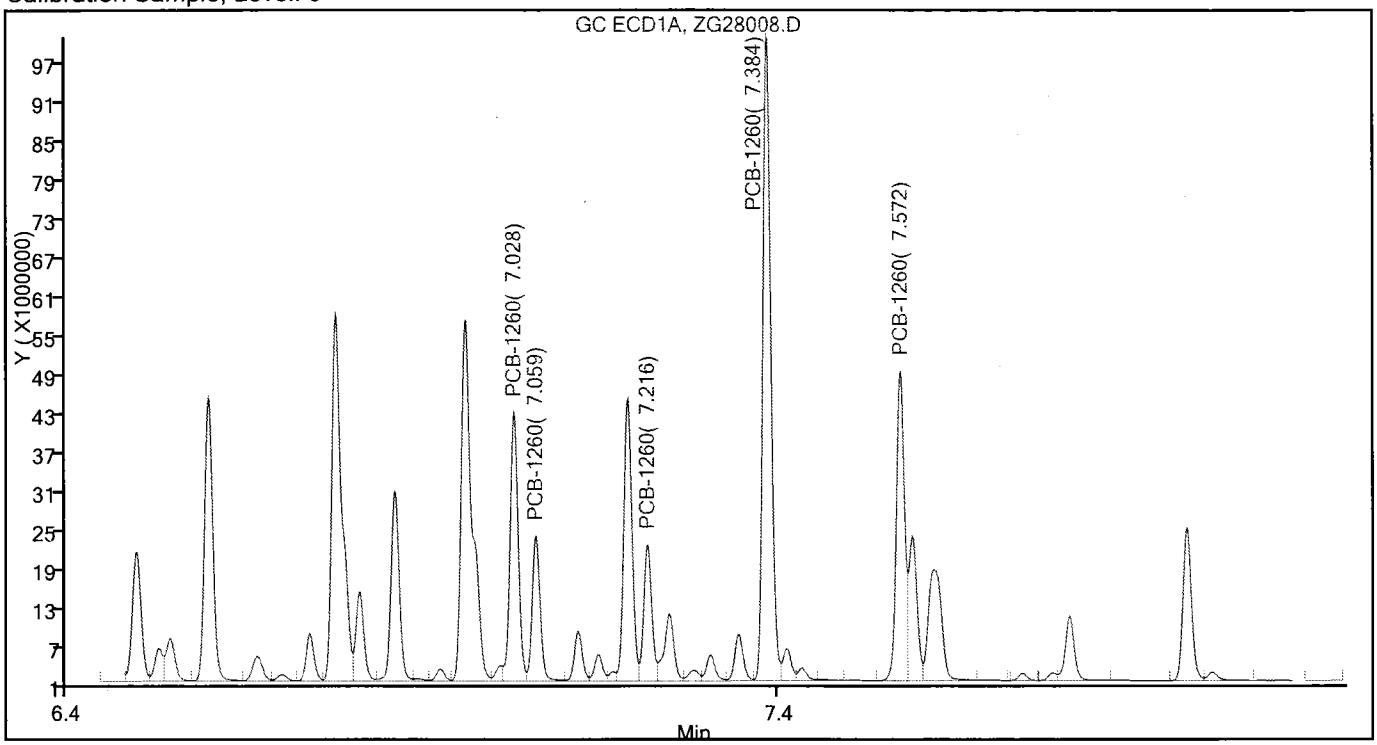
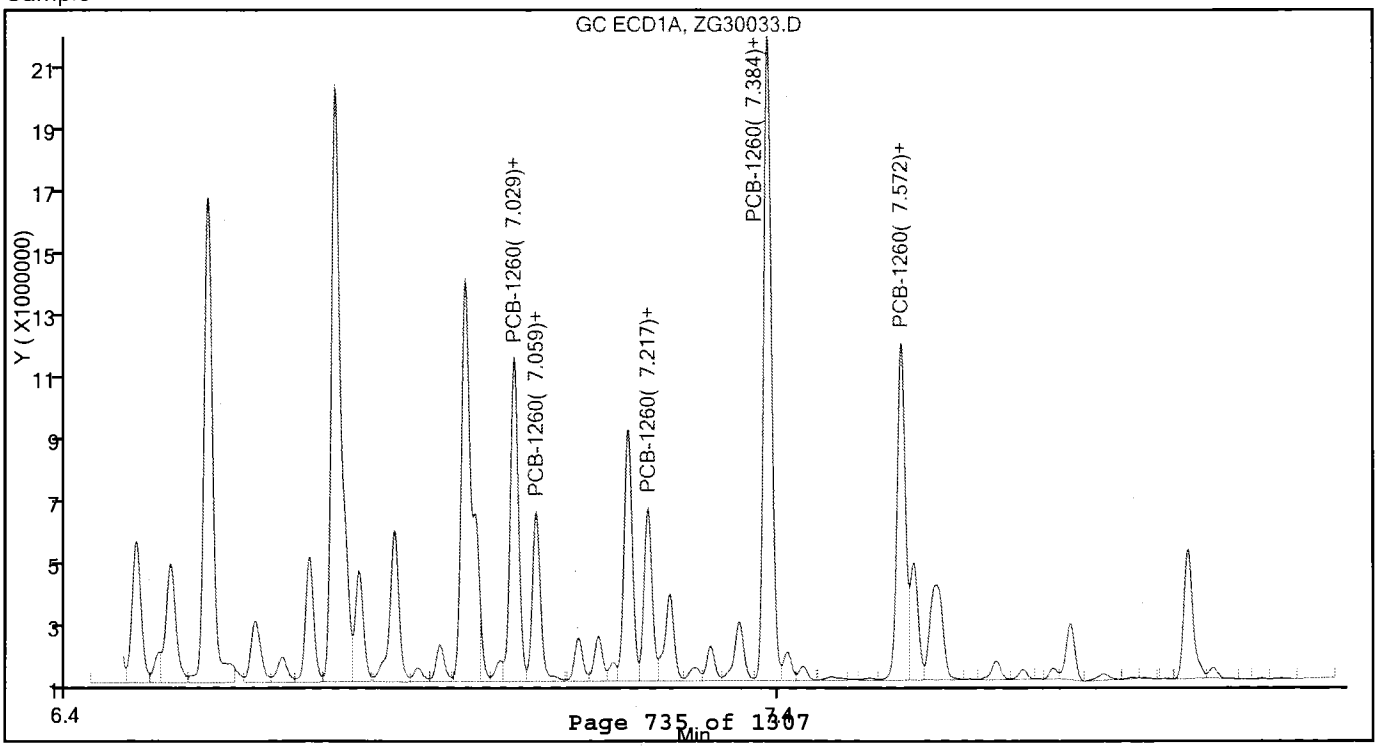
Lims ID:	680-102558-A-26-B	Lab Sample ID:	680-102558-26		
Client ID:	SD-275-SS				
Operator ID:	LIMS import	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	PestPCB_CSGZ	Limit Group:	8081B_8082A		
Column:	Rtx CLPesticides I (0.32 mm)	Detector	GC ECD1A		

34 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 6



Sample



Report Date: 31-Jul-2014 10:10:42 Chrom Revision: 2.2 24-Jul-2014 14:43:32

TestAmerica Savannah

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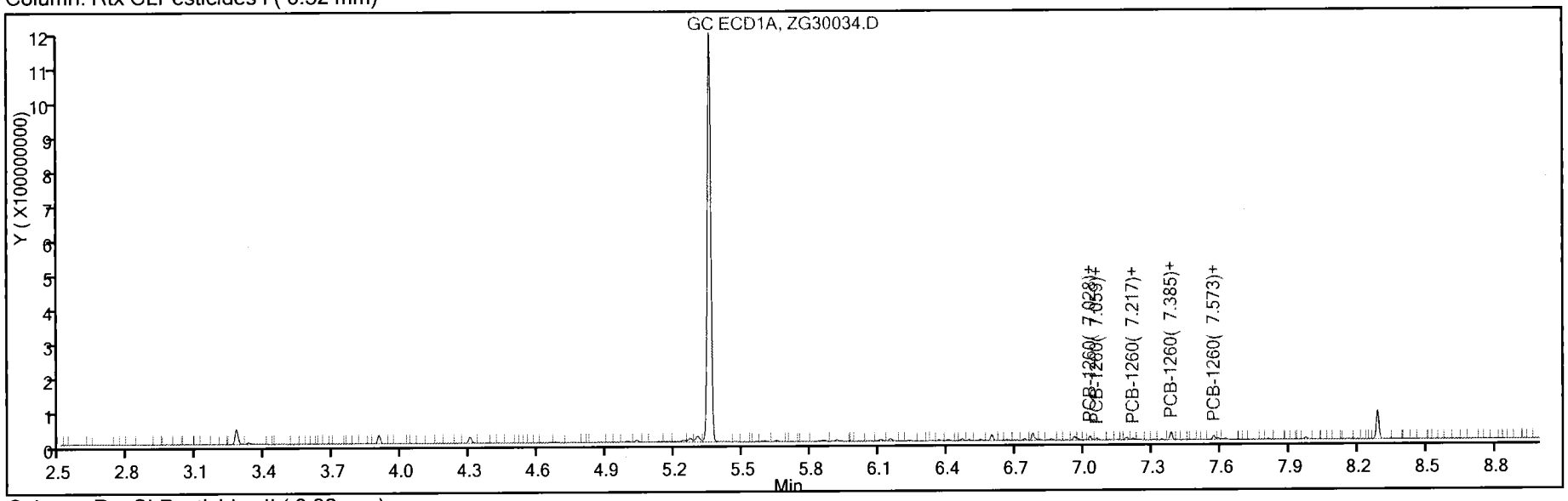
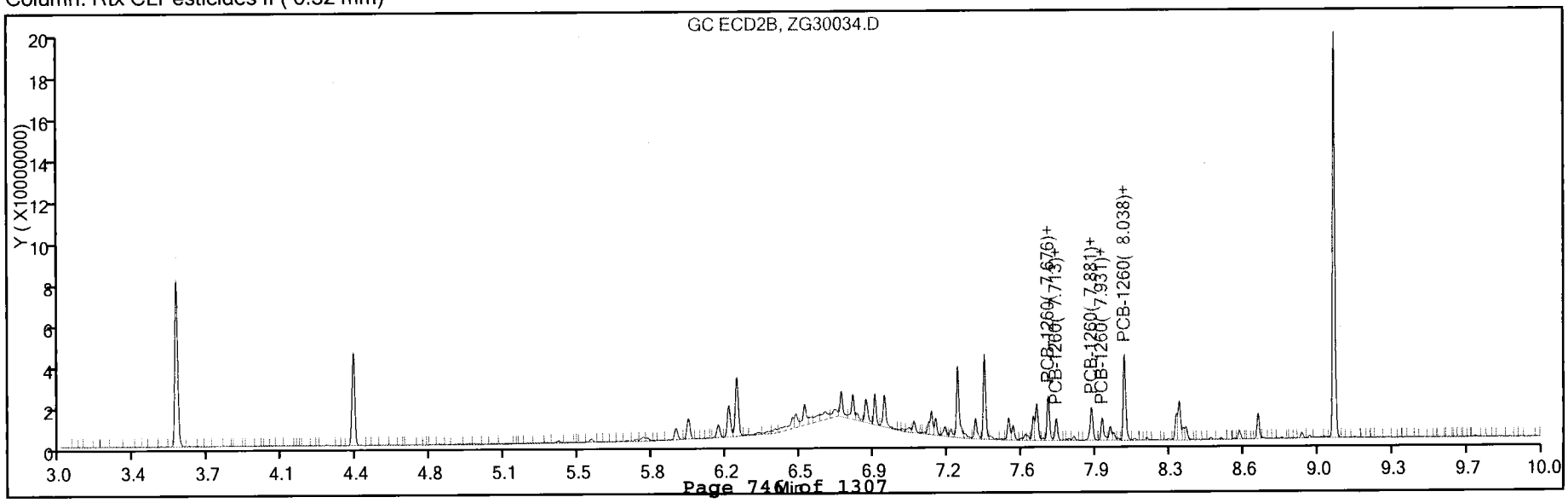
Lims ID:	680-102558-A-27-B	Lab Sample ID:	680-102558-27	Worklist Smp#:	34
Client ID:	SD-252-SS				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	34
Method:	PestPCB_CSGZ	Limit Group:	8081B_8082A		

Column: Rtx CLPesticides I (0.32 mm)



Column: Rtx CLPesticides II (0.32 mm)



Report Date: 31-Jul-2014 10:10:42 Chrom Revision: 2.2 24-Jul-2014 14:43:32

TestAmerica Savannah

Data File:	\\SAVCHROM\ChromData\CSGZ\20140730-11463.b\ZG30034.D				
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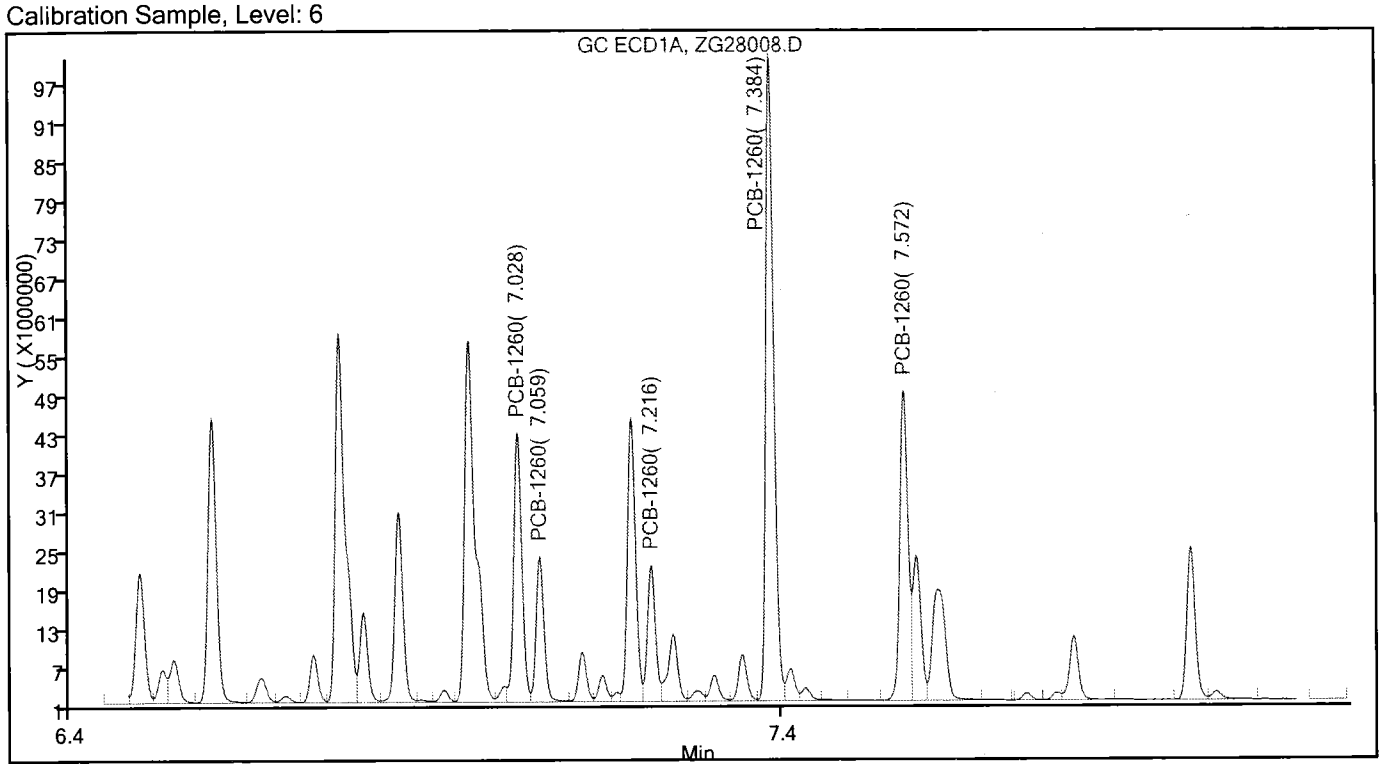
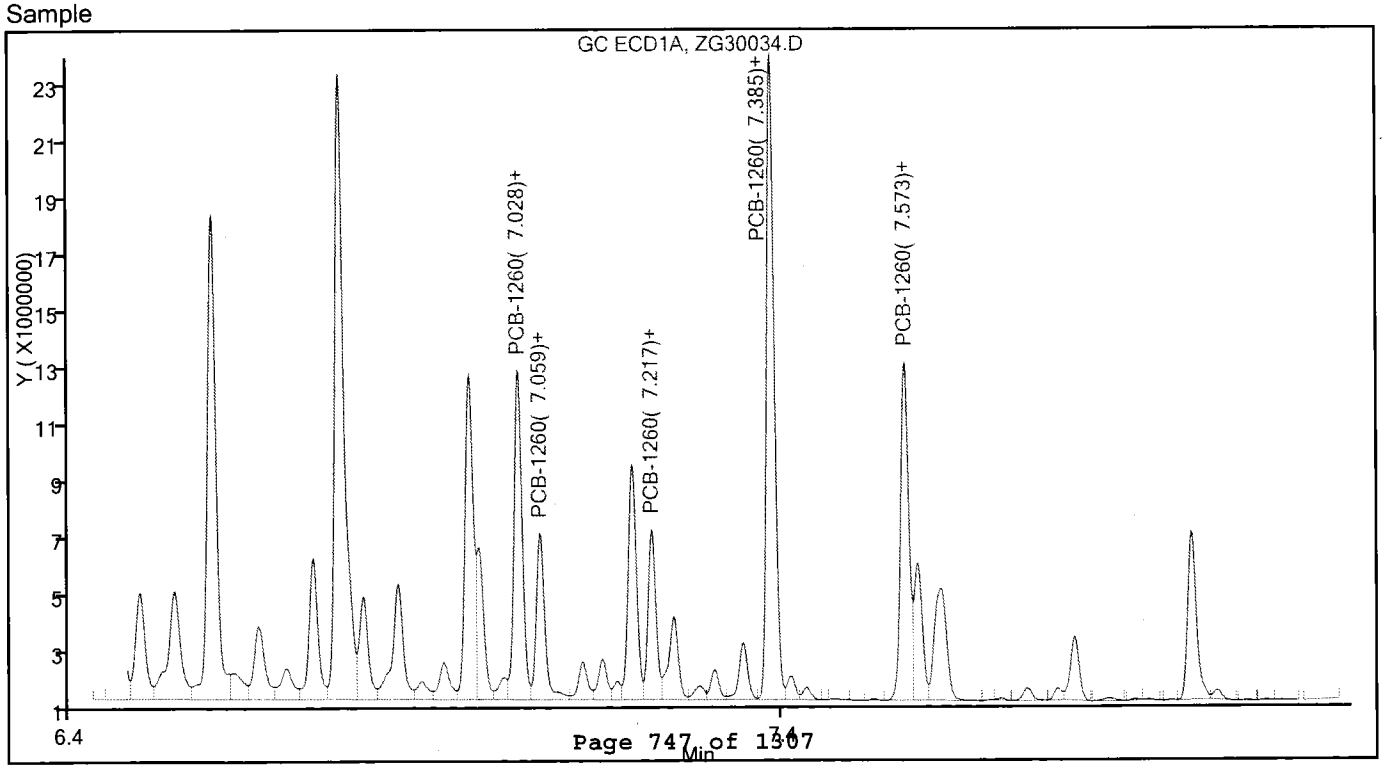
Lims ID:	680-102558-A-27-B	Lab Sample ID:	680-102558-27		
Client ID:	SD-252-SS				
Operator ID:	LIMS import	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	PestPCB_CSGZ	Limit Group:	8081B_8082A		
Column:	Rtx CLPesticides I (0.32 mm)	Detector	GC ECD1A		

34 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 6



Sample



Report Date: 31-Jul-2014 10:53:55 Chrom Revision: 2.2 24-Jul-2014 14:43:32

TestAmerica Savannah

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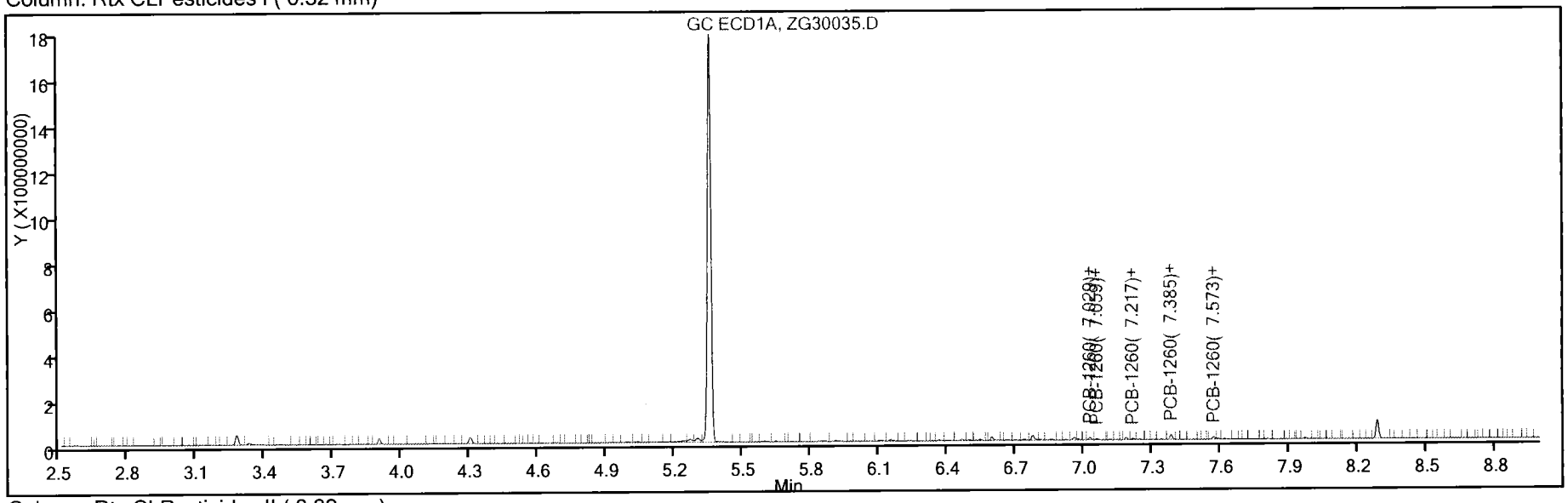
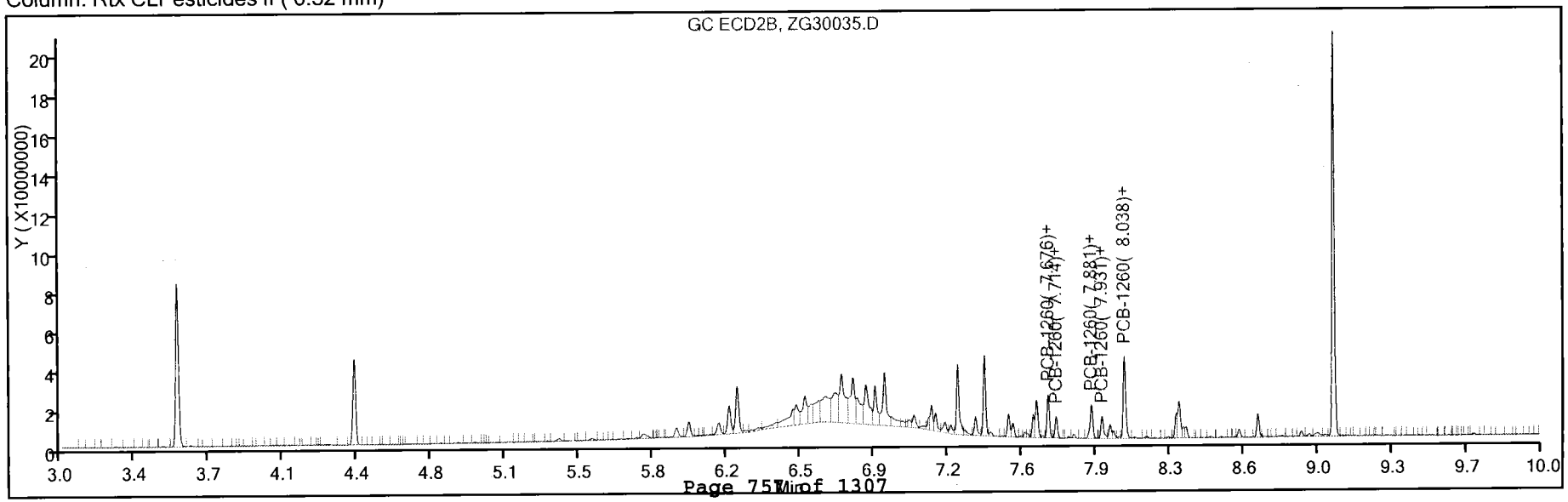
Lims ID:	680-102558-A-28-B	Lab Sample ID:	680-102558-28	Worklist Smp#:	35
Client ID:	SD-253-SS				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	35
Method:	PestPCB_CSGZ	Limit Group:	8081B_8082A		

Column: Rtx CLPesticides I (0.32 mm)



Column: Rtx CLPesticides II (0.32 mm)



Report Date: 31-Jul-2014 10:53:56 Chrom Revision: 2.2 24-Jul-2014 14:43:32

TestAmerica Savannah

Data File:	\\SAVCHROM\ChromData\CSGZ\20140730-11463.b\ZG30035.D				
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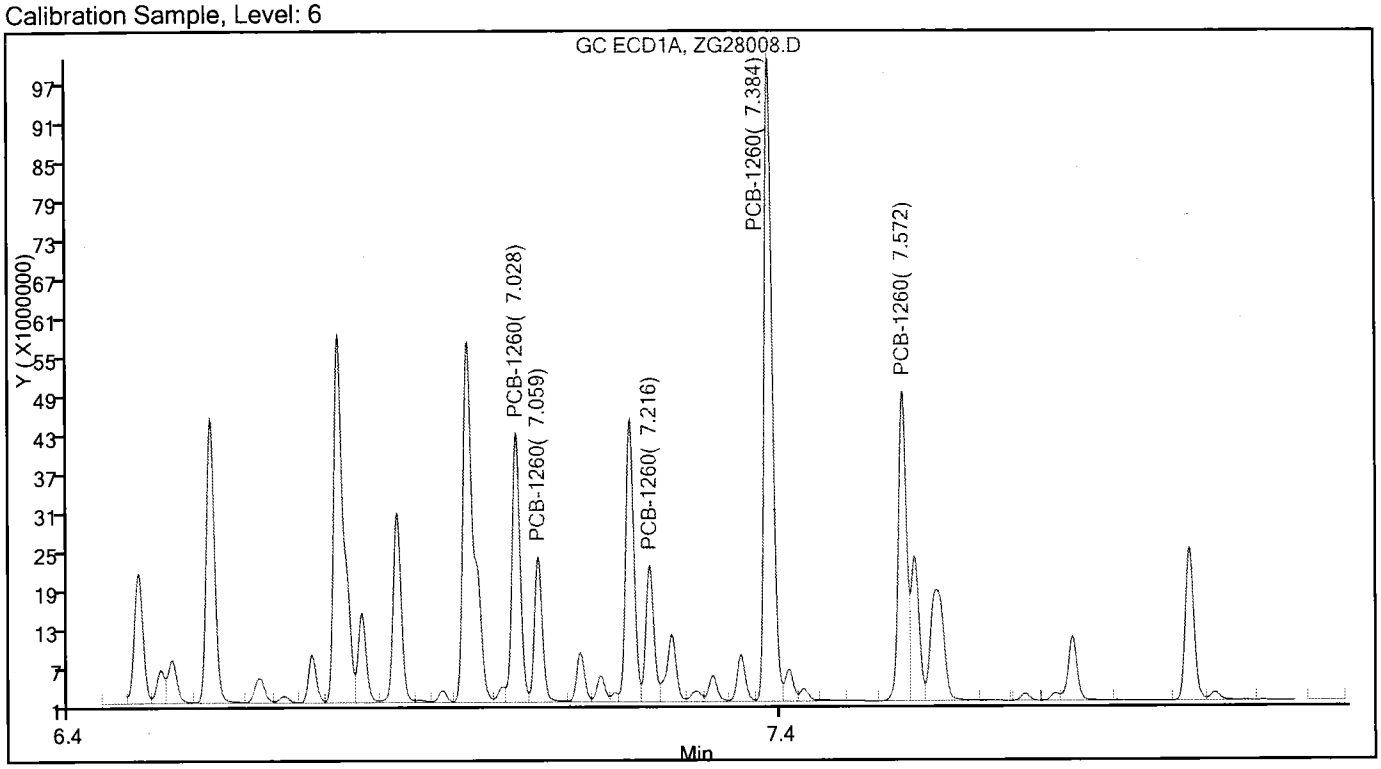
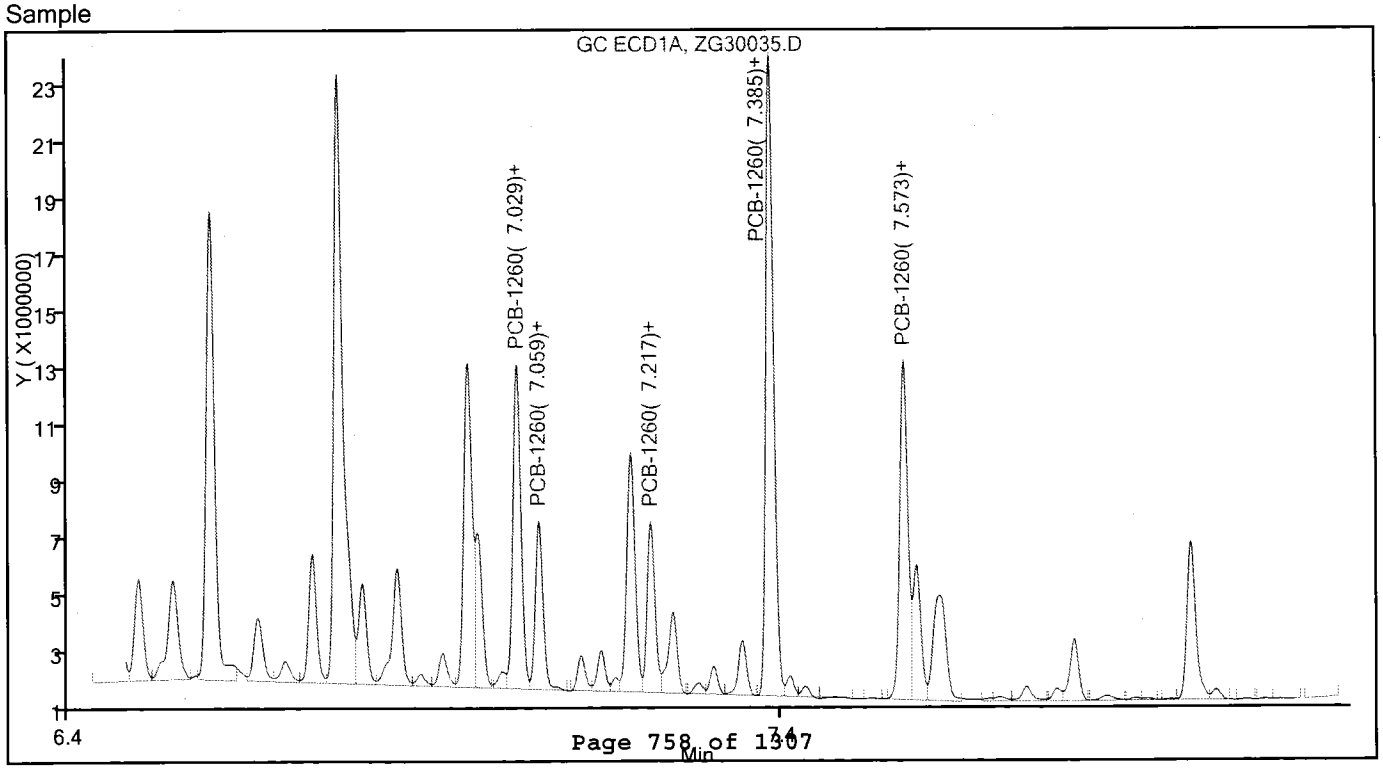
Lims ID:	680-102558-A-28-B	Lab Sample ID:	680-102558-28		
Client ID:	SD-253-SS				
Operator ID:	LIMS import	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	PestPCB_CSGZ	Limit Group:	8081B_8082A		
Column:	Rtx CLPesticides I (0.32 mm)	Detector	GC ECD1A		

34 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 6



Sample



Report Date: 31-Jul-2014 10:10:46 Chrom Revision: 2.2 24-Jul-2014 14:43:32

TestAmerica Savannah

Data File:	\\SAVCHROM\ChromData\CSGZ\20140730-11463.b\ZG30036.D				
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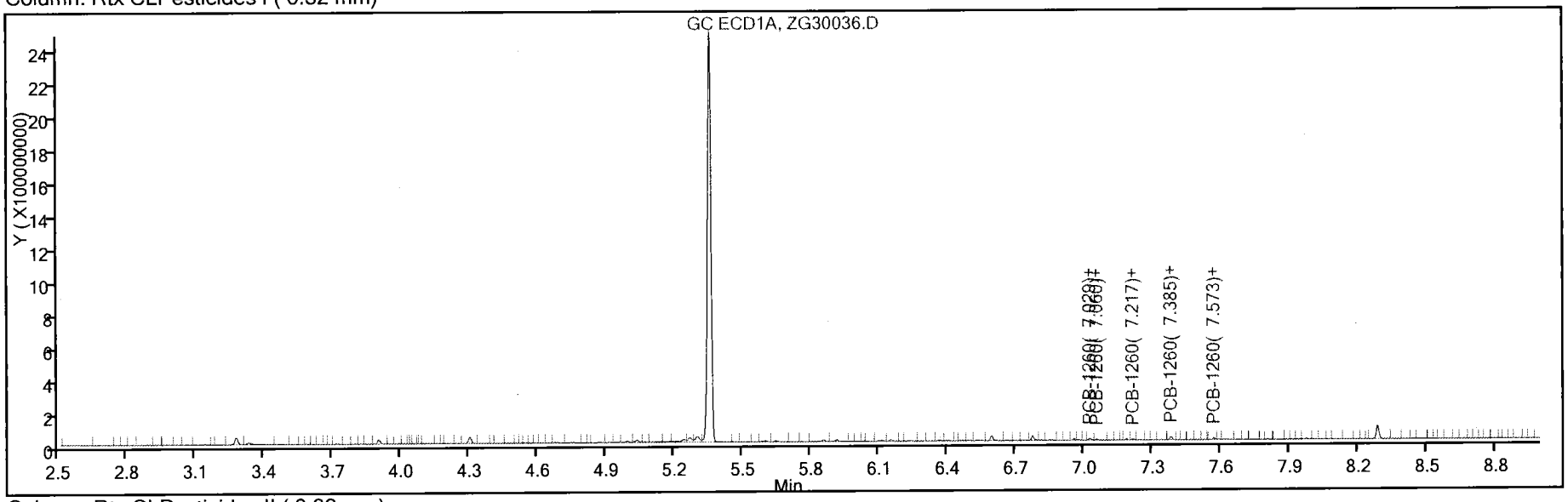
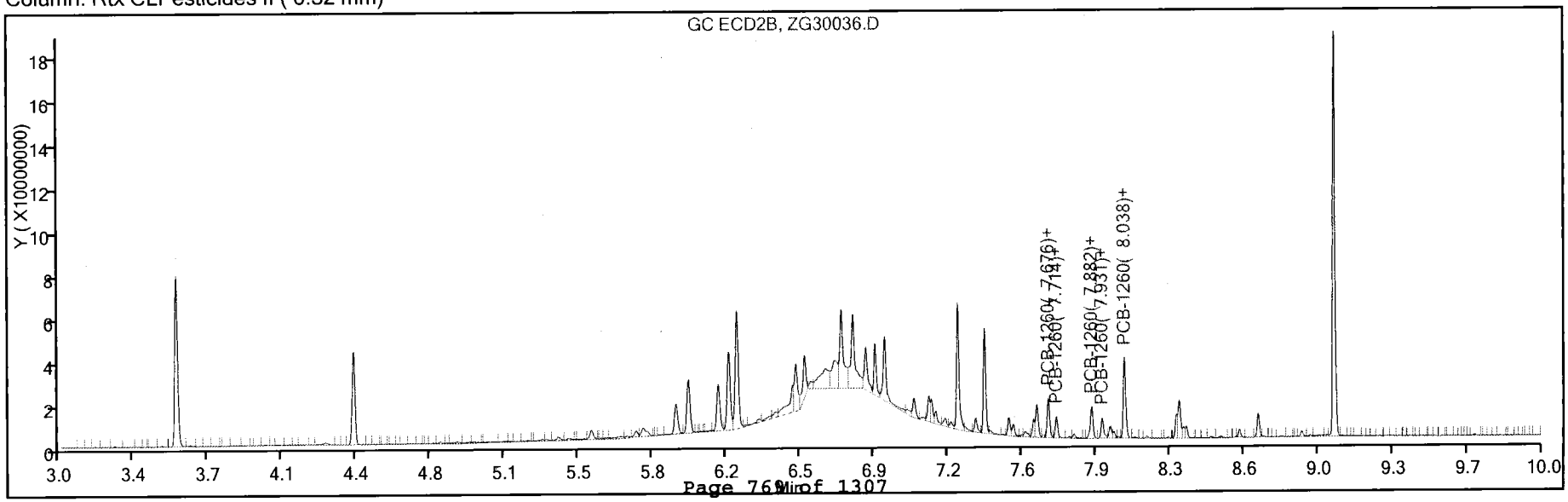
Lims ID:	680-102558-A-29-B	Lab Sample ID:	680-102558-29	Worklist Smp#:	36
Client ID:	SD-254-SS				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	36
Method:	PestPCB_CSGZ	Limit Group:	8081B_8082A		

Column: Rtx CLPesticides I (0.32 mm)



Column: Rtx CLPesticides II (0.32 mm)



Report Date: 31-Jul-2014 10:10:47 Chrom Revision: 2.2 24-Jul-2014 14:43:32

TestAmerica Savannah

Data File:	\\SAVCHROM\ChromData\CSGZ\20140730-11463.b\ZG30036.D				
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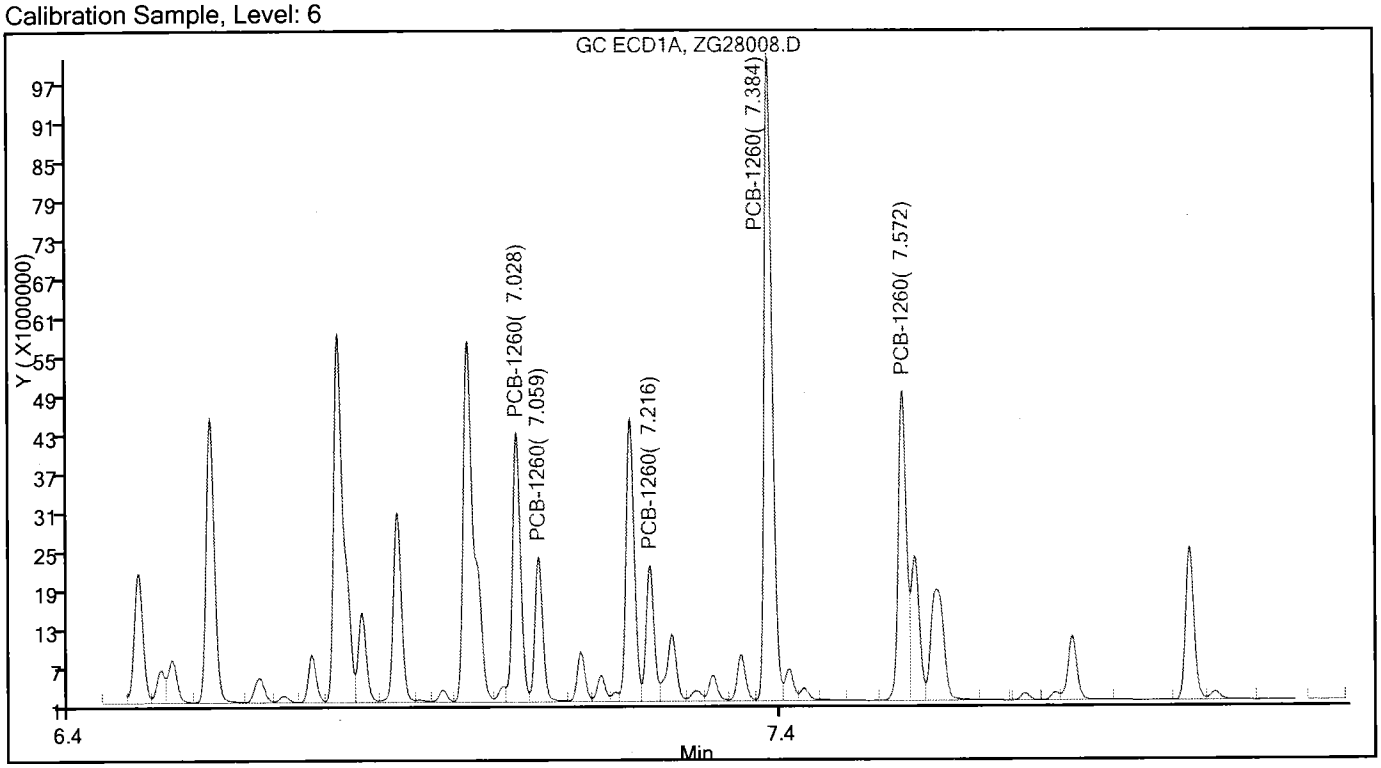
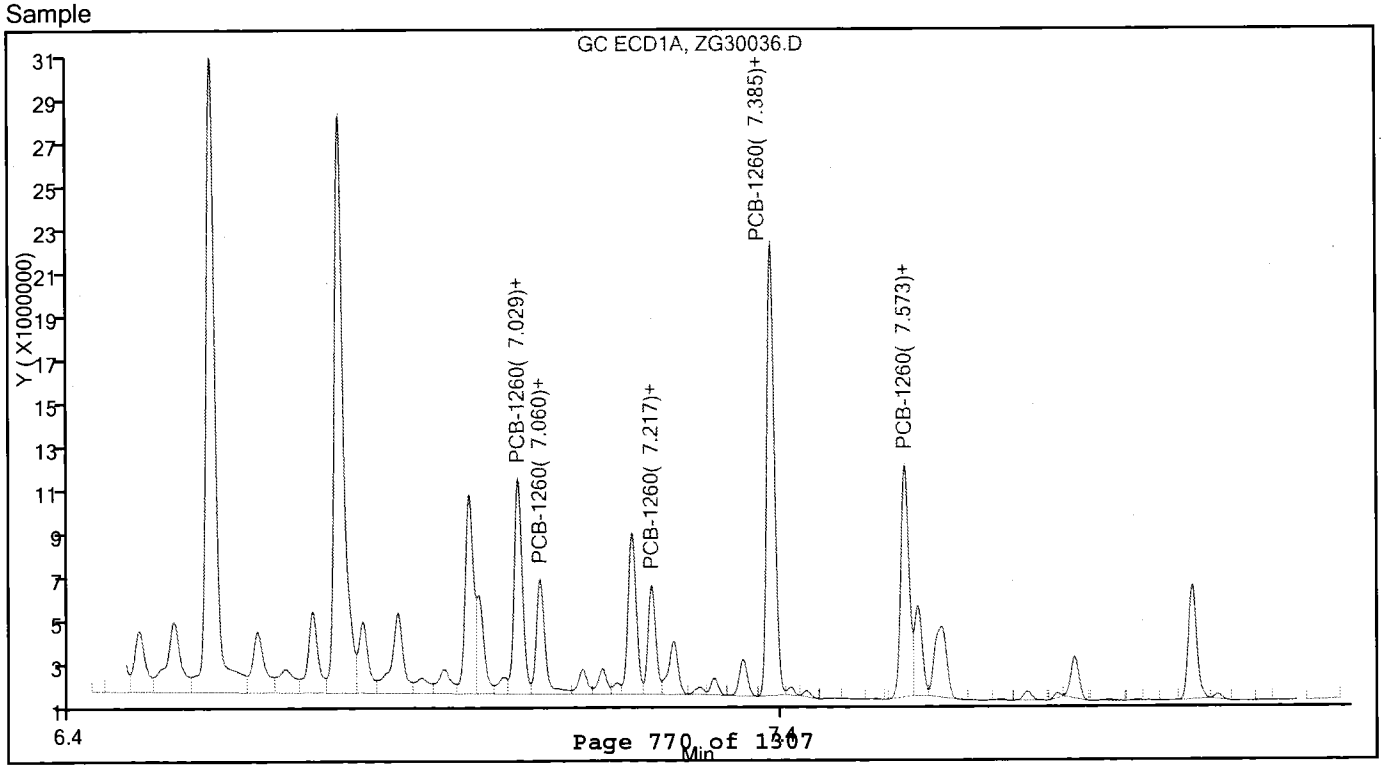
Lims ID:	680-102558-A-29-B	Lab Sample ID:	680-102558-29		
Client ID:	SD-254-SS				
Operator ID:	LIMS import	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	PestPCB_CSGZ	Limit Group:	8081B_8082A		
Column:	Rtx CLPesticides I (0.32 mm)	Detector	GC ECD1A		

34 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 6



Sample



Report Date: 25-Jul-2014 09:12:33 Chrom Revision: 2.2 24-Jul-2014 14:43:32

TestAmerica Savannah

Data File:	\\SAVCHROM\ChromData\CSGZ\20140723-11243.b\ZG23013.D				
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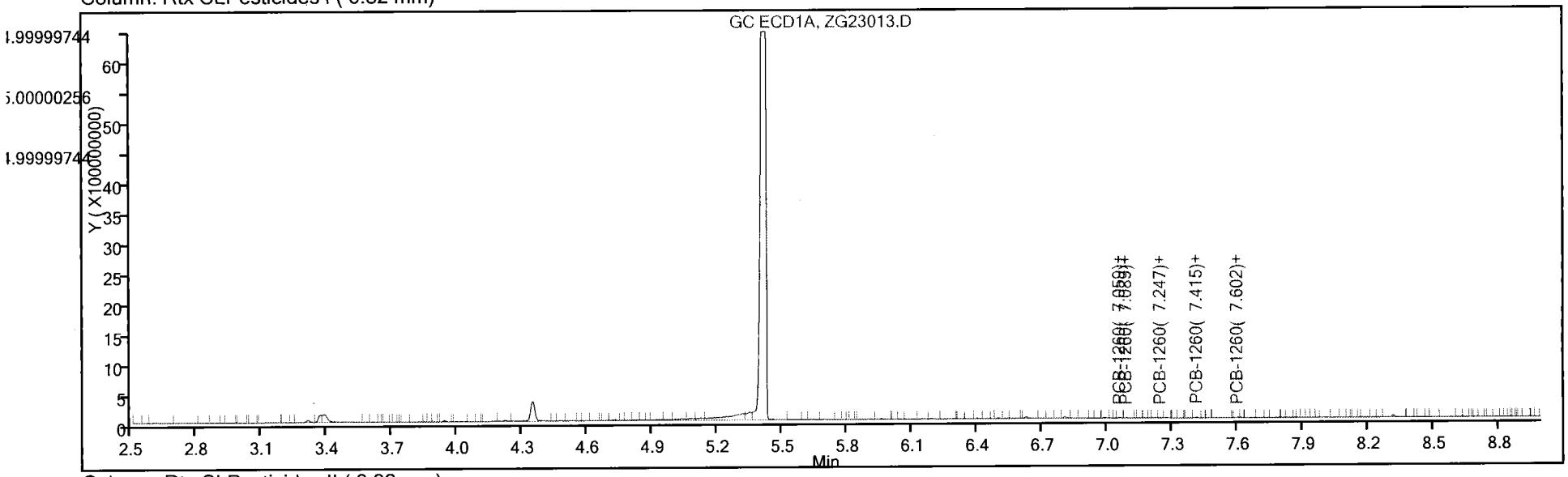
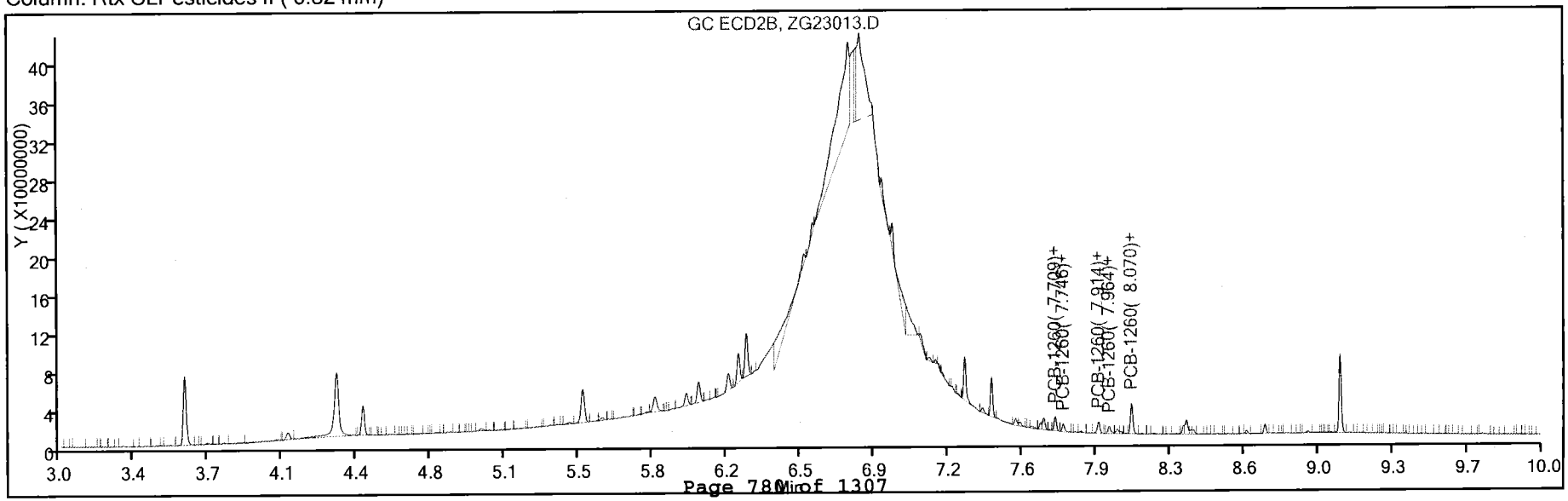
Lims ID:	680-102558-A-30-A	Lab Sample ID:	680-102558-30	Worklist Smp#:	13
Client ID:	SD-255-SS				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	PestPCB_CSGZ	Limit Group:	8081B_8082A		

Column: Rtx CLPesticides I (0.32 mm)



Column: Rtx CLPesticides II (0.32 mm)



Report Date: 25-Jul-2014 09:12:34 Chrom Revision: 2.2 24-Jul-2014 14:43:32

TestAmerica Savannah

Data File:	\\SAVCHROM\ChromData\CSGZ\20140723-11243.b\ZG23013.D				
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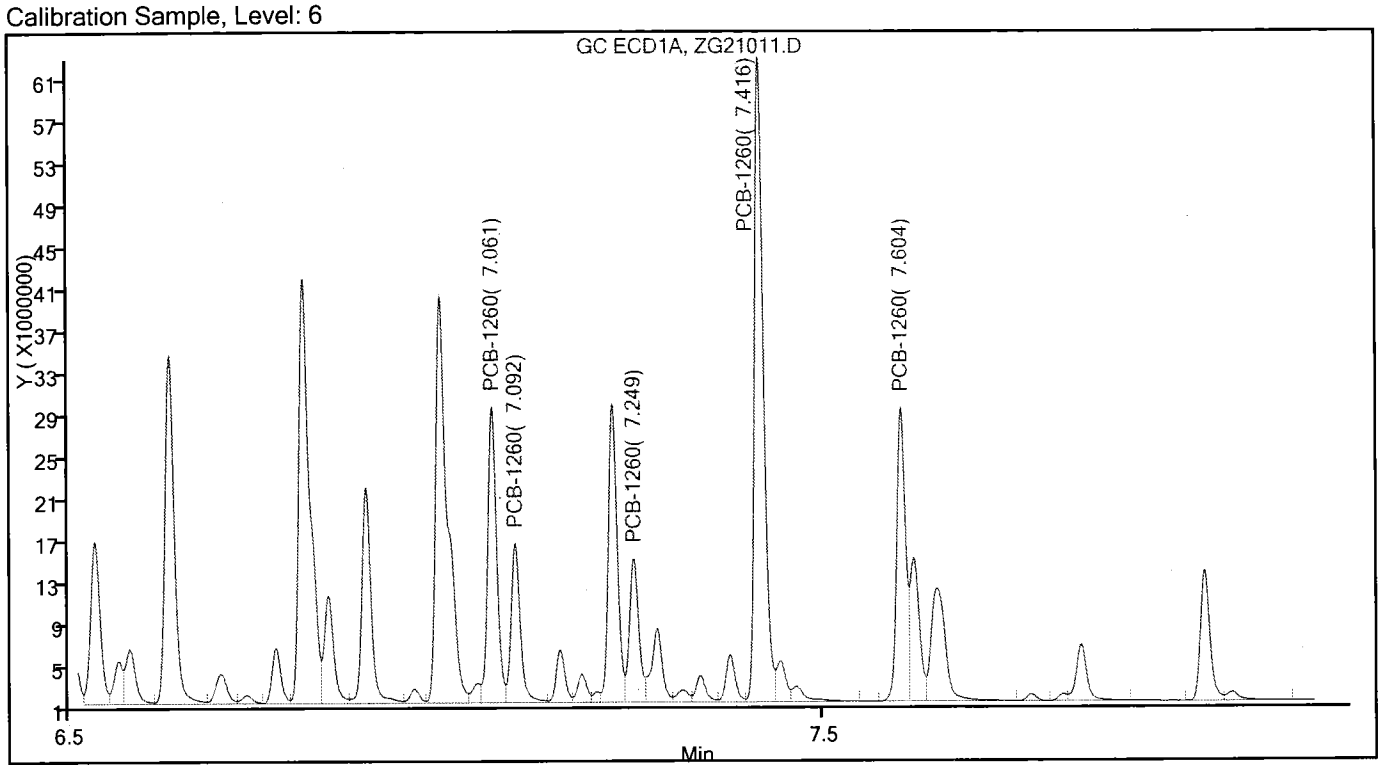
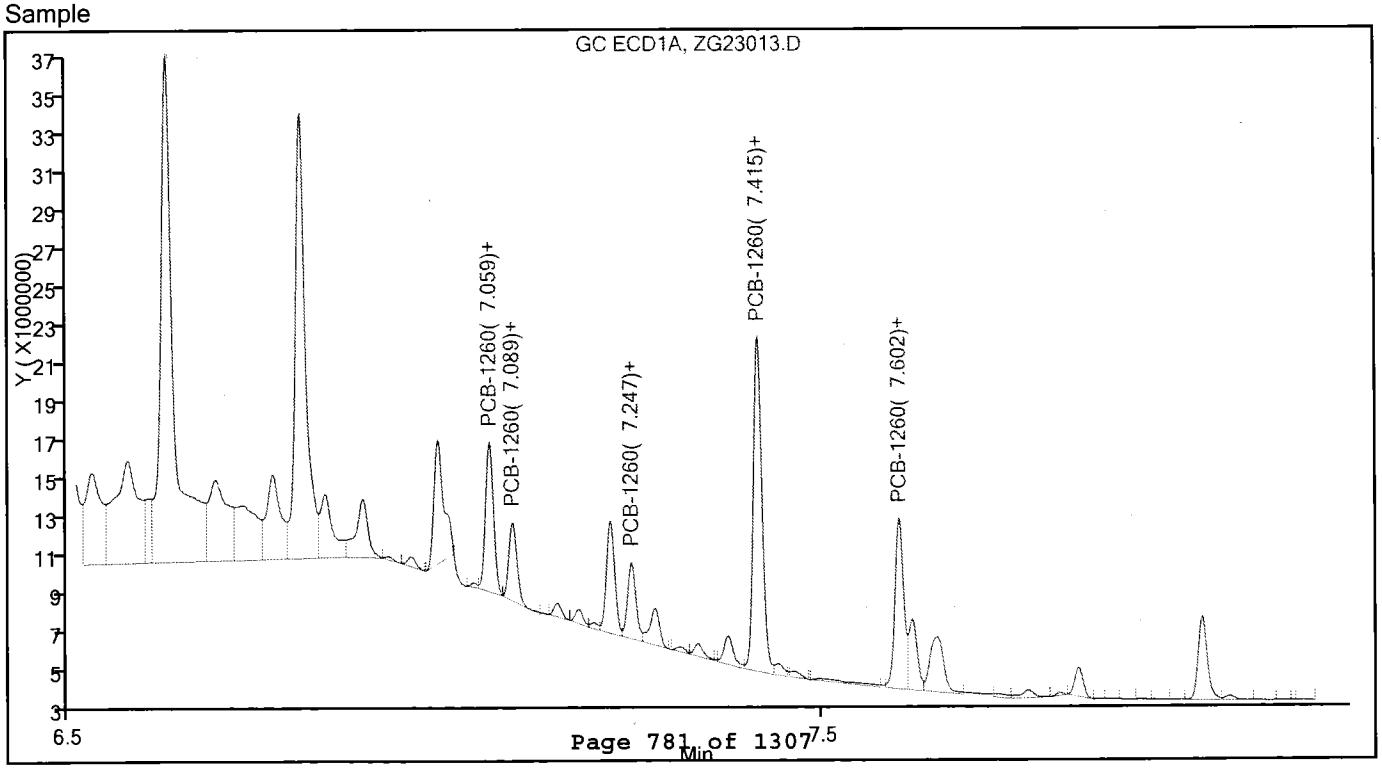
Lims ID:	680-102558-A-30-A	Lab Sample ID:	680-102558-30		
Client ID:	SD-255-SS				
Operator ID:	LIMS import	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	PestPCB_CSGZ	Limit Group:	8081B_8082A		
Column:	Rtx CLPesticides I (0.32 mm)	Detector	GC ECD1A		

34 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 6



Sample



Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO: **M. MARTIN** **DATE:** **AUGUST 27, 2014**

FROM: **A. COGNETTI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PCB HOMOLOGUES**
LOCKHEED MIDDLE RIVER COMPLEX (MRC) SEDIMENT INVESTIGATION
SAMPLE DELIVERY GROUP (SDG) 680-102359-1

SAMPLES: 36 / Sediment / PCB Homologues

SD-223-01	SD-223-02	SD-223-SS	SD-224-01	SD-224-02	SD-224-03
SD-224-SS	SD-225-01	SD-225-02	SD-225-03	SD-225-SS	SD-226-01
SD-226-02	SD-226-03	SD-226-SS	SD-227-01	SD-227-02	SD-227-SS
SD-228-01	SD-228-02	SD-228-03	SD-228-SS	SD-234-01	SD-234-SS
SD-235-01	SD-235-02	SD-235-03	SD-235-SS	SD-236-01	SD-236-02
SD-236-SS	SD-237-01	SD-237-02	SD-237-03	SD-237-SS	SD-Dup-03

Overview

The sample set for Lockheed MRC Sediment Investigation, SDG 680-102359-1, consisted of thirty-six (36) sediment samples. There is one (1) field duplicate sample pair included in this SDG: SD-Dup-03 and SD-237-02.

The samples were collected by Tetra Tech on June 13, 2014 and analyzed by Test America. All analyses were conducted in accordance with EPA Method 680 for PCBs analytical and reporting protocols.

The data contained in this SDG was validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, blank spike/blank spike duplicate results, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major Problems

- The surrogate recovery of decachlorobiphenyl-13C12 was less than 10% in sample SD-226-SS. The laboratory states that the sample was re-extracted and re-analyzed with similar results. The nondetected results were qualified as rejected (UR) and the detected results were qualified as estimated (J).

Minor Problems

- The surrogate recovery of decachlorobiphenyl-13C12 was outside of quality control limits in several samples.

Sample	Dilution Factor	Surrogate %R	Laboratory Action	Validation Action
SD-226-01	5X	18%	Re-extracted and re-analyzed with similar results	J, UJ
SD-228-01	5X	18%	Re-extracted and re-analyzed with similar results	J, UJ

Sample	Dilution Factor	Surrogate %R	Laboratory Action	Validation Action
SD-228-02	5X	20%	Re-extracted and re-analyzed with similar results	J, UJ

- Samples SD-223-01, SD-223-SS, SD-224-01, SD-224-SS, SD-225-01, SD-225-SS, SD-226-01, SD-226-SS, SD-227-01, SD-227-SS, SD-228-01, and SD-228-SS contained less than 30% solids. The detected and nondetected results were qualified as estimated (J) and (UJ), respectively.

- Field duplicate imprecision was noted in the field duplicate pair SD-Dup-03 and SD-237-02 for several analytes. The RPD was greater than the 50% quality control limit for tetrachlorobiphenyls and trichlorobiphenyl. The variance was greater than 2X the reporting limit for hexachlorobiphenyl and pentachlorobiphenyls. The detected results of the aforementioned analytes were qualified as estimated (J).

- Several samples had internal standard areas outside quality control limits.

Sample	Internal Standard Area	Validation Action
SD-235-01	phenanthrene-d10 >130%	J
SD-226-01	phenanthrene-d10 >130%	J
SD-Dup-03	chrysene-d12 <70%	J, UJ
SD-227-SS	phenanthrene-d10 and chrysene-d12 <70%	J, UJ
SD-227-01	chrysene-d12 <70%	J, UJ
SD-227-02	chrysene-d12 <70%	J, UJ

Notes

Several samples had surrogate recoveries outside quality control limits. No action was taken as indicated in the table because of sample dilution.

Sample	Dilution Factor	Surrogate %R	Laboratory Action	Validation Action
SD-234-SS	10X	0%	Surrogate diluted out, no action	No action
SD-235-SS	50X	0%	Surrogate diluted out, no action	No action
SD-235-01	20X	0%	Surrogate diluted out, no action	No action
SD-237-SS	50X	0%	Surrogate diluted out, no action	No action
SD-237-01	10X	0%	Surrogate diluted out, no action	No action

The laboratory reported non-detected sample results to the Method Detection Limit (MDL).

EXECUTIVE SUMMARY

Laboratory Performance Issues: The surrogate recovery of decachlorobiphenyl-13C12 was outside of quality control limits in several samples. Internal standard area noncompliances were noted in several samples.

Other Factors Affecting Data Quality: Several samples contained less than 30% solids. Field duplicate imprecision was noted in the field duplicate pair SD-Dup-03 and SD-237-02. Positive results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J).

The data for these analyses were reviewed with reference to EPA Method 680 and the USEPA National Functional Guidelines for Organic Data Validation (June 2008).

Ann Cognetti

Tetra Tech
Ann Cognetti
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:

Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

Appendix A

Qualified Analytical Results

PROJ_NO: 05220	NSAMPLE	SD-223-01			SD-223-02			SD-223-SS			SD-224-01		
SDG: 680-102359-1	LAB_ID	680-102359-6			680-102359-7			680-102359-5			680-102359-2		
FRACTION: PCB	SAMP_DATE	6/13/2014			6/13/2014			6/13/2014			6/13/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	25.5			75.2			21.4			24.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		16	UJ	Y	1.1	U		12	UJ	Y	17	UJ	Y
DICHLOROBIPHENYLS		6.9	UJ	Y	0.47	U		4.9	UJ	Y	7	UJ	Y
HEPTACHLOROBIPHENYLS		250	J	Y	6	J	P	340	J	Y	310	J	Y
HEXACHLOROBIPHENYL		650	J	Y	4.5	J	P	340	J	Y	670	J	Y
MONOCHLOROBIPHENYLS		3.7	UJ	Y	0.25	U		2.6	UJ	Y	3.8	UJ	Y
NONACHLOROBIPHENYLS		65	UJ	Y	4.4	U		46	U	Y	66	UJ	UY
OCTACHLOROBIPHENYLS		28	J	PY	0.7	U		21	J	PY	39	J	PY
PENTACHLOROBIPHENYLS		1300	J	Y	13			190	J	Y	750	J	Y
TETRACHLOROBIPHENYLS		6100	J	Y	100			320	J	Y	10000	J	Y
TRICHLOROBIPHENYLS		310	J	Y	7			2.4	UJ	Y	620	J	Y

PROJ_NO: 05220	NSAMPLE	SD-224-02			SD-224-03			SD-224-SS			SD-225-01		
SDG: 680-102359-1	LAB_ID	680-102359-3			680-102359-4			680-102359-1			680-102359-13		
FRACTION: PCB	SAMP_DATE	6/13/2014			6/13/2014			6/13/2014			6/13/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	35.9			63.9			21.6			26.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		12	U		6.5	U		19	UJ	Y	47	UJ	Y
DICHLOROBIPHENYLS		4.9	U		2.7	U		8	UJ	Y	20	UJ	Y
HEPTACHLOROBIPHENYLS		6.9	U		3.9	U		490	J	Y	380	J	PY
HEXACHLOROBIPHENYL		45	J	P	2.6	U		470	J	Y	1000	J	Y
MONOCHLOROBIPHENYLS		2.6	U		1.5	U		4.4	UJ	Y	11	UJ	Y
NONACHLOROBIPHENYLS		46	U		26	U		76	U	Y	190	U	Y
OCTACHLOROBIPHENYLS		7.4	U		4.1	U		61	J	PY	30	UJ	Y
PENTACHLOROBIPHENYLS		210			2.7	U		430	J	Y	3200	J	Y
TETRACHLOROBIPHENYLS		560			2.9	U		710	J	Y	18000	J	Y
TRICHLOROBIPHENYLS		200			1.3	U		20	J	PY	1100	J	Y

PROJ_NO: 05220	NSAMPLE	SD-225-02			SD-225-03			SD-225-SS			SD-226-01		
SDG: 680-102359-1	LAB_ID	680-102359-14			680-102359-15			680-102359-12			680-102359-9		
FRACTION: PCB	SAMP_DATE	6/13/2014			6/13/2014			6/13/2014			6/13/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG*			UG/KG		
	PCT_SOLIDS	40.9			56.7			21.2			24.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		6.1	U		7.3	U		12	UJ	Y	17	UJ	RY
DICHLOROBIPHENYLS		2.6	U		3.1	U		4.9	UJ	Y	7.1	UJ	RY
HEPTACHLOROBIPHENYLS		26	J	P	4.4	U		890	J	Y	470	J	RY
HEXACHLOROBIPHENYL		140			2.9	U		1200	J	Y	420	J	NRY
MONOCHLOROBIPHENYLS		1.4	U		1.7	U		2.7	UJ	Y	3.8	UJ	RY
NONACHLOROBIPHENYLS		24	U		29	U		46	UJ	Y	67	UJ	RY
OCTACHLOROBIPHENYLS		3.9	U		4.6	U		190	J	Y	89	J	PRY
PENTACHLOROBIPHENYLS		450			3	U		1900	J	Y	730	J	NRY
TETRACHLOROBIPHENYLS		260			3.2	U		6500	J	Y	1800	J	NRY
TRICHLOROBIPHENYLS		1.2	U		1.5	U		220	J	Y	77	J	NRY

PROJ_NO: 05220	NSAMPLE	SD-226-02			SD-226-03			SD-226-SS			SD-227-01		
SDG: 680-102359-1	LAB_ID	680-102359-10			680-102359-11			680-102359-8			680-102359-35		
FRACTION: PCB	SAMP_DATE	6/13/2014			6/13/2014			6/13/2014			6/13/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	40.0			58.1			19.1			24.6		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		10	U		7.1	U		4.3	UR	R	10	UJ	NY
DICHLOROBIPHENYLS		4.4	U		3	U		1.8	UR	R	4.2	UJ	Y
HEPTACHLOROBIPHENYLS		1700			4.3	U		21	J	PRY	46	J	NPY
HEXACHLOROBIPHENYL		2100			2.8	U		36	J	RY	220	J	Y
MONOCHLOROBIPHENYLS		2.4	U		1.6	U		1	UR	R	2.3	UJ	Y
NONACHLOROBIPHENYLS		41	U		28	U		17	UR	R	40	UJ	NY
OCTACHLOROBIPHENYLS		330			4.6	U		2.8	UR	R	6.4	UJ	NY
PENTACHLOROBIPHENYLS		2000			2.9	U		20	J	PRY	340	J	Y
TETRACHLOROBIPHENYLS		5000			5.3	J	P	46	J	RY	850	J	Y
TRICHLOROBIPHENYLS		420			1.5	U		0.89	UR	R	37	J	PY

PROJ_NO: 05220	NSAMPLE	SD-227-02			SD-227-SS			SD-228-01			SD-228-02		
SDG: 680-102359-1	LAB_ID	680-102359-36			680-102359-34			680-102359-17			680-102359-18		
FRACTION: PCB	SAMP_DATE	6/13/2014			6/13/2014			6/13/2014			6/13/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	54.0			19.6			29.9			36.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		4.5	UJ	N	13	UJ	NY	14	UJ	RY	11	UJ	R
DICHLOROBIPHENYLS		1.9	U		5.3	UJ	NY	8.3	J	PRY	4.8	UJ	R
HEPTACHLOROBIPHENYLS		2.7	UJ	N	20	J	NPY	480	J	RY	6.9	UJ	R
HEXACHLOROBIPHENYL		1.8	U		49	J	NPY	700	J	RY	20	J	PR
MONOCHLOROBIPHENYLS		1	U		2.9	UJ	NY	3.2	UJ	RY	2.6	UJ	R
NONACHLOROBIPHENYLS		18	UJ	N	50	UJ	NY	55	UJ	RY	45	UJ	R
OCTACHLOROBIPHENYLS		2.9	UJ	N	8.1	UJ	NY	8.8	UJ	RY	7.3	UJ	R
PENTACHLOROBIPHENYLS		1.9	U		68	J	NPY	790	J	RY	66	J	PR
TETRACHLOROBIPHENYLS		8.2	J	P	180	J	NY	3200	J	RY	41	J	PR
TRICHLOROBIPHENYLS		1.3	J	P	6.4	J	NPY	220	J	RY	2.3	UJ	R

PROJ_NO: 05220	NSAMPLE	SD-228-03			SD-228-SS			SD-234-01			SD-234-SS		
SDG: 680-102359-1	LAB_ID	680-102359-19			680-102359-16			680-102359-21			680-102359-20		
FRACTION: PCB	SAMP_DATE	6/13/2014			6/13/2014			6/13/2014			6/13/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	47.5			22.1			81.6			40.6		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		8.7	U		11	UJ	Y	5.1	U		60	U	
DICHLOROBIPHENYLS		3.7	U		4.7	UJ	Y	2.1	U		32	J	P
HEPTACHLOROBIPHENYLS		5.3	U		490	J	Y	94			17000		
HEXACHLOROBIPHENYL		3.5	U		510	J	Y	130			25000		
MONOCHLOROBIPHENYLS		2	U		2.5	UJ	Y	1.2	U		14	U	
NONACHLOROBIPHENYLS		35	U		44	UJ	Y	20	U		300	J	P
OCTACHLOROBIPHENYLS		5.6	U		57	J	PY	8.8	J	P	3200		
PENTACHLOROBIPHENYLS		3.6	U		350	J	Y	73			9100		
TETRACHLOROBIPHENYLS		3.9	U		800	J	Y	210			37000		
TRICHLOROBIPHENYLS		1.8	U		2.3	UJ	Y	8.6	J	P	2200		

PROJ_NO: 05220	NSAMPLE	SD-235-01			SD-235-02			SD-235-03			SD-235-SS		
SDG: 680-102359-1	LAB_ID	680-102359-23			680-102359-24			680-102359-25			680-102359-22		
FRACTION: PCB	SAMP_DATE	6/13/2014			6/13/2014			6/13/2014			6/13/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	38.1			34.7			59.3			37.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		44	U		12	U		1.4	U		330	U	
DICHLOROBIPHENYLS		43	J	NP	18	J	P	0.59	U		140	U	
HEPTACHLOROBIPHENYLS		4500			140			5.4	J	P	53000		
HEXACHLOROBIPHENYL		4500	J	N	350			15			78000		
MONOCHLOROBIPHENYLS		10	U		2.7	U		0.32	U		75	U	
NONACHLOROBIPHENYLS		170	U		47	U		5.6	U		1300	U	
OCTACHLOROBIPHENYLS		920			7.6	U		0.89	U		9100		
PENTACHLOROBIPHENYLS		6600			810			42			29000		
TETRACHLOROBIPHENYLS		29000	J	N	4600			47			97000		
TRICHLOROBIPHENYLS		2100	J	N	440			0.29	U		5400		

PROJ_NO: 05220	NSAMPLE	SD-236-01			SD-236-02			SD-236-SS			SD-237-01		
SDG: 680-102359-1	LAB_ID	680-102359-27			680-102359-28			680-102359-26			680-102359-30		
FRACTION: PCB	SAMP_DATE	6/13/2014			6/13/2014			6/13/2014			6/13/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	76.4			82.9			79.6			35.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		3.2	U		1	U		1	U		69	U	
DICHLOROBIPHENYLS		1.4	U		0.42	U		0.44	U		29	U	
HEPTACHLOROBIPHENYLS		2	U		0.6	U		0.63	U		2700		
HEXACHLOROBIPHENYL		5.2	J	P	0.4	U		0.41	U		4000		
MONOCHLOROBIPHENYLS		0.74	U		0.23	U		0.24	U		16	U	
NONACHLOROBIPHENYLS		13	U		4	U		4.1	U		280	U	
OCTACHLOROBIPHENYLS		2.1	U		0.64	U		0.67	U		250	J	P
PENTACHLOROBIPHENYLS		8.8	J	P	0.41	U		0.43	U		4700		
TETRACHLOROBIPHENYLS		1.4	U		0.54	J	P	0.46	U		32000		
TRICHLOROBIPHENYLS		0.67	U		0.2	U		0.21	U		2500		

PROJ_NO: 05220	NSAMPLE	SD-237-02			SD-237-03			SD-237-SS			SD-Dup-03		
SDG: 680-102359-1	LAB_ID	680-102359-31			680-102359-32			680-102359-29			680-102359-33		
FRACTION: PCB	SAMP_DATE	6/13/2014			6/13/2014			6/13/2014			6/13/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	30.6			75.6			34.5			30.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		8.1	U		1.1	U		120	U		8.1	UJ	N
DICHLOROBIPHENYLS		3.4	U		0.46	U		51	U				
HEPTACHLOROBIPHENYLS		160			0.66	U		21000					
HEXACHLOROBIPHENYL		230	J	G	0.88	J	P	19000					
MONOCHLOROBIPHENYLS		1.8	U		0.25	U		27	U				
NONACHLOROBIPHENYLS		32	U		4.4	U		480	U				
OCTACHLOROBIPHENYLS		13	J	P	0.7	U		4900					
PENTACHLOROBIPHENYLS		680	J	G	2.7	J	P	16000					
TETRACHLOROBIPHENYLS		1300	J	G	28			40000					
TRICHLOROBIPHENYLS		160	J	G	2.1	J	P	2400					

PROJ_NO: 05220	NSAMPLE	SD-Dup-03		
SDG: 680-102359-1	LAB_ID	680-102359-33		
FRACTION: PCB	SAMP_DATE	6/13/2014		
MEDIA: SEDIMENT	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	30.5		
	DUP_OF	SD-237-02		
PARAMETER		RESULT	VQL	QLCD
DECACHLOROBIPHENYL				
DICHLOROBIPHENYLS		3.4	U	
HEPTACHLOROBIPHENYLS		4.9	UJ	N
HEXACHLOROBIPHENYL		16	J	GP
MONOCHLOROBIPHENYLS		1.9	U	
NONACHLOROBIPHENYLS		32	UJ	CN
OCTACHLOROBIPHENYLS		5.2	UJ	N
PENTACHLOROBIPHENYLS		45	J	GP
TETRACHLOROBIPHENYLS		230	J	G
TRICHLOROBIPHENYLS		67	J	G

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-223-01 | Lab Sample ID: 680-102359-6

Matrix: Solid | Lab File ID: XG1316.D

Analysis Method: 680 | Date Collected: 06/13/2014 08:45

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 29.97(g) | Date Analyzed: 07/14/2014 02:34

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 74.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338830 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	16	U	330	16
25512-42-9	Dichlorobiphenyl	6.9	U	65	6.9
28655-71-2	Heptachlorobiphenyl	250		200	9.8
26601-64-9	Hexachlorobiphenyl	650		130	6.5
27323-18-8	Monochlorobiphenyl	3.7	U	65	3.7
53742-07-7	Nonachlorobiphenyl	65	U	330	65
55722-26-4	Octachlorobiphenyl	28	J	200	10
25429-29-2	Pentachlorobiphenyl	1300		130	6.7
26914-33-0	Tetrachlorobiphenyl	6100		130	7.3
25323-68-6	Trichlorobiphenyl	310		65	3.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	43		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-223-02 | Lab Sample ID: 680-102359-7

Matrix: Solid | Lab File ID: XG1040.D

Analysis Method: 680 | Date Collected: 06/13/2014 08:50

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 29.98(g) | Date Analyzed: 07/11/2014 03:58

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 24.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338586 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	1.1	U	23	1.1
25512-42-9	Dichlorobiphenyl	0.47	U	4.4	0.47
28655-71-2	Heptachlorobiphenyl	6.0	J	13	0.66
26601-64-9	Hexachlorobiphenyl	4.5	J	8.9	0.44
27323-18-8	Monochlorobiphenyl	0.25	U	4.4	0.25
53742-07-7	Nonachlorobiphenyl	4.4	U	23	4.4
55722-26-4	Octachlorobiphenyl	0.70	U	13	0.70
25429-29-2	Pentachlorobiphenyl	13		8.9	0.45
26914-33-0	Tetrachlorobiphenyl	100		8.9	0.49
25323-68-6	Trichlorobiphenyl	7.0		4.4	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	67		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-223-SS | Lab Sample ID: 680-102359-5

Matrix: Solid | Lab File ID: XG2420.D

Analysis Method: 680 | Date Collected: 06/13/2014 08:40

Extract. Method: 680 | Date Extracted: 07/23/2014 08:38

Sample wt/vol: 10.08(g) | Date Analyzed: 07/25/2014 05:09

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 78.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340817 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	12	U	240	12
25512-42-9	Dichlorobiphenyl	4.9	U	46	4.9
28655-71-2	Heptachlorobiphenyl	340		140	7.0
26601-64-9	Hexachlorobiphenyl	340		93	4.6
27323-18-8	Monochlorobiphenyl	2.6	U	46	2.6
53742-07-7	Nonachlorobiphenyl	46	U	240	46
55722-26-4	Octachlorobiphenyl	21	J	140	7.4
25429-29-2	Pentachlorobiphenyl	190		93	4.7
26914-33-0	Tetrachlorobiphenyl	320		93	5.2
25323-68-6	Trichlorobiphenyl	2.4	U	46	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	34		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-224-01 | Lab Sample ID: 680-102359-2

Matrix: Solid | Lab File ID: XG1312.D

Analysis Method: 680 | Date Collected: 06/13/2014 08:25

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 30.01(g) | Date Analyzed: 07/14/2014 00:40

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 75.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338830 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	17	U	340	17
25512-42-9	Dichlorobiphenyl	7.0	U	66	7.0
28655-71-2	Heptachlorobiphenyl	310		200	10
26601-64-9	Hexachlorobiphenyl	670		130	6.6
27323-18-8	Monochlorobiphenyl	3.8	U	66	3.8
53742-07-7	Nonachlorobiphenyl	66	U	340	66
55722-26-4	Octachlorobiphenyl	39	J	200	11
25429-29-2	Pentachlorobiphenyl	750		130	6.8
26914-33-0	Tetrachlorobiphenyl	10000		130	7.4
25323-68-6	Trichlorobiphenyl	620		66	3.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	52		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-224-02 | Lab Sample ID: 680-102359-3

Matrix: Solid | Lab File ID: XG1313.D

Analysis Method: 680 | Date Collected: 06/13/2014 08:30

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 30.08(g) | Date Analyzed: 07/14/2014 01:08

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 64.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338830 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	12	U	240	12
25512-42-9	Dichlorobiphenyl	4.9	U	46	4.9
28655-71-2	Heptachlorobiphenyl	6.9	U	140	6.9
26601-64-9	Hexachlorobiphenyl	45	J	93	4.6
27323-18-8	Monochlorobiphenyl	2.6	U	46	2.6
53742-07-7	Nonachlorobiphenyl	46	U	240	46
55722-26-4	Octachlorobiphenyl	7.4	U	140	7.4
25429-29-2	Pentachlorobiphenyl	210		93	4.7
26914-33-0	Tetrachlorobiphenyl	560		93	5.1
25323-68-6	Trichlorobiphenyl	200		46	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	37		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-224-03 | Lab Sample ID: 680-102359-4

Matrix: Solid | Lab File ID: XG1314.D

Analysis Method: 680 | Date Collected: 06/13/2014 08:35

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 30.06(g) | Date Analyzed: 07/14/2014 01:37

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 36.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338830 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	6.5	U	130	6.5
25512-42-9	Dichlorobiphenyl	2.7	U	26	2.7
28655-71-2	Heptachlorobiphenyl	3.9	U	78	3.9
26601-64-9	Hexachlorobiphenyl	2.6	U	52	2.6
27323-18-8	Monochlorobiphenyl	1.5	U	26	1.5
53742-07-7	Nonachlorobiphenyl	26	U	130	26
55722-26-4	Octachlorobiphenyl	4.1	U	78	4.1
25429-29-2	Pentachlorobiphenyl	2.7	U	52	2.7
26914-33-0	Tetrachlorobiphenyl	2.9	U	52	2.9
25323-68-6	Trichlorobiphenyl	1.3	U	26	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	81		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-224-SS | Lab Sample ID: 680-102359-1

Matrix: Solid | Lab File ID: XG1009.D

Analysis Method: 680 | Date Collected: 06/13/2014 08:20

Extract. Method: 680 | Date Extracted: 07/02/2014 08:53

Sample wt/vol: 30.30(g) | Date Analyzed: 07/10/2014 13:08

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 78.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338412 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	19	U	390	19
25512-42-9	Dichlorobiphenyl	8.0	U	76	8.0
28655-71-2	Heptachlorobiphenyl	490		230	11
26601-64-9	Hexachlorobiphenyl	470		150	7.6
27323-18-8	Monochlorobiphenyl	4.4	U	76	4.4
53742-07-7	Nonachlorobiphenyl	76	U	390	76
55722-26-4	Octachlorobiphenyl	61	J	230	12
25429-29-2	Pentachlorobiphenyl	430		150	7.8
26914-33-0	Tetrachlorobiphenyl	710		150	8.5
25323-68-6	Trichlorobiphenyl	20	J	76	3.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	41		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-225-01 | Lab Sample ID: 680-102359-13

Matrix: Solid | Lab File ID: XG2508.D

Analysis Method: 680 | Date Collected: 06/13/2014 09:20

Extract. Method: 680 | Date Extracted: 07/23/2014 08:38

Sample wt/vol: 10.08(g) | Date Analyzed: 07/25/2014 21:25

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 73.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340971 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	47	U	970	47
25512-42-9	Dichlorobiphenyl	20	U	190	20
28655-71-2	Heptachlorobiphenyl	380	J	570	29
26601-64-9	Hexachlorobiphenyl	1000		380	19
27323-18-8	Monochlorobiphenyl	11	U	190	11
53742-07-7	Nonachlorobiphenyl	190	U	970	190
55722-26-4	Octachlorobiphenyl	30	U	570	30
25429-29-2	Pentachlorobiphenyl	3200		380	19
26914-33-0	Tetrachlorobiphenyl	18000		380	21
25323-68-6	Trichlorobiphenyl	1100		190	9.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	45		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-225-02 | Lab Sample ID: 680-102359-14

Matrix: Solid | Lab File ID: XG2432.D

Analysis Method: 680 | Date Collected: 06/13/2014 09:25

Extract. Method: 680 | Date Extracted: 07/23/2014 08:38

Sample wt/vol: 10.02(g) | Date Analyzed: 07/25/2014 11:04

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 59.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340819 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	6.1	U	120	6.1
25512-42-9	Dichlorobiphenyl	2.6	U	24	2.6
28655-71-2	Heptachlorobiphenyl	26	J	73	3.7
26601-64-9	Hexachlorobiphenyl	140		49	2.4
27323-18-8	Monochlorobiphenyl	1.4	U	24	1.4
53742-07-7	Nonachlorobiphenyl	24	U	120	24
55722-26-4	Octachlorobiphenyl	3.9	U	73	3.9
25429-29-2	Pentachlorobiphenyl	450		49	2.5
26914-33-0	Tetrachlorobiphenyl	260		49	2.7
25323-68-6	Trichlorobiphenyl	1.2	U	24	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	34		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-225-03 | Lab Sample ID: 680-102359-15

Matrix: Solid | Lab File ID: XG1329.D

Analysis Method: 680 | Date Collected: 06/13/2014 09:30

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 30.20(g) | Date Analyzed: 07/14/2014 08:49

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 43.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338831 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	7.3	U	150	7.3
25512-42-9	Dichlorobiphenyl	3.1	U	29	3.1
28655-71-2	Heptachlorobiphenyl	4.4	U	88	4.4
26601-64-9	Hexachlorobiphenyl	2.9	U	59	2.9
27323-18-8	Monochlorobiphenyl	1.7	U	29	1.7
53742-07-7	Nonachlorobiphenyl	29	U	150	29
55722-26-4	Octachlorobiphenyl	4.6	U	88	4.6
25429-29-2	Pentachlorobiphenyl	3.0	U	59	3.0
26914-33-0	Tetrachlorobiphenyl	3.2	U	59	3.2
25323-68-6	Trichlorobiphenyl	1.5	U	29	1.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	48		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-225-SS | Lab Sample ID: 680-102359-12

Matrix: Solid | Lab File ID: XG2423.D

Analysis Method: 680 | Date Collected: 06/13/2014 09:15

Extract. Method: 680 | Date Extracted: 07/23/2014 08:38

Sample wt/vol: 10.08(g) | Date Analyzed: 07/25/2014 06:35

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 78.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340817 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	12	U	240	12
25512-42-9	Dichlorobiphenyl	4.9	U	46	4.9
28655-71-2	Heptachlorobiphenyl	890		140	7.0
26601-64-9	Hexachlorobiphenyl	1200		94	4.6
27323-18-8	Monochlorobiphenyl	2.7	U	46	2.7
53742-07-7	Nonachlorobiphenyl	46	U	240	46
55722-26-4	Octachlorobiphenyl	190		140	7.4
25429-29-2	Pentachlorobiphenyl	1900		94	4.8
26914-33-0	Tetrachlorobiphenyl	6500		94	5.2
25323-68-6	Trichlorobiphenyl	220		46	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	39		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-226-01 | Lab Sample ID: 680-102359-9

Matrix: Solid | Lab File ID: XG1317.D

Analysis Method: 680 | Date Collected: 06/13/2014 09:00

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 30.03(g) | Date Analyzed: 07/14/2014 03:02

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 75.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338830 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	17	U *	340	17
25512-42-9	Dichlorobiphenyl	7.1	U *	67	7.1
28655-71-2	Heptachlorobiphenyl	470	*	200	10
26601-64-9	Hexachlorobiphenyl	420	*	140	6.7
27323-18-8	Monochlorobiphenyl	3.8	U *	67	3.8
53742-07-7	Nonachlorobiphenyl	67	U *	340	67
55722-26-4	Octachlorobiphenyl	89	J *	200	11
25429-29-2	Pentachlorobiphenyl	730	*	140	6.9
26914-33-0	Tetrachlorobiphenyl	1800	*	140	7.5
25323-68-6	Trichlorobiphenyl	77	*	67	3.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	18	* X	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-226-02 | Lab Sample ID: 680-102359-10

Matrix: Solid | Lab File ID: XG1318.D

Analysis Method: 680 | Date Collected: 06/13/2014 09:05

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 30.05(g) | Date Analyzed: 07/14/2014 03:30

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 60.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338830 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	10	U	210	10
25512-42-9	Dichlorobiphenyl	4.4	U	41	4.4
28655-71-2	Heptachlorobiphenyl	1700		120	6.2
26601-64-9	Hexachlorobiphenyl	2100		84	4.1
27323-18-8	Monochlorobiphenyl	2.4	U	41	2.4
53742-07-7	Nonachlorobiphenyl	41	U	210	41
55722-26-4	Octachlorobiphenyl	330		120	6.6
25429-29-2	Pentachlorobiphenyl	2000		84	4.2
26914-33-0	Tetrachlorobiphenyl	5000		84	4.6
25323-68-6	Trichlorobiphenyl	420		41	2.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	30		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-226-03 | Lab Sample ID: 680-102359-11

Matrix: Solid | Lab File ID: XG1319.D

Analysis Method: 680 | Date Collected: 06/13/2014 09:10

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 30.04(g) | Date Analyzed: 07/14/2014 03:59

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 41.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338830 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	7.1	U	150	7.1
25512-42-9	Dichlorobiphenyl	3.0	U	28	3.0
28655-71-2	Heptachlorobiphenyl	4.3	U	86	4.3
26601-64-9	Hexachlorobiphenyl	2.8	U	58	2.8
27323-18-8	Monochlorobiphenyl	1.6	U	28	1.6
53742-07-7	Nonachlorobiphenyl	28	U	150	28
55722-26-4	Octachlorobiphenyl	4.6	U	86	4.6
25429-29-2	Pentachlorobiphenyl	2.9	U	58	2.9
26914-33-0	Tetrachlorobiphenyl	5.3	J	58	3.2
25323-68-6	Trichlorobiphenyl	1.5	U	28	1.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	76		30-130

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GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-226-SS | Lab Sample ID: 680-102359-8

Matrix: Solid | Lab File ID: XG1041.D

Analysis Method: 680 | Date Collected: 06/13/2014 08:55

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 30.05(g) | Date Analyzed: 07/11/2014 04:26

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 80.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338586 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	4.3	U	89	4.3
25512-42-9	Dichlorobiphenyl	1.8	U	17	1.8
28655-71-2	Heptachlorobiphenyl	21	J	52	2.6
26601-64-9	Hexachlorobiphenyl	36		35	1.7
27323-18-8	Monochlorobiphenyl	1.0	U	17	1.0
53742-07-7	Nonachlorobiphenyl	17	U	89	17
55722-26-4	Octachlorobiphenyl	2.8	U	52	2.8
25429-29-2	Pentachlorobiphenyl	20	J	35	1.8
26914-33-0	Tetrachlorobiphenyl	46		35	1.9
25323-68-6	Trichlorobiphenyl	0.89	U	17	0.89

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	5	X	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-227-01 | Lab Sample ID: 680-102359-35

Matrix: Solid | Lab File ID: XG1615.D

Analysis Method: 680 | Date Collected: 06/13/2014 13:15

Extract. Method: 680 | Date Extracted: 07/14/2014 14:58

Sample wt/vol: 10.12(g) | Date Analyzed: 07/16/2014 17:28

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 75.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339278 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	10	U	200	10
25512-42-9	Dichlorobiphenyl	4.2	U	40	4.2
28655-71-2	Heptachlorobiphenyl	46	J	120	6.0
26601-64-9	Hexachlorobiphenyl	220		81	4.0
27323-18-8	Monochlorobiphenyl	2.3	U	40	2.3
53742-07-7	Nonachlorobiphenyl	40	U	200	40
55722-26-4	Octachlorobiphenyl	6.4	U	120	6.4
25429-29-2	Pentachlorobiphenyl	340		81	4.1
26914-33-0	Tetrachlorobiphenyl	850		81	4.5
25323-68-6	Trichlorobiphenyl	37	J	40	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	47		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-227-02 | Lab Sample ID: 680-102359-36

Matrix: Solid | Lab File ID: XG1616.D

Analysis Method: 680 | Date Collected: 06/13/2014 13:20

Extract. Method: 680 | Date Extracted: 07/14/2014 14:58

Sample wt/vol: 10.17(g) | Date Analyzed: 07/16/2014 17:57

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 46.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339278 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	4.5	U	93	4.5
25512-42-9	Dichlorobiphenyl	1.9	U	18	1.9
28655-71-2	Heptachlorobiphenyl	2.7	U	55	2.7
26601-64-9	Hexachlorobiphenyl	1.8	U	37	1.8
27323-18-8	Monochlorobiphenyl	1.0	U	18	1.0
53742-07-7	Nonachlorobiphenyl	18	U	93	18
55722-26-4	Octachlorobiphenyl	2.9	U	55	2.9
25429-29-2	Pentachlorobiphenyl	1.9	U	37	1.9
26914-33-0	Tetrachlorobiphenyl	8.2	J	37	2.0
25323-68-6	Trichlorobiphenyl	1.3	J	18	0.93

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	61		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-227-SS | Lab Sample ID: 680-102359-34

Matrix: Solid | Lab File ID: XG1614.D

Analysis Method: 680 | Date Collected: 06/13/2014 13:10

Extract. Method: 680 | Date Extracted: 07/14/2014 14:58

Sample wt/vol: 10.04(g) | Date Analyzed: 07/16/2014 17:00

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 80.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339278 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	13	U *	260	13
25512-42-9	Dichlorobiphenyl	5.3	U *	50	5.3
28655-71-2	Heptachlorobiphenyl	20	J *	150	7.6
26601-64-9	Hexachlorobiphenyl	49	J *	100	5.0
27323-18-8	Monochlorobiphenyl	2.9	U *	50	2.9
53742-07-7	Nonachlorobiphenyl	50	U *	260	50
55722-26-4	Octachlorobiphenyl	8.1	U *	150	8.1
25429-29-2	Pentachlorobiphenyl	68	J *	100	5.2
26914-33-0	Tetrachlorobiphenyl	180	*	100	5.6
25323-68-6	Trichlorobiphenyl	6.4	J *	50	2.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	61	*	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-228-01 | Lab Sample ID: 680-102359-17

Matrix: Solid | Lab File ID: XG1331.D

Analysis Method: 680 | Date Collected: 06/13/2014 10:10

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 30.04(g) | Date Analyzed: 07/14/2014 09:46

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 70.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338831 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	14	U	280	14
25512-42-9	Dichlorobiphenyl	8.3	J	55	5.8
28655-71-2	Heptachlorobiphenyl	480		170	8.3
26601-64-9	Hexachlorobiphenyl	700		110	5.5
27323-18-8	Monochlorobiphenyl	3.2	U	55	3.2
53742-07-7	Nonachlorobiphenyl	55	U	280	55
55722-26-4	Octachlorobiphenyl	8.8	U	170	8.8
25429-29-2	Pentachlorobiphenyl	790		110	5.7
26914-33-0	Tetrachlorobiphenyl	3200		110	6.2
25323-68-6	Trichlorobiphenyl	220		55	2.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	18	X	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-228-02 | Lab Sample ID: 680-102359-18

Matrix: Solid | Lab File ID: XG1332.D

Analysis Method: 680 | Date Collected: 06/13/2014 10:15

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 29.96(g) | Date Analyzed: 07/14/2014 10:15

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 63.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338831 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	11	U	230	11
25512-42-9	Dichlorobiphenyl	4.8	U	45	4.8
28655-71-2	Heptachlorobiphenyl	6.9	U	140	6.9
26601-64-9	Hexachlorobiphenyl	20	J	92	4.5
27323-18-8	Monochlorobiphenyl	2.6	U	45	2.6
53742-07-7	Nonachlorobiphenyl	45	U	230	45
55722-26-4	Octachlorobiphenyl	7.3	U	140	7.3
25429-29-2	Pentachlorobiphenyl	66	J	92	4.7
26914-33-0	Tetrachlorobiphenyl	41	J	92	5.1
25323-68-6	Trichlorobiphenyl	2.3	U	45	2.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	20	X	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-228-03 | Lab Sample ID: 680-102359-19

Matrix: Solid | Lab File ID: XG1333.D

Analysis Method: 680 | Date Collected: 06/13/2014 10:20

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 30.05(g) | Date Analyzed: 07/14/2014 10:43

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 52.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338831 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	8.7	U	180	8.7
25512-42-9	Dichlorobiphenyl	3.7	U	35	3.7
28655-71-2	Heptachlorobiphenyl	5.3	U	110	5.3
26601-64-9	Hexachlorobiphenyl	3.5	U	70	3.5
27323-18-8	Monochlorobiphenyl	2.0	U	35	2.0
53742-07-7	Nonachlorobiphenyl	35	U	180	35
55722-26-4	Octachlorobiphenyl	5.6	U	110	5.6
25429-29-2	Pentachlorobiphenyl	3.6	U	70	3.6
26914-33-0	Tetrachlorobiphenyl	3.9	U	70	3.9
25323-68-6	Trichlorobiphenyl	1.8	U	35	1.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	33		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-228-SS | Lab Sample ID: 680-102359-16

Matrix: Solid | Lab File ID: XG2433.D

Analysis Method: 680 | Date Collected: 06/13/2014 10:05

Extract. Method: 680 | Date Extracted: 07/23/2014 08:38

Sample wt/vol: 10.14(g) | Date Analyzed: 07/25/2014 11:32

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 77.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340819 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	11	U	230	11
25512-42-9	Dichlorobiphenyl	4.7	U	44	4.7
28655-71-2	Heptachlorobiphenyl	490		130	6.7
26601-64-9	Hexachlorobiphenyl	510		90	4.4
27323-18-8	Monochlorobiphenyl	2.5	U	44	2.5
53742-07-7	Nonachlorobiphenyl	44	U	230	44
55722-26-4	Octachlorobiphenyl	57	J	130	7.1
25429-29-2	Pentachlorobiphenyl	350		90	4.5
26914-33-0	Tetrachlorobiphenyl	800		90	4.9
25323-68-6	Trichlorobiphenyl	2.3	U	44	2.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	33		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-234-01 | Lab Sample ID: 680-102359-21

Matrix: Solid | Lab File ID: XG1335.D

Analysis Method: 680 | Date Collected: 06/13/2014 10:35

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 30.08(g) | Date Analyzed: 07/14/2014 11:40

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338831 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	5.1	U	100	5.1
25512-42-9	Dichlorobiphenyl	2.1	U	20	2.1
28655-71-2	Heptachlorobiphenyl	94		61	3.1
26601-64-9	Hexachlorobiphenyl	130		41	2.0
27323-18-8	Monochlorobiphenyl	1.2	U	20	1.2
53742-07-7	Nonachlorobiphenyl	20	U	100	20
55722-26-4	Octachlorobiphenyl	8.8	J	61	3.2
25429-29-2	Pentachlorobiphenyl	73		41	2.1
26914-33-0	Tetrachlorobiphenyl	210		41	2.3
25323-68-6	Trichlorobiphenyl	8.6	J	20	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	64		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-234-SS | Lab Sample ID: 680-102359-20

Matrix: Solid | Lab File ID: XG2509.D

Analysis Method: 680 | Date Collected: 06/13/2014 10:30

Extract. Method: 680 | Date Extracted: 07/23/2014 08:38

Sample wt/vol: 10.13(g) | Date Analyzed: 07/25/2014 21:53

Con. Extract Vol.: 1(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 59.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340971 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	60	U	1200	60
25512-42-9	Dichlorobiphenyl	32	J	240	26
28655-71-2	Heptachlorobiphenyl	17000		730	36
26601-64-9	Hexachlorobiphenyl	25000		490	24
27323-18-8	Monochlorobiphenyl	14	U	240	14
53742-07-7	Nonachlorobiphenyl	300	J	1200	240
55722-26-4	Octachlorobiphenyl	3200		730	39
25429-29-2	Pentachlorobiphenyl	9100		490	25
26914-33-0	Tetrachlorobiphenyl	37000		490	27
25323-68-6	Trichlorobiphenyl	2200		240	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-235-01 | Lab Sample ID: 680-102359-23

Matrix: Solid | Lab File ID: XG1308.D

Analysis Method: 680 | Date Collected: 06/13/2014 11:05

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 29.97(g) | Date Analyzed: 07/13/2014 22:46

Con. Extract Vol.: 1(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 61.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338830 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	44	U *	890	44
25512-42-9	Dichlorobiphenyl	43	J *	170	18
28655-71-2	Heptachlorobiphenyl	4500	*	530	26
26601-64-9	Hexachlorobiphenyl	4500	*	350	17
27323-18-8	Monochlorobiphenyl	10	U *	170	10
53742-07-7	Nonachlorobiphenyl	170	U *	890	170
55722-26-4	Octachlorobiphenyl	920	*	530	28
25429-29-2	Pentachlorobiphenyl	6600	*	350	18
26914-33-0	Tetrachlorobiphenyl	29000	*	350	19
25323-68-6	Trichlorobiphenyl	2100	*	170	8.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D *	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-235-02 | Lab Sample ID: 680-102359-24

Matrix: Solid | Lab File ID: XG1309.D

Analysis Method: 680 | Date Collected: 06/13/2014 11:10

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 30.09(g) | Date Analyzed: 07/13/2014 23:15

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 65.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338830 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	12	U	240	12
25512-42-9	Dichlorobiphenyl	18	J	47	5.0
28655-71-2	Heptachlorobiphenyl	140		140	7.2
26601-64-9	Hexachlorobiphenyl	350		96	4.7
27323-18-8	Monochlorobiphenyl	2.7	U	47	2.7
53742-07-7	Nonachlorobiphenyl	47	U	240	47
55722-26-4	Octachlorobiphenyl	7.6	U	140	7.6
25429-29-2	Pentachlorobiphenyl	810		96	4.9
26914-33-0	Tetrachlorobiphenyl	4600		96	5.3
25323-68-6	Trichlorobiphenyl	440		47	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	55		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-235-03 | Lab Sample ID: 680-102359-25

Matrix: Solid | Lab File ID: Fg0219.D

Analysis Method: 680 | Date Collected: 06/13/2014 11:15

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 29.99(g) | Date Analyzed: 07/03/2014 00:28

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 40.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 337435 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	1.4	U	29	1.4
25512-42-9	Dichlorobiphenyl	0.59	U	5.6	0.59
28655-71-2	Heptachlorobiphenyl	5.4	J	17	0.84
26601-64-9	Hexachlorobiphenyl	15		11	0.56
27323-18-8	Monochlorobiphenyl	0.32	U	5.6	0.32
53742-07-7	Nonachlorobiphenyl	5.6	U	29	5.6
55722-26-4	Octachlorobiphenyl	0.89	U	17	0.89
25429-29-2	Pentachlorobiphenyl	42		11	0.57
26914-33-0	Tetrachlorobiphenyl	47		11	0.62
25323-68-6	Trichlorobiphenyl	0.29	U	5.6	0.29

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	38		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-235-SS | Lab Sample ID: 680-102359-22

Matrix: Solid | Lab File ID: XG2510.D

Analysis Method: 680 | Date Collected: 06/13/2014 11:00

Extract. Method: 680 | Date Extracted: 07/23/2014 08:38

Sample wt/vol: 10.07(g) | Date Analyzed: 07/25/2014 22:22

Con. Extract Vol.: 1(mL) | Dilution Factor: 50

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 62.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340971 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	330	U	6700	330
25512-42-9	Dichlorobiphenyl	140	U	1300	140
28655-71-2	Heptachlorobiphenyl	53000		3900	200
26601-64-9	Hexachlorobiphenyl	78000		2600	130
27323-18-8	Monochlorobiphenyl	75	U	1300	75
53742-07-7	Nonachlorobiphenyl	1300	U	6700	1300
55722-26-4	Octachlorobiphenyl	9100		3900	210
25429-29-2	Pentachlorobiphenyl	29000		2600	130
26914-33-0	Tetrachlorobiphenyl	97000		2600	150
25323-68-6	Trichlorobiphenyl	5400		1300	67

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-236-01 | Lab Sample ID: 680-102359-27

Matrix: Solid | Lab File ID: XG2438.D

Analysis Method: 680 | Date Collected: 06/13/2014 12:10

Extract. Method: 680 | Date Extracted: 07/23/2014 08:38

Sample wt/vol: 10.03(g) | Date Analyzed: 07/25/2014 13:55

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 23.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340819 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	3.2	U	67	3.2
25512-42-9	Dichlorobiphenyl	1.4	U	13	1.4
28655-71-2	Heptachlorobiphenyl	2.0	U	39	2.0
26601-64-9	Hexachlorobiphenyl	5.2	J	26	1.3
27323-18-8	Monochlorobiphenyl	0.74	U	13	0.74
53742-07-7	Nonachlorobiphenyl	13	U	67	13
55722-26-4	Octachlorobiphenyl	2.1	U	39	2.1
25429-29-2	Pentachlorobiphenyl	8.8	J	26	1.3
26914-33-0	Tetrachlorobiphenyl	1.4	U	26	1.4
25323-68-6	Trichlorobiphenyl	0.67	U	13	0.67

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	65		30-130

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GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-236-02 | Lab Sample ID: 680-102359-28

Matrix: Solid | Lab File ID: Fg0215.D

Analysis Method: 680 | Date Collected: 06/13/2014 12:15

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 30.02(g) | Date Analyzed: 07/02/2014 22:32

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 337435 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	1.0	U	20	1.0
25512-42-9	Dichlorobiphenyl	0.42	U	4.0	0.42
28655-71-2	Heptachlorobiphenyl	0.60	U	12	0.60
26601-64-9	Hexachlorobiphenyl	0.40	U	8.1	0.40
27323-18-8	Monochlorobiphenyl	0.23	U	4.0	0.23
53742-07-7	Nonachlorobiphenyl	4.0	U	20	4.0
55722-26-4	Octachlorobiphenyl	0.64	U	12	0.64
25429-29-2	Pentachlorobiphenyl	0.41	U	8.1	0.41
26914-33-0	Tetrachlorobiphenyl	0.54	J	8.1	0.45
25323-68-6	Trichlorobiphenyl	0.20	U	4.0	0.20

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	80		30-130

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GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-236-SS | Lab Sample ID: 680-102359-26

Matrix: Solid | Lab File ID: Fg0220.D

Analysis Method: 680 | Date Collected: 06/13/2014 12:05

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 30.02(g) | Date Analyzed: 07/03/2014 00:56

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 20.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 337435 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	1.0	U	21	1.0
25512-42-9	Dichlorobiphenyl	0.44	U	4.1	0.44
28655-71-2	Heptachlorobiphenyl	0.63	U	13	0.63
26601-64-9	Hexachlorobiphenyl	0.41	U	8.4	0.41
27323-18-8	Monochlorobiphenyl	0.24	U	4.1	0.24
53742-07-7	Nonachlorobiphenyl	4.1	U	21	4.1
55722-26-4	Octachlorobiphenyl	0.67	U	13	0.67
25429-29-2	Pentachlorobiphenyl	0.43	U	8.4	0.43
26914-33-0	Tetrachlorobiphenyl	0.46	U	8.4	0.46
25323-68-6	Trichlorobiphenyl	0.21	U	4.1	0.21

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	57		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-237-01 | Lab Sample ID: 680-102359-30

Matrix: Solid | Lab File ID: XG2532.D

Analysis Method: 680 | Date Collected: 06/13/2014 12:35

Extract. Method: 680 | Date Extracted: 07/23/2014 08:38

Sample wt/vol: 10.02(g) | Date Analyzed: 07/26/2014 08:52

Con. Extract Vol.: 1(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 64.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340977 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	69	U	1400	69
25512-42-9	Dichlorobiphenyl	29	U	280	29
28655-71-2	Heptachlorobiphenyl	2700		840	42
26601-64-9	Hexachlorobiphenyl	4000		560	28
27323-18-8	Monochlorobiphenyl	16	U	280	16
53742-07-7	Nonachlorobiphenyl	280	U	1400	280
55722-26-4	Octachlorobiphenyl	250	J	840	44
25429-29-2	Pentachlorobiphenyl	4700		560	28
26914-33-0	Tetrachlorobiphenyl	32000		560	31
25323-68-6	Trichlorobiphenyl	2500		280	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-237-02 | Lab Sample ID: 680-102359-31

Matrix: Solid | Lab File ID: XG2440.D

Analysis Method: 680 | Date Collected: 06/13/2014 12:40

Extract. Method: 680 | Date Extracted: 07/23/2014 08:38

Sample wt/vol: 10.10(g) | Date Analyzed: 07/25/2014 14:52

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 69.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340819 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	8.1	U	160	8.1
25512-42-9	Dichlorobiphenyl	3.4	U	32	3.4
28655-71-2	Heptachlorobiphenyl	160		97	4.9
26601-64-9	Hexachlorobiphenyl	230		65	3.2
27323-18-8	Monochlorobiphenyl	1.8	U	32	1.8
53742-07-7	Nonachlorobiphenyl	32	U	160	32
55722-26-4	Octachlorobiphenyl	13	J	97	5.1
25429-29-2	Pentachlorobiphenyl	680		65	3.3
26914-33-0	Tetrachlorobiphenyl	1300		65	3.6
25323-68-6	Trichlorobiphenyl	160		32	1.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	41		30-130

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GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-237-03 | Lab Sample ID: 680-102359-32

Matrix: Solid | Lab File ID: XG1034.D

Analysis Method: 680 | Date Collected: 06/13/2014 12:45

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 29.99(g) | Date Analyzed: 07/11/2014 01:07

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 24.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338586 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	1.1	U	22	1.1
25512-42-9	Dichlorobiphenyl	0.46	U	4.4	0.46
28655-71-2	Heptachlorobiphenyl	0.66	U	13	0.66
26601-64-9	Hexachlorobiphenyl	0.88	J	8.9	0.44
27323-18-8	Monochlorobiphenyl	0.25	U	4.4	0.25
53742-07-7	Nonachlorobiphenyl	4.4	U	22	4.4
55722-26-4	Octachlorobiphenyl	0.70	U	13	0.70
25429-29-2	Pentachlorobiphenyl	2.7	J	8.9	0.45
26914-33-0	Tetrachlorobiphenyl	28		8.9	0.49
25323-68-6	Trichlorobiphenyl	2.1	J	4.4	0.22

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	47		30-130

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GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-237-SS | Lab Sample ID: 680-102359-29

Matrix: Solid | Lab File ID: XG1310.D

Analysis Method: 680 | Date Collected: 06/13/2014 12:30

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 30.02(g) | Date Analyzed: 07/13/2014 23:43

Con. Extract Vol.: 1(mL) | Dilution Factor: 50

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 65.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338830 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	120	U	2500	120
25512-42-9	Dichlorobiphenyl	51	U	480	51
28655-71-2	Heptachlorobiphenyl	21000		1400	72
26601-64-9	Hexachlorobiphenyl	19000		970	48
27323-18-8	Monochlorobiphenyl	27	U	480	27
53742-07-7	Nonachlorobiphenyl	480	U	2500	480
55722-26-4	Octachlorobiphenyl	4900		1400	77
25429-29-2	Pentachlorobiphenyl	16000		970	49
26914-33-0	Tetrachlorobiphenyl	40000		970	54
25323-68-6	Trichlorobiphenyl	2400		480	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-Dup-03 | Lab Sample ID: 680-102359-33

Matrix: Solid | Lab File ID: XG1613.D

Analysis Method: 680 | Date Collected: 06/13/2014 00:00

Extract. Method: 680 | Date Extracted: 07/14/2014 14:58

Sample wt/vol: 10.03(g) | Date Analyzed: 07/16/2014 16:31

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 69.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339278 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	8.1	U	170	8.1
25512-42-9	Dichlorobiphenyl	3.4	U	32	3.4
28655-71-2	Heptachlorobiphenyl	4.9	U	98	4.9
26601-64-9	Hexachlorobiphenyl	16	J	66	3.2
27323-18-8	Monochlorobiphenyl	1.9	U	32	1.9
53742-07-7	Nonachlorobiphenyl	32	U	170	32
55722-26-4	Octachlorobiphenyl	5.2	U	98	5.2
25429-29-2	Pentachlorobiphenyl	45	J	66	3.3
26914-33-0	Tetrachlorobiphenyl	230		66	3.6
25323-68-6	Trichlorobiphenyl	67		32	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	60		30-130

APPENDIX C

SUPPORT DOCUMENTATION

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: Sediments

Report Number: 680-102359-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 06/14/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.8 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Samples SD-224-SS (680-102359-1), SD-224-01 (680-102359-2), SD-224-02 (680-102359-3), SD-224-03 (680-102359-4), SD-223-SS (680-102359-5), SD-223-01 (680-102359-6), SD-223-02 (680-102359-7), SD-226-SS (680-102359-8), SD-226-01 (680-102359-9), SD-226-02 (680-102359-10), SD-226-03 (680-102359-11), SD-225-SS (680-102359-12), SD-225-01 (680-102359-13), SD-225-02 (680-102359-14), SD-225-03 (680-102359-15), SD-228-SS (680-102359-16), SD-228-01 (680-102359-17), SD-228-02 (680-102359-18), SD-228-03 (680-102359-19), SD-234-SS (680-102359-20), SD-234-01 (680-102359-21), SD-235-SS (680-102359-22), SD-235-01 (680-102359-23), SD-235-02 (680-102359-24), SD-235-03 (680-102359-25), SD-236-SS (680-102359-26), SD-236-01 (680-102359-27), SD-236-02 (680-102359-28), SD-237-SS (680-102359-29), SD-237-01 (680-102359-30), SD-237-02 (680-102359-31), SD-237-03 (680-102359-32), SD-Dup-03 (680-102359-33), SD-227-SS (680-102359-34), SD-227-01 (680-102359-35) and SD-227-02 (680-102359-36) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 680. The samples were prepared on 06/26/2014, 07/02/2014, 07/14/2014 and 07/23/2014 and analyzed on 07/02/2014, 07/03/2014, 07/10/2014, 07/11/2014, 07/13/2014, 07/14/2014, 07/16/2014, 07/25/2014 and 07/26/2014.

Internal standard (ISTD) response for the following sample(s) was outside of acceptance limits when compared to the area of the CCVIS: (LCS 680-337170/12-A), (680-102359-1 MSD). SD-226-01 (680-102359-9), SD-235-01 (680-102359-23), (CCV 680-336975/24), SD-227-SS (680-102359-34). The 680 method allows that the sample also be compared to the average internal standard area of the calibration (ICISAV). The associated samples were within acceptance limits when compared to the ICISAV.

Surrogate recovery for the following sample(s) was outside control limits: SD-226-SS (680-102359-8), SD-226-01 (680-102359-9), SD-228-01 (680-102359-17), SD-228-02 (680-102359-18). . Re-extraction and/or re-analysis was performed with concurring results. The original analysis has been reported. Sample was extracted at 30g, then reextracted at 10g and still experienced matrix interference.

The following sample(s) was diluted due to abundance of target analytes: SD-235-01 (680-102359-23), SD-237-SS (680-102359-29), 234-SS (680-102359-20), SD-235-SS (680-102359-22), SD-237-01 (680-102359-30). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Samples SD-224-SS (680-102359-1)[5X], SD-224-01 (680-102359-2)[5X], SD-224-02 (680-102359-3)[5X], SD-224-03 (680-102359-4) [5X], SD-223-01 (680-102359-6)[5X], SD-226-01 (680-102359-9)[5X], SD-226-02 (680-102359-10)[5X], SD-226-03 (680-102359-11)[5X], SD-225-01 (680-102359-13)[5X], SD-225-03 (680-102359-15)[5X], SD-228-01 (680-102359-17)[5X], SD-228-02 (680-102359-18)[5X], SD-228-03 (680-102359-19)[5X], SD-234-SS (680-102359-20)[10X], SD-234-01 (680-102359-21)[5X], SD-235-SS (680-102359-22)[50X], SD-235-01 (680-102359-23)[20X], SD-235-02 (680-102359-24)[5X], SD-237-SS (680-102359-29)[50X] and SD-237-01 (680-102359-30) [10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

PERCENT SOLIDS/MOISTURE

Samples SD-224-SS (680-102359-1), SD-224-01 (680-102359-2), SD-224-02 (680-102359-3), SD-224-03 (680-102359-4), SD-223-SS (680-102359-5), SD-223-01 (680-102359-6), SD-223-02 (680-102359-7), SD-226-SS (680-102359-8), SD-226-01 (680-102359-9), SD-226-02 (680-102359-10), SD-226-03 (680-102359-11), SD-225-SS (680-102359-12), SD-225-01 (680-102359-13), SD-225-02 (680-102359-14), SD-225-03 (680-102359-15), SD-228-SS (680-102359-16), SD-228-01 (680-102359-17), SD-228-02 (680-102359-18), SD-228-03 (680-102359-19), SD-234-SS (680-102359-20), SD-234-01 (680-102359-21), SD-235-SS (680-102359-22), SD-235-01 (680-102359-23), SD-235-02 (680-102359-24), SD-235-03 (680-102359-25), SD-236-SS (680-102359-26), SD-236-01 (680-102359-27), SD-236-02 (680-102359-28), SD-237-SS (680-102359-29), SD-237-01 (680-102359-30), SD-237-02 (680-102359-31), SD-237-03 (680-102359-32), SD-Dup-03 (680-102359-33), SD-227-SS (680-102359-34), SD-227-01 (680-102359-35) and SD-227-02 (680-102359-36) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 06/16/2014.

PCB

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Stu Cameron	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-56831-24906.20
Client Contact: Mike Martin	Phone: (703)342-8389	E-Mail: jerry.lanier@testamericainc.com		Page: Page ~~20 of 46~~ 1 of 4
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days):			
State, Zip: MD, 20874				
Phone:	PO #: Purchase Order not required			
Email: MIchael.Martin@tetratech.com	WO #:			
Project Name: Sediments	Project #: 68012942			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680 - Local Method	A01R_Th - Standard Target List	6020, 7470A	GA_01_R_Ra - (MOD) Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N		
SD-224-55	6/13/14	0820	C	Solid			X					
SD-224-01		0825	C	Solid			X					
SD-224-02		0830	C	Solid			X					
SD-224-03		0835	C	Solid			X					
SD-223-55		0840	C	Solid			X					
SD-223-01		0845	C	Solid			X					
SD-223-02		0850	C	Solid			X					
SD-226-55		0855	C	Solid			X					
SD-226-01		0900	C	Solid			X					
SD-226-02		0905	C	Solid			X					
SD-226-03		0910	C	Solid			X					

680-102359 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements: 680-102359

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	6/13/14 -			6/13/14 1430	TestAmerica
Relinquished by:	6/13/14 1740	TT	Received by:	6/14/14 08:39	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.8°C

PCBs

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Stu Cameron	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-56831-24906.21
Client Contact: Mike Martin	Phone:	E-Mail: jerry.lanier@testamericainc.com		Page: Page ~~24 of 46~~ 2 of 4
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days):			
State, Zip: MD, 20874				
Phone:	PO #: Purchase Order not required			
Email: MIchael.Martin@tetratech.com	WO #:			
Project Name: Sediments	Project #: 68012942			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680 - Local Method	A01R_Th - Standard Target List	6020, 7470A	GA_01_R_Ra - (MOD) Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N		
SD-225-SS	6/13/14	0915	C	Solid			X					
SD-225-01		0920	C	Solid			X					
SD-225-02		0925	C	Solid			X					
SD-225-03		0930	C	Solid			X					
SD-228-SS		1005	C	Solid			X					
SD-228-01		1010	C	Solid			X					
SD-228-02		1015	C	Solid			X					
SD-228-03		1020	C	Solid			X					
SD-234-SS		1030	C	Solid			X					
SD-234-01		1035	C	Solid			X					
SD-235-~~01~~ SS		1100	C	Solid			X					

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements: 680-102359

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/13/14	TT	[signature]	6/13/14 1430	TT
[signature]	6/13/14 1740	TT	[signature]	6/14/14 0839	TT
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.8 °C

PCB

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Stu Cameron	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-56831-24906.23
Client Contact: Mike Martin	Phone: (703) 342-8389	E-Mail: jerry.lanier@testamericainc.com		Page: Page ~~23 of 46~~ 3 of 4
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone:	PO #: Purchase Order not required			
Email: MIchael.Martin@tetratech.com	WO #:			
Project Name: Sediments	Project #: 68012942			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680 - Local Method	A01R_Th - Standard Target List	6020, 7470A	GA_01_R_Ra - (MOD) Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N		
SD-235-01	6/13/14	1105	C	Solid			X					
SD-235-02		1110	C	Solid			X					
SD-235-03		1115	C	Solid			X					
SD-236-SS		1205	C	Solid			X					
SD-236-01		1210	C	Solid			X					
SD-236-02		1215	C	Solid			X					
SD-237-SS		1230	C	Solid			X					
SD-237-01		1235	C	Solid			X					
SD-237-02		1240	C	Solid			X					
SD-237-03		1245	C	Solid			X					
SD-DUP 03	↓	0000	C	Solid			X					

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements: 680-102359

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/13/14	TT	[signature]	6/13/14 1430	TT
[signature]	6/13/14 1700	TT	[signature]	6/14/14 08:39	TT

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 0.8°C

PCBs

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Stu Cameron	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-56831-24906.25
Client Contact: Mike Martin	Phone: (703)342-8389	E-Mail: jerry.lanier@testamericainc.com		Page: Page ~~25 of 46~~ 4 of 4
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone:	PO #: Purchase Order not required			
Email: MIchael.Martin@tetratech.com	WO #:			
Project Name: Sediments	Project #: 68012942			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680 - Local Method	A01R_Th - Standard Target List	6020, 7470A	GA_01_R_Ra - (MOD) Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	N	N	N	X	
SD-227-SS	6/13/14	1310	C	Solid			X					
SD-227-01	↓	1315	C	Solid			X					
SD-227-02	↓	1320	C	Solid			X					
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements: 680-102359

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/13/14 -	Tt	[signature]	6/13/14 / 1430	TA
[signature]	6/13/14 / 1740	TA	[signature]	6/14/14 08:39	Tt

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 0.8°C

SAMPLE SUMMARY

Client: Tetra Tech, Inc.

Job Number: 680-102359-1
Sdg Number: 680102359-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-102359-1	SD-224-SS	Solid	06/13/2014 0820	06/14/2014 0839
680-102359-2	SD-224-01	Solid	06/13/2014 0825	06/14/2014 0839
680-102359-3	SD-224-02	Solid	06/13/2014 0830	06/14/2014 0839
680-102359-4	SD-224-03	Solid	06/13/2014 0835	06/14/2014 0839
680-102359-5	SD-223-SS	Solid	06/13/2014 0840	06/14/2014 0839
680-102359-6	SD-223-01	Solid	06/13/2014 0845	06/14/2014 0839
680-102359-7	SD-223-02	Solid	06/13/2014 0850	06/14/2014 0839
680-102359-8	SD-226-SS	Solid	06/13/2014 0855	06/14/2014 0839
680-102359-9	SD-226-01	Solid	06/13/2014 0900	06/14/2014 0839
680-102359-10	SD-226-02	Solid	06/13/2014 0905	06/14/2014 0839
680-102359-11	SD-226-03	Solid	06/13/2014 0910	06/14/2014 0839
680-102359-12	SD-225-SS	Solid	06/13/2014 0915	06/14/2014 0839
680-102359-13	SD-225-01	Solid	06/13/2014 0920	06/14/2014 0839
680-102359-14	SD-225-02	Solid	06/13/2014 0925	06/14/2014 0839
680-102359-15	SD-225-03	Solid	06/13/2014 0930	06/14/2014 0839
680-102359-16	SD-228-SS	Solid	06/13/2014 1005	06/14/2014 0839
680-102359-17	SD-228-01	Solid	06/13/2014 1010	06/14/2014 0839
680-102359-18	SD-228-02	Solid	06/13/2014 1015	06/14/2014 0839
680-102359-19	SD-228-03	Solid	06/13/2014 1020	06/14/2014 0839
680-102359-20	SD-234-SS	Solid	06/13/2014 1030	06/14/2014 0839
680-102359-21	SD-234-01	Solid	06/13/2014 1035	06/14/2014 0839
680-102359-22	SD-235-SS	Solid	06/13/2014 1100	06/14/2014 0839
680-102359-23	SD-235-01	Solid	06/13/2014 1105	06/14/2014 0839
680-102359-24	SD-235-02	Solid	06/13/2014 1110	06/14/2014 0839
680-102359-25	SD-235-03	Solid	06/13/2014 1115	06/14/2014 0839
680-102359-26	SD-236-SS	Solid	06/13/2014 1205	06/14/2014 0839
680-102359-27	SD-236-01	Solid	06/13/2014 1210	06/14/2014 0839
680-102359-28	SD-236-02	Solid	06/13/2014 1215	06/14/2014 0839
680-102359-29	SD-237-SS	Solid	06/13/2014 1230	06/14/2014 0839
680-102359-30	SD-237-01	Solid	06/13/2014 1235	06/14/2014 0839
680-102359-31	SD-237-02	Solid	06/13/2014 1240	06/14/2014 0839
680-102359-32	SD-237-03	Solid	06/13/2014 1245	06/14/2014 0839
680-102359-33	SD-Dup-03	Solid	06/13/2014 0000	06/14/2014 0839
680-102359-34	SD-227-SS	Solid	06/13/2014 1310	06/14/2014 0839
680-102359-35	SD-227-01	Solid	06/13/2014 1315	06/14/2014 0839
680-102359-36	SD-227-02	Solid	06/13/2014 1320	06/14/2014 0839

METHOD SUMMARY

Client: Tetra Tech, Inc.

Job Number: 680-102359-1
Sdg Number: 680102359-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Polychlorinated Biphenyls (PCBs) (GC/MS)	TAL SAV	EPA 680	
Extraction (Solid PCBs)	TAL SAV		EPA 680
Percent Moisture	TAL SAV	EPA Moisture	

Lab References:

TAL SAV = TestAmerica Savannah

Method References:

EPA = US Environmental Protection Agency

HOLDTIME

SDG 680-102359-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	SD-237-01	680-102359-30	NM	06/13/2014	07/23/2014	07/26/2014	40	3	43
PCB	UG/KG	SD-234-SS	680-102359-20	NM	06/13/2014	07/23/2014	07/25/2014	40	2	42
PCB	UG/KG	SD-223-SS	680-102359-5	NM	06/13/2014	07/23/2014	07/25/2014	40	2	42
PCB	UG/KG	SD-223-02	680-102359-7	NM	06/13/2014	06/26/2014	07/11/2014	13	15	28
PCB	UG/KG	SD-223-01	680-102359-6	NM	06/13/2014	06/26/2014	07/14/2014	13	18	31
PCB	UG/KG	SD-Dup-03	680-102359-33	NM	06/13/2014	07/14/2014	07/16/2014	31	2	33
PCB	UG/KG	SD-237-SS	680-102359-29	NM	06/13/2014	06/26/2014	07/13/2014	13	17	30
PCB	UG/KG	SD-224-02	680-102359-3	NM	06/13/2014	06/26/2014	07/14/2014	13	18	31
PCB	UG/KG	SD-237-02	680-102359-31	NM	06/13/2014	07/23/2014	07/25/2014	40	2	42
PCB	UG/KG	SD-224-03	680-102359-4	NM	06/13/2014	06/26/2014	07/14/2014	13	18	31
PCB	UG/KG	SD-236-SS	680-102359-26	NM	06/13/2014	06/26/2014	07/03/2014	13	7	20
PCB	UG/KG	SD-236-02	680-102359-28	NM	06/13/2014	06/26/2014	07/02/2014	13	6	19
PCB	UG/KG	SD-236-01	680-102359-27	NM	06/13/2014	07/23/2014	07/25/2014	40	2	42
PCB	UG/KG	SD-235-SS	680-102359-22	NM	06/13/2014	07/23/2014	07/25/2014	40	2	42
PCB	UG/KG	SD-235-03	680-102359-25	NM	06/13/2014	06/26/2014	07/03/2014	13	7	20

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	SD-235-02	680-102359-24	NM	06/13/2014	06/26/2014	07/13/2014	13	17	30
PCB	UG/KG	SD-235-01	680-102359-23	NM	06/13/2014	06/26/2014	07/13/2014	13	17	30
PCB	UG/KG	SD-237-03	680-102359-32	NM	06/13/2014	06/26/2014	07/11/2014	13	15	28
PCB	UG/KG	SD-226-03	680-102359-11	NM	06/13/2014	06/26/2014	07/14/2014	13	18	31
PCB	UG/KG	SD-228-SS	680-102359-16	NM	06/13/2014	07/23/2014	07/25/2014	40	2	42
PCB	UG/KG	SD-228-03	680-102359-19	NM	06/13/2014	06/26/2014	07/14/2014	13	18	31
PCB	UG/KG	SD-228-02	680-102359-18	NM	06/13/2014	06/26/2014	07/14/2014	13	18	31
PCB	UG/KG	SD-228-01	680-102359-17	NM	06/13/2014	06/26/2014	07/14/2014	13	18	31
PCB	UG/KG	SD-227-SS	680-102359-34	NM	06/13/2014	07/14/2014	07/16/2014	31	2	33
PCB	UG/KG	SD-227-02	680-102359-36	NM	06/13/2014	07/14/2014	07/16/2014	31	2	33
PCB	UG/KG	SD-224-01	680-102359-2	NM	06/13/2014	06/26/2014	07/14/2014	13	18	31
PCB	UG/KG	SD-226-SS	680-102359-8	NM	06/13/2014	06/26/2014	07/11/2014	13	15	28
PCB	UG/KG	SD-234-01	680-102359-21	NM	06/13/2014	06/26/2014	07/14/2014	13	18	31
PCB	UG/KG	SD-226-02	680-102359-10	NM	06/13/2014	06/26/2014	07/14/2014	13	18	31
PCB	UG/KG	SD-226-01	680-102359-9	NM	06/13/2014	06/26/2014	07/14/2014	13	18	31
PCB	UG/KG	SD-225-SS	680-102359-12	NM	06/13/2014	07/23/2014	07/25/2014	40	2	42
PCB	UG/KG	SD-225-03	680-102359-15	NM	06/13/2014	06/26/2014	07/14/2014	13	18	31
PCB	UG/KG	SD-225-02	680-102359-14	NM	06/13/2014	07/23/2014	07/25/2014	40	2	42

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	SD-225-01	680-102359-13	NM	06/13/2014	07/23/2014	07/25/2014	40	2	42
PCB	UG/KG	SD-224-SS	680-102359-1	NM	06/13/2014	07/02/2014	07/10/2014	19	8	27
PCB	UG/KG	SD-227-01	680-102359-35	NM	06/13/2014	07/14/2014	07/16/2014	31	2	33

Field Duplicate Precision

ANALYTE	SD-Dup-03	SD-237-02	RPD	DIFFERENCE
HEPTACHLOROBIPHENYLS	ND	160	200.00	155.1
HEXACHLOROBIPHENYL	16	230	173.98	214
OCTACHLOROBIPHENYLS	ND	13	200.00	7.8
PENTACHLOROBIPHENYLS	45	680	175.17	635
TETRACHLOROBIPHENYLS	230	1300	139.87	1070
TRICHLOROBIPHENYLS	67	160	81.94	93

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab File ID: Fg0202.D DFTPP Injection Date: 07/02/2014

Instrument ID: CMSF DFTPP Injection Time: 16:15

Analysis Batch No.: 337435

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	40.0
197	Less than 1 % of mass 198	0.5
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.7
275	10 - 30% of mass 198	24.2
365	Greater than 1% of mass 198	3.0
441	Present but less than mass 443	12.1 (73.7)2
442	Greater than 40% of mass 198	82.6
443	17 - 23% of mass 442	16.4 (19.9)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-337435/3	Fg0203.D	07/02/2014	16:44
	ICISAV 680-337435/4	Fg0204.D	07/02/2014	17:13
	IC 680-337435/5	Fg0205.D	07/02/2014	17:42
	IC 680-337435/6	Fg0206.D	07/02/2014	18:11
	IC 680-337435/7	Fg0207.D	07/02/2014	18:40
	IC 680-337435/8	Fg0208.D	07/02/2014	19:09
	ICV 680-337435/9	Fg0209.D	07/02/2014	19:38
	MB 680-336450/16-A	Fg0211.D	07/02/2014	20:36
	LCS 680-336450/17-A	Fg0212.D	07/02/2014	21:05
SD-236-02 MS	680-102359-28 MS	Fg0213.D	07/02/2014	21:35
SD-236-02 MSD	680-102359-28 MSD	Fg0214.D	07/02/2014	22:03
SD-236-02	680-102359-28	Fg0215.D	07/02/2014	22:32
SD-235-03	680-102359-25	Fg0219.D	07/03/2014	00:28
SD-236-SS	680-102359-26	Fg0220.D	07/03/2014	00:56
	CCV 680-337435/22	Fg0222.D	07/03/2014	01:54

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102359-1 Analy Batch No.: 337435

SDG No.: 680102359-1

Instrument ID: CMSF GC Column: HP-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/02/2014 17:13 Calibration End Date: 07/02/2014 19:09 Calibration ID: 31767

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-337435/8	Fg0208.D
Level 2	IC 680-337435/7	Fg0207.D
Level 3	ICISAV 680-337435/4	Fg0204.D
Level 4	IC 680-337435/6	Fg0206.D
Level 5	IC 680-337435/5	Fg0205.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.8429	0.8197	0.8010	0.7597	0.7448	Ave		0.7936				5.2		20.0			
Dichlorobiphenyl	0.6304	0.6034	0.5910	0.5722	0.5450	Ave		0.5884				5.5		20.0			
Trichlorobiphenyl	0.4170	0.4288	0.4156	0.4115	0.4093	Ave		0.4164				1.8		20.0			
PCB-104			0.2442			Ave		0.2442						30.0			
Tetrachlorobiphenyl	0.2573	0.2611	0.2444	0.2392	0.2372	Ave		0.2478				4.4		20.0			
Pentachlorobiphenyl	0.2109	0.2093	0.2023	0.2018	0.1983	Ave		0.2045				2.6		20.0			
PCB-77			0.4022			Ave		0.4022						30.0			
Hexachlorobiphenyl	0.1716	0.1712	0.1580	0.1680	0.1741	Ave		0.1686				3.7		20.0			
Heptachlorobiphenyl	0.1475	0.1405	0.0937	0.1370	0.1345	Ave		0.1306				16.0		20.0			
Octachlorobiphenyl	0.1567	0.1641	0.1077	0.1572	0.1585	Ave		0.1488				16.0		20.0			
PCB-208			0.0738			Ave		0.0738						30.0			
Nonachlorobiphenyl			0.0589			Ave		0.0715				14.0		20.0			
DCB Decachlorobiphenyl	0.0849	0.0709	0.0561	0.0732	0.0726	Ave		0.0715				14.0		20.0			
Decachlorobiphenyl-13C12	0.1197	0.1062	0.0784	0.1027	0.1024	Ave		0.1019				15.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: ICV 680-337435/9 Calibration Date: 07/02/2014 19:38

Instrument ID: CMSF Calib Start Date: 07/02/2014 17:13

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 07/02/2014 19:09

Lab File ID: Fg0209.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7936	0.7872		0.992	1.00	-0.8	20.0
Dichlorobiphenyl	Ave	0.5884	0.5999		1.02	1.00	1.9	20.0
Trichlorobiphenyl	Ave	0.4164	0.4402		1.06	1.00	5.7	20.0
Tetrachlorobiphenyl	Ave	0.2478	0.2429		1.96	2.00	-2.0	20.0
Pentachlorobiphenyl	Ave	0.2045	0.2022		1.98	2.00	-1.1	20.0
Hexachlorobiphenyl	Ave	0.1686	0.1558		1.85	2.00	-7.6	20.0
Heptachlorobiphenyl	Ave	0.1306	0.1175		2.70	3.00	-10.1	20.0
Octachlorobiphenyl	Ave	0.1488	0.1426		2.87	3.00	-4.2	20.0
DCB Decachlorobiphenyl	Ave	0.0715	0.0715		5.00	5.00	-0.0	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab File ID: Fg0211.D Lab Sample ID: MB 680-336450/16-A

Matrix: Solid Date Extracted: 06/26/2014 18:41

Instrument ID: CMSF Date Analyzed: 07/02/2014 20:36

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-336450/17-A	Fg0212.D	07/02/2014 21:05
SD-236-02 MS	680-102359-28 MS	Fg0213.D	07/02/2014 21:35
SD-236-02 MSD	680-102359-28 MSD	Fg0214.D	07/02/2014 22:03
SD-236-02	680-102359-28	Fg0215.D	07/02/2014 22:32
SD-235-03	680-102359-25	Fg0219.D	07/03/2014 00:28
SD-236-SS	680-102359-26	Fg0220.D	07/03/2014 00:56
SD-237-03	680-102359-32	XG1034.D	07/11/2014 01:07
SD-235-01	680-102359-23	XG1308.D	07/13/2014 22:46
SD-235-02	680-102359-24	XG1309.D	07/13/2014 23:15
SD-237-SS	680-102359-29	XG1310.D	07/13/2014 23:43

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: | Lab Sample ID: MB 680-336450/16-A

Matrix: Solid | Lab File ID: Fg0211.D

Analysis Method: 680 | Date Collected:

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 30.02(g) | Date Analyzed: 07/02/2014 20:36

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 337435 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.83	U	17	0.83
25512-42-9	Dichlorobiphenyl	0.35	U	3.3	0.35
28655-71-2	Heptachlorobiphenyl	0.50	U	10	0.50
26601-64-9	Hexachlorobiphenyl	0.33	U	6.7	0.33
27323-18-8	Monochlorobiphenyl	0.19	U	3.3	0.19
53742-07-7	Nonachlorobiphenyl	3.3	U	17	3.3
55722-26-4	Octachlorobiphenyl	0.53	U	10	0.53
25429-29-2	Pentachlorobiphenyl	0.34	U	6.7	0.34
26914-33-0	Tetrachlorobiphenyl	0.37	U	6.7	0.37
25323-68-6	Trichlorobiphenyl	0.17	U	3.3	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	59		30-130

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCV 680-337435/22 Calibration Date: 07/03/2014 01:54

Instrument ID: CMSF Calib Start Date: 07/02/2014 17:13

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 07/02/2014 19:09

Lab File ID: Fg0222.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7936	0.7632		0.962	1.00	-3.8	20.0
Dichlorobiphenyl	Ave	0.5884	0.5946		1.01	1.00	1.0	20.0
Trichlorobiphenyl	Ave	0.4164	0.4238		1.02	1.00	1.8	20.0
Tetrachlorobiphenyl	Ave	0.2478	0.2573		2.08	2.00	3.8	20.0
Pentachlorobiphenyl	Ave	0.2045	0.2068		2.02	2.00	1.1	20.0
Hexachlorobiphenyl	Ave	0.1686	0.1605		1.90	2.00	-4.8	20.0
Heptachlorobiphenyl	Ave	0.1306	0.1453		3.34	3.00	11.2	20.0
Octachlorobiphenyl	Ave	0.1488	0.1540		3.10	3.00	3.4	20.0
Nonachlorobiphenyl	Ave	0.0715	0.0987		5.52	4.00	38.0*	20.0
DCB Decachlorobiphenyl	Ave	0.0715	0.0718		5.02	5.00	0.4	20.0
Decachlorobiphenyl-13C12	Ave	0.1019	0.0938		4.60	5.00	-7.9	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab File ID: Fg0602.D DFTPP Injection Date: 07/06/2014

Instrument ID: CMSF DFTPP Injection Time: 12:56

Analysis Batch No.: 337751

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	48.3
197	Less than 1 % of mass 198	0.3
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	7.3
275	10 - 30% of mass 198	22.0
365	Greater than 1% of mass 198	3.0
441	Present but less than mass 443	10.7 (75.4)2
442	Greater than 40% of mass 198	73.3
443	17 - 23% of mass 442	14.2 (19.4)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICISAV 680-337751/4	Fg0604.D	07/06/2014	13:56
	IC 680-337751/5	Fg0605.D	07/06/2014	14:25
	IC 680-337751/6	Fg0606.D	07/06/2014	14:54
	IC 680-337751/7	Fg0607.D	07/06/2014	15:23
	IC 680-337751/8	Fg0608.D	07/06/2014	15:52
	ICV 680-337751/9	Fg0609.D	07/06/2014	16:21

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102359-1 Analy Batch No.: 337751

SDG No.: 680102359-1

Instrument ID: CMSF GC Column: HP-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2014 13:56 Calibration End Date: 07/06/2014 15:52 Calibration ID: 31869

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-337751/8	Fg0608.D
Level 2	IC 680-337751/7	Fg0607.D
Level 3	ICISAV 680-337751/4	Fg0604.D
Level 4	IC 680-337751/6	Fg0606.D
Level 5	IC 680-337751/5	Fg0605.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	1.0360	1.0204	0.9964	1.0400	0.9363	Ave		1.0058				4.2		20.0			
Dichlorobiphenyl	0.7057	0.6752	0.6652	0.6518	0.6177	Ave		0.6631				4.9		20.0			
Trichlorobiphenyl	0.4888	0.4754	0.4650	0.4816	0.4380	Ave		0.4698				4.2		20.0			
PCB-104			0.3015			Ave		0.3015						30.0			
Tetrachlorobiphenyl	0.3154	0.2898	0.2843	0.2951	0.2810	Ave		0.2931				4.6		20.0			
Pentachlorobiphenyl	0.2558	0.2565	0.2462	0.2491	0.2414	Ave		0.2498				2.6		20.0			
PCB-77			0.4559			Ave		0.4559						30.0			
Hexachlorobiphenyl	0.2207	0.2115	0.2067	0.2115	0.1994	Ave		0.2099				3.7		20.0			
Heptachlorobiphenyl	0.2233	0.2029	0.1917	0.2060	0.1840	Ave		0.2016				7.4		20.0			
Octachlorobiphenyl	0.2273	0.2205	0.2152	0.2207	0.2039	Ave		0.2175				4.0		20.0			
PCB-208			0.1309			Ave		0.1309						30.0			
Nonachlorobiphenyl			0.1070			Ave		0.1152				7.7		20.0			
DCB Decachlorobiphenyl	0.1251	0.1218	0.1143	0.1120	0.1025	Ave		0.1152				7.7		20.0			
Decachlorobiphenyl-13C12	0.1420	0.1470	0.1285	0.1330	0.1131	Ave		0.1327				9.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: ICV 680-337751/9 Calibration Date: 07/06/2014 16:21

Instrument ID: CMSF Calib Start Date: 07/06/2014 13:56

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 07/06/2014 15:52

Lab File ID: Fg0609.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	1.006	1.003		0.997	1.00	-0.3	20.0
Dichlorobiphenyl	Ave	0.6631	0.6344		0.957	1.00	-4.3	20.0
Trichlorobiphenyl	Ave	0.4698	0.4964		1.06	1.00	5.7	20.0
Tetrachlorobiphenyl	Ave	0.2931	0.2976		2.03	2.00	1.5	20.0
Pentachlorobiphenyl	Ave	0.2498	0.2558		2.05	2.00	2.4	20.0
Hexachlorobiphenyl	Ave	0.2099	0.2140		2.04	2.00	1.9	20.0
Heptachlorobiphenyl	Ave	0.2016	0.2033		3.03	3.00	0.8	20.0
Octachlorobiphenyl	Ave	0.2175	0.2228		3.07	3.00	2.4	20.0
DCB Decachlorobiphenyl	Ave	0.1152	0.1150		4.99	5.00	-0.1	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab File ID: Fg0702.D DFTPP Injection Date: 07/07/2014

Instrument ID: CMSF DFTPP Injection Time: 15:25

Analysis Batch No.: 337937

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	51.9	
197	Less than 1 % of mass 198	0.8	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.2	
275	10 - 30% of mass 198	19.1	
365	Greater than 1% of mass 198	2.7	
441	Present but less than mass 443	9.7	(77.2)2
442	Greater than 40% of mass 198	64.6	
443	17 - 23% of mass 442	12.6	(19.5)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-337937/3	Fg0703.D	07/07/2014	15:54
	CCVIS 680-337937/4	Fg0704.D	07/07/2014	16:47
	MB 680-337170/11-A	Fg0706.D	07/07/2014	18:05
	LCS 680-337170/12-A	Fg0707.D	07/07/2014	18:34
	CCV 680-337937/21	Fg0721.D	07/08/2014	01:19

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCVIS 680-337937/4 Calibration Date: 07/07/2014 16:47

Instrument ID: CMSF Calib Start Date: 07/06/2014 13:56

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 07/06/2014 15:52

Lab File ID: Fg0704.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	1.006	1.077		1.07	1.00	7.0	20.0
Dichlorobiphenyl	Ave	0.6631	0.6962		1.05	1.00	5.0	20.0
Trichlorobiphenyl	Ave	0.4698	0.5090		1.08	1.00	8.4	20.0
Tetrachlorobiphenyl	Ave	0.2931	0.3010		2.05	2.00	2.7	20.0
Pentachlorobiphenyl	Ave	0.2498	0.2791		2.23	2.00	11.7	20.0
Hexachlorobiphenyl	Ave	0.2099	0.2071		1.97	2.00	-1.4	20.0
Heptachlorobiphenyl	Ave	0.2016	0.2059		3.06	3.00	2.1	20.0
Octachlorobiphenyl	Ave	0.2175	0.2223		3.07	3.00	2.2	20.0
Nonachlorobiphenyl	Ave	0.1152	0.1419		4.93	4.00	23.2*	20.0
DCB Decachlorobiphenyl	Ave	0.1152	0.1138		4.94	5.00	-1.2	20.0
Decachlorobiphenyl-13C12	Ave	0.1327	0.1257		4.74	5.00	-5.3	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab File ID: Fg0706.D Lab Sample ID: MB 680-337170/11-A

Matrix: Solid Date Extracted: 07/02/2014 08:53

Instrument ID: CMSF Date Analyzed: 07/07/2014 18:05

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-337170/12-A	Fg0707.D	07/07/2014 18:34
SD-224-SS MS	680-102359-1 MS	XG1007.D	07/10/2014 12:11
SD-224-SS MSD	680-102359-1 MSD	XG1008.D	07/10/2014 12:39
SD-224-SS	680-102359-1	XG1009.D	07/10/2014 13:08

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: | Lab Sample ID: MB 680-337170/11-A

Matrix: Solid | Lab File ID: Fg0706.D

Analysis Method: 680 | Date Collected:

Extract. Method: 680 | Date Extracted: 07/02/2014 08:53

Sample wt/vol: 30.15(g) | Date Analyzed: 07/07/2014 18:05

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 337937 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.83	U	17	0.83
25512-42-9	Dichlorobiphenyl	0.35	U	3.3	0.35
28655-71-2	Heptachlorobiphenyl	0.50	U	10	0.50
26601-64-9	Hexachlorobiphenyl	0.33	U	6.7	0.33
27323-18-8	Monochlorobiphenyl	0.19	U	3.3	0.19
53742-07-7	Nonachlorobiphenyl	3.3	U	17	3.3
55722-26-4	Octachlorobiphenyl	0.53	U	10	0.53
25429-29-2	Pentachlorobiphenyl	0.34	U	6.7	0.34
26914-33-0	Tetrachlorobiphenyl	0.37	U	6.7	0.37
25323-68-6	Trichlorobiphenyl	0.17	U	3.3	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	80		30-130

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCV 680-337937/21 Calibration Date: 07/08/2014 01:19

Instrument ID: CMSF Calib Start Date: 07/06/2014 13:56

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 07/06/2014 15:52

Lab File ID: Fg0721.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	1.006	1.079		1.07	1.00	7.3	20.0
Dichlorobiphenyl	Ave	0.6631	0.6777		1.02	1.00	2.2	20.0
Trichlorobiphenyl	Ave	0.4698	0.4895		1.04	1.00	4.2	20.0
Tetrachlorobiphenyl	Ave	0.2931	0.3041		2.08	2.00	3.8	20.0
Pentachlorobiphenyl	Ave	0.2498	0.2502		2.00	2.00	0.2	20.0
Hexachlorobiphenyl	Ave	0.2099	0.2209		2.10	2.00	5.2	20.0
Heptachlorobiphenyl	Ave	0.2016	0.2096		3.12	3.00	3.9	20.0
Octachlorobiphenyl	Ave	0.2175	0.2224		3.07	3.00	2.2	20.0
Nonachlorobiphenyl	Ave	0.1152	0.1279		4.44	4.00	11.1	20.0
DCB Decachlorobiphenyl	Ave	0.1152	0.1087		4.72	5.00	-5.6	20.0
Decachlorobiphenyl-13C12	Ave	0.1327	0.1202		4.53	5.00	-9.5	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab File ID: XG0802.D DFTPP Injection Date: 07/08/2014

Instrument ID: CMSX DFTPP Injection Time: 11:48

Analysis Batch No.: 338065

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	50.8	
197	Less than 1 % of mass 198	0.3	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.7	
275	10 - 30% of mass 198	27.8	
365	Greater than 1% of mass 198	4.5	
441	Present but less than mass 443	14.0	(80.5)2
442	Greater than 40% of mass 198	92.8	
443	17 - 23% of mass 442	17.3	(18.7)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICISAV 680-338065/4	XG0804.D	07/08/2014	14:04
	IC 680-338065/5	XG0805.D	07/08/2014	14:32
	IC 680-338065/6	XG0806.D	07/08/2014	15:01
	IC 680-338065/7	XG0807.D	07/08/2014	15:29
	IC 680-338065/8	XG0808.D	07/08/2014	15:58
	ICV 680-338065/9	XG0809.D	07/08/2014	16:27

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102359-1 Analy Batch No.: 338065

SDG No.: 680102359-1

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/08/2014 14:04 Calibration End Date: 07/08/2014 15:58 Calibration ID: 31919

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-338065/8	XG0808.D
Level 2	IC 680-338065/7	XG0807.D
Level 3	ICISAV 680-338065/4	XG0804.D
Level 4	IC 680-338065/6	XG0806.D
Level 5	IC 680-338065/5	XG0805.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.9065	0.8925	0.9538	0.9322	0.9238	Ave		0.9218				2.6		20.0			
Dichlorobiphenyl	0.5915	0.6255	0.6459	0.6725	0.6659	Ave		0.6403				5.1		20.0			
Trichlorobiphenyl	0.3952	0.4252	0.4540	0.4764	0.4724	Ave		0.4446				7.7		20.0			
PCB-104			0.3459			Ave		0.3459						30.0			
Tetrachlorobiphenyl	0.2979	0.3138	0.3348	0.3431	0.3385	Ave		0.3256				5.9		20.0			
Pentachlorobiphenyl	0.1953	0.2349	0.2632	0.2716	0.2824	Ave		0.2495				14.0		20.0			
PCB-77			0.4735			Ave		0.4735						30.0			
Hexachlorobiphenyl	0.1989	0.2390	0.2639	0.2669	0.2604	Ave		0.2458				12.0		20.0			
Heptachlorobiphenyl	0.1683	0.1973	0.2134	0.2347	0.2265	Ave		0.2081				13.0		20.0			
Octachlorobiphenyl	0.1458	0.1847	0.1949	0.2143	0.2163	Ave		0.1912				15.0		20.0			
PCB-208			0.0906			Ave		0.0906						30.0			
Nonachlorobiphenyl			0.0725			Ave		0.0672				15.0		20.0			
DCB Decachlorobiphenyl	0.0507	0.0661	0.0711	0.0735	0.0747	Ave		0.0672				15.0		20.0			
Decachlorobiphenyl-13C12	0.0604	0.0799	0.0831	0.0851	0.0829	Ave		0.0783				13.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: ICV 680-338065/9 Calibration Date: 07/08/2014 16:27

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG0809.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.8805		0.955	1.00	-4.5	20.0
Dichlorobiphenyl	Ave	0.6403	0.6291		0.983	1.00	-1.7	20.0
Trichlorobiphenyl	Ave	0.4446	0.4497		1.01	1.00	1.1	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3210		1.97	2.00	-1.4	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2325		1.86	2.00	-6.8	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2501		2.03	2.00	1.7	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2019		2.91	3.00	-3.0	20.0
Octachlorobiphenyl	Ave	0.1912	0.1790		2.81	3.00	-6.4	20.0
DCB Decachlorobiphenyl	Ave	0.0672	0.0596		4.44	5.00	-11.3	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab File ID: XG1002.D DFTPP Injection Date: 07/10/2014

Instrument ID: CMSX DFTPP Injection Time: 09:26

Analysis Batch No.: 338412

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	51.2	
197	Less than 1 % of mass 198	0.2	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.8	
275	10 - 30% of mass 198	27.9	
365	Greater than 1% of mass 198	4.5	
441	Present but less than mass 443	15.5	(82.2)2
442	Greater than 40% of mass 198	99.7	
443	17 - 23% of mass 442	18.8	(18.9)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-338412/3	XG1003.D	07/10/2014	09:57
	CCVIS 680-338412/4	XG1004.D	07/10/2014	10:45
SD-224-SS MS	680-102359-1 MS	XG1007.D	07/10/2014	12:11
SD-224-SS MSD	680-102359-1 MSD	XG1008.D	07/10/2014	12:39
SD-224-SS	680-102359-1	XG1009.D	07/10/2014	13:08
	CCV 680-338412/20	XG1020.D	07/10/2014	18:23

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCVIS 680-338412/4 Calibration Date: 07/10/2014 10:45

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG1004.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.8663		0.940	1.00	-6.0	20.0
Dichlorobiphenyl	Ave	0.6403	0.6240		0.975	1.00	-2.5	20.0
Trichlorobiphenyl	Ave	0.4446	0.4559		1.03	1.00	2.5	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3204		1.97	2.00	-1.6	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2650		2.12	2.00	6.2	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2613		2.13	2.00	6.3	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2299		3.31	3.00	10.5	20.0
Octachlorobiphenyl	Ave	0.1912	0.2078		3.26	3.00	8.7	20.0
Nonachlorobiphenyl	Ave	0.0672	0.0946		5.63	4.00	40.7*	20.0
DCB Decachlorobiphenyl	Ave	0.0672	0.0721		5.36	5.00	7.3	20.0
Decachlorobiphenyl-13C12	Ave	0.0783	0.0825		5.27	5.00	5.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCV 680-338412/20 Calibration Date: 07/10/2014 18:23

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG1020.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.8077		0.876	1.00	-12.4	20.0
Dichlorobiphenyl	Ave	0.6403	0.6223		0.972	1.00	-2.8	20.0
Trichlorobiphenyl	Ave	0.4446	0.4553		1.02	1.00	2.4	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3124		1.92	2.00	-4.1	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2555		2.05	2.00	2.4	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2443		1.99	2.00	-0.6	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2111		3.04	3.00	1.5	20.0
Octachlorobiphenyl	Ave	0.1912	0.1892		2.97	3.00	-1.0	20.0
Nonachlorobiphenyl	Ave	0.0672	0.0778		4.63	4.00	15.7	20.0
DCB Decachlorobiphenyl	Ave	0.0672	0.0584		4.35	5.00	-13.1	20.0
Decachlorobiphenyl-13C12	Ave	0.0783	0.0695		4.44	5.00	-11.3	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab File ID: XG1023.D DFTPP Injection Date: 07/10/2014

Instrument ID: CMSX DFTPP Injection Time: 19:50

Analysis Batch No.: 338586

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	50.6	
197	Less than 1 % of mass 198	0.4	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	7.0	
275	10 - 30% of mass 198	28.2	
365	Greater than 1% of mass 198	4.2	
441	Present but less than mass 443	15.1	(82.2)2
442	Greater than 40% of mass 198	95.9	
443	17 - 23% of mass 442	18.4	(19.2)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-338586/3	XG1024.D	07/10/2014	20:21
	CCVIS 680-338586/4	XG1025.D	07/10/2014	20:51
SD-237-03	680-102359-32	XG1034.D	07/11/2014	01:07
	MB 680-336444/21-A	XG1036.D	07/11/2014	02:04
SD-223-02 MS	680-102359-7 MS	XG1038.D	07/11/2014	03:01
SD-223-02 MSD	680-102359-7 MSD	XG1039.D	07/11/2014	03:29
SD-223-02	680-102359-7	XG1040.D	07/11/2014	03:58
SD-226-SS	680-102359-8	XG1041.D	07/11/2014	04:26
	CCV 680-338586/22	XG1043.D	07/11/2014	05:23

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCVIS 680-338586/4 Calibration Date: 07/10/2014 20:51

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG1025.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.8134		0.882	1.00	-11.8	20.0
Dichlorobiphenyl	Ave	0.6403	0.6189		0.967	1.00	-3.3	20.0
Trichlorobiphenyl	Ave	0.4446	0.4617		1.04	1.00	3.8	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3199		1.96	2.00	-1.8	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2668		2.14	2.00	6.9	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2595		2.11	2.00	5.6	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2249		3.24	3.00	8.1	20.0
Octachlorobiphenyl	Ave	0.1912	0.2022		3.17	3.00	5.8	20.0
Nonachlorobiphenyl	Ave	0.0672	0.0848		5.05	4.00	26.2*	20.0
DCB Decachlorobiphenyl	Ave	0.0672	0.0630		4.68	5.00	-6.3	20.0
Decachlorobiphenyl-13C12	Ave	0.0783	0.0739		4.72	5.00	-5.7	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab File ID: XG1036.D Lab Sample ID: MB 680-336444/21-A

Matrix: Solid Date Extracted: 06/26/2014 18:41

Instrument ID: CMSX Date Analyzed: 07/11/2014 02:04

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
SD-223-02 MS	680-102359-7 MS	XG1038.D	07/11/2014 03:01
SD-223-02 MSD	680-102359-7 MSD	XG1039.D	07/11/2014 03:29
SD-223-02	680-102359-7	XG1040.D	07/11/2014 03:58
SD-226-SS	680-102359-8	XG1041.D	07/11/2014 04:26
	LCS 680-336444/22-A	XG1306.D	07/13/2014 21:49
SD-224-01	680-102359-2	XG1312.D	07/14/2014 00:40
SD-224-02	680-102359-3	XG1313.D	07/14/2014 01:08
SD-224-03	680-102359-4	XG1314.D	07/14/2014 01:37
SD-223-01	680-102359-6	XG1316.D	07/14/2014 02:34
SD-226-01	680-102359-9	XG1317.D	07/14/2014 03:02
SD-226-02	680-102359-10	XG1318.D	07/14/2014 03:30
SD-226-03	680-102359-11	XG1319.D	07/14/2014 03:59
SD-225-03	680-102359-15	XG1329.D	07/14/2014 08:49
SD-228-01	680-102359-17	XG1331.D	07/14/2014 09:46
SD-228-02	680-102359-18	XG1332.D	07/14/2014 10:15
SD-228-03	680-102359-19	XG1333.D	07/14/2014 10:43
SD-234-01	680-102359-21	XG1335.D	07/14/2014 11:40

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: | Lab Sample ID: MB 680-336444/21-A

Matrix: Solid | Lab File ID: XG1036.D

Analysis Method: 680 | Date Collected:

Extract. Method: 680 | Date Extracted: 06/26/2014 18:41

Sample wt/vol: 30.01(g) | Date Analyzed: 07/11/2014 02:04

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338586 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.83	U	17	0.83
25512-42-9	Dichlorobiphenyl	0.35	U	3.3	0.35
28655-71-2	Heptachlorobiphenyl	0.50	U	10	0.50
26601-64-9	Hexachlorobiphenyl	0.33	U	6.7	0.33
27323-18-8	Monochlorobiphenyl	0.19	U	3.3	0.19
53742-07-7	Nonachlorobiphenyl	3.3	U	17	3.3
55722-26-4	Octachlorobiphenyl	0.53	U	10	0.53
25429-29-2	Pentachlorobiphenyl	0.34	U	6.7	0.34
26914-33-0	Tetrachlorobiphenyl	0.37	U	6.7	0.37
25323-68-6	Trichlorobiphenyl	0.17	U	3.3	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	54		30-130

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCV 680-338586/22 Calibration Date: 07/11/2014 05:23

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG1043.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.8875		0.963	1.00	-3.7	20.0
Dichlorobiphenyl	Ave	0.6403	0.6727		1.05	1.00	5.1	20.0
Trichlorobiphenyl	Ave	0.4446	0.4726		1.06	1.00	6.3	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3289		2.02	2.00	1.0	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2728		2.19	2.00	9.3	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2664		2.17	2.00	8.3	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2242		3.23	3.00	7.8	20.0
Octachlorobiphenyl	Ave	0.1912	0.2094		3.29	3.00	9.5	20.0
Nonachlorobiphenyl	Ave	0.0672	0.0901		5.36	4.00	34.0*	20.0
DCB Decachlorobiphenyl	Ave	0.0672	0.0687		5.11	5.00	2.2	20.0
Decachlorobiphenyl-13C12	Ave	0.0783	0.0795		5.07	5.00	1.5	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab File ID: XG1302.D DFTPP Injection Date: 07/13/2014

Instrument ID: CMSX DFTPP Injection Time: 19:52

Analysis Batch No.: 338830

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	51.8
197	Less than 1 % of mass 198	0.2
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	7.0
275	10 - 30% of mass 198	28.0
365	Greater than 1% of mass 198	4.8
441	Present but less than mass 443	13.9 (77.0)2
442	Greater than 40% of mass 198	92.9
443	17 - 23% of mass 442	18.1 (19.5)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-338830/3	XG1303.D	07/13/2014	20:22
	CCVIS 680-338830/4	XG1304.D	07/13/2014	20:53
	LCS 680-336444/22-A	XG1306.D	07/13/2014	21:49
SD-235-01	680-102359-23	XG1308.D	07/13/2014	22:46
SD-235-02	680-102359-24	XG1309.D	07/13/2014	23:15
SD-237-SS	680-102359-29	XG1310.D	07/13/2014	23:43
SD-224-01	680-102359-2	XG1312.D	07/14/2014	00:40
SD-224-02	680-102359-3	XG1313.D	07/14/2014	01:08
SD-224-03	680-102359-4	XG1314.D	07/14/2014	01:37
SD-223-01	680-102359-6	XG1316.D	07/14/2014	02:34
SD-226-01	680-102359-9	XG1317.D	07/14/2014	03:02
SD-226-02	680-102359-10	XG1318.D	07/14/2014	03:30
SD-226-03	680-102359-11	XG1319.D	07/14/2014	03:59
	CCV 680-338830/22	XG1322.D	07/14/2014	05:24

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCVIS 680-338830/4 Calibration Date: 07/13/2014 20:53

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG1304.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.9649		1.05	1.00	4.7	20.0
Dichlorobiphenyl	Ave	0.6403	0.6696		1.05	1.00	4.6	20.0
Trichlorobiphenyl	Ave	0.4446	0.4816		1.08	1.00	8.3	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3417		2.10	2.00	4.9	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2819		2.26	2.00	13.0	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2690		2.19	2.00	9.4	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2289		3.30	3.00	10.0	20.0
Octachlorobiphenyl	Ave	0.1912	0.2078		3.26	3.00	8.7	20.0
Nonachlorobiphenyl	Ave	0.0672	0.0953		5.67	4.00	41.8*	20.0
DCB Decachlorobiphenyl	Ave	0.0672	0.0704		5.24	5.00	4.8	20.0
Decachlorobiphenyl-13C12	Ave	0.0783	0.0795		5.08	5.00	1.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCV 680-338830/22 Calibration Date: 07/14/2014 05:24

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG1322.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.9849		1.07	1.00	6.9	20.0
Dichlorobiphenyl	Ave	0.6403	0.6655		1.04	1.00	3.9	20.0
Trichlorobiphenyl	Ave	0.4446	0.4938		1.11	1.00	11.1	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3455		2.12	2.00	6.1	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2884		2.31	2.00	15.6	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2810		2.29	2.00	14.3	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2314		3.34	3.00	11.2	20.0
Octachlorobiphenyl	Ave	0.1912	0.2137		3.35	3.00	11.8	20.0
Nonachlorobiphenyl	Ave	0.0672	0.0926		5.51	4.00	37.7*	20.0
DCB Decachlorobiphenyl	Ave	0.0672	0.0704		5.24	5.00	4.7	20.0
Decachlorobiphenyl-13C12	Ave	0.0783	0.0786		5.02	5.00	0.4	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab File ID: XG1325.D DFTPP Injection Date: 07/14/2014

Instrument ID: CMSX DFTPP Injection Time: 06:51

Analysis Batch No.: 338831

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	51.2
197	Less than 1 % of mass 198	0.0
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.8
275	10 - 30% of mass 198	28.7
365	Greater than 1% of mass 198	4.7
441	Present but less than mass 443	15.5 (84.6)2
442	Greater than 40% of mass 198	96.1
443	17 - 23% of mass 442	18.4 (19.1)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-338831/3	XG1326.D	07/14/2014	07:22
	CCVIS 680-338831/4	XG1327.D	07/14/2014	07:52
SD-225-03	680-102359-15	XG1329.D	07/14/2014	08:49
SD-228-01	680-102359-17	XG1331.D	07/14/2014	09:46
SD-228-02	680-102359-18	XG1332.D	07/14/2014	10:15
SD-228-03	680-102359-19	XG1333.D	07/14/2014	10:43
SD-234-01	680-102359-21	XG1335.D	07/14/2014	11:40
	CCV 680-338831/21	XG1344.D	07/14/2014	16:31

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCVIS 680-338831/4 Calibration Date: 07/14/2014 07:52

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG1327.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.8594		0.932	1.00	-6.8	20.0
Dichlorobiphenyl	Ave	0.6403	0.6515		1.02	1.00	1.8	20.0
Trichlorobiphenyl	Ave	0.4446	0.4746		1.07	1.00	6.7	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3434		2.11	2.00	5.5	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2798		2.24	2.00	12.2	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2677		2.18	2.00	8.9	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2207		3.18	3.00	6.1	20.0
Octachlorobiphenyl	Ave	0.1912	0.2088		3.28	3.00	9.2	20.0
Nonachlorobiphenyl	Ave	0.0672	0.0883		5.26	4.00	31.4*	20.0
DCB Decachlorobiphenyl	Ave	0.0672	0.0693		5.15	5.00	3.1	20.0
Decachlorobiphenyl-13C12	Ave	0.0783	0.0776		4.96	5.00	-0.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCV 680-338831/21 Calibration Date: 07/14/2014 16:31

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG1344.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.8814		0.956	1.00	-4.4	20.0
Dichlorobiphenyl	Ave	0.6403	0.6251		0.976	1.00	-2.4	20.0
Trichlorobiphenyl	Ave	0.4446	0.4693		1.06	1.00	5.5	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3192		1.96	2.00	-2.0	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2688		2.15	2.00	7.7	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2510		2.04	2.00	2.1	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2058		2.97	3.00	-1.1	20.0
Octachlorobiphenyl	Ave	0.1912	0.1892		2.97	3.00	-1.0	20.0
Nonachlorobiphenyl	Ave	0.0672	0.0812		4.83	4.00	20.8*	20.0
DCB Decachlorobiphenyl	Ave	0.0672	0.0631		4.69	5.00	-6.2	20.0
Decachlorobiphenyl-13C12	Ave	0.0783	0.0698		4.45	5.00	-10.9	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab File ID: XG1602.D DFTPP Injection Date: 07/16/2014

Instrument ID: CMSX DFTPP Injection Time: 11:11

Analysis Batch No.: 339278

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	52.0	
197	Less than 1 % of mass 198	0.0	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.7	
275	10 - 30% of mass 198	28.8	
365	Greater than 1% of mass 198	4.3	
441	Present but less than mass 443	11.0	(64.2)2
442	Greater than 40% of mass 198	89.6	
443	17 - 23% of mass 442	17.2	(19.2)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-339278/3	XG1603.D	07/16/2014	11:41
	CCVIS 680-339278/4	XG1604.D	07/16/2014	12:14
	LCS 680-338912/19-A	XG1606.D	07/16/2014	13:11
	MB 680-338912/18-A	XG1607.D	07/16/2014	13:40
SD-Dup-03	680-102359-33	XG1613.D	07/16/2014	16:31
SD-227-SS	680-102359-34	XG1614.D	07/16/2014	17:00
SD-227-01	680-102359-35	XG1615.D	07/16/2014	17:28
SD-227-02	680-102359-36	XG1616.D	07/16/2014	17:57
	CCV 680-339278/23	XG1623.D	07/16/2014	21:17

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCVIS 680-339278/4 Calibration Date: 07/16/2014 12:14

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG1604.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.8561		0.929	1.00	-7.1	20.0
Dichlorobiphenyl	Ave	0.6403	0.6489		1.01	1.00	1.3	20.0
Trichlorobiphenyl	Ave	0.4446	0.4765		1.07	1.00	7.2	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3327		2.04	2.00	2.2	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2688		2.15	2.00	7.7	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2530		2.06	2.00	2.9	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2130		3.07	3.00	2.4	20.0
Octachlorobiphenyl	Ave	0.1912	0.1962		3.08	3.00	2.6	20.0
Nonachlorobiphenyl	Ave	0.0672	0.0897		5.34	4.00	33.4*	20.0
DCB Decachlorobiphenyl	Ave	0.0672	0.0685		5.10	5.00	1.9	20.0
Decachlorobiphenyl-13C12	Ave	0.0783	0.0770		4.92	5.00	-1.6	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab File ID: XG1607.D Lab Sample ID: MB 680-338912/18-A

Matrix: Solid Date Extracted: 07/14/2014 14:58

Instrument ID: CMSX Date Analyzed: 07/16/2014 13:40

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-338912/19-A	XG1606.D	07/16/2014 13:11
SD-Dup-03	680-102359-33	XG1613.D	07/16/2014 16:31
SD-227-SS	680-102359-34	XG1614.D	07/16/2014 17:00
SD-227-01	680-102359-35	XG1615.D	07/16/2014 17:28
SD-227-02	680-102359-36	XG1616.D	07/16/2014 17:57

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: | Lab Sample ID: MB 680-338912/18-A

Matrix: Solid | Lab File ID: XG1607.D

Analysis Method: 680 | Date Collected:

Extract. Method: 680 | Date Extracted: 07/14/2014 14:58

Sample wt/vol: 10.05(g) | Date Analyzed: 07/16/2014 13:40

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339278 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	2.5	U	51	2.5
25512-42-9	Dichlorobiphenyl	1.0	U	9.9	1.0
28655-71-2	Heptachlorobiphenyl	1.5	U	30	1.5
26601-64-9	Hexachlorobiphenyl	0.99	U	20	0.99
27323-18-8	Monochlorobiphenyl	0.57	U	9.9	0.57
53742-07-7	Nonachlorobiphenyl	9.9	U	51	9.9
55722-26-4	Octachlorobiphenyl	1.6	U	30	1.6
25429-29-2	Pentachlorobiphenyl	1.0	U	20	1.0
26914-33-0	Tetrachlorobiphenyl	1.1	U	20	1.1
25323-68-6	Trichlorobiphenyl	0.51	U	9.9	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	72		30-130

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCV 680-339278/23 Calibration Date: 07/16/2014 21:17

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG1623.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.8503		0.922	1.00	-7.8	20.0
Dichlorobiphenyl	Ave	0.6403	0.6550		1.02	1.00	2.3	20.0
Trichlorobiphenyl	Ave	0.4446	0.4796		1.08	1.00	7.9	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3319		2.04	2.00	1.9	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2663		2.13	2.00	6.7	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2599		2.11	2.00	5.7	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2180		3.14	3.00	4.8	20.0
Octachlorobiphenyl	Ave	0.1912	0.1889		2.96	3.00	-1.2	20.0
Nonachlorobiphenyl	Ave	0.0672	0.0858		5.10	4.00	27.6*	20.0
DCB Decachlorobiphenyl	Ave	0.0672	0.0618		4.60	5.00	-8.1	20.0
Decachlorobiphenyl-13C12	Ave	0.0783	0.0661		4.22	5.00	-15.6	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab File ID: XG1907.D DFTPP Injection Date: 07/19/2014

Instrument ID: CMSX DFTPP Injection Time: 21:51

Analysis Batch No.: 339932

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	54.3	
197	Less than 1 % of mass 198	0.2	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.9	
275	10 - 30% of mass 198	30.0	
365	Greater than 1% of mass 198	4.8	
441	Present but less than mass 443	13.3	(84.6)2
442	Greater than 40% of mass 198	86.0	
443	17 - 23% of mass 442	15.7	(18.3)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICISAV 680-339932/4	XG1909.D	07/19/2014	22:52
	IC 680-339932/5	XG1910.D	07/19/2014	23:20
	IC 680-339932/6	XG1911.D	07/19/2014	23:49
	IC 680-339932/7	XG1912.D	07/20/2014	00:17
	IC 680-339932/8	XG1913.D	07/20/2014	00:46
	ICV 680-339932/9	XG1914.D	07/20/2014	01:14

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102359-1 Analy Batch No.: 339932

SDG No.: 680102359-1

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2014 22:52 Calibration End Date: 07/20/2014 00:46 Calibration ID: 32129

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-339932/8	XG1913.D
Level 2	IC 680-339932/7	XG1912.D
Level 3	ICISAV 680-339932/4	XG1909.D
Level 4	IC 680-339932/6	XG1911.D
Level 5	IC 680-339932/5	XG1910.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.8353	0.8456	0.9098	0.8813	0.8734	Ave		0.8691				3.4		20.0			
Dichlorobiphenyl	0.5776	0.5823	0.6122	0.6067	0.5987	Ave		0.5955				2.5		20.0			
Trichlorobiphenyl	0.3996	0.4135	0.4348	0.4389	0.4410	Ave		0.4256				4.3		20.0			
PCB-104			0.3302			Ave		0.3302						30.0			
Tetrachlorobiphenyl	0.2755	0.2817	0.3033	0.2909	0.2951	Ave		0.2893				3.8		20.0			
Pentachlorobiphenyl	0.2123	0.2203	0.2262	0.2270	0.2357	Ave		0.2243				3.9		20.0			
PCB-77			0.4767			Ave		0.4767						30.0			
Hexachlorobiphenyl	0.1966	0.2022	0.2225	0.2132	0.2185	Ave		0.2106				5.2		20.0			
Heptachlorobiphenyl	0.1540	0.1656	0.1696	0.1700	0.1695	Ave		0.1657				4.1		20.0			
Octachlorobiphenyl	0.1373	0.1488	0.1535	0.1521	0.1669	Ave		0.1517				7.0		20.0			
PCB-208			0.0569			Ave		0.0569						30.0			
Nonachlorobiphenyl			0.0443			Ave		0.0363				11.0		20.0			
DCB Decachlorobiphenyl	0.0321	0.0328	0.0379	0.0370	0.0414	Ave		0.0363				11.0		20.0			
Decachlorobiphenyl-13C12	0.0407	0.0484	0.0517	0.0504	0.0567	Ave		0.0496				12.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: ICV 680-339932/9 Calibration Date: 07/20/2014 01:14

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG1914.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8287		0.953	1.00	-4.7	20.0
Dichlorobiphenyl	Ave	0.5955	0.5788		0.972	1.00	-2.8	20.0
Trichlorobiphenyl	Ave	0.4256	0.4300		1.01	1.00	1.0	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2870		1.98	2.00	-0.8	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2168		1.93	2.00	-3.3	20.0
Hexachlorobiphenyl	Ave	0.2106	0.2122		2.02	2.00	0.8	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1650		2.99	3.00	-0.4	20.0
Octachlorobiphenyl	Ave	0.1517	0.1560		3.08	3.00	2.8	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0351		4.84	5.00	-3.1	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab File ID: XG2401.D DFTPP Injection Date: 07/24/2014

Instrument ID: CMSX DFTPP Injection Time: 20:22

Analysis Batch No.: 340817

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	47.9	
197	Less than 1 % of mass 198	0.3	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.7	
275	10 - 30% of mass 198	28.1	
365	Greater than 1% of mass 198	4.2	
441	Present but less than mass 443	8.2	(50.0)2
442	Greater than 40% of mass 198	84.4	
443	17 - 23% of mass 442	16.4	(19.5)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-340817/3	XG2403.D	07/24/2014	20:55
	CCVIS 680-340817/4	XG2404.D	07/24/2014	21:26
	MB 680-339379/20-A	XG2414.D	07/25/2014	02:16
	LCS 680-339379/21-A	XG2415.D	07/25/2014	02:45
SD-223-SS	680-102359-5	XG2420.D	07/25/2014	05:09
SD-225-SS	680-102359-12	XG2423.D	07/25/2014	06:35
	CCV 680-340817/24	XG2424.D	07/25/2014	07:04

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCVIS 680-340817/4 Calibration Date: 07/24/2014 21:26

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2404.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.9678		1.11	1.00	11.4	20.0
Dichlorobiphenyl	Ave	0.5955	0.6292		1.06	1.00	5.7	20.0
Trichlorobiphenyl	Ave	0.4256	0.4222		0.992	1.00	-0.8	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2970		2.05	2.00	2.7	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2158		1.92	2.00	-3.8	20.0
Hexachlorobiphenyl	Ave	0.2106	0.2048		1.95	2.00	-2.7	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1633		2.96	3.00	-1.5	20.0
Octachlorobiphenyl	Ave	0.1517	0.1477		2.92	3.00	-2.6	20.0
Nonachlorobiphenyl	Ave	0.0363	0.0523		5.77	4.00	44.3*	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0355		4.90	5.00	-2.0	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0491		4.95	5.00	-1.0	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab File ID: XG2414.D Lab Sample ID: MB 680-339379/20-A

Matrix: Solid Date Extracted: 07/23/2014 08:38

Instrument ID: CMSX Date Analyzed: 07/25/2014 02:16

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-339379/21-A	XG2415.D	07/25/2014 02:45
SD-223-SS	680-102359-5	XG2420.D	07/25/2014 05:09
SD-225-SS	680-102359-12	XG2423.D	07/25/2014 06:35
SD-225-02	680-102359-14	XG2432.D	07/25/2014 11:04
SD-228-SS	680-102359-16	XG2433.D	07/25/2014 11:32
SD-236-01	680-102359-27	XG2438.D	07/25/2014 13:55
SD-237-02	680-102359-31	XG2440.D	07/25/2014 14:52
SD-225-01	680-102359-13	XG2508.D	07/25/2014 21:25
SD-234-SS	680-102359-20	XG2509.D	07/25/2014 21:53
SD-235-SS	680-102359-22	XG2510.D	07/25/2014 22:22
SD-237-01	680-102359-30	XG2532.D	07/26/2014 08:52

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: | Lab Sample ID: MB 680-339379/20-A

Matrix: Solid | Lab File ID: XG2414.D

Analysis Method: 680 | Date Collected:

Extract. Method: 680 | Date Extracted: 07/23/2014 08:38

Sample wt/vol: 30.04(g) | Date Analyzed: 07/25/2014 02:16

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340817 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.83	U	17	0.83
25512-42-9	Dichlorobiphenyl	0.35	U	3.3	0.35
28655-71-2	Heptachlorobiphenyl	0.50	U	10	0.50
26601-64-9	Hexachlorobiphenyl	0.33	U	6.7	0.33
27323-18-8	Monochlorobiphenyl	0.19	U	3.3	0.19
53742-07-7	Nonachlorobiphenyl	3.3	U	17	3.3
55722-26-4	Octachlorobiphenyl	0.53	U	10	0.53
25429-29-2	Pentachlorobiphenyl	0.34	U	6.7	0.34
26914-33-0	Tetrachlorobiphenyl	0.37	U	6.7	0.37
25323-68-6	Trichlorobiphenyl	0.17	U	3.3	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	60		30-130

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCV 680-340817/24 Calibration Date: 07/25/2014 07:04

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2424.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8198		0.943	1.00	-5.7	20.0
Dichlorobiphenyl	Ave	0.5955	0.5624		0.945	1.00	-5.5	20.0
Trichlorobiphenyl	Ave	0.4256	0.4042		0.950	1.00	-5.0	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2629		1.82	2.00	-9.1	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2071		1.85	2.00	-7.7	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1977		1.88	2.00	-6.1	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1616		2.93	3.00	-2.5	20.0
Octachlorobiphenyl	Ave	0.1517	0.1462		2.89	3.00	-3.6	20.0
Nonachlorobiphenyl	Ave	0.0363	0.0538		5.94	4.00	48.4*	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0335		4.62	5.00	-7.6	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0459		4.63	5.00	-7.4	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab File ID: XG2427.D DFTPP Injection Date: 07/25/2014

Instrument ID: CMSX DFTPP Injection Time: 08:32

Analysis Batch No.: 340819

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	50.2	
197	Less than 1 % of mass 198	0.0	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.7	
275	10 - 30% of mass 198	29.4	
365	Greater than 1% of mass 198	4.2	
441	Present but less than mass 443	14.2	(80.7)2
442	Greater than 40% of mass 198	90.8	
443	17 - 23% of mass 442	17.6	(19.4)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-340819/3	XG2428.D	07/25/2014	09:03
	CCVIS 680-340819/4	XG2429.D	07/25/2014	09:38
SD-225-02	680-102359-14	XG2432.D	07/25/2014	11:04
SD-228-SS	680-102359-16	XG2433.D	07/25/2014	11:32
SD-236-01	680-102359-27	XG2438.D	07/25/2014	13:55
SD-237-02	680-102359-31	XG2440.D	07/25/2014	14:52
	CCV 680-340819/19	XG2444.D	07/25/2014	16:47

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCVIS 680-340819/4 Calibration Date: 07/25/2014 09:38

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2429.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8277		0.952	1.00	-4.8	20.0
Dichlorobiphenyl	Ave	0.5955	0.5648		0.948	1.00	-5.2	20.0
Trichlorobiphenyl	Ave	0.4256	0.4042		0.950	1.00	-5.0	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2636		1.82	2.00	-8.9	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2074		1.85	2.00	-7.5	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1941		1.84	2.00	-7.8	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1608		2.91	3.00	-3.0	20.0
Octachlorobiphenyl	Ave	0.1517	0.1470		2.91	3.00	-3.1	20.0
Nonachlorobiphenyl	Ave	0.0363	0.0547		6.03	4.00	50.9*	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0347		4.79	5.00	-4.2	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0474		4.78	5.00	-4.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCV 680-340819/19 Calibration Date: 07/25/2014 16:47

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2444.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.7786		0.896	1.00	-10.4	20.0
Dichlorobiphenyl	Ave	0.5955	0.5347		0.898	1.00	-10.2	20.0
Trichlorobiphenyl	Ave	0.4256	0.3938		0.925	1.00	-7.5	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2537		1.75	2.00	-12.3	20.0
Pentachlorobiphenyl	Ave	0.2243	0.1954		1.74	2.00	-12.9	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1931		1.83	2.00	-8.3	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1524		2.76	3.00	-8.1	20.0
Octachlorobiphenyl	Ave	0.1517	0.1343		2.66	3.00	-11.5	20.0
Nonachlorobiphenyl	Ave	0.0363	0.0499		5.51	4.00	37.7*	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0306		4.22	5.00	-15.6	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0442		4.46	5.00	-10.9	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab File ID: XG2502.D DFTPP Injection Date: 07/25/2014

Instrument ID: CMSX DFTPP Injection Time: 18:29

Analysis Batch No.: 340971

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	51.2	
197	Less than 1 % of mass 198	0.2	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.5	
275	10 - 30% of mass 198	29.0	
365	Greater than 1% of mass 198	3.9	
441	Present but less than mass 443	9.3	(52.2)2
442	Greater than 40% of mass 198	90.8	
443	17 - 23% of mass 442	17.9	(19.7)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-340971/3	XG2503.D	07/25/2014	18:59
	CCVIS 680-340971/4	XG2504.D	07/25/2014	19:30
SD-225-01	680-102359-13	XG2508.D	07/25/2014	21:25
SD-234-SS	680-102359-20	XG2509.D	07/25/2014	21:53
SD-235-SS	680-102359-22	XG2510.D	07/25/2014	22:22
	CCV 680-340971/25	XG2525.D	07/26/2014	05:27

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCVIS 680-340971/4 Calibration Date: 07/25/2014 19:30

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2504.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8017		0.923	1.00	-7.7	20.0
Dichlorobiphenyl	Ave	0.5955	0.5563		0.934	1.00	-6.6	20.0
Trichlorobiphenyl	Ave	0.4256	0.3997		0.939	1.00	-6.1	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2602		1.80	2.00	-10.1	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2010		1.79	2.00	-10.4	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1945		1.85	2.00	-7.6	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1524		2.76	3.00	-8.0	20.0
Octachlorobiphenyl	Ave	0.1517	0.1344		2.66	3.00	-11.4	20.0
Nonachlorobiphenyl	Ave	0.0363	0.0474		5.23	4.00	30.8	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0304		4.19	5.00	-16.2	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0442		4.45	5.00	-10.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCV 680-340971/25 Calibration Date: 07/26/2014 05:27

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2525.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8156		0.938	1.00	-6.2	20.0
Dichlorobiphenyl	Ave	0.5955	0.5691		0.956	1.00	-4.4	20.0
Trichlorobiphenyl	Ave	0.4256	0.4048		0.951	1.00	-4.9	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2686		1.86	2.00	-7.1	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2080		1.85	2.00	-7.3	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1988		1.89	2.00	-5.6	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1617		2.93	3.00	-2.4	20.0
Octachlorobiphenyl	Ave	0.1517	0.1480		2.93	3.00	-2.4	20.0
Nonachlorobiphenyl	Ave	0.0363	0.0562		6.20	4.00	55.0*	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0360		4.96	5.00	-0.8	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0464		4.68	5.00	-6.4	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab File ID: XG2528.D DFTPP Injection Date: 07/26/2014

Instrument ID: CMSX DFTPP Injection Time: 06:55

Analysis Batch No.: 340977

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	58.7	
197	Less than 1 % of mass 198	0.0	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.9	
275	10 - 30% of mass 198	27.4	
365	Greater than 1% of mass 198	3.8	
441	Present but less than mass 443	11.3	(81.0)2
442	Greater than 40% of mass 198	71.0	
443	17 - 23% of mass 442	14.0	(19.7)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-340977/3	XG2529.D	07/26/2014	07:25
	CCVIS 680-340977/4	XG2530.D	07/26/2014	07:55
SD-237-01	680-102359-30	XG2532.D	07/26/2014	08:52
	CCV 680-340977/19	XG2547.D	07/26/2014	16:02

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCVIS 680-340977/4 Calibration Date: 07/26/2014 07:55

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2530.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8296		0.955	1.00	-4.5	20.0
Dichlorobiphenyl	Ave	0.5955	0.5831		0.979	1.00	-2.1	20.0
Trichlorobiphenyl	Ave	0.4256	0.4191		0.985	1.00	-1.5	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2788		1.93	2.00	-3.6	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2171		1.94	2.00	-3.2	20.0
Hexachlorobiphenyl	Ave	0.2106	0.2078		1.97	2.00	-1.3	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1661		3.01	3.00	0.2	20.0
Octachlorobiphenyl	Ave	0.1517	0.1504		2.97	3.00	-0.8	20.0
Nonachlorobiphenyl	Ave	0.0363	0.0538		5.94	4.00	48.4*	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0350		4.83	5.00	-3.5	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0470		4.74	5.00	-5.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Lab Sample ID: CCV 680-340977/19 Calibration Date: 07/26/2014 16:02

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2547.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8014		0.922	1.00	-7.8	20.0
Dichlorobiphenyl	Ave	0.5955	0.5616		0.943	1.00	-5.7	20.0
Trichlorobiphenyl	Ave	0.4256	0.3935		0.925	1.00	-7.5	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2603		1.80	2.00	-10.0	20.0
Pentachlorobiphenyl	Ave	0.2243	0.1991		1.78	2.00	-11.2	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1897		1.80	2.00	-9.9	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1470		2.66	3.00	-11.3	20.0
Octachlorobiphenyl	Ave	0.1517	0.1339		2.65	3.00	-11.7	20.0
Nonachlorobiphenyl	Ave	0.0363	0.0482		5.32	4.00	33.0	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0296		4.08	5.00	-18.5	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0424		4.28	5.00	-14.5	20.0

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Matrix: Solid Level: Low

GC Column (1): DB-5MS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	13DCB #	
SD-224-SS	680-102359-1	41	
SD-224-01	680-102359-2	52	
SD-224-02	680-102359-3	37	
SD-224-03	680-102359-4	81	
SD-223-SS	680-102359-5	34	
SD-223-01	680-102359-6	43	
SD-223-02	680-102359-7	67	
SD-226-SS	680-102359-8	5 X	1X
SD-226-01	680-102359-9	18 * X	5X
SD-226-02	680-102359-10	30	
SD-226-03	680-102359-11	76	
SD-225-SS	680-102359-12	39	
SD-225-01	680-102359-13	45	
SD-225-02	680-102359-14	34	
SD-225-03	680-102359-15	48	
SD-228-SS	680-102359-16	33	
SD-228-01	680-102359-17	18 X	5X
SD-228-02	680-102359-18	20 X	5X
SD-228-03	680-102359-19	33	
SD-234-SS	680-102359-20	0 D	10X
SD-234-01	680-102359-21	64	
SD-235-SS	680-102359-22	0 D	50X
SD-235-01	680-102359-23	0 D *	20X
SD-235-02	680-102359-24	55	
SD-235-03	680-102359-25	38	
SD-236-SS	680-102359-26	57	
SD-236-01	680-102359-27	65	
SD-236-02	680-102359-28	80	
SD-237-SS	680-102359-29	0 D	50X
SD-237-01	680-102359-30	0 D	10X
SD-237-02	680-102359-31	41	
SD-237-03	680-102359-32	47	
SD-Dup-03	680-102359-33	60	
SD-227-SS	680-102359-34	61 *	1X
SD-227-01	680-102359-35	47	OK

13DCB = Decachlorobiphenyl-13C12

QC LIMITS
30-130

Column to be used to flag recovery values

FORM II 680

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Matrix: Solid Level: Low

GC Column (1): DB-5MS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	13DCB #
SD-227-02	680-102359-36	61
	MB 680-336444/21-A	54
	MB 680-336450/16-A	59
	MB 680-337170/11-A	80
	MB 680-338912/18-A	72
	MB 680-339379/20-A	60
	LCS 680-336444/22-A	39
	LCS 680-336450/17-A	76
	LCS 680-337170/12-A	85 *
	LCS 680-338912/19-A	47
	LCS 680-339379/21-A	69
SD-224-SS MS	680-102359-1 MS	40
SD-223-02 MS	680-102359-7 MS	70
SD-236-02 MS	680-102359-28 MS	64
SD-224-SS MSD	680-102359-1 MSD	58 *
SD-223-02 MSD	680-102359-7 MSD	67
SD-236-02 MSD	680-102359-28 MSD	51

QC LIMITS

13DCB = Decachlorobiphenyl-13C12 30-130

Column to be used to flag recovery values

FORM II 680

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Matrix: Solid Level: Low Lab File ID: XG1306.D

Lab ID: LCS 680-336444/22-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	333	133	40	30-130	
Dichlorobiphenyl	66.7	26.9	40	30-130	
Heptachlorobiphenyl	200	93.2	47	40-140	
Hexachlorobiphenyl	133	64.1	48	40-140	
Monochlorobiphenyl	66.7	26.2	39	30-130	
Nonachlorobiphenyl	333	193	58	30-130	
Octachlorobiphenyl	200	91.9	46	40-140	
Pentachlorobiphenyl	133	64.2	48	40-140	
Tetrachlorobiphenyl	133	57.5	43	40-140	
Trichlorobiphenyl	66.7	29.3	44	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Matrix: Solid Level: Low Lab File ID: Fg0212.D

Lab ID: LCS 680-336450/17-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	333	264	79	30-130	
Dichlorobiphenyl	66.7	41.0	61	30-130	
Heptachlorobiphenyl	200	146	73	40-140	
Hexachlorobiphenyl	133	93.1	70	40-140	
Monochlorobiphenyl	66.7	39.2	59	30-130	
Nonachlorobiphenyl	333	338	101	30-130	
Octachlorobiphenyl	200	154	77	40-140	
Pentachlorobiphenyl	133	91.9	69	40-140	
Tetrachlorobiphenyl	133	85.3	64	40-140	
Trichlorobiphenyl	66.7	43.0	65	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Matrix: Solid Level: Low Lab File ID: Fg0707.D

Lab ID: LCS 680-337170/12-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	333	279	84	30-130	*
Dichlorobiphenyl	66.6	48.9	73	30-130	*
Heptachlorobiphenyl	200	159	80	40-140	*
Hexachlorobiphenyl	133	107	80	40-140	*
Monochlorobiphenyl	66.6	49.3	74	30-130	*
Nonachlorobiphenyl	333	340	102	30-130	*
Octachlorobiphenyl	200	168	84	40-140	*
Pentachlorobiphenyl	133	107	80	40-140	*
Tetrachlorobiphenyl	133	98.0	74	40-140	*
Trichlorobiphenyl	66.6	48.1	72	30-130	*

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Matrix: Solid Level: Low Lab File ID: XG1606.D

Lab ID: LCS 680-338912/19-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	997	522	52	30-130	
Dichlorobiphenyl	199	101	51	30-130	
Heptachlorobiphenyl	598	332	55	40-140	
Hexachlorobiphenyl	399	225	56	40-140	
Monochlorobiphenyl	199	91.4	46	30-130	
Nonachlorobiphenyl	997	731	73	30-130	
Octachlorobiphenyl	598	324	54	40-140	
Pentachlorobiphenyl	399	234	59	40-140	
Tetrachlorobiphenyl	399	212	53	40-140	
Trichlorobiphenyl	199	107	54	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Matrix: Solid Level: Low Lab File ID: XG2415.D

Lab ID: LCS 680-339379/21-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	333	247	74	30-130	
Dichlorobiphenyl	66.6	35.5	53	30-130	
Heptachlorobiphenyl	200	131	66	40-140	
Hexachlorobiphenyl	133	82.7	62	40-140	
Monochlorobiphenyl	66.6	34.1	51	30-130	
Nonachlorobiphenyl	333	364	109	30-130	
Octachlorobiphenyl	200	135	67	40-140	
Pentachlorobiphenyl	133	79.2	59	40-140	
Tetrachlorobiphenyl	133	74.6	56	40-140	
Trichlorobiphenyl	66.6	37.5	56	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Matrix: Solid Level: Low Lab File ID: XG1007.D

Lab ID: 680-102359-1 MS Client ID: SD-224-SS MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	1540	19 U	601	39	30-130	
Dichlorobiphenyl	307	8.0 U	160	52	30-130	
Heptachlorobiphenyl	922	490	1010	56	40-140	
Hexachlorobiphenyl	614	470	853	62	40-140	
Monochlorobiphenyl	307	4.4 U	152	49	30-130	
Nonachlorobiphenyl	1540	76 U	942	61	30-130	
Octachlorobiphenyl	922	61 J	502	48	40-140	
Pentachlorobiphenyl	614	430	764	54	40-140	
Tetrachlorobiphenyl	614	710	1170	75	40-140	
Trichlorobiphenyl	307	20 J	188	55	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Matrix: Solid Level: Low Lab File ID: XG1008.D

Lab ID: 680-102359-1 MSD Client ID: SD-224-SS MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
DCB Decachlorobiphenyl	1530	870	57	37	50	30-130	*
Dichlorobiphenyl	306	180	59	12	50	30-130	*
Heptachlorobiphenyl	918	1080	64	7	50	40-140	*
Hexachlorobiphenyl	612	868	64	2	50	40-140	*
Monochlorobiphenyl	306	164	54	8	50	30-130	*
Nonachlorobiphenyl	1530	1250	82	28	50	30-130	*
Octachlorobiphenyl	918	617	60	20	50	40-140	*
Pentachlorobiphenyl	612	820	63	7	50	40-140	*
Tetrachlorobiphenyl	612	1070	58	9	50	40-140	*
Trichlorobiphenyl	306	211	63	12	50	30-130	*

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Matrix: Solid Level: Low Lab File ID: XG1038.D

Lab ID: 680-102359-7 MS Client ID: SD-223-02 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	442	1.1 U	308	70	30-130	
Dichlorobiphenyl	88.5	0.47 U	58.2	66	30-130	
Heptachlorobiphenyl	265	6.0 J	210	77	40-140	
Hexachlorobiphenyl	177	4.5 J	140	76	40-140	
Monochlorobiphenyl	88.5	0.25 U	50.7	57	30-130	
Nonachlorobiphenyl	442	4.4 U	450	102	30-130	
Octachlorobiphenyl	265	0.70 U	202	76	40-140	
Pentachlorobiphenyl	177	13	147	76	40-140	
Tetrachlorobiphenyl	177	100	210	62	40-140	
Trichlorobiphenyl	88.5	7.0	70.1	71	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Matrix: Solid Level: Low Lab File ID: XG1039.D

Lab ID: 680-102359-7 MSD Client ID: SD-223-02 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
DCB Decachlorobiphenyl	442	296	67	4	50	30-130	
Dichlorobiphenyl	88.4	57.2	65	2	50	30-130	
Heptachlorobiphenyl	265	197	72	7	50	40-140	
Hexachlorobiphenyl	177	132	72	6	50	40-140	
Monochlorobiphenyl	88.4	48.4	55	5	50	30-130	
Nonachlorobiphenyl	442	416	94	8	50	30-130	
Octachlorobiphenyl	265	192	72	5	50	40-140	
Pentachlorobiphenyl	177	135	69	8	50	40-140	
Tetrachlorobiphenyl	177	198	55	6	50	40-140	
Trichlorobiphenyl	88.4	65.0	66	7	50	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Matrix: Solid Level: Low Lab File ID: Fg0213.D

Lab ID: 680-102359-28 MS Client ID: SD-236-02 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	402	1.0 U	270	67	30-130	
Dichlorobiphenyl	80.4	0.42 U	45.3	56	30-130	
Heptachlorobiphenyl	241	0.60 U	161	67	40-140	
Hexachlorobiphenyl	161	0.40 U	99.2	62	40-140	
Monochlorobiphenyl	80.4	0.23 U	42.9	53	30-130	
Nonachlorobiphenyl	402	4.0 U	350	87	30-130	
Octachlorobiphenyl	241	0.64 U	159	66	40-140	
Pentachlorobiphenyl	161	0.41 U	97.6	61	40-140	
Tetrachlorobiphenyl	161	0.54 J	103	64	40-140	
Trichlorobiphenyl	80.4	0.20 U	47.6	59	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Matrix: Solid Level: Low Lab File ID: Fg0214.D

Lab ID: 680-102359-28 MSD Client ID: SD-236-02 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
DCB Decachlorobiphenyl	402	210	52	25	50	30-130	
Dichlorobiphenyl	80.5	35.6	44	24	50	30-130	
Heptachlorobiphenyl	241	131	54	21	50	40-140	
Hexachlorobiphenyl	161	79.6	49	22	50	40-140	
Monochlorobiphenyl	80.5	33.3	41	25	50	30-130	
Nonachlorobiphenyl	402	272	68	25	50	30-130	
Octachlorobiphenyl	241	129	53	21	50	40-140	
Pentachlorobiphenyl	161	75.9	47	25	50	40-140	
Tetrachlorobiphenyl	161	76.0	47	30	50	40-140	
Trichlorobiphenyl	80.5	37.4	46	24	50	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Instrument ID: CMSX Calibration Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calibration End Date: 07/08/2014 15:58

Calibration ID: 31919

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		82146	10.37	111835	16.51		
UPPER LIMIT 1.5X		123219	10.87	167753	17.01		
LOWER LIMIT 50%		41073	9.87	55918	16.01		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-338065/9		84988	10.37	88856	16.51		
CCVIS 680-338412/4		86819	10.38	130449	16.51		
680-102359-1 MS	SD-224-SS MS	108119	10.38	125009	16.51		
680-102359-1 MSD	SD-224-SS MSD	113906	10.38	134326	16.51		
680-102359-1	SD-224-SS	107560	10.38	129154	16.51		
CCV 680-338412/20		80906	10.38	108335	16.51		
CCVIS 680-338586/4		88499	10.38	128461	16.51		
680-102359-32	SD-237-03	79260	10.38	104124	16.51		
MB 680-336444/21-A		78790	10.38	106159	16.51		
680-102359-7 MS	SD-223-02 MS	77430	10.38	112663	16.51		
680-102359-7 MSD	SD-223-02 MSD	71990	10.38	104490	16.51		
680-102359-7	SD-223-02	87723	10.38	120614	16.51		
680-102359-8	SD-226-SS	83087	10.38	119853	16.51		
CCV 680-338586/22		74923	10.38	121188	16.51		
CCVIS 680-338830/4		76464	10.29	116578	16.41		
LCS 680-336444/22-A		94277	10.29	116089	16.41		
680-102359-23	SD-235-01	101818	10.29	134545	16.41		
680-102359-24	SD-235-02	97893	10.29	136319	16.41		
680-102359-29	SD-237-SS	82430	10.29	111197	16.41		
680-102359-2	SD-224-01	69290	10.29	96162	16.41		
680-102359-3	SD-224-02	88795	10.29	131053	16.42		
680-102359-4	SD-224-03	86085	10.29	116828	16.41		
680-102359-6	SD-223-01	88608	10.29	125758	16.41		
680-102359-9	SD-226-01	103168	10.29	141765	16.41		
680-102359-10	SD-226-02	95547	10.29	125325	16.42		
680-102359-11	SD-226-03	79237	10.29	104516	16.41		
CCV 680-338830/22		76454	10.29	119149	16.41		
CCVIS 680-338831/4		78618	10.29	119625	16.41		
680-102359-15	SD-225-03	74807	10.29	101141	16.41		
680-102359-17	SD-228-01	75558	10.29	100678	16.41		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Instrument ID: CMSX Calibration Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calibration End Date: 07/08/2014 15:58

Calibration ID: 31919

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		82146	10.37	111835	16.51		
UPPER LIMIT		123219	10.87	167753	17.01		
LOWER LIMIT		41073	9.87	55918	16.01		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102359-18	SD-228-02	88111	10.29	122932	16.42		
680-102359-19	SD-228-03	76462	10.29	97576	16.41		
680-102359-21	SD-234-01	86379	10.29	116035	16.41		
CCV 680-338831/21		86965	10.29	129566	16.41		
CCVIS 680-339278/4		103968	10.23	144255	16.36		
LCS 680-338912/19-A		82669	10.23	83557	16.36		
MB 680-338912/18-A		75728	10.23	84284	16.36		
680-102359-33	SD-Dup-03	78993	10.23	83039	16.36		
680-102359-34	SD-227-SS	69413	10.23	84835	16.36		
680-102359-35	SD-227-01	75528	10.23	77898	16.36		
680-102359-36	SD-227-02	79442	10.23	79636	16.36		
CCV 680-339278/23		83397	10.23	105135	16.36		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Sample No.: CCVIS 680-338412/4 Date Analyzed: 07/10/2014 10:45

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG1004.D Heated Purge: (Y/N) N

Calibration ID: 31919

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		86819	10.38	130449	16.51		
UPPER LIMIT		112865	10.88	169584	17.01		
LOWER LIMIT		60773	9.88	91314	16.01		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102359-1 MS	SD-224-SS MS	108119	10.38	125009	16.51		
680-102359-1 MSD	SD-224-SS MSD	113906	10.38	134326	16.51		
680-102359-1	SD-224-SS	107560	10.38	129154	16.51		
CCV 680-338412/20		80906	10.38	108335	16.51		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Sample No.: CCVIS 680-338586/4 Date Analyzed: 07/10/2014 20:51

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG1025.D Heated Purge: (Y/N) N

Calibration ID: 31919

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		88499	10.38	128461	16.51		
UPPER LIMIT		115049	10.88	166999	17.01		
LOWER LIMIT		61949	9.88	89923	16.01		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102359-32	SD-237-03	79260	10.38	104124	16.51		
MB 680-336444/21-A		78790	10.38	106159	16.51		
680-102359-7 MS	SD-223-02 MS	77430	10.38	112663	16.51		
680-102359-7 MSD	SD-223-02 MSD	71990	10.38	104490	16.51		
680-102359-7	SD-223-02	87723	10.38	120614	16.51		
680-102359-8	SD-226-SS	83087	10.38	119853	16.51		
CCV 680-338586/22		74923	10.38	121188	16.51		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Instrument ID: CMSF Calibration Start Date: 07/02/2014 17:13

GC Column: HP-5MS ID: 0.25(mm) Calibration End Date: 07/02/2014 19:09

Calibration ID: 31767

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		81597	11.59	120611	17.82		
UPPER LIMIT		122396	12.09	180917	18.32		
LOWER LIMIT		40799	11.09	60306	17.32		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-337435/9		71483	11.61	90364	17.82		
MB 680-336450/16-A		86302	11.59	134082	17.82		
LCS 680-336450/17-A		85948	11.59	132678	17.82		
680-102359-28 MS	SD-236-02 MS	100434	11.61	164120	17.84		
680-102359-28 MSD	SD-236-02 MSD	83515	11.61	126440	17.84		
680-102359-28	SD-236-02	68872	11.61	106874	17.82		
680-102359-25	SD-235-03	85521	11.61	134819	17.86		
680-102359-26	SD-236-SS	74585	11.61	111358	17.84		
CCV 680-337435/22		82213	11.61	130071	17.84		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Instrument ID: CMSF Calibration Start Date: 07/06/2014 13:56

GC Column: HP-5MS ID: 0.25(mm) Calibration End Date: 07/06/2014 15:52

Calibration ID: 31869

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		32586	11.44	49110	17.66		
UPPER LIMIT		48879	11.94	73665	18.16		
LOWER LIMIT		16293	10.94	24555	17.16		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-337751/9		35720	11.44	49992	17.66		
CCVIS 680-337937/4		38199	11.37	63851	17.58		
MB 680-337170/11-A		48585	11.37	64660	17.59		
LCS 680-337170/12-A		49267*	11.37	68087	17.58		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Sample No.: CCVIS 680-337937/4 Date Analyzed: 07/07/2014 16:47

Instrument ID: CMSF GC Column: HP-5MS ID: 0.25(mm)

Lab File ID (Standard): Fg0704.D Heated Purge: (Y/N) N

Calibration ID: 31869

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		38199	11.37	63851	17.58		
UPPER LIMIT		49659	11.87	83006	18.08		
LOWER LIMIT		26739	10.87	44696	17.08		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-337170/11-A		48585	11.37	64660	17.59		
LCS 680-337170/12-A		49267*	11.37	68087	17.58		
CCV 680-337937/21		44464	11.37	66808	17.58		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Sample No.: CCVIS 680-338830/4 Date Analyzed: 07/13/2014 20:53

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG1304.D Heated Purge: (Y/N) N

Calibration ID: 31919

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		76464	10.29	116578	16.41		
UPPER LIMIT		99403	10.79	151551	16.91		
LOWER LIMIT		53525	9.79	81605	15.91		
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 680-336444/22-A		94277	10.29	116089	16.41		
680-102359-23	SD-235-01	101818	10.29	134545	16.41		
680-102359-24	SD-235-02	97893	10.29	136319	16.41		
680-102359-29	SD-237-SS	82430	10.29	111197	16.41		
680-102359-2	SD-224-01	69290	10.29	96162	16.41		
680-102359-3	SD-224-02	88795	10.29	131053	16.42		
680-102359-4	SD-224-03	86085	10.29	116828	16.41		
680-102359-6	SD-223-01	88608	10.29	125758	16.41		
680-102359-9	SD-226-01	103168	10.29	141765	16.41		
680-102359-10	SD-226-02	95547	10.29	125325	16.42		
680-102359-11	SD-226-03	79237	10.29	104516	16.41		
CCV 680-338830/22		76454	10.29	119149	16.41		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Sample No.: CCVIS 680-338831/4 Date Analyzed: 07/14/2014 07:52

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG1327.D Heated Purge: (Y/N) N

Calibration ID: 31919

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		78618	10.29	119625	16.41		
UPPER LIMIT		102203	10.79	155513	16.91		
LOWER LIMIT		55033	9.79	83738	15.91		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102359-15	SD-225-03	74807	10.29	101141	16.41		
680-102359-17	SD-228-01	75558	10.29	100678	16.41		
680-102359-18	SD-228-02	88111	10.29	122932	16.42		
680-102359-19	SD-228-03	76462	10.29	97576	16.41		
680-102359-21	SD-234-01	86379	10.29	116035	16.41		
CCV 680-338831/21		86965	10.29	129566	16.41		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Sample No.: CCVIS 680-339278/4 Date Analyzed: 07/16/2014 12:14

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG1604.D Heated Purge: (Y/N) N

Calibration ID: 31919

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		103968	10.23	144255	16.36		
UPPER LIMIT		135158	10.73	187532	16.86		
LOWER LIMIT		72778	9.73	100979	15.86		
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 680-338912/19-A		82669	10.23	83557	16.36		
MB 680-338912/18-A		75728	10.23	84284	16.36		
680-102359-33	SD-Dup-03	78993	10.23	83039	16.36		
680-102359-34	SD-227-SS	69413	10.23	84835	16.36		
680-102359-35	SD-227-01	75528	10.23	77898	16.36		
680-102359-36	SD-227-02	79442	10.23	79636	16.36		
CCV 680-339278/23		83397	10.23	105135	16.36		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Instrument ID: CMSX Calibration Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calibration End Date: 07/20/2014 00:46

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		160628	10.11	229918	16.23		
UPPER LIMIT		240942	10.61	344877	16.73		
LOWER LIMIT		80314	9.61	114959	15.73		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-339932/9		166018	10.11	232985	16.22		
CCVIS 680-340817/4		127048	9.98	129555	16.08		
MB 680-339379/20-A		113469	9.98	109556	16.08		
LCS 680-339379/21-A		118660	9.98	129222	16.08		
680-102359-5	SD-223-SS	144426	9.98	165001	16.09		
680-102359-12	SD-225-SS	147768	9.98	161248	16.09		
CCV 680-340817/24		139441	9.98	163441	16.09		
680-102359-14	SD-225-02	139274	10.00	167791	16.13		
680-102359-16	SD-228-SS	128435	9.98	148433	16.09		
680-102359-27	SD-236-01	122332	9.98	137731	16.09		
680-102359-31	SD-237-02	148379	10.00	171641	16.11		
CCV 680-340819/19		139435	9.98	153028	16.09		
CCVIS 680-340971/4		126429	9.98	126053	16.09		
680-102359-13	SD-225-01	139196	9.98	138655	16.09		
680-102359-20	SD-234-SS	140847	9.98	144615	16.09		
680-102359-22	SD-235-SS	143500	9.98	155534	16.09		
CCV 680-340971/25		127070	9.98	135551	16.09		
CCVIS 680-340977/4		124896	9.98	130014	16.09		
680-102359-30	SD-237-01	126132	9.98	131032	16.09		
CCV 680-340977/19		139321	9.98	145026	16.09		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

10

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Sample No.: CCVIS 680-340817/4 Date Analyzed: 07/24/2014 21:26

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG2404.D Heated Purge: (Y/N) N

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		127048	9.98	129555	16.08		
UPPER LIMIT		165162	10.48	168422	16.58		
LOWER LIMIT		88934	9.48	90689	15.58		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-339379/20-A		113469	9.98	109556	16.08		
LCS 680-339379/21-A		118660	9.98	129222	16.08		
680-102359-5	SD-223-SS	144426	9.98	165001	16.09		
680-102359-12	SD-225-SS	147768	9.98	161248	16.09		
CCV 680-340817/24		139441	9.98	163441	16.09		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

2

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Sample No.: CCVIS 680-340819/4 Date Analyzed: 07/25/2014 09:38

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG2429.D Heated Purge: (Y/N) N

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		132233	9.98	151205	16.09		
UPPER LIMIT		171903	10.48	196567	16.59		
LOWER LIMIT		92563	9.48	105844	15.59		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102359-14	SD-225-02	139274	10.00	167791	16.13		
680-102359-16	SD-228-SS	128435	9.98	148433	16.09		
680-102359-27	SD-236-01	122332	9.98	137731	16.09		
680-102359-31	SD-237-02	148379	10.00	171641	16.11		
CCV 680-340819/19		139435	9.98	153028	16.09		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

4

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Sample No.: CCVIS 680-340971/4 Date Analyzed: 07/25/2014 19:30

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG2504.D Heated Purge: (Y/N) N

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		126429	9.98	126053	16.09		
UPPER LIMIT		164358	10.48	163869	16.59		
LOWER LIMIT		88500	9.48	88237	15.59		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102359-13	SD-225-01	139196	9.98	138655	16.09		
680-102359-20	SD-234-SS	140847	9.98	144615	16.09		
680-102359-22	SD-235-SS	143500	9.98	155534	16.09		
CCV 680-340971/25		127070	9.98	135551	16.09		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

3

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102359-1

SDG No.: 680102359-1

Sample No.: CCVIS 680-340977/4 Date Analyzed: 07/26/2014 07:55

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG2530.D Heated Purge: (Y/N) N

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		124896	9.98	130014	16.09		
UPPER LIMIT		162365	10.48	169018	16.59		
LOWER LIMIT		87427	9.48	91010	15.59		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102359-30	SD-237-01	126132	9.98	131032	16.09		
CCV 680-340977/19		139321	9.98	145026	16.09		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

Sample Calc

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102359-1

SDG No.: 680102359-1

Client Sample ID: SD-235-SS | Lab Sample ID: 680-102359-22

Matrix: Solid | Lab File ID: XG2510.D

Analysis Method: 680 | Date Collected: 06/13/2014 11:00

Extract. Method: 680 | Date Extracted: 07/23/2014 08:38

Sample wt/vol: 10.07(g) | Date Analyzed: 07/25/2014 22:22

Con. Extract Vol.: 1(mL) | Dilution Factor: 50

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 62.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340971 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	330	U	6700	330
25512-42-9	Dichlorobiphenyl	140	U	1300	140
28655-71-2	Heptachlorobiphenyl	53000		3900	200
26601-64-9	Hexachlorobiphenyl	78000		2600	130
27323-18-8	Monochlorobiphenyl	75	U	1300	75
53742-07-7	Nonachlorobiphenyl	1300	U	6700	1300
55722-26-4	Octachlorobiphenyl	9100		3900	210
25429-29-2	Pentachlorobiphenyl	29000		2600	130
26914-33-0	Tetrachlorobiphenyl	97000		2600	150
25323-68-6	Trichlorobiphenyl	5400		1300	67

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

SAMPLE ID **SD-235-SS**

SAMPLE CALC for tetrachlorobiphenyl

IS AREA	DILUTION	COMPOUND OF INTEREST AREA	IS AMOUNT (ug/mL)	Final Extract Volume (mL)	AVE RRF	CONCENTRATION PPB
143500	50	409261	0.75	1	0.2893	96864.05

Sample Weight (g)
10.07

Percent Solids
37.9

Report Date: 28-Jul-2014 14:49:13 Chrom Revision: 2.2 24-Jul-2014 14:43:32

Sample Calculation

TestAmerica Savannah
Target Compound Quantitation Report

Data File:	\\SAVCHROM\ChromData\CMSX\20140725-11341.b\XG2510.D				
Lims ID:	~~680-102359-~~A-22-B	Lab Sample ID:	680-102359-22		
Client ID:	SD-235-SS				
Sample Type:	Client				
Inject. Date:	25-Jul-2014 22:22:30	ALS Bottle#:	9	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	50.0000		
Sample Info:	102359-A-22-B DL=50				
Misc. Info.:	680-0011341-010				
Operator ID:	nmd	Instrument ID:	CMSX		
Method:	\\SAVCHROM\ChromData\CMSX\20140725-11341.b\680_CMSX.m				
Limit Group:	680				
Last Update:	28-Jul-2014 14:49:13	Calib Date:	20-Jul-2014 00:46:30		
Integrator:	RTE	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\SAVCHROM\ChromData\CMSX\20140719-11146.b\XG1913.D				
Column 1 :			Det: MS SCAN		
Process Host:	XAWRK020				
First Level Reviewer: davisn		Date:	28-Jul-2014 14:49:13		

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
* 5 Phenanthrene-d10	188	9.981	9.981	0.0	65	143500	0.7500	
A 25 Trichlorobiphenyl	256	10.870	9.556 -	12.184	0	33465	0.4110	
A 26 Tetrachlorobiphenyl	292	12.352	10.652 -	14.052	0	409261	7.39	
A 27 Pentachlorobiphenyl	326	13.748	11.909 -	15.587	0	95882	2.23	
A 28 1,1'-Biphenyl, hexachloro-	360	15.037	13.086 -	16.988	0	239295	5.94	
* 15 Chrysene-d12	240	16.094	16.094	0.0	100	155534	0.7500	
A 29 1,1'-Biphenyl, heptachloro-	394	16.159	14.698 -	17.620	0	128561	4.05	
A 30 1,1'-Biphenyl, octachloro-	430	17.239	16.173 -	18.305	0	20123	0.6933	
A 31 1,1'-Biphenyl, nonachloro-	464	18.291	17.739 -	18.842	0	550	0.0793	

Reagents:

SM-680istd_00028 Amount Added: 30.00 Units: uL Run Reagent

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Sample Calculation

Lab Name: TestAmerica Savannah Job No.: 680-102359-1 Analy Batch No.: 339932

SDG No.: 680102359-1

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2014 22:52 Calibration End Date: 07/20/2014 00:46 Calibration ID: 32129

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-339932/8	XG1913.D
Level 2	IC 680-339932/7	XG1912.D
Level 3	ICISAV 680-339932/4	XG1909.D
Level 4	IC 680-339932/6	XG1911.D
Level 5	IC 680-339932/5	XG1910.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.8353	0.8456	0.9098	0.8813	0.8734	Ave		0.8691				3.4		20.0			
Dichlorobiphenyl	0.5776	0.5823	0.6122	0.6067	0.5987	Ave		0.5955				2.5		20.0			
Trichlorobiphenyl	0.3996	0.4135	0.4348	0.4389	0.4410	Ave		0.4256				4.3		20.0			
~~PCB-104~~			0.3302			Ave		0.3302						30.0			
Tetrachlorobiphenyl	0.2755	0.2817	0.3033	0.2909	0.2951	Ave		0.2893				3.8		20.0			
Pentachlorobiphenyl	0.2123	0.2203	0.2262	0.2270	0.2357	Ave		0.2243				3.9		20.0			
PCB-77			0.4767			Ave		0.4767						30.0			
Hexachlorobiphenyl	0.1966	0.2022	0.2225	0.2132	0.2185	Ave		0.2106				5.2		20.0			
Heptachlorobiphenyl	0.1540	0.1656	0.1696	0.1700	0.1695	Ave		0.1657				4.1		20.0			
Octachlorobiphenyl	0.1373	0.1488	0.1535	0.1521	0.1669	Ave		0.1517				7.0		20.0			
PCB-208			0.0569			Ave		0.0569						30.0			
Nonachlorobiphenyl			0.0443			Ave		0.0363				11.0		20.0			
DCB Decachlorobiphenyl	0.0321	0.0328	0.0379	0.0370	0.0414	Ave		0.0363				11.0		20.0			
Decachlorobiphenyl-13C12	0.0407	0.0484	0.0517	0.0504	0.0567	Ave		0.0496				12.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO:	**M. MARTIN**	**DATE:**	**AUGUST 28, 2014**
FROM:	**A. COGNETTI**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PCB HOMOLOGUES**
LOCKHEED MIDDLE RIVER COMPLEX (MRC) SEDIMENT INVESTIGATION
SAMPLE DELIVERY GROUP (SDG) 680-102468-1

SAMPLES: 49 / Sediment / PCB Homologues

SD-238-01	SD-238-02	SD-238-03	SD-238-SS	SD-239-01
SD-239-02	SD-239-03	SD-239-SS	SD-240-01	SD-240-02
SD-240-03	SD-240-SS	SD-241-01	SD-241-02	SD-241-03
SD-241-SS	SD-242-01	SD-242-02	SD-242-03	SD-242-SS
SD-243-01	SD-243-02	SD-243-03	SD-243-SS	SD-244-01
SD-244-02	SD-244-03	SD-244-SS	SD-245-01	SD-245-02
SD-245-03	SD-245-SS	SD-246-01	SD-246-02	SD-246-03
SD-246-SS	SD-247-01	SD-247-02	SD-247-03	SD-247-SS
SD-248-01	SD-248-02	SD-248-03	SD-248-SS	SD-249-01
SD-249-02	SD-249-03	SD-249-SS	SD-Dup-04	

Overview

The sample set for Lockheed MRC Sediment Investigation, SDG 680-102468-1, consisted of forty-nine (49) sediment samples. There is one (1) field duplicate sample pair included in this SDG: SD-Dup-04 and SD-241-02.

The samples were collected by Tetra Tech on June 17, 2014 and analyzed by Test America. All analyses were conducted in accordance with EPA Method 680 for PCBs analytical and reporting protocols.

The data contained in this SDG was validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, blank spike/blank spike duplicate results, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major Problems

- The surrogate recovery of decachlorobiphenyl-13C12 was less than 10% in sample SD-248-01. The sample also had low MS/MSD %Rs. The nondetected results were qualified as rejected (UR) and the detected results were qualified as estimated (J).

Minor Problems

- The surrogate recovery of decachlorobiphenyl-13C12 was outside of quality control limits in several samples. According to the laboratory case narrative, the laboratory re-extracted and re-analyzed all samples with noncompliant recoveries. However, the re-extracted results were not provided by the laboratory. The following table identifies the samples affected by the surrogate recovery noncompliance and the validation action.

Sample	Dilution Factor	Surrogate %R	Laboratory Action	Validation Action
SD-239-01	1X	25%	Re-extracted and re-analyzed with similar results	J, UJ
SD-238-01	1X	10%	Re-extracted and re-analyzed with similar results	J, UJ
SD-238-02	1X	27%	Re-extracted and re-analyzed with similar results	J, UJ
SD-240-SS	1X	21%	Re-extracted and re-analyzed with similar results	J, UJ
SD-241-SS	1X	27%	Re-extracted and re-analyzed with similar results	J, UJ
SD-242-SS	1X	16%	Re-extracted and re-analyzed with similar results	J, UJ
SD-242-01	1X	28%	Re-extracted and re-analyzed with similar results	J, UJ
SD-244-01	5X	15%	Re-extracted and re-analyzed with similar results	J, UJ
SD-244-02	2X	19%	Re-extracted and re-analyzed with similar results	J, UJ
SD-245-SS	1X	13%	Re-extracted and re-analyzed with similar results	J, UJ
SD-245-02	2X	17%	Re-extracted and re-analyzed with similar results	J, UJ
SD-246-02	1X	13%	Re-extracted and re-analyzed with similar results	J, UJ
SD-247-01	5X	21%	Re-extracted and re-analyzed with similar results	J, UJ

Sample	Dilution Factor	Surrogate %R	Laboratory Action	Validation Action
SD-248-SS	1X	20%	Re-extracted and re-analyzed with similar results	J, UJ

- The matrix spike/ matrix spike duplicate (MS/MSD) percent recoveries (%Rs) of all PCB homologs were less than the lower quality control limit in spike sample SD-247-02. The detected and nondetected results in sample SD-247-02 were qualified as estimated (J) and (UJ), respectively.

- The MS %Rs and relative percent differences for all PCB homologs were outside quality control limits in spiked sample SD-248-01. The MS %Rs were less than the lower quality control limit and the RPDs exceeded quality control limits. The MSD %Rs for decachlorobiphenyl, heptachlorobiphenyl, monochlorobiphenyl, and octachlorobiphenyl were less than the lower quality control limit. The MSD %R of tetrachlorobiphenyl exceeded quality control limits. The detected results in sample SD-248-01 were qualified as estimated (J). Nondetected results were qualified for a more severe surrogate recovery noncompliance.

- The internal standard areas of chrysene-d12 and phenanthrene-d10 were less than 50% of the IC Mean Area on 7/18/2104 and less than the 70% quality control limit in the CCV in samples SD-242-SS and SD-243-01. The detected and nondetected results quantitated using this internal standard were qualified as estimated (J) and (UJ), respectively.

- The internal standard area of chrysene-d12 was less than the 70% quality control limit in the CCV for several samples. The affected samples were as follows: SD-239-SS, SD-239-02, SD-239-03, SD-238-03, SD-241-SS, SD-241-03, SD-242-01, SD-247-02, SD-243-SS and SD-243002. The detected and nondetected results quantitated using this internal standard were qualified as estimated (J) and (UJ), respectively.

- The internal standard area of chrysene-d12 was less than 50% from the mean IC in sample SD-248-03. The detected and nondetected results were qualified as estimated (J) and (UJ), respectively.

- Samples SD-238-01, SD-238-SS, SD-239-SS, SD-240-SS, SD-241-SS, SD-242-02, SD-242-02, SD-242-SS, SD-245-01, SD-245-02, SD-245-03, SD-245-SS and SD-248-SS contained less than 30% solids. The detected and nondetected results were qualified as estimated (J) and (UJ), respectively.

- Field duplicate imprecision was noted in the field duplicate pair SD-Dup-04 and SD-241-02 for several analytes. The RPDs were greater than the 50% quality control limit for heptachlorobiphenyl, hexachlorobiphenyl, pentachlorobiphenyl and tetrachlorobiphenyl. The detected results of the aforementioned analytes were qualified as estimated (J).

Notes

Several samples had surrogate recoveries outside quality control limits. No action was taken as indicated in the table because of sample dilution.

Sample	Dilution Factor	Surrogate %R	Laboratory Action	Validation Action
SD-240-01	20X	0%	Surrogate diluted out, no action	No action
SD-241-01	10X	0%	Surrogate diluted out, no	No action

Sample	Dilution Factor	Surrogate %R	Laboratory Action	Validation Action
			action	
SD-242-02	10X	0%	Surrogate diluted out, no action	No action
SD-244-SS	20X	0%	Surrogate diluted out, no action	No action
SD-245-01	19X	0%	Surrogate diluted out, no action	No action
SD-246-SS	50X	0%	Surrogate diluted out, no action	No action
SD-246-01	20X	0%	Surrogate diluted out, no action	No action
SD-247-SS	10X	0%	Surrogate diluted out, no action	No action
SD-247-SS	10X	0%	Surrogate diluted out, no action	No action
SD-247-03	10X	0%	Surrogate diluted out, no action	No action
SD-247-03	10X	0%	Surrogate diluted out, no action	No action
SD-249-01	50X	0%	Surrogate diluted out, no action	No action

The laboratory control sample (LCS) percent recovery (%R) of nonachlorobiphenyl was greater than the upper quality control limit in batches 680-338581 and 680-340491. No action was taken on the nondetected nonachlorobiphenyl results in the affected samples.

In spiked sample SD-242-02, the RPDs for all analytes were greater than the upper quality control limit. In addition, the MS %Rs for all analytes were outside quality control limits except for heptachlorobiphenyl and nonachlorobiphenyl. The MSD %Rs for heptachlorobiphenyl, hexachlorobiphenyl, pentachlorobiphenyl and trichlorobiphenyl were outside quality control limits. No action was taken because the MS/MSD sample was diluted 10X for analysis.

The laboratory reported non-detected sample results to the Method Detection Limit (MDL).

EXECUTIVE SUMMARY

Laboratory Performance Issues: The surrogate recovery of decachlorobiphenyl-13C12 was outside of quality control limits in several samples. The internal standard areas were outside quality control limits in several samples.

Other Factors Affecting Data Quality: Several samples contained less than 30% solids. MS/MSD noncompliances were noted in samples SD-247-02 and SD-248-01. Field duplicate imprecision was noted in the field duplicate pair SD-Dup-04 and SD-241-02. Positive results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J).

The data for these analyses were reviewed with reference to EPA Method 680 and the USEPA National Functional Guidelines for Organic Data Validation (June 2008).

Ann Cognetti

Tetra Tech
Ann Cognetti
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:

Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 05220	NSAMPLE	SD-238-01			SD-238-02			SD-238-03			SD-238-SS		
SDG: 680-102468-1	LAB_ID	680-102468-6			680-102468-7			680-102468-8			680-102468-5		
FRACTION: PCB	SAMP_DATE	6/17/2014			6/17/2014			6/17/2014			6/17/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	23.5			35.3			61.2			20.2		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		11	UJ	RY	7	UJ	R	4	UJ	N	12	UJ	Y
DICHLOROBIPHENYLS		4.4	UJ	RY	3	UJ	R	1.7	U		5.1	UJ	Y
HEPTACHLOROBIPHENYLS		13	J	PRY	180	J	R	2.4	UJ	N	7.3	UJ	Y
HEXACHLOROBIPHENYL		40	J	PRY	250	J	R	1.6	U		4.8	UJ	Y
MONOCHLOROBIPHENYLS		2.4	UJ	RY	1.6	UJ	R	0.92	U		2.8	UJ	Y
NONACHLOROBIPHENYLS		42	UJ	RY	28	UJ	R	16	UJ	N	48	UJ	Y
OCTACHLOROBIPHENYLS		6.7	UJ	RY	41	J	PR	2.6	UJ	N	7.8	UJ	Y
PENTACHLOROBIPHENYLS		6.4	J	PRY	280	J	R	1.6	U		7.2	J	PY
TETRACHLOROBIPHENYLS		8.6	J	PRY	660	J	R	33			43	J	PY
TRICHLOROBIPHENYLS		2.2	UJ	RY	29	J	R	3	J	P	6.1	J	PY

PROJ_NO: 05220	NSAMPLE	SD-239-01			SD-239-02			SD-239-03			SD-239-SS		
SDG: 680-102468-1	LAB_ID	680-102468-2			680-102468-3			680-102468-4			680-102468-1		
FRACTION: PCB	SAMP_DATE	6/17/2014			6/17/2014			6/17/2014			6/17/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	30.9			37.9			53.8			22.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		7.9	UJ	R	6.5	UJ	N	4.6	UJ	N	11	UJ	NY
DICHLOROBIPHENYLS		5	J	PR	2.7	U		1.9	U		4.5	UJ	Y
HEPTACHLOROBIPHENYLS		150	J	R	3.9	UJ	N	2.8	UJ	N	310	J	NY
HEXACHLOROBIPHENYL		73	J	R	4	J	P	1.8	U		270	J	Y
MONOCHLOROBIPHENYLS		1.8	UJ	R	1.5	U		1.1	U		2.4	UJ	Y
NONACHLOROBIPHENYLS		32	UJ	R	26	UJ	N	18	UJ	N	42	UJ	NY
OCTACHLOROBIPHENYLS		16	J	PR	4.1	UJ	N	2.9	UJ	N	52	J	NPY
PENTACHLOROBIPHENYLS		170	J	R	15	J	P	1.9	U		400	J	Y
TETRACHLOROBIPHENYLS		2000	J	R	9.1	J	P	18	J	P	1700	J	Y
TRICHLOROBIPHENYLS		190	J	R	1.3	U		1.3	J	P	140	J	Y

PROJ_NO: 05220	NSAMPLE	SD-240-01			SD-240-02			SD-240-03			SD-240-SS		
SDG: 680-102468-1	LAB_ID	680-102468-10			680-102468-11			680-102468-12			680-102468-9		
FRACTION: PCB	SAMP_DATE	6/17/2014			6/17/2014			6/17/2014			6/17/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	35.5			33.0			54.4			26.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		140	U		7.4	U		4.5	U		9.5	UJ	RY
DICHLOROBIPHENYLS		58	U		3.9	J	P	1.9	U		4	UJ	RY
HEPTACHLOROBIPHENYLS		8900			290			26	J	P	420	J	RY
HEXACHLOROBIPHENYL		12000			340			61			590	J	RY
MONOCHLOROBIPHENYLS		32	U		1.7	U		1	U		2.2	UJ	RY
NONACHLOROBIPHENYLS		550	U		30	U		18	U		38	UJ	RY
OCTACHLOROBIPHENYLS		1400	J	P	63	J	P	2.9	U		110	J	PRY
PENTACHLOROBIPHENYLS		15000			750			110			890	J	RY
TETRACHLOROBIPHENYLS		59000			3000			390			2700	J	RY
TRICHLOROBIPHENYLS		4300			200			21			130	J	RY

PROJ_NO: 05220	NSAMPLE	SD-241-01			SD-241-02			SD-241-03			SD-241-SS		
SDG: 680-102468-1	LAB_ID	680-102468-14			680-102468-15			680-102468-16			680-102468-13		
FRACTION: PCB	SAMP_DATE	6/17/2014			6/17/2014			6/17/2014			6/17/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	32.2			43.3			47.9			23.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		77	U		5.7	U		5.2	UJ	N	10	UJ	NRY
DICHLOROBIPHENYLS		33	U		2.5	J	P	2.2	U		4.3	UJ	RY
HEPTACHLOROBIPHENYLS		26000			370	J	G	3.1	UJ	N	920	J	NRY
HEXACHLOROBIPHENYL		25000			390	J	G	9.7	J	P	910	J	RY
MONOCHLOROBIPHENYLS		18	U		1.3	U		1.2	U		2.3	UJ	RY
NONACHLOROBIPHENYLS		310	U		23	U		21	UJ	N	40	UJ	NRY
OCTACHLOROBIPHENYLS		1100			66	J	P	3.3	UJ	N	230	J	NRY
PENTACHLOROBIPHENYLS		11000			660	J	G	33	J	P	1100	J	RY
TETRACHLOROBIPHENYLS		56000			3500	J	G	250			2800	J	RY
TRICHLOROBIPHENYLS		3000			270			19	J	P	120	J	RY

PROJ_NO: 05220	NSAMPLE	SD-242-01			SD-242-02			SD-242-03			SD-242-SS		
SDG: 680-102468-1	LAB_ID	680-102468-19			680-102468-20			680-102468-21			680-102468-18		
FRACTION: PCB	SAMP_DATE	6/17/2014			6/17/2014			6/17/2014			6/17/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	23.0			29.5			38.9			21.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		11	UJ	NRY	84	UJ	Y	13	U		12	UJ	NRY
DICHLOROBIPHENYLS		4.5	UJ	RY	35	UJ	Y	5.4	U		4.9	UJ	RY
HEPTACHLOROBIPHENYLS		280	J	NRY	1300	J	Y	1400			52	J	NPRY
HEXACHLOROBIPHENYL		340	J	RY	1300	J	Y	1700			91	J	PRY
MONOCHLOROBIPHENYLS		2.5	UJ	RY	19	UJ	Y	2.9	U		2.7	UJ	RY
NONACHLOROBIPHENYLS		43	UJ	NRY	330	UJ	Y	50	U		46	UJ	NRY
OCTACHLOROBIPHENYLS		17	J	NPRY	54	UJ	Y	180			7.5	UJ	NRY
PENTACHLOROBIPHENYLS		240	J	RY	5900	J	Y	1900			47	J	PRY
TETRACHLOROBIPHENYLS		290	J	RY	39000	J	Y	6900			35	J	PRY
TRICHLOROBIPHENYLS		21	J	PRY	2800	J	Y	350			3.3	J	PRY

PROJ_NO: 05220	NSAMPLE	SD-243-01			SD-243-02			SD-243-03			SD-243-SS		
SDG: 680-102468-1	LAB_ID	680-102468-23			680-102468-24			680-102468-25			680-102468-22		
FRACTION: PCB	SAMP_DATE	6/17/2014			6/17/2014			6/17/2014			6/17/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	63.6			66.9			65.0			55.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		3.9	UJ	N	3.7	UJ	N	3.8	U		4.4	UJ	N
DICHLOROBIPHENYLS		1.6	UJ	N	1.5	U		1.6	U		1.9	U	
HEPTACHLOROBIPHENYLS		2.3	UJ	N	2.2	UJ	N	2.3	U		310	J	N
HEXACHLOROBIPHENYL		1.5	UJ	N	1.5	U		1.5	U		390		
MONOCHLOROBIPHENYLS		0.89	UJ	N	0.84	U		0.88	U		1	U	
NONACHLOROBIPHENYLS		15	UJ	N	15	UJ	N	15	U		18	UJ	N
OCTACHLOROBIPHENYLS		2.5	UJ	N	2.3	UJ	N	2.4	U		13	J	NP
PENTACHLOROBIPHENYLS		5.5	J	NP	1.5	U		1.6	U		200		
TETRACHLOROBIPHENYLS		27	J	NP	29			3.5	J	P	440		
TRICHLOROBIPHENYLS		1.5	J	NP	1.7	J	P	0.78	U		32		

PROJ_NO: 05220	NSAMPLE	SD-244-01			SD-244-02			SD-244-03			SD-244-SS		
SDG: 680-102468-1	LAB_ID	680-102468-27			680-102468-28			680-102468-29			680-102468-26		
FRACTION: PCB	SAMP_DATE	6/17/2014			6/17/2014			6/17/2014			6/17/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	35.6			34.7			59.8			34.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		34	UJ	R	14	UJ	R	4.1	U		140	U	
DICHLOROBIPHENYLS		14	UJ	R	13	J	PR	1.7	U		60	U	
HEPTACHLOROBIPHENYLS		3900	J	R	280	J	R	2.5	U		15000		
HEXACHLOROBIPHENYL		4800	J	R	390	J	R	26	J	P	16000		
MONOCHLOROBIPHENYLS		7.9	UJ	R	3.2	UJ	R	0.94	U		33	U	
NONACHLOROBIPHENYLS		140	UJ	R	56	UJ	R	16	U		570	U	
OCTACHLOROBIPHENYLS		490	J	R	9.1	UJ	R	2.6	U		270	J	P
PENTACHLOROBIPHENYLS		3700	J	R	1200	J	R	36			18000		
TETRACHLOROBIPHENYLS		15000	J	R	4500	J	R	71			62000		
TRICHLOROBIPHENYLS		1100	J	R	560	J	R	2.9	J	P	4100		

PROJ_NO: 05220	NSAMPLE	SD-245-01			SD-245-02			SD-245-03			SD-245-SS		
SDG: 680-102468-1	LAB_ID	680-102468-31			680-102468-32			680-102468-33			680-102468-30		
FRACTION: PCB	SAMP_DATE	6/17/2014			6/17/2014			6/17/2014			6/17/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	29.9			29.1			27.3			23.3		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		82	UJ	Y	17	UJ	RY	9.1	UJ	Y	10	UJ	RY
DICHLOROBIPHENYLS		34	UJ	Y	20	J	PRY	3.8	UJ	Y	4.4	UJ	RY
HEPTACHLOROBIPHENYLS		4800	J	Y	230	J	RY	5.5	UJ	Y	1700	J	RY
HEXACHLOROBIPHENYL		1900	J	Y	240	J	RY	87	J	Y	890	J	RY
MONOCHLOROBIPHENYLS		19	UJ	Y	4.1	J	PRY	2.1	UJ	Y	2.4	UJ	RY
NONACHLOROBIPHENYLS		320	UJ	Y	67	UJ	RY	36	UJ	Y	48	J	PRY
OCTACHLOROBIPHENYLS		52	UJ	Y	11	UJ	RY	5.8	UJ	Y	180	J	RY
PENTACHLOROBIPHENYLS		9800	J	Y	1600	J	RY	210	J	Y	1000	J	RY
TETRACHLOROBIPHENYLS		58000	J	Y	12000	J	RY	790	J	Y	4300	J	RY
TRICHLOROBIPHENYLS		3300	J	Y	940	J	RY	1.9	UJ	Y	290	J	RY

PROJ_NO: 05220	NSAMPLE	SD-246-01			SD-246-02			SD-246-03			SD-246-SS		
SDG: 680-102468-1	LAB_ID	680-102468-35			680-102468-36			680-102468-37			680-102468-34		
FRACTION: PCB	SAMP_DATE	6/17/2014			6/17/2014			6/17/2014			6/17/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	36.2			35.6			66.3			32.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		140	U		6.9	UJ	R	3.7	U		380	U	
DICHLOROBIPHENYLS		150	J	P	11	J	PR	1.6	U		160	U	
HEPTACHLOROBIPHENYLS		10000			110	J	R	2.2	U		15000		
HEXACHLOROBIPHENYL		11000			250	J	R	1.5	U		17000		
MONOCHLOROBIPHENYLS		31	U		1.6	UJ	R	0.85	U		86	U	
NONACHLOROBIPHENYLS		540	U		28	UJ	R	15	U		1500	U	
OCTACHLOROBIPHENYLS		1400	J	P	32	J	PR	2.4	U		2700	J	P
PENTACHLOROBIPHENYLS		22000			810	J	R	3.2	J	P	25000		
TETRACHLOROBIPHENYLS		100000			6000	J	R	14	J	P	110000		
TRICHLOROBIPHENYLS		7600			450	J	R	2.9	J	P	7700		

PROJ_NO: 05220	NSAMPLE	SD-247-01			SD-247-02			SD-247-03			SD-247-SS		
SDG: 680-102468-1	LAB_ID	680-102468-39			680-102468-40			680-102468-41			680-102468-38		
FRACTION: PCB	SAMP_DATE	6/17/2014			6/17/2014			6/17/2014			6/17/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	33.4			31.1			59.3			30.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		37	UJ	R	7.9	UJ	DN	14	U		80	U	
DICHLOROBIPHENYLS		34	J	PR	3.3	UJ	D	6	U		35	J	P
HEPTACHLOROBIPHENYLS		620	J	R	52	J	DNP	8.5	U		8900		
HEXACHLOROBIPHENYL		910	J	R	220	J	D	5.6	U		11000		
MONOCHLOROBIPHENYLS		8.8	J	PR	1.8	UJ	D	3.2	U		18	U	
NONACHLOROBIPHENYLS		150	UJ	R	32	UJ	DN	56	U		320	U	
OCTACHLOROBIPHENYLS		65	J	PR	5.1	UJ	DN	9	U		1300		
PENTACHLOROBIPHENYLS		3900	J	R	710	J	D	5.8	U		9400		
TETRACHLOROBIPHENYLS		25000	J	R	3200	J	D	94	J	P	41000		
TRICHLOROBIPHENYLS		2100	J	R	79	J	D	2.9	U		3300		

PROJ_NO: 05220	NSAMPLE	SD-248-01			SD-248-02			SD-248-03			SD-248-SS		
SDG: 680-102468-1	LAB_ID	680-102468-43			680-102468-44			680-102468-45			680-102468-42		
FRACTION: PCB	SAMP_DATE	6/17/2014			6/17/2014			6/17/2014			6/17/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	32.7			43.7			53.4			25.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		2.5	UR	R	1.9	U		4.6	UJ	N	3.2	UJ	RY
DICHLOROBIPHENYLS		1.1	UR	R	0.8	U		2	U		1.4	UJ	RY
HEPTACHLOROBIPHENYLS		15	J	DPR	1.1	U		2.8	UJ	N	48	J	RY
HEXACHLOROBIPHENYL		52	J	DR	0.75	U		1.8	U		180	J	RY
MONOCHLOROBIPHENYLS		0.58	UR	R	0.43	U		1.1	U		0.74	UJ	RY
NONACHLOROBIPHENYLS		10	UR	R	7.5	U		18	UJ	N	13	UJ	RY
OCTACHLOROBIPHENYLS		1.6	UR	R	1.2	U		3	UJ	N	5.9	J	PRY
PENTACHLOROBIPHENYLS		62	J	DR	1.6	J	P	1.9	U		230	J	RY
TETRACHLOROBIPHENYLS		210	J	DR	19			2.1	U		420	J	RY
TRICHLOROBIPHENYLS		13	J	DR	1.1	J	P	0.95	U		10	J	PRY

PROJ_NO: 05220	NSAMPLE	SD-249-01			SD-249-02			SD-249-03			SD-249-SS		
SDG: 680-102468-1	LAB_ID	680-102468-47			680-102468-48			680-102468-49			680-102468-46		
FRACTION: PCB	SAMP_DATE	6/17/2014			6/17/2014			6/17/2014			6/17/2014		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	58.8			72.7			70.7			63.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		70	U		1.1	U		1.2	U		3.9	U	
DICHLOROBIPHENYLS		30	U		0.48	U		0.5	U		1.7	U	
HEPTACHLOROBIPHENYLS		15000			270			230			310		
HEXACHLOROBIPHENYL		17000			310			330			360		
MONOCHLOROBIPHENYLS		16	U		0.26	U		0.27	U		0.9	U	
NONACHLOROBIPHENYLS		280	UJ	C	4.6	U		4.7	U		16	U	
OCTACHLOROBIPHENYLS		2400			52			42			45	J	P
PENTACHLOROBIPHENYLS		14000			150			250			140		
TETRACHLOROBIPHENYLS		46000			910			250			550		
TRICHLOROBIPHENYLS		2700			63			23			29		

PROJ_NO: 05220	NSAMPLE	SD-Dup-04		
SDG: 680-102468-1	LAB_ID	680-102468-17		
FRACTION: PCB	SAMP_DATE	6/17/2014		
MEDIA: SEDIMENT	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	42.4		
	DUP_OF	SD-241-02		
PARAMETER		RESULT	VQL	QLCD
DECACHLOROBIPHENYL		12	U	
DICHLOROBIPHENYLS		4.9	U	
HEPTACHLOROBIPHENYLS		3500	J	G
HEXACHLOROBIPHENYL		3000	J	G
MONOCHLOROBIPHENYLS		2.6	U	
NONACHLOROBIPHENYLS		46	U	
OCTACHLOROBIPHENYLS		42	J	P
PENTACHLOROBIPHENYLS		2200	J	G
TETRACHLOROBIPHENYLS		7300	J	G
TRICHLOROBIPHENYLS		370		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-238-01 | Lab Sample ID: 680-102468-6

Matrix: Solid | Lab File ID: XG1643.D

Analysis Method: 680 | Date Collected: 06/17/2014 08:25

Extract. Method: 680 | Date Extracted: 07/11/2014 14:11

Sample wt/vol: 10.07(g) | Date Analyzed: 07/17/2014 07:20

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 76.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339357 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	11	U	220	11
25512-42-9	Dichlorobiphenyl	4.4	U	42	4.4
28655-71-2	Heptachlorobiphenyl	13	J	130	6.3
26601-64-9	Hexachlorobiphenyl	40	J	85	4.2
27323-18-8	Monochlorobiphenyl	2.4	U	42	2.4
53742-07-7	Nonachlorobiphenyl	42	U *	220	42
55722-26-4	Octachlorobiphenyl	6.7	U	130	6.7
25429-29-2	Pentachlorobiphenyl	6.4	J	85	4.3
26914-33-0	Tetrachlorobiphenyl	8.6	J	85	4.7
25323-68-6	Trichlorobiphenyl	2.2	U	42	2.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	10	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102468-1
SDG No.: 680102468-1
Client Sample ID: SD-238-02
Lab Sample ID: 680-102468-7
Matrix: Solid
Lab File ID: XG1644.D
Analysis Method: 680
Date Collected: 06/17/2014 08:30
Extract. Method: 680
Date Extracted: 07/11/2014 14:11
Sample wt/vol: 10.06(g)
Date Analyzed: 07/17/2014 07:49
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 64.7
GPC Cleanup:(Y/N) N
Analysis Batch No.: 339357
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	7.0	U	140	7.0
25512-42-9	Dichlorobiphenyl	3.0	U	28	3.0
28655-71-2	Heptachlorobiphenyl	180		85	4.2
26601-64-9	Hexachlorobiphenyl	250		57	2.8
27323-18-8	Monochlorobiphenyl	1.6	U	28	1.6
53742-07-7	Nonachlorobiphenyl	28	U *	140	28
55722-26-4	Octachlorobiphenyl	41	J	85	4.5
25429-29-2	Pentachlorobiphenyl	280		57	2.9
26914-33-0	Tetrachlorobiphenyl	660		57	3.1
25323-68-6	Trichlorobiphenyl	29		28	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	27	X	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-238-03 | Lab Sample ID: 680-102468-8

Matrix: Solid | Lab File ID: XG1645.D

Analysis Method: 680 | Date Collected: 06/17/2014 08:35

Extract. Method: 680 | Date Extracted: 07/11/2014 14:11

Sample wt/vol: 10.17(g) | Date Analyzed: 07/17/2014 08:17

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 38.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339357 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	4.0	U	82	4.0
25512-42-9	Dichlorobiphenyl	1.7	U	16	1.7
28655-71-2	Heptachlorobiphenyl	2.4	U	48	2.4
26601-64-9	Hexachlorobiphenyl	1.6	U	32	1.6
27323-18-8	Monochlorobiphenyl	0.92	U	16	0.92
53742-07-7	Nonachlorobiphenyl	16	U *	82	16
55722-26-4	Octachlorobiphenyl	2.6	U	48	2.6
25429-29-2	Pentachlorobiphenyl	1.6	U	32	1.6
26914-33-0	Tetrachlorobiphenyl	33		32	1.8
25323-68-6	Trichlorobiphenyl	3.0	J	16	0.82

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	89		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-238-SS | Lab Sample ID: 680-102468-5

Matrix: Solid | Lab File ID: XG1642.D

Analysis Method: 680 | Date Collected: 06/17/2014 08:20

Extract. Method: 680 | Date Extracted: 07/11/2014 14:11

Sample wt/vol: 10.12(g) | Date Analyzed: 07/17/2014 06:52

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 79.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339357 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	12	U	250	12
25512-42-9	Dichlorobiphenyl	5.1	U	48	5.1
28655-71-2	Heptachlorobiphenyl	7.3	U	150	7.3
26601-64-9	Hexachlorobiphenyl	4.8	U	98	4.8
27323-18-8	Monochlorobiphenyl	2.8	U	48	2.8
53742-07-7	Nonachlorobiphenyl	48	U *	250	48
55722-26-4	Octachlorobiphenyl	7.8	U	150	7.8
25429-29-2	Pentachlorobiphenyl	7.2	J	98	5.0
26914-33-0	Tetrachlorobiphenyl	43	J	98	5.4
25323-68-6	Trichlorobiphenyl	6.1	J	48	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	109		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-239-01 | Lab Sample ID: 680-102468-2

Matrix: Solid | Lab File ID: XG1342.D

Analysis Method: 680 | Date Collected: 06/17/2014 07:40

Extract. Method: 680 | Date Extracted: 07/11/2014 14:11

Sample wt/vol: 10.13(g) | Date Analyzed: 07/14/2014 15:34

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 69.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338831 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	7.9	U	160	7.9
25512-42-9	Dichlorobiphenyl	5.0	J	32	3.3
28655-71-2	Heptachlorobiphenyl	150		96	4.8
26601-64-9	Hexachlorobiphenyl	73		64	3.2
27323-18-8	Monochlorobiphenyl	1.8	U	32	1.8
53742-07-7	Nonachlorobiphenyl	32	U *	160	32
55722-26-4	Octachlorobiphenyl	16	J	96	5.1
25429-29-2	Pentachlorobiphenyl	170		64	3.3
26914-33-0	Tetrachlorobiphenyl	2000		64	3.5
25323-68-6	Trichlorobiphenyl	190		32	1.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	25	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-239-02 | Lab Sample ID: 680-102468-3

Matrix: Solid | Lab File ID: XG1343.D

Analysis Method: 680 | Date Collected: 06/17/2014 07:45

Extract. Method: 680 | Date Extracted: 07/11/2014 14:11

Sample wt/vol: 10.15(g) | Date Analyzed: 07/14/2014 16:03

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 62.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338831 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	6.5	U	130	6.5
25512-42-9	Dichlorobiphenyl	2.7	U	26	2.7
28655-71-2	Heptachlorobiphenyl	3.9	U	78	3.9
26601-64-9	Hexachlorobiphenyl	4.0	J	52	2.6
27323-18-8	Monochlorobiphenyl	1.5	U	26	1.5
53742-07-7	Nonachlorobiphenyl	26	U *	130	26
55722-26-4	Octachlorobiphenyl	4.1	U	78	4.1
25429-29-2	Pentachlorobiphenyl	15	J	52	2.7
26914-33-0	Tetrachlorobiphenyl	9.1	J	52	2.9
25323-68-6	Trichlorobiphenyl	1.3	U	26	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	68		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102468-1
SDG No.: 680102468-1
Client Sample ID: SD-239-03
Lab Sample ID: 680-102468-4
Matrix: Solid
Lab File ID: XG1641.D
Analysis Method: 680
Date Collected: 06/17/2014 07:50
Extract. Method: 680
Date Extracted: 07/11/2014 14:11
Sample wt/vol: 10.07(g)
Date Analyzed: 07/17/2014 06:23
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 46.2
GPC Cleanup:(Y/N) N
Analysis Batch No.: 339357
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	4.6	U	94	4.6
25512-42-9	Dichlorobiphenyl	1.9	U	18	1.9
28655-71-2	Heptachlorobiphenyl	2.8	U	55	2.8
26601-64-9	Hexachlorobiphenyl	1.8	U	37	1.8
27323-18-8	Monochlorobiphenyl	1.1	U	18	1.1
53742-07-7	Nonachlorobiphenyl	18	U *	94	18
55722-26-4	Octachlorobiphenyl	2.9	U	55	2.9
25429-29-2	Pentachlorobiphenyl	1.9	U	37	1.9
26914-33-0	Tetrachlorobiphenyl	18	J	37	2.1
25323-68-6	Trichlorobiphenyl	1.3	J	18	0.94

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	59		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-239-SS | Lab Sample ID: 680-102468-1

Matrix: Solid | Lab File ID: XG1341.D

Analysis Method: 680 | Date Collected: 06/17/2014 07:35

Extract. Method: 680 | Date Extracted: 07/11/2014 14:11

Sample wt/vol: 10.16(g) | Date Analyzed: 07/14/2014 15:05

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 77.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 338831 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	11	U	220	11
25512-42-9	Dichlorobiphenyl	4.5	U	42	4.5
28655-71-2	Heptachlorobiphenyl	310		130	6.4
26601-64-9	Hexachlorobiphenyl	270		86	4.2
27323-18-8	Monochlorobiphenyl	2.4	U	42	2.4
53742-07-7	Nonachlorobiphenyl	42	U *	220	42
55722-26-4	Octachlorobiphenyl	52	J	130	6.8
25429-29-2	Pentachlorobiphenyl	400		86	4.4
26914-33-0	Tetrachlorobiphenyl	1700		86	4.8
25323-68-6	Trichlorobiphenyl	140		42	2.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	56		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-240-01 | Lab Sample ID: 680-102468-10

Matrix: Solid | Lab File ID: XG1668.D

Analysis Method: 680 | Date Collected: 06/17/2014 08:50

Extract. Method: 680 | Date Extracted: 07/11/2014 14:11

Sample wt/vol: 10.16(g) | Date Analyzed: 07/17/2014 10:39

Con. Extract Vol.: 1(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 64.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339357 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	140	U	2800	140
25512-42-9	Dichlorobiphenyl	58	U	550	58
28655-71-2	Heptachlorobiphenyl	8900		1700	83
26601-64-9	Hexachlorobiphenyl	12000		1100	55
27323-18-8	Monochlorobiphenyl	32	U	550	32
53742-07-7	Nonachlorobiphenyl	550	U *	2800	550
55722-26-4	Octachlorobiphenyl	1400	J	1700	88
25429-29-2	Pentachlorobiphenyl	15000		1100	57
26914-33-0	Tetrachlorobiphenyl	59000		1100	62
25323-68-6	Trichlorobiphenyl	4300		550	28

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-240-02 | Lab Sample ID: 680-102468-11

Matrix: Solid | Lab File ID: XG1648.D

Analysis Method: 680 | Date Collected: 06/17/2014 08:55

Extract. Method: 680 | Date Extracted: 07/11/2014 14:11

Sample wt/vol: 10.15(g) | Date Analyzed: 07/17/2014 09:42

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 67.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339357 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	7.4	U	150	7.4
25512-42-9	Dichlorobiphenyl	3.9	J	30	3.1
28655-71-2	Heptachlorobiphenyl	290		90	4.5
26601-64-9	Hexachlorobiphenyl	340		60	3.0
27323-18-8	Monochlorobiphenyl	1.7	U	30	1.7
53742-07-7	Nonachlorobiphenyl	30	U *	150	30
55722-26-4	Octachlorobiphenyl	63	J	90	4.7
25429-29-2	Pentachlorobiphenyl	750		60	3.0
26914-33-0	Tetrachlorobiphenyl	3000		60	3.3
25323-68-6	Trichlorobiphenyl	200		30	1.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	30		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-240-03 | Lab Sample ID: 680-102468-12

Matrix: Solid | Lab File ID: XG1649.D

Analysis Method: 680 | Date Collected: 06/17/2014 09:00

Extract. Method: 680 | Date Extracted: 07/11/2014 14:11

Sample wt/vol: 10.19(g) | Date Analyzed: 07/17/2014 10:11

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 45.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339357 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	4.5	U	92	4.5
25512-42-9	Dichlorobiphenyl	1.9	U	18	1.9
28655-71-2	Heptachlorobiphenyl	26	J	54	2.7
26601-64-9	Hexachlorobiphenyl	61		36	1.8
27323-18-8	Monochlorobiphenyl	1.0	U	18	1.0
53742-07-7	Nonachlorobiphenyl	18	U *	92	18
55722-26-4	Octachlorobiphenyl	2.9	U	54	2.9
25429-29-2	Pentachlorobiphenyl	110		36	1.8
26914-33-0	Tetrachlorobiphenyl	390		36	2.0
25323-68-6	Trichlorobiphenyl	21		18	0.92

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	79		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-240-SS | Lab Sample ID: 680-102468-9

Matrix: Solid | Lab File ID: XG1646.D

Analysis Method: 680 | Date Collected: 06/17/2014 08:45

Extract. Method: 680 | Date Extracted: 07/11/2014 14:11

Sample wt/vol: 10.02(g) | Date Analyzed: 07/17/2014 08:45

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 74.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339357 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	9.5	U	200	9.5
25512-42-9	Dichlorobiphenyl	4.0	U	38	4.0
28655-71-2	Heptachlorobiphenyl	420		120	5.8
26601-64-9	Hexachlorobiphenyl	590		77	3.8
27323-18-8	Monochlorobiphenyl	2.2	U	38	2.2
53742-07-7	Nonachlorobiphenyl	38	U *	200	38
55722-26-4	Octachlorobiphenyl	110	J	120	6.1
25429-29-2	Pentachlorobiphenyl	890		77	3.9
26914-33-0	Tetrachlorobiphenyl	2700		77	4.3
25323-68-6	Trichlorobiphenyl	130		38	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	21	X	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-241-01 | Lab Sample ID: 680-102468-14

Matrix: Solid | Lab File ID: XG1916.D

Analysis Method: 680 | Date Collected: 06/17/2014 09:15

Extract. Method: 680 | Date Extracted: 07/11/2014 14:11

Sample wt/vol: 10.04(g) | Date Analyzed: 07/20/2014 02:11

Con. Extract Vol.: 1(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 67.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339932 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	77	U	1600	77
25512-42-9	Dichlorobiphenyl	33	U	310	33
28655-71-2	Heptachlorobiphenyl	26000		930	46
26601-64-9	Hexachlorobiphenyl	25000		620	31
27323-18-8	Monochlorobiphenyl	18	U	310	18
53742-07-7	Nonachlorobiphenyl	310	U *	1600	310
55722-26-4	Octachlorobiphenyl	1100		930	49
25429-29-2	Pentachlorobiphenyl	11000		620	32
26914-33-0	Tetrachlorobiphenyl	56000		620	34
25323-68-6	Trichlorobiphenyl	3000		310	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-241-02 | Lab Sample ID: 680-102468-15

Matrix: Solid | Lab File ID: XG1808.D

Analysis Method: 680 | Date Collected: 06/17/2014 09:20

Extract. Method: 680 | Date Extracted: 07/11/2014 14:11

Sample wt/vol: 10.11(g) | Date Analyzed: 07/18/2014 12:59

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 56.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339564 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	5.7	U	120	5.7
25512-42-9	Dichlorobiphenyl	2.5	J	23	2.4
28655-71-2	Heptachlorobiphenyl	370		69	3.4
26601-64-9	Hexachlorobiphenyl	390		46	2.3
27323-18-8	Monochlorobiphenyl	1.3	U	23	1.3
53742-07-7	Nonachlorobiphenyl	23	U *	120	23
55722-26-4	Octachlorobiphenyl	66	J	69	3.6
25429-29-2	Pentachlorobiphenyl	660		46	2.3
26914-33-0	Tetrachlorobiphenyl	3500		46	2.5
25323-68-6	Trichlorobiphenyl	270		23	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	57		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-241-03 | Lab Sample ID: 680-102468-16

Matrix: Solid | Lab File ID: XG1809.D

Analysis Method: 680 | Date Collected: 06/17/2014 09:25

Extract. Method: 680 | Date Extracted: 07/11/2014 14:11

Sample wt/vol: 10.03(g) | Date Analyzed: 07/18/2014 13:27

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 52.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339564 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	5.2	U	110	5.2
25512-42-9	Dichlorobiphenyl	2.2	U	21	2.2
28655-71-2	Heptachlorobiphenyl	3.1	U	62	3.1
26601-64-9	Hexachlorobiphenyl	9.7	J	42	2.1
27323-18-8	Monochlorobiphenyl	1.2	U	21	1.2
53742-07-7	Nonachlorobiphenyl	21	U *	110	21
55722-26-4	Octachlorobiphenyl	3.3	U	62	3.3
25429-29-2	Pentachlorobiphenyl	33	J	42	2.1
26914-33-0	Tetrachlorobiphenyl	250		42	2.3
25323-68-6	Trichlorobiphenyl	19	J	21	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	84		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-241-SS | Lab Sample ID: 680-102468-13

Matrix: Solid | Lab File ID: XG1806.D

Analysis Method: 680 | Date Collected: 06/17/2014 09:10

Extract. Method: 680 | Date Extracted: 07/11/2014 14:11

Sample wt/vol: 10.26(g) | Date Analyzed: 07/18/2014 12:02

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 76.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339564 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	10	U	210	10
25512-42-9	Dichlorobiphenyl	4.3	U	40	4.3
28655-71-2	Heptachlorobiphenyl	920		120	6.1
26601-64-9	Hexachlorobiphenyl	910		82	4.0
27323-18-8	Monochlorobiphenyl	2.3	U	40	2.3
53742-07-7	Nonachlorobiphenyl	40	U *	210	40
55722-26-4	Octachlorobiphenyl	230		120	6.5
25429-29-2	Pentachlorobiphenyl	1100		82	4.2
26914-33-0	Tetrachlorobiphenyl	2800		82	4.5
25323-68-6	Trichlorobiphenyl	120		40	2.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	27	X	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-242-01 | Lab Sample ID: 680-102468-19

Matrix: Solid | Lab File ID: XG1812.D

Analysis Method: 680 | Date Collected: 06/17/2014 09:45

Extract. Method: 680 | Date Extracted: 07/11/2014 14:11

Sample wt/vol: 10.09(g) | Date Analyzed: 07/18/2014 14:53

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 77.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339564 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	11	U	220	11
25512-42-9	Dichlorobiphenyl	4.5	U	43	4.5
28655-71-2	Heptachlorobiphenyl	280		130	6.5
26601-64-9	Hexachlorobiphenyl	340		87	4.3
27323-18-8	Monochlorobiphenyl	2.5	U	43	2.5
53742-07-7	Nonachlorobiphenyl	43	U *	220	43
55722-26-4	Octachlorobiphenyl	17	J	130	6.8
25429-29-2	Pentachlorobiphenyl	240		87	4.4
26914-33-0	Tetrachlorobiphenyl	290		87	4.8
25323-68-6	Trichlorobiphenyl	21	J	43	2.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	28	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-242-02 | Lab Sample ID: 680-102468-20

Matrix: Solid | Lab File ID: XG1918.D

Analysis Method: 680 | Date Collected: 06/17/2014 09:50

Extract. Method: 680 | Date Extracted: 07/11/2014 14:11

Sample wt/vol: 10.06(g) | Date Analyzed: 07/20/2014 03:08

Con. Extract Vol.: 1(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 70.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339932 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	84	U	1700	84
25512-42-9	Dichlorobiphenyl	35	U	330	35
28655-71-2	Heptachlorobiphenyl	1300		1000	51
26601-64-9	Hexachlorobiphenyl	1300		680	33
27323-18-8	Monochlorobiphenyl	19	U	330	19
53742-07-7	Nonachlorobiphenyl	330	U *	1700	330
55722-26-4	Octachlorobiphenyl	54	U	1000	54
25429-29-2	Pentachlorobiphenyl	5900		680	34
26914-33-0	Tetrachlorobiphenyl	39000		680	37
25323-68-6	Trichlorobiphenyl	2800		330	17

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-242-03 | Lab Sample ID: 680-102468-21

Matrix: Solid | Lab File ID: XG1919.D

Analysis Method: 680 | Date Collected: 06/17/2014 09:55

Extract. Method: 680 | Date Extracted: 07/11/2014 14:44

Sample wt/vol: 10.08(g) | Date Analyzed: 07/20/2014 03:36

Con. Extract Vol.: 1(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 61.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339932 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	13	U	260	13
25512-42-9	Dichlorobiphenyl	5.4	U	50	5.4
28655-71-2	Heptachlorobiphenyl	1400		150	7.7
26601-64-9	Hexachlorobiphenyl	1700		100	5.0
27323-18-8	Monochlorobiphenyl	2.9	U	50	2.9
53742-07-7	Nonachlorobiphenyl	50	U	260	50
55722-26-4	Octachlorobiphenyl	180		150	8.1
25429-29-2	Pentachlorobiphenyl	1900		100	5.2
26914-33-0	Tetrachlorobiphenyl	6900		100	5.7
25323-68-6	Trichlorobiphenyl	350		50	2.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	31		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-242-SS | Lab Sample ID: 680-102468-18

Matrix: Solid | Lab File ID: XG1811.D

Analysis Method: 680 | Date Collected: 06/17/2014 09:40

Extract. Method: 680 | Date Extracted: 07/11/2014 14:11

Sample wt/vol: 10.08(g) | Date Analyzed: 07/18/2014 14:24

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 78.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339564 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	12	U *	240	12
25512-42-9	Dichlorobiphenyl	4.9	U *	46	4.9
28655-71-2	Heptachlorobiphenyl	52	J *	140	7.0
26601-64-9	Hexachlorobiphenyl	91	J *	94	4.6
27323-18-8	Monochlorobiphenyl	2.7	U *	46	2.7
53742-07-7	Nonachlorobiphenyl	46	U *	240	46
55722-26-4	Octachlorobiphenyl	7.5	U *	140	7.5
25429-29-2	Pentachlorobiphenyl	47	J *	94	4.8
26914-33-0	Tetrachlorobiphenyl	35	J *	94	5.2
25323-68-6	Trichlorobiphenyl	3.3	J *	46	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	16	* X	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-243-01 | Lab Sample ID: 680-102468-23

Matrix: Solid | Lab File ID: XG1821.D

Analysis Method: 680 | Date Collected: 06/17/2014 10:15

Extract. Method: 680 | Date Extracted: 07/11/2014 14:44

Sample wt/vol: 10.13(g) | Date Analyzed: 07/18/2014 19:09

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 36.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339564 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	3.9	U *	79	3.9
25512-42-9	Dichlorobiphenyl	1.6	U *	15	1.6
28655-71-2	Heptachlorobiphenyl	2.3	U *	47	2.3
26601-64-9	Hexachlorobiphenyl	1.5	U *	31	1.5
27323-18-8	Monochlorobiphenyl	0.89	U *	15	0.89
53742-07-7	Nonachlorobiphenyl	15	U *	79	15
55722-26-4	Octachlorobiphenyl	2.5	U *	47	2.5
25429-29-2	Pentachlorobiphenyl	5.5	J *	31	1.6
26914-33-0	Tetrachlorobiphenyl	27	J *	31	1.7
25323-68-6	Trichlorobiphenyl	1.5	J *	15	0.79

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	72	*	30-130

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GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-243-02 | Lab Sample ID: 680-102468-24

Matrix: Solid | Lab File ID: XG1822.D

Analysis Method: 680 | Date Collected: 06/17/2014 10:20

Extract. Method: 680 | Date Extracted: 07/11/2014 14:44

Sample wt/vol: 10.20(g) | Date Analyzed: 07/18/2014 19:38

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 33.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339564 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	3.7	U	75	3.7
25512-42-9	Dichlorobiphenyl	1.5	U	15	1.5
28655-71-2	Heptachlorobiphenyl	2.2	U	44	2.2
26601-64-9	Hexachlorobiphenyl	1.5	U	29	1.5
27323-18-8	Monochlorobiphenyl	0.84	U	15	0.84
53742-07-7	Nonachlorobiphenyl	15	U	75	15
55722-26-4	Octachlorobiphenyl	2.3	U	44	2.3
25429-29-2	Pentachlorobiphenyl	1.5	U	29	1.5
26914-33-0	Tetrachlorobiphenyl	29		29	1.6
25323-68-6	Trichlorobiphenyl	1.7	J	15	0.75

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	62		30-130

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GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102468-1
SDG No.: 680102468-1
Client Sample ID: SD-243-03
Lab Sample ID: 680-102468-25
Matrix: Solid
Lab File ID: XG1920.D
Analysis Method: 680
Date Collected: 06/17/2014 10:25
Extract. Method: 680
Date Extracted: 07/11/2014 14:44
Sample wt/vol: 10.00(g)
Date Analyzed: 07/20/2014 04:05
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 35.0
GPC Cleanup:(Y/N) N
Analysis Batch No.: 339932
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	3.8	U	78	3.8
25512-42-9	Dichlorobiphenyl	1.6	U	15	1.6
28655-71-2	Heptachlorobiphenyl	2.3	U	46	2.3
26601-64-9	Hexachlorobiphenyl	1.5	U	31	1.5
27323-18-8	Monochlorobiphenyl	0.88	U	15	0.88
53742-07-7	Nonachlorobiphenyl	15	U	78	15
55722-26-4	Octachlorobiphenyl	2.4	U	46	2.4
25429-29-2	Pentachlorobiphenyl	1.6	U	31	1.6
26914-33-0	Tetrachlorobiphenyl	3.5	J	31	1.7
25323-68-6	Trichlorobiphenyl	0.78	U	15	0.78

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	57		30-130

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GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102468-1
SDG No.: 680102468-1
Client Sample ID: SD-243-SS
Lab Sample ID: 680-102468-22
Matrix: Solid
Lab File ID: XG1820.D
Analysis Method: 680
Date Collected: 06/17/2014 10:10
Extract. Method: 680
Date Extracted: 07/11/2014 14:44
Sample wt/vol: 10.09(g)
Date Analyzed: 07/18/2014 18:41
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 44.2
GPC Cleanup:(Y/N) N
Analysis Batch No.: 339564
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	4.4	U	91	4.4
25512-42-9	Dichlorobiphenyl	1.9	U	18	1.9
28655-71-2	Heptachlorobiphenyl	310		53	2.7
26601-64-9	Hexachlorobiphenyl	390		36	1.8
27323-18-8	Monochlorobiphenyl	1.0	U	18	1.0
53742-07-7	Nonachlorobiphenyl	18	U	91	18
55722-26-4	Octachlorobiphenyl	13	J	53	2.8
25429-29-2	Pentachlorobiphenyl	200		36	1.8
26914-33-0	Tetrachlorobiphenyl	440		36	2.0
25323-68-6	Trichlorobiphenyl	32		18	0.91

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	44		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-244-01 | Lab Sample ID: 680-102468-27

Matrix: Solid | Lab File ID: XG2536.D

Analysis Method: 680 | Date Collected: 06/17/2014 10:50

Extract. Method: 680 | Date Extracted: 07/23/2014 17:34

Sample wt/vol: 10.16(g) | Date Analyzed: 07/26/2014 10:46

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 64.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340977 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	34	U	700	34
25512-42-9	Dichlorobiphenyl	14	U	140	14
28655-71-2	Heptachlorobiphenyl	3900		410	21
26601-64-9	Hexachlorobiphenyl	4800		280	14
27323-18-8	Monochlorobiphenyl	7.9	U	140	7.9
53742-07-7	Nonachlorobiphenyl	140	U *	700	140
55722-26-4	Octachlorobiphenyl	490		410	22
25429-29-2	Pentachlorobiphenyl	3700		280	14
26914-33-0	Tetrachlorobiphenyl	15000		280	15
25323-68-6	Trichlorobiphenyl	1100		140	7.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	15	X	30-130

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GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-244-02 | Lab Sample ID: 680-102468-28

Matrix: Solid | Lab File ID: XG1923.D

Analysis Method: 680 | Date Collected: 06/17/2014 10:55

Extract. Method: 680 | Date Extracted: 07/11/2014 14:44

Sample wt/vol: 10.13(g) | Date Analyzed: 07/20/2014 05:30

Con. Extract Vol.: 1(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 65.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339932 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	14	U	290	14
25512-42-9	Dichlorobiphenyl	13	J	56	6.0
28655-71-2	Heptachlorobiphenyl	280		170	8.5
26601-64-9	Hexachlorobiphenyl	390		110	5.6
27323-18-8	Monochlorobiphenyl	3.2	U	56	3.2
53742-07-7	Nonachlorobiphenyl	56	U	290	56
55722-26-4	Octachlorobiphenyl	9.1	U	170	9.1
25429-29-2	Pentachlorobiphenyl	1200		110	5.8
26914-33-0	Tetrachlorobiphenyl	4500		110	6.3
25323-68-6	Trichlorobiphenyl	560		56	2.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	19	X	30-130

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GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102468-1
SDG No.: 680102468-1
Client Sample ID: SD-244-03
Lab Sample ID: 680-102468-29
Matrix: Solid
Lab File ID: XG1924.D
Analysis Method: 680
Date Collected: 06/17/2014 11:00
Extract. Method: 680
Date Extracted: 07/11/2014 14:44
Sample wt/vol: 10.19(g)
Date Analyzed: 07/20/2014 05:59
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 40.2
GPC Cleanup:(Y/N) N
Analysis Batch No.: 339932
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	4.1	U	84	4.1
25512-42-9	Dichlorobiphenyl	1.7	U	16	1.7
28655-71-2	Heptachlorobiphenyl	2.5	U	49	2.5
26601-64-9	Hexachlorobiphenyl	26	J	33	1.6
27323-18-8	Monochlorobiphenyl	0.94	U	16	0.94
53742-07-7	Nonachlorobiphenyl	16	U	84	16
55722-26-4	Octachlorobiphenyl	2.6	U	49	2.6
25429-29-2	Pentachlorobiphenyl	36		33	1.7
26914-33-0	Tetrachlorobiphenyl	71		33	1.8
25323-68-6	Trichlorobiphenyl	2.9	J	16	0.84

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	56		30-130

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GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-244-SS | Lab Sample ID: 680-102468-26

Matrix: Solid | Lab File ID: XG1921.D

Analysis Method: 680 | Date Collected: 06/17/2014 10:45

Extract. Method: 680 | Date Extracted: 07/11/2014 14:44

Sample wt/vol: 10.24(g) | Date Analyzed: 07/20/2014 04:33

Con. Extract Vol.: 1(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 65.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339932 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	140	U	2900	140
25512-42-9	Dichlorobiphenyl	60	U	570	60
28655-71-2	Heptachlorobiphenyl	15000		1700	86
26601-64-9	Hexachlorobiphenyl	16000		1100	57
27323-18-8	Monochlorobiphenyl	33	U	570	33
53742-07-7	Nonachlorobiphenyl	570	U	2900	570
55722-26-4	Octachlorobiphenyl	270	J	1700	91
25429-29-2	Pentachlorobiphenyl	18000		1100	58
26914-33-0	Tetrachlorobiphenyl	62000		1100	64
25323-68-6	Trichlorobiphenyl	4100		570	29

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

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GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-245-01 | Lab Sample ID: 680-102468-31

Matrix: Solid | Lab File ID: XG1926.D

Analysis Method: 680 | Date Collected: 06/17/2014 11:40

Extract. Method: 680 | Date Extracted: 07/11/2014 14:44

Sample wt/vol: 10.22(g) | Date Analyzed: 07/20/2014 06:55

Con. Extract Vol.: 1(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 70.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339932 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	82	U	1700	82
25512-42-9	Dichlorobiphenyl	34	U	320	34
28655-71-2	Heptachlorobiphenyl	4800		980	49
26601-64-9	Hexachlorobiphenyl	1900		660	32
27323-18-8	Monochlorobiphenyl	19	U	320	19
53742-07-7	Nonachlorobiphenyl	320	U	1700	320
55722-26-4	Octachlorobiphenyl	52	U	980	52
25429-29-2	Pentachlorobiphenyl	9800		660	33
26914-33-0	Tetrachlorobiphenyl	58000		660	36
25323-68-6	Trichlorobiphenyl	3300		320	17

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-245-02 | Lab Sample ID: 680-102468-32

Matrix: Solid | Lab File ID: XG1927.D

Analysis Method: 680 | Date Collected: 06/17/2014 11:45

Extract. Method: 680 | Date Extracted: 07/11/2014 14:44

Sample wt/vol: 10.15(g) | Date Analyzed: 07/20/2014 07:24

Con. Extract Vol.: 1(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 70.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339932 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	17	U	340	17
25512-42-9	Dichlorobiphenyl	20	J	67	7.1
28655-71-2	Heptachlorobiphenyl	230		200	10
26601-64-9	Hexachlorobiphenyl	240		140	6.7
27323-18-8	Monochlorobiphenyl	4.1	J	67	3.9
53742-07-7	Nonachlorobiphenyl	67	U	340	67
55722-26-4	Octachlorobiphenyl	11	U	200	11
25429-29-2	Pentachlorobiphenyl	1600		140	6.9
26914-33-0	Tetrachlorobiphenyl	12000		140	7.5
25323-68-6	Trichlorobiphenyl	940		67	3.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	17	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102468-1
SDG No.: 680102468-1
Client Sample ID: SD-245-03
Lab Sample ID: 680-102468-33
Matrix: Solid
Lab File ID: XG1928.D
Analysis Method: 680
Date Collected: 06/17/2014 11:50
Extract. Method: 680
Date Extracted: 07/11/2014 14:44
Sample wt/vol: 10.04(g)
Date Analyzed: 07/20/2014 07:52
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 72.7
GPC Cleanup:(Y/N) N
Analysis Batch No.: 339932
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	9.1	U	190	9.1
25512-42-9	Dichlorobiphenyl	3.8	U	36	3.8
28655-71-2	Heptachlorobiphenyl	5.5	U	110	5.5
26601-64-9	Hexachlorobiphenyl	87		73	3.6
27323-18-8	Monochlorobiphenyl	2.1	U	36	2.1
53742-07-7	Nonachlorobiphenyl	36	U	190	36
55722-26-4	Octachlorobiphenyl	5.8	U	110	5.8
25429-29-2	Pentachlorobiphenyl	210		73	3.7
26914-33-0	Tetrachlorobiphenyl	790		73	4.1
25323-68-6	Trichlorobiphenyl	1.9	U	36	1.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	36		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-245-SS | Lab Sample ID: 680-102468-30

Matrix: Solid | Lab File ID: XG1925.D

Analysis Method: 680 | Date Collected: 06/17/2014 11:35

Extract. Method: 680 | Date Extracted: 07/11/2014 14:44

Sample wt/vol: 10.21(g) | Date Analyzed: 07/20/2014 06:27

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 76.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339932 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	10	U	210	10
25512-42-9	Dichlorobiphenyl	4.4	U	42	4.4
28655-71-2	Heptachlorobiphenyl	1700		130	6.3
26601-64-9	Hexachlorobiphenyl	890		85	4.2
27323-18-8	Monochlorobiphenyl	2.4	U	42	2.4
53742-07-7	Nonachlorobiphenyl	48	J	210	42
55722-26-4	Octachlorobiphenyl	180		130	6.7
25429-29-2	Pentachlorobiphenyl	1000		85	4.3
26914-33-0	Tetrachlorobiphenyl	4300		85	4.7
25323-68-6	Trichlorobiphenyl	290		42	2.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	13	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-246-01 | Lab Sample ID: 680-102468-35

Matrix: Solid | Lab File ID: XG2006.D

Analysis Method: 680 | Date Collected: 06/17/2014 12:10

Extract. Method: 680 | Date Extracted: 07/11/2014 14:44

Sample wt/vol: 10.08(g) | Date Analyzed: 07/20/2014 17:44

Con. Extract Vol.: 1(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 63.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339960 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	140	U	2800	140
25512-42-9	Dichlorobiphenyl	150	J	540	58
28655-71-2	Heptachlorobiphenyl	10000		1600	82
26601-64-9	Hexachlorobiphenyl	11000		1100	54
27323-18-8	Monochlorobiphenyl	31	U	540	31
53742-07-7	Nonachlorobiphenyl	540	U	2800	540
55722-26-4	Octachlorobiphenyl	1400	J	1600	87
25429-29-2	Pentachlorobiphenyl	22000		1100	56
26914-33-0	Tetrachlorobiphenyl	100000		1100	61
25323-68-6	Trichlorobiphenyl	7600		540	28

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-246-02 | Lab Sample ID: 680-102468-36

Matrix: Solid | Lab File ID: XG2007.D

Analysis Method: 680 | Date Collected: 06/17/2014 12:15

Extract. Method: 680 | Date Extracted: 07/11/2014 14:44

Sample wt/vol: 10.12(g) | Date Analyzed: 07/20/2014 18:12

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 64.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339960 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	6.9	U	140	6.9
25512-42-9	Dichlorobiphenyl	11	J	28	2.9
28655-71-2	Heptachlorobiphenyl	110		83	4.2
26601-64-9	Hexachlorobiphenyl	250		56	2.8
27323-18-8	Monochlorobiphenyl	1.6	U	28	1.6
53742-07-7	Nonachlorobiphenyl	28	U	140	28
55722-26-4	Octachlorobiphenyl	32	J	83	4.4
25429-29-2	Pentachlorobiphenyl	810		56	2.8
26914-33-0	Tetrachlorobiphenyl	6000		56	3.1
25323-68-6	Trichlorobiphenyl	450		28	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	13	X	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-246-03 | Lab Sample ID: 680-102468-37

Matrix: Solid | Lab File ID: XG2008.D

Analysis Method: 680 | Date Collected: 06/17/2014 12:20

Extract. Method: 680 | Date Extracted: 07/11/2014 14:44

Sample wt/vol: 10.05(g) | Date Analyzed: 07/20/2014 18:41

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 33.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339960 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	3.7	U	76	3.7
25512-42-9	Dichlorobiphenyl	1.6	U	15	1.6
28655-71-2	Heptachlorobiphenyl	2.2	U	45	2.2
26601-64-9	Hexachlorobiphenyl	1.5	U	30	1.5
27323-18-8	Monochlorobiphenyl	0.85	U	15	0.85
53742-07-7	Nonachlorobiphenyl	15	U	76	15
55722-26-4	Octachlorobiphenyl	2.4	U	45	2.4
25429-29-2	Pentachlorobiphenyl	3.2	J	30	1.5
26914-33-0	Tetrachlorobiphenyl	14	J	30	1.7
25323-68-6	Trichlorobiphenyl	2.9	J	15	0.76

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	33		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-246-SS | Lab Sample ID: 680-102468-34

Matrix: Solid | Lab File ID: XG1929.D

Analysis Method: 680 | Date Collected: 06/17/2014 12:05

Extract. Method: 680 | Date Extracted: 07/11/2014 14:44

Sample wt/vol: 10.12(g) | Date Analyzed: 07/20/2014 08:21

Con. Extract Vol.: 1(mL) | Dilution Factor: 50

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 67.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339932 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	380	U	7700	380
25512-42-9	Dichlorobiphenyl	160	U	1500	160
28655-71-2	Heptachlorobiphenyl	15000		4500	230
26601-64-9	Hexachlorobiphenyl	17000		3000	150
27323-18-8	Monochlorobiphenyl	86	U	1500	86
53742-07-7	Nonachlorobiphenyl	1500	U	7700	1500
55722-26-4	Octachlorobiphenyl	2700	J	4500	240
25429-29-2	Pentachlorobiphenyl	25000		3000	150
26914-33-0	Tetrachlorobiphenyl	110000		3000	170
25323-68-6	Trichlorobiphenyl	7700		1500	77

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-247-01 | Lab Sample ID: 680-102468-39

Matrix: Solid | Lab File ID: XG2010.D

Analysis Method: 680 | Date Collected: 06/17/2014 13:10

Extract. Method: 680 | Date Extracted: 07/11/2014 14:44

Sample wt/vol: 10.16(g) | Date Analyzed: 07/20/2014 19:38

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 66.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339960 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	37	U	750	37
25512-42-9	Dichlorobiphenyl	34	J	150	15
28655-71-2	Heptachlorobiphenyl	620		440	22
26601-64-9	Hexachlorobiphenyl	910		300	15
27323-18-8	Monochlorobiphenyl	8.8	J	150	8.4
53742-07-7	Nonachlorobiphenyl	150	U	750	150
55722-26-4	Octachlorobiphenyl	65	J	440	23
25429-29-2	Pentachlorobiphenyl	3900		300	15
26914-33-0	Tetrachlorobiphenyl	25000		300	16
25323-68-6	Trichlorobiphenyl	2100		150	7.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	21	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-247-02 | Lab Sample ID: 680-102468-40

Matrix: Solid | Lab File ID: XG1818.D

Analysis Method: 680 | Date Collected: 06/17/2014 13:15

Extract. Method: 680 | Date Extracted: 07/11/2014 14:44

Sample wt/vol: 10.09(g) | Date Analyzed: 07/18/2014 17:44

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 68.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339564 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	7.9	U	160	7.9
25512-42-9	Dichlorobiphenyl	3.3	U	32	3.3
28655-71-2	Heptachlorobiphenyl	52	J	96	4.8
26601-64-9	Hexachlorobiphenyl	220		64	3.2
27323-18-8	Monochlorobiphenyl	1.8	U	32	1.8
53742-07-7	Nonachlorobiphenyl	32	U	160	32
55722-26-4	Octachlorobiphenyl	5.1	U	96	5.1
25429-29-2	Pentachlorobiphenyl	710		64	3.3
26914-33-0	Tetrachlorobiphenyl	3200		64	3.5
25323-68-6	Trichlorobiphenyl	79		32	1.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	43		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-247-03 | Lab Sample ID: 680-102468-41

Matrix: Solid | Lab File ID: XG2915.D

Analysis Method: 680 | Date Collected: 06/17/2014 13:20

Extract. Method: 680 | Date Extracted: 07/12/2014 13:20

Sample wt/vol: 29.75(g) | Date Analyzed: 07/30/2014 02:41

Con. Extract Vol.: 1(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 40.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 341490 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	14	U	290	14
25512-42-9	Dichlorobiphenyl	6.0	U	56	6.0
28655-71-2	Heptachlorobiphenyl	8.5	U	170	8.5
26601-64-9	Hexachlorobiphenyl	5.6	U	110	5.6
27323-18-8	Monochlorobiphenyl	3.2	U	56	3.2
53742-07-7	Nonachlorobiphenyl	56	U	290	56
55722-26-4	Octachlorobiphenyl	9.0	U	170	9.0
25429-29-2	Pentachlorobiphenyl	5.8	U	110	5.8
26914-33-0	Tetrachlorobiphenyl	94	J	110	6.3
25323-68-6	Trichlorobiphenyl	2.9	U	56	2.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-247-SS | Lab Sample ID: 680-102468-38

Matrix: Solid | Lab File ID: XG2009.D

Analysis Method: 680 | Date Collected: 06/17/2014 13:05

Extract. Method: 680 | Date Extracted: 07/11/2014 14:44

Sample wt/vol: 10.13(g) | Date Analyzed: 07/20/2014 19:09

Con. Extract Vol.: 1(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 69.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339960 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	80	U	1600	80
25512-42-9	Dichlorobiphenyl	35	J	320	34
28655-71-2	Heptachlorobiphenyl	8900		960	48
26601-64-9	Hexachlorobiphenyl	11000		650	32
27323-18-8	Monochlorobiphenyl	18	U	320	18
53742-07-7	Nonachlorobiphenyl	320	U	1600	320
55722-26-4	Octachlorobiphenyl	1300		960	51
25429-29-2	Pentachlorobiphenyl	9400		650	33
26914-33-0	Tetrachlorobiphenyl	41000		650	36
25323-68-6	Trichlorobiphenyl	3300		320	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-248-01 | Lab Sample ID: 680-102468-43

Matrix: Solid | Lab File ID: XG2016.D

Analysis Method: 680 | Date Collected: 06/17/2014 14:05

Extract. Method: 680 | Date Extracted: 07/12/2014 13:20

Sample wt/vol: 30.08(g) | Date Analyzed: 07/20/2014 22:28

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 67.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339960 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	2.5	U	52	2.5
25512-42-9	Dichlorobiphenyl	1.1	U	10	1.1
28655-71-2	Heptachlorobiphenyl	15	J	31	1.5
26601-64-9	Hexachlorobiphenyl	52		20	1.0
27323-18-8	Monochlorobiphenyl	0.58	U	10	0.58
53742-07-7	Nonachlorobiphenyl	10	U	52	10
55722-26-4	Octachlorobiphenyl	1.6	U	31	1.6
25429-29-2	Pentachlorobiphenyl	62		20	1.0
26914-33-0	Tetrachlorobiphenyl	210		20	1.1
25323-68-6	Trichlorobiphenyl	13		10	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	5	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-248-02 | Lab Sample ID: 680-102468-44

Matrix: Solid | Lab File ID: XG2019.D

Analysis Method: 680 | Date Collected: 06/17/2014 14:10

Extract. Method: 680 | Date Extracted: 07/12/2014 13:20

Sample wt/vol: 30.21(g) | Date Analyzed: 07/20/2014 23:54

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 56.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339960 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	1.9	U	39	1.9
25512-42-9	Dichlorobiphenyl	0.80	U	7.5	0.80
28655-71-2	Heptachlorobiphenyl	1.1	U	23	1.1
26601-64-9	Hexachlorobiphenyl	0.75	U	15	0.75
27323-18-8	Monochlorobiphenyl	0.43	U	7.5	0.43
53742-07-7	Nonachlorobiphenyl	7.5	U	39	7.5
55722-26-4	Octachlorobiphenyl	1.2	U	23	1.2
25429-29-2	Pentachlorobiphenyl	1.6	J	15	0.77
26914-33-0	Tetrachlorobiphenyl	19		15	0.84
25323-68-6	Trichlorobiphenyl	1.1	J	7.5	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	47		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-248-03 | Lab Sample ID: 680-102468-45

Matrix: Solid | Lab File ID: XG2544.D

Analysis Method: 680 | Date Collected: 06/17/2014 14:15

Extract. Method: 680 | Date Extracted: 07/23/2014 17:34

Sample wt/vol: 10.07(g) | Date Analyzed: 07/26/2014 14:35

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 46.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340977 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	4.6	U	95	4.6
25512-42-9	Dichlorobiphenyl	2.0	U	18	2.0
28655-71-2	Heptachlorobiphenyl	2.8	U	56	2.8
26601-64-9	Hexachlorobiphenyl	1.8	U	37	1.8
27323-18-8	Monochlorobiphenyl	1.1	U	18	1.1
53742-07-7	Nonachlorobiphenyl	18	U *	95	18
55722-26-4	Octachlorobiphenyl	3.0	U	56	3.0
25429-29-2	Pentachlorobiphenyl	1.9	U	37	1.9
26914-33-0	Tetrachlorobiphenyl	2.1	U	37	2.1
25323-68-6	Trichlorobiphenyl	0.95	U	18	0.95

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	39		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102468-1
SDG No.: 680102468-1
Client Sample ID: SD-248-SS
Lab Sample ID: 680-102468-42
Matrix: Solid
Lab File ID: XG2018.D
Analysis Method: 680
Date Collected: 06/17/2014 14:00
Extract. Method: 680
Date Extracted: 07/12/2014 13:20
Sample wt/vol: 30.34(g)
Date Analyzed: 07/20/2014 23:25
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 74.5
GPC Cleanup:(Y/N) N
Analysis Batch No.: 339960
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	3.2	U	66	3.2
25512-42-9	Dichlorobiphenyl	1.4	U	13	1.4
28655-71-2	Heptachlorobiphenyl	48		39	1.9
26601-64-9	Hexachlorobiphenyl	180		26	1.3
27323-18-8	Monochlorobiphenyl	0.74	U	13	0.74
53742-07-7	Nonachlorobiphenyl	13	U	66	13
55722-26-4	Octachlorobiphenyl	5.9	J	39	2.1
25429-29-2	Pentachlorobiphenyl	230		26	1.3
26914-33-0	Tetrachlorobiphenyl	420		26	1.4
25323-68-6	Trichlorobiphenyl	10	J	13	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	20	X	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-249-01 | Lab Sample ID: 680-102468-47

Matrix: Solid | Lab File ID: XG2123.D

Analysis Method: 680 | Date Collected: 06/17/2014 14:30

Extract. Method: 680 | Date Extracted: 07/12/2014 13:20

Sample wt/vol: 30.09(g) | Date Analyzed: 07/22/2014 00:34

Con. Extract Vol.: 1(mL) | Dilution Factor: 50

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 41.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340118 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	70	U	1400	70
25512-42-9	Dichlorobiphenyl	30	U	280	30
28655-71-2	Heptachlorobiphenyl	15000		850	42
26601-64-9	Hexachlorobiphenyl	17000		570	28
27323-18-8	Monochlorobiphenyl	16	U	280	16
53742-07-7	Nonachlorobiphenyl	280	U	1400	280
55722-26-4	Octachlorobiphenyl	2400		850	45
25429-29-2	Pentachlorobiphenyl	14000		570	29
26914-33-0	Tetrachlorobiphenyl	46000		570	31
25323-68-6	Trichlorobiphenyl	2700		280	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-249-02 | Lab Sample ID: 680-102468-48

Matrix: Solid | Lab File ID: XG2023.D

Analysis Method: 680 | Date Collected: 06/17/2014 14:35

Extract. Method: 680 | Date Extracted: 07/12/2014 13:20

Sample wt/vol: 29.91(g) | Date Analyzed: 07/21/2014 01:47

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 27.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339960 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	1.1	U	23	1.1
25512-42-9	Dichlorobiphenyl	0.48	U	4.6	0.48
28655-71-2	Heptachlorobiphenyl	270		14	0.69
26601-64-9	Hexachlorobiphenyl	310		9.2	0.46
27323-18-8	Monochlorobiphenyl	0.26	U	4.6	0.26
53742-07-7	Nonachlorobiphenyl	4.6	U	23	4.6
55722-26-4	Octachlorobiphenyl	52		14	0.73
25429-29-2	Pentachlorobiphenyl	150		9.2	0.47
26914-33-0	Tetrachlorobiphenyl	910		9.2	0.51
25323-68-6	Trichlorobiphenyl	63		4.6	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	44		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-249-03 | Lab Sample ID: 680-102468-49

Matrix: Solid | Lab File ID: XG2024.D

Analysis Method: 680 | Date Collected: 06/17/2014 14:40

Extract. Method: 680 | Date Extracted: 07/12/2014 13:20

Sample wt/vol: 29.93(g) | Date Analyzed: 07/21/2014 02:16

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 29.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339960 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	1.2	U	24	1.2
25512-42-9	Dichlorobiphenyl	0.50	U	4.7	0.50
28655-71-2	Heptachlorobiphenyl	230		14	0.71
26601-64-9	Hexachlorobiphenyl	330		9.5	0.47
27323-18-8	Monochlorobiphenyl	0.27	U	4.7	0.27
53742-07-7	Nonachlorobiphenyl	4.7	U	24	4.7
55722-26-4	Octachlorobiphenyl	42		14	0.75
25429-29-2	Pentachlorobiphenyl	250		9.5	0.48
26914-33-0	Tetrachlorobiphenyl	250		9.5	0.52
25323-68-6	Trichlorobiphenyl	23		4.7	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	58		30-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-249-SS | Lab Sample ID: 680-102468-46

Matrix: Solid | Lab File ID: XG2545.D

Analysis Method: 680 | Date Collected: 06/17/2014 14:25

Extract. Method: 680 | Date Extracted: 07/23/2014 17:34

Sample wt/vol: 10.01(g) | Date Analyzed: 07/26/2014 15:04

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 37.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 340977 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	3.9	U	81	3.9
25512-42-9	Dichlorobiphenyl	1.7	U	16	1.7
28655-71-2	Heptachlorobiphenyl	310		48	2.4
26601-64-9	Hexachlorobiphenyl	360		32	1.6
27323-18-8	Monochlorobiphenyl	0.90	U	16	0.90
53742-07-7	Nonachlorobiphenyl	16	U *	81	16
55722-26-4	Octachlorobiphenyl	45	J	48	2.5
25429-29-2	Pentachlorobiphenyl	140		32	1.6
26914-33-0	Tetrachlorobiphenyl	550		32	1.8
25323-68-6	Trichlorobiphenyl	29		16	0.81

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	31		30-130

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: SD-Dup-04 | Lab Sample ID: 680-102468-17

Matrix: Solid | Lab File ID: XG1917.D

Analysis Method: 680 | Date Collected: 06/17/2014 00:00

Extract. Method: 680 | Date Extracted: 07/11/2014 14:11

Sample wt/vol: 10.19(g) | Date Analyzed: 07/20/2014 02:40

Con. Extract Vol.: 1(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 57.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339932 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	12	U	240	12
25512-42-9	Dichlorobiphenyl	4.9	U	46	4.9
28655-71-2	Heptachlorobiphenyl	3500		140	6.9
26601-64-9	Hexachlorobiphenyl	3000		93	4.6
27323-18-8	Monochlorobiphenyl	2.6	U	46	2.6
53742-07-7	Nonachlorobiphenyl	46	U *	240	46
55722-26-4	Octachlorobiphenyl	42	J	140	7.4
25429-29-2	Pentachlorobiphenyl	2200		93	4.7
26914-33-0	Tetrachlorobiphenyl	7300		93	5.1
25323-68-6	Trichlorobiphenyl	370		46	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	36		30-130

APPENDIX C

SUPPORT DOCUMENTATION

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: Sediments

Report Number: 680-102468-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 06/18/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.2 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Samples SD-239-SS (680-102468-1), SD-239-01 (680-102468-2), SD-239-02 (680-102468-3), SD-239-03 (680-102468-4), SD-238-SS (680-102468-5), SD-238-01 (680-102468-6), SD-238-02 (680-102468-7), SD-238-03 (680-102468-8), SD-240-SS (680-102468-9), SD-240-01 (680-102468-10), SD-240-02 (680-102468-11), SD-240-03 (680-102468-12), SD-241-SS (680-102468-13), SD-241-01 (680-102468-14), SD-241-02 (680-102468-15), SD-241-03 (680-102468-16), SD-Dup-04 (680-102468-17), SD-242-SS (680-102468-18), SD-242-01 (680-102468-19), SD-242-02 (680-102468-20), SD-242-03 (680-102468-21), SD-243-SS (680-102468-22), SD-243-01 (680-102468-23), SD-243-02 (680-102468-24), SD-243-03 (680-102468-25), SD-244-SS (680-102468-26), SD-244-01 (680-102468-27), SD-244-02 (680-102468-28), SD-244-03 (680-102468-29), SD-245-SS (680-102468-30), SD-245-01 (680-102468-31), SD-245-02 (680-102468-32), SD-245-03 (680-102468-33), SD-246-SS (680-102468-34), SD-246-01 (680-102468-35), SD-246-02 (680-102468-36), SD-246-03 (680-102468-37), SD-247-SS (680-102468-38), SD-247-01 (680-102468-39), SD-247-02 (680-102468-40), SD-247-03 (680-102468-41), SD-248-SS (680-102468-42), SD-248-01 (680-102468-43), SD-248-02 (680-102468-44), SD-248-03 (680-102468-45), SD-249-SS (680-102468-46), SD-249-01 (680-102468-47), SD-249-02 (680-102468-48) and SD-249-03 (680-102468-49) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 680. The samples were prepared on 07/11/2014, 07/12/2014 and 07/23/2014 and analyzed on 07/14/2014, 07/17/2014, 07/18/2014, 07/20/2014, 07/21/2014, 07/22/2014, 07/26/2014 and 07/30/2014.

Internal standard (ISTD) response for the following sample(s) was outside of acceptance limits: (LCS 680-340491/22-A). The sample was spiked with twice the usual amount of internal standard. The results were calculated accordingly and reported.

Internal standard (ISTD) response for the following sample(s) was outside of acceptance limits when compared to the area of the CCVIS,: SD-242-SS (680-102468-18), SD-243-01 (680-102468-23). The 680 method allows that the sample also be compared to the average internal standard area of the calibration(ICISAV). When compared to the ICISAV the samples are within the area range for the internal standard.

Surrogate recovery for the following sample(s) was outside control limits: SD-239-01 (680-102468-2), SD-238-01 (680-102468-6), SD-238-02 (680-102468-7), SD-240-01 (680-102468-10), SD-240-SS (680-102468-9), SD-241-SS (680-102468-13), SD-242-01 (680-102468-19), SD-242-SS (680-102468-18), SD-244-02 (680-102468-28), SD-245-02 (680-102468-32), SD-245-SS (680-102468-30), SD-246-02 (680-102468-36), SD-247-01 (680-102468-39). Re-extraction and/or re-analysis was performed with concurring results. The original analysis has been reported. Both extracts are 10g and matrix interference is suspected.

Surrogate recovery was outside acceptance limits for the following matrix spike/matrix spike duplicate (MS/MSD) sample(s): (680-102468-20 MS). The parent sample's surrogate recovery was within limits. The MS/MSD sample has been qualified and reported.

Surrogate recovery for the following sample(s) was outside control limits: SD-248-01 (680-102468-43), SD-248-01 (680-102468-43 MS), SD-248-01 (680-102468-43 MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed. An MS/MSD was performed on this sample which also had low surrogate recoveries.

Surrogate recovery for the following sample(s) was outside control limits: SD-248-SS (680-102468-42). Re-extraction and/or re-analysis was performed with concurring results. The original analysis has been reported. The original extract is 30g, the reextract is 10g and still experienced matrix interference.

The following sample(s) was diluted due to abundance of target analytes : SD-240-01 (680-102468-10), SD-241-01 (680-102468-14), SD-242-02 (680-102468-20), SD-244-SS (680-102468-26), SD-245-01 (680-102468-31), SD-246-SS (680-102468-34), SD-246-01 (680-102468-35), SD-247-SS (680-102468-38), SD-247-03 (680-102468-41), SD-249-01 (680-102468-47). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Surrogate recovery was outside acceptance limits for the following matrix spike/matrix spike duplicate (MS/MSD) sample(s): (680-102468-40 MS), (680-102468-40 MSD). The parent sample's surrogate recovery was within limits. The MS/MSD sample has been

qualified and reported.

Surrogate recovery for the following sample(s) was outside control limits: SD-244-01 (680-102468-27). Re-extraction and/or re-analysis was performed with concurring results. The reextract analysis has been reported. The original analysis failed ratio criteria for the surrogate.

Nonachlorobiphenyl exceeded the recovery criteria high for LCS 680-338581/22-A, and LCS 680-340491/22-A. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Refer to the QC report for details.

Several analytes exceeded the recovery criteria low for the MS/MSD of sample SD-247-02 (680-102468-40) in batch 680-339564.

Several analytes exceeded the recovery criteria low for the MS of sample SD-248-01MS (680-102468-43) in batch 680-339960.

For the MSD of sample SD-248-01MSD (680-102468-43) in batch 680-339960, DCB Decachlorobiphenyl, Heptachlorobiphenyl, Monochlorobiphenyl and Octachlorobiphenyl exceeded the recovery criteria low. Tetrachlorobiphenyl exceeded the recovery criteria high. Also, Several analytes exceeded the RPD limit.

Several analytes exceeded the recovery criteria low for the MS of sample 680-102468-20 in batch 680-338831. Hexachlorobiphenyl exceeded the recovery criteria high.

For the MSD of sample 680-102468-20 in batch 680-338831, Trichlorobiphenyl exceeded the recovery criteria low. Heptachlorobiphenyl, Hexachlorobiphenyl and Pentachlorobiphenyl exceeded the recovery criteria high. Also, Several analytes exceeded the RPD limit.

The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Samples SD-240-01 (680-102468-10)[20X], SD-241-01 (680-102468-14)[10X], SD-Dup-04 (680-102468-17)[2X], SD-242-02 (680-102468-20)[10X], SD-242-03 (680-102468-21)[2X], SD-244-SS (680-102468-26)[20X], SD-244-01 (680-102468-27)[5X], SD-244-02 (680-102468-28)[2X], SD-245-01 (680-102468-31)[10X], SD-245-02 (680-102468-32)[2X], SD-246-SS (680-102468-34)[50X], SD-246-01 (680-102468-35)[20X], SD-247-SS (680-102468-38)[10X], SD-247-01 (680-102468-39)[5X], SD-247-03 (680-102468-41)[10X] and SD-249-01 (680-102468-47)[50X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

PERCENT SOLIDS/MOISTURE

Samples SD-239-SS (680-102468-1), SD-239-01 (680-102468-2), SD-239-02 (680-102468-3), SD-239-03 (680-102468-4), SD-238-SS (680-102468-5), SD-238-01 (680-102468-6), SD-238-02 (680-102468-7), SD-238-03 (680-102468-8), SD-240-SS (680-102468-9), SD-240-01 (680-102468-10), SD-240-02 (680-102468-11), SD-240-03 (680-102468-12), SD-241-SS (680-102468-13), SD-241-01 (680-102468-14), SD-241-02 (680-102468-15), SD-241-03 (680-102468-16), SD-Dup-04 (680-102468-17), SD-242-SS (680-102468-18), SD-242-01 (680-102468-19), SD-242-02 (680-102468-20), SD-242-03 (680-102468-21), SD-243-SS (680-102468-22), SD-243-01 (680-102468-23), SD-243-02 (680-102468-24), SD-243-03 (680-102468-25), SD-244-SS (680-102468-26), SD-244-01 (680-102468-27), SD-244-02 (680-102468-28), SD-244-03 (680-102468-29), SD-245-SS (680-102468-30), SD-245-01 (680-102468-31), SD-245-02 (680-102468-32), SD-245-03 (680-102468-33), SD-246-SS (680-102468-34), SD-246-01 (680-102468-35), SD-246-02 (680-102468-36), SD-246-03 (680-102468-37), SD-247-SS (680-102468-38), SD-247-01 (680-102468-39), SD-247-02 (680-102468-40), SD-247-03 (680-102468-41), SD-248-SS (680-102468-42), SD-248-01 (680-102468-43), SD-248-02 (680-102468-44), SD-248-03 (680-102468-45), SD-249-SS (680-102468-46), SD-249-01 (680-102468-47), SD-249-02 (680-102468-48) and SD-249-03 (680-102468-49) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 06/19/2014.

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

SAMPLE SUMMARY

Client: Tetra Tech, Inc.

Job Number: 680-102468-1
Sdg Number: 680102468-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-102468-1	SD-239-SS	Solid	06/17/2014 0735	06/18/2014 0921
680-102468-2	SD-239-01	Solid	06/17/2014 0740	06/18/2014 0921
680-102468-3	SD-239-02	Solid	06/17/2014 0745	06/18/2014 0921
680-102468-4	SD-239-03	Solid	06/17/2014 0750	06/18/2014 0921
680-102468-5	SD-238-SS	Solid	06/17/2014 0820	06/18/2014 0921
680-102468-6	SD-238-01	Solid	06/17/2014 0825	06/18/2014 0921
680-102468-7	SD-238-02	Solid	06/17/2014 0830	06/18/2014 0921
680-102468-8	SD-238-03	Solid	06/17/2014 0835	06/18/2014 0921
680-102468-9	SD-240-SS	Solid	06/17/2014 0845	06/18/2014 0921
680-102468-10	SD-240-01	Solid	06/17/2014 0850	06/18/2014 0921
680-102468-11	SD-240-02	Solid	06/17/2014 0855	06/18/2014 0921
680-102468-12	SD-240-03	Solid	06/17/2014 0900	06/18/2014 0921
680-102468-13	SD-241-SS	Solid	06/17/2014 0910	06/18/2014 0921
680-102468-14	SD-241-01	Solid	06/17/2014 0915	06/18/2014 0921
680-102468-15	SD-241-02	Solid	06/17/2014 0920	06/18/2014 0921
680-102468-16	SD-241-03	Solid	06/17/2014 0925	06/18/2014 0921
680-102468-17	SD-Dup-04	Solid	06/17/2014 0000	06/18/2014 0921
680-102468-18	SD-242-SS	Solid	06/17/2014 0940	06/18/2014 0921
680-102468-19	SD-242-01	Solid	06/17/2014 0945	06/18/2014 0921
680-102468-20	SD-242-02	Solid	06/17/2014 0950	06/18/2014 0921
680-102468-21	SD-242-03	Solid	06/17/2014 0955	06/18/2014 0921
680-102468-22	SD-243-SS	Solid	06/17/2014 1010	06/18/2014 0921
680-102468-23	SD-243-01	Solid	06/17/2014 1015	06/18/2014 0921
680-102468-24	SD-243-02	Solid	06/17/2014 1020	06/18/2014 0921
680-102468-25	SD-243-03	Solid	06/17/2014 1025	06/18/2014 0921
680-102468-26	SD-244-SS	Solid	06/17/2014 1045	06/18/2014 0921
680-102468-27	SD-244-01	Solid	06/17/2014 1050	06/18/2014 0921
680-102468-28	SD-244-02	Solid	06/17/2014 1055	06/18/2014 0921
680-102468-29	SD-244-03	Solid	06/17/2014 1100	06/18/2014 0921
680-102468-30	SD-245-SS	Solid	06/17/2014 1135	06/18/2014 0921
680-102468-31	SD-245-01	Solid	06/17/2014 1140	06/18/2014 0921
680-102468-32	SD-245-02	Solid	06/17/2014 1145	06/18/2014 0921
680-102468-33	SD-245-03	Solid	06/17/2014 1150	06/18/2014 0921
680-102468-34	SD-246-SS	Solid	06/17/2014 1205	06/18/2014 0921
680-102468-35	SD-246-01	Solid	06/17/2014 1210	06/18/2014 0921
680-102468-36	SD-246-02	Solid	06/17/2014 1215	06/18/2014 0921
680-102468-37	SD-246-03	Solid	06/17/2014 1220	06/18/2014 0921
680-102468-38	SD-247-SS	Solid	06/17/2014 1305	06/18/2014 0921
680-102468-39	SD-247-01	Solid	06/17/2014 1310	06/18/2014 0921
680-102468-40	SD-247-02	Solid	06/17/2014 1315	06/18/2014 0921
680-102468-41	SD-247-03	Solid	06/17/2014 1320	06/18/2014 0921
680-102468-42	SD-248-SS	Solid	06/17/2014 1400	06/18/2014 0921
680-102468-43	SD-248-01	Solid	06/17/2014 1405	06/18/2014 0921
680-102468-43MS	SD-248-01	Solid	06/17/2014 1405	06/18/2014 0921
680-102468-43MSD	SD-248-01	Solid	06/17/2014 1405	06/18/2014 0921
680-102468-44	SD-248-02	Solid	06/17/2014 1410	06/18/2014 0921
680-102468-45	SD-248-03	Solid	06/17/2014 1415	06/18/2014 0921
680-102468-46	SD-249-SS	Solid	06/17/2014 1425	06/18/2014 0921
680-102468-47	SD-249-01	Solid	06/17/2014 1430	06/18/2014 0921
680-102468-48	SD-249-02	Solid	06/17/2014 1435	06/18/2014 0921
680-102468-49	SD-249-03	Solid	06/17/2014 1440	06/18/2014 0921

METHOD SUMMARY

Client: Tetra Tech, Inc.

Job Number: 680-102468-1
Sdg Number: 680102468-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Polychlorinated Biphenyls (PCBs) (GC/MS)	TAL SAV	EPA 680	
Extraction (Solid PCBs)	TAL SAV		EPA 680
Percent Moisture	TAL SAV	EPA Moisture	

Lab References:

TAL SAV = TestAmerica Savannah

Method References:

EPA = US Environmental Protection Agency

PCB

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Sts Cameron	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-56831-24906.32
Client Contact: Mike Martin	Phone: (703) 342-8389	E-Mail: jerry.lanier@testamericainc.com		Page: ~~Page 32 of 46~~ 1 of 5
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone:	PO #: Purchase Order not required			
Email: MIchael.Martin@tetratech.com	WO #:			
Project Name: Sediments	Project #: 68012942			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680 - Local Method	A01R_Th - Standard Target List	6020, 7470A	GA_01_R_Ra - (MOD) Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N		
SD-239-SS	6/17/14	0735	C	Solid			X					
SD-239-01		0740	C	Solid			X					
SD-239-02		0745	C	Solid			X					
SD-239-03		0750	C	Solid			X					~~[illegible]~~
SD-238-SS		0820	C	Solid			X					
SD-238-01		0825	C	Solid			X					
SD-238-02		0830	C	Solid			X					
SD-238-03		0835	C	Solid			X					~~[illegible]~~
SD-240-SS		0845	C	Solid			X					
SD-240-01		0850	C	Solid			X					
SD-240-02		0855	C	Solid			X					

680-102468 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements: 680-102468

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6-17-14 / 1600	T+	[signature]	6/17/14 (1600)	TestAmerica
[signature]	6/17/14 / 1720	~~TestAmerica~~	[signature]	6/18/14 09:21	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.2°C

PCBs

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Sto Cameron	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-56831-24906.33
Client Contact: Mike Martin	Phone: (703) 342-8389	E-Mail: jerry.lanier@testamericainc.com		Page: Page ~~33 of 46~~ 2 of 5
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone:	PO #: Purchase Order not required			
Email: MIchael.Martin@tetratech.com	WO #:			
Project Name: Sediments	Project #: 68012942			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680 - Local Method	A01R_Th - Standard Target List	6020, 7470A	GA_01_R_Ra - (MOD) Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N		
SD-240-03	6/17/14	0900	C	Solid			X					~~Note [illegible] of SS to 02~~
SD-241-SS		0910	C	Solid			X					
SD-241-01		0915	C	Solid			X					
SD-241-02		0920	C	Solid			X					
SD-241-03		0925	C	Solid			X					
SD-DUP04		0000	C	Solid			X					
SD-242-SS		0940	C	Solid			X					
SD-242-01		0945	C	Solid			X					
SD-242-02		0950	C	Solid			X					
SD-242-03		0955	C	Solid			X					
SD-243-SS		1010	C	Solid			X					

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements: 680-102468

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/17/14 - 1600	TA	[signature]	6/17/14/1600	TA
[signature]	6/17/14/1720	TA	M. [signature]	6/18/14 09:21	TA

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 3.2 °C

PCBs

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Stu Cameron	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-56831-24906.35
Client Contact: Mike Martin	Phone: (703)742-8389	E-Mail: jerry.lanier@testamericainc.com		Page: Page ~~35 of 40~~ 3 of 5
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone:	PO #: Purchase Order not required			
Email: MIchael.Martin@tetratech.com	WO #:			
Project Name: Sediments	Project #: 68012942			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680 - Local Method	A01R_Th - Standard Target List	6020, 7470A	GA_01_R_Ra - (MOD) Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N		
SD-243-01	6/17/14	1015	C	Solid			X					
SD-243-02		1020	C	Solid			X					
SD-243-03		1025	C	Solid			X					
SD-244-SS		1045	C	Solid			X					
SD-244-01		1050	C	Solid			X					
SD-244-02		1055	C	Solid			X					
SD-244-03		1100	C	Solid			X					
SD-245-SS		1135	C	Solid			X					
SD-245-01		1140	C	Solid			X					
SD-245-02		1145	C	Solid			X					
SD-245-03		1150	C	Solid			X					

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements: 680-102468

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 6/17/14 1600	Company: TT	Received by:	Date/Time: 6/17/14 1600	Company: TT
Relinquished by:	Date/Time: 6/17/14 1720	Company: TA	Received by:	Date/Time: 6/18/14 09:21	Company: TT
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.2°C

PCBs

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Stu Cameron	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-56831-24906.37
Client Contact: Mike Martin	Phone: (703) 342-8389	E-Mail: jerry.lanier@testamericainc.com		Page: Page ~~37 of 46~~ 4 of 5
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone:	PO #: Purchase Order not required			
Email: MIchael.Martin@tetratech.com	WO #:			
Project Name: Sediments	Project #: 68012942			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680 - Local Method	A01R_Th - Standard Target List	6020, 7470A	GA_01_R_Ra - (MOD) Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N		
SD-246-SS	6/17/14	1205	C	Solid			X					
SD-246-01		1210	C	Solid			X					
SD-246-02		1215	C	Solid			X					
SD-246-03		1220	C	Solid			X					
SD-247-SS		1305	C	Solid			X					
SD-247-01		1310	C	Solid			X					
SD-247-02		1315	C	Solid			X					
SD-247-03		1320	C	Solid			X					
SD-248-SS		1400	C	Solid			X					
SD-248-01		1405	C	Solid			X					MS/MSD
SD-248-02		1410	C	Solid			X					

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements: 680-102468

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/17/14 - 1600	TT	[signature]	6/17/14 1600	TT
[signature]	6/17/14 1720	TT	[signature]	6/18/14 09:21	TA

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 32°

PCBs

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Stu Cameron	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-56831-24906.39
Client Contact: Mike Martin	Phone: (703) 341-8389	E-Mail: jerry.lanier@testamericainc.com		Page: Page ~~2 of 46~~ 5 of 5
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone:	PO #: Purchase Order not required			
Email: MIchael.Martin@tetratech.com	WO #:			
Project Name: Sediments	Project #: 68012942			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	680 - Local Method	A01R_Th - Standard Target List	6020, 7470A	GA_01_R_Ra - (MOD) Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N		
SD-248-03	6/17/14	1415	C	Solid			X					
SD-249-55		1425	C	Solid			X					
SD-249-01		1430	C	Solid			X					~~MS/MSD~~
SD-249-02		1435	C	Solid			X					
SD-249-03		1440	C	Solid			X					
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements: 680-102468

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/17/14 - 1100	TT	[signature]	6/17/14 1600	TA
[signature]	6/17/14 1720	TA	[signature]	6/18/14 0921	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.2°C

HOLDTIME

SDG 680-102468-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	SD-240-SS	680-102468-9	NM	06/17/2014	07/11/2014	07/17/2014	24	6	30
PCB	UG/KG	SD-243-03	680-102468-25	NM	06/17/2014	07/11/2014	07/20/2014	24	9	33
PCB	UG/KG	SD-243-02	680-102468-24	NM	06/17/2014	07/11/2014	07/18/2014	24	7	31
PCB	UG/KG	SD-243-01	680-102468-23	NM	06/17/2014	07/11/2014	07/18/2014	24	7	31
PCB	UG/KG	SD-242-SS	680-102468-18	NM	06/17/2014	07/11/2014	07/18/2014	24	7	31
PCB	UG/KG	SD-242-03	680-102468-21	NM	06/17/2014	07/11/2014	07/20/2014	24	9	33
PCB	UG/KG	SD-242-02	680-102468-20	NM	06/17/2014	07/11/2014	07/20/2014	24	9	33
PCB	UG/KG	SD-242-01	680-102468-19	NM	06/17/2014	07/11/2014	07/18/2014	24	7	31
PCB	UG/KG	SD-241-SS	680-102468-13	NM	06/17/2014	07/11/2014	07/18/2014	24	7	31
PCB	UG/KG	SD-241-03	680-102468-16	NM	06/17/2014	07/11/2014	07/18/2014	24	7	31
PCB	UG/KG	SD-238-01	680-102468-6	NM	06/17/2014	07/11/2014	07/17/2014	24	6	30
PCB	UG/KG	SD-241-01	680-102468-14	NM	06/17/2014	07/11/2014	07/20/2014	24	9	33
PCB	UG/KG	SD-244-02	680-102468-28	NM	06/17/2014	07/11/2014	07/20/2014	24	9	33
PCB	UG/KG	SD-240-03	680-102468-12	NM	06/17/2014	07/11/2014	07/17/2014	24	6	30
PCB	UG/KG	SD-240-02	680-102468-11	NM	06/17/2014	07/11/2014	07/17/2014	24	6	30

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	SD-240-01	680-102468-10	NM	06/17/2014	07/11/2014	07/17/2014	24	6	30
PCB	UG/KG	SD-239-SS	680-102468-1	NM	06/17/2014	07/11/2014	07/14/2014	24	3	27
PCB	UG/KG	SD-239-03	680-102468-4	NM	06/17/2014	07/11/2014	07/17/2014	24	6	30
PCB	UG/KG	SD-239-02	680-102468-3	NM	06/17/2014	07/11/2014	07/14/2014	24	3	27
PCB	UG/KG	SD-239-01	680-102468-2	NM	06/17/2014	07/11/2014	07/14/2014	24	3	27
PCB	UG/KG	SD-238-SS	680-102468-5	NM	06/17/2014	07/11/2014	07/17/2014	24	6	30
PCB	UG/KG	SD-238-03	680-102468-8	NM	06/17/2014	07/11/2014	07/17/2014	24	6	30
PCB	UG/KG	SD-238-02	680-102468-7	NM	06/17/2014	07/11/2014	07/17/2014	24	6	30
PCB	UG/KG	SD-241-02	680-102468-15	NM	06/17/2014	07/11/2014	07/18/2014	24	7	31
PCB	UG/KG	SD-246-SS	680-102468-34	NM	06/17/2014	07/11/2014	07/20/2014	24	9	33
PCB	UG/KG	SD-249-SS	680-102468-46	NM	06/17/2014	07/23/2014	07/26/2014	36	3	39
PCB	UG/KG	SD-249-03	680-102468-49	NM	06/17/2014	07/12/2014	07/21/2014	25	9	34
PCB	UG/KG	SD-249-02	680-102468-48	NM	06/17/2014	07/12/2014	07/21/2014	25	9	34
PCB	UG/KG	SD-249-01	680-102468-47	NM	06/17/2014	07/12/2014	07/22/2014	25	10	35
PCB	UG/KG	SD-248-SS	680-102468-42	NM	06/17/2014	07/12/2014	07/20/2014	25	8	33
PCB	UG/KG	SD-248-03	680-102468-45	NM	06/17/2014	07/23/2014	07/26/2014	36	3	39
PCB	UG/KG	SD-248-02	680-102468-44	NM	06/17/2014	07/12/2014	07/20/2014	25	8	33
PCB	UG/KG	SD-248-01	680-102468-43	NM	06/17/2014	07/12/2014	07/20/2014	25	8	33

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	SD-247-SS	680-102468-38	NM	06/17/2014	07/11/2014	07/20/2014	24	9	33
PCB	UG/KG	SD-247-03	680-102468-41	NM	06/17/2014	07/12/2014	07/30/2014	25	18	43
PCB	UG/KG	SD-243-SS	680-102468-22	NM	06/17/2014	07/11/2014	07/18/2014	24	7	31
PCB	UG/KG	SD-247-01	680-102468-39	NM	06/17/2014	07/11/2014	07/20/2014	24	9	33
PCB	UG/KG	SD-244-01	680-102468-27	NM	06/17/2014	07/23/2014	07/26/2014	36	3	39
PCB	UG/KG	SD-246-03	680-102468-37	NM	06/17/2014	07/11/2014	07/20/2014	24	9	33
PCB	UG/KG	SD-246-02	680-102468-36	NM	06/17/2014	07/11/2014	07/20/2014	24	9	33
PCB	UG/KG	SD-246-01	680-102468-35	NM	06/17/2014	07/11/2014	07/20/2014	24	9	33
PCB	UG/KG	SD-245-SS	680-102468-30	NM	06/17/2014	07/11/2014	07/20/2014	24	9	33
PCB	UG/KG	SD-245-03	680-102468-33	NM	06/17/2014	07/11/2014	07/20/2014	24	9	33
PCB	UG/KG	SD-245-02	680-102468-32	NM	06/17/2014	07/11/2014	07/20/2014	24	9	33
PCB	UG/KG	SD-245-01	680-102468-31	NM	06/17/2014	07/11/2014	07/20/2014	24	9	33
PCB	UG/KG	SD-244-SS	680-102468-26	NM	06/17/2014	07/11/2014	07/20/2014	24	9	33
PCB	UG/KG	SD-244-03	680-102468-29	NM	06/17/2014	07/11/2014	07/20/2014	24	9	33
PCB	UG/KG	SD-Dup-04	680-102468-17	NM	06/17/2014	07/11/2014	07/20/2014	24	9	33
PCB	UG/KG	SD-247-02	680-102468-40	NM	06/17/2014	07/11/2014	07/18/2014	24	7	31

Field Duplicate Precision				
ANALYTE	**SD-Dup-04**	**SD-241-02**	**RPD**	**DIFFERENCE**
DICHLOROBIPHENYLS	ND	2.5	200.00	2.4
HEPTACHLOROBIPHENYLS	3500	370	161.76	3130
HEXACHLOROBIPHENYL	3000	390	153.98	2610
OCTACHLOROBIPHENYLS	42	66	44.44	24
PENTACHLOROBIPHENYLS	2200	660	107.69	1540
TETRACHLOROBIPHENYLS	7300	3500	70.37	3800
TRICHLOROBIPHENYLS	370	270	31.25	100

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab Sample ID: CCVIS 680-338831/4 Calibration Date: 07/14/2014 07:52

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG1327.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.8594		0.932	1.00	-6.8	20.0
Dichlorobiphenyl	Ave	0.6403	0.6515		1.02	1.00	1.8	20.0
Trichlorobiphenyl	Ave	0.4446	0.4746		1.07	1.00	6.7	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3434		2.11	2.00	5.5	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2798		2.24	2.00	12.2	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2677		2.18	2.00	8.9	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2207		3.18	3.00	6.1	20.0
Octachlorobiphenyl	Ave	0.1912	0.2088		3.28	3.00	9.2	20.0
DCB Decachlorobiphenyl	Ave	0.0672	0.0693		5.15	5.00	3.1	20.0
Decachlorobiphenyl-13C12	Ave	0.0783	0.0776		4.96	5.00	-0.9	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab File ID: XG1325.D DFTPP Injection Date: 07/14/2014

Instrument ID: CMSX DFTPP Injection Time: 06:51

Analysis Batch No.: 338831

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	51.2
197	Less than 1 % of mass 198	0.0
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.8
275	10 - 30% of mass 198	28.7
365	Greater than 1% of mass 198	4.7
441	Present but less than mass 443	15.5 (84.6)2
442	Greater than 40% of mass 198	96.1
443	17 - 23% of mass 442	18.4 (19.1)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-338831/3	XG1326.D	07/14/2014	07:22
	CCVIS 680-338831/4	XG1327.D	07/14/2014	07:52
	MB 680-338581/21-A	XG1337.D	07/14/2014	13:11
	LCS 680-338581/22-A	XG1338.D	07/14/2014	13:40
	680-102468-A-20-G MS MS	XG1339.D	07/14/2014	14:08
	680-102468-A-20-H MSD MSD	XG1340.D	07/14/2014	14:37
SD-239-SS	680-102468-1	XG1341.D	07/14/2014	15:05
SD-239-01	680-102468-2	XG1342.D	07/14/2014	15:34
SD-239-02	680-102468-3	XG1343.D	07/14/2014	16:03
	CCV 680-338831/21	XG1344.D	07/14/2014	16:31

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab Sample ID: CCV 680-338831/21 Calibration Date: 07/14/2014 16:31

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG1344.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.8814		0.956	1.00	-4.4	20.0
Dichlorobiphenyl	Ave	0.6403	0.6251		0.976	1.00	-2.4	20.0
Trichlorobiphenyl	Ave	0.4446	0.4693		1.06	1.00	5.5	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3192		1.96	2.00	-2.0	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2688		2.15	2.00	7.7	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2510		2.04	2.00	2.1	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2058		2.97	3.00	-1.1	20.0
Octachlorobiphenyl	Ave	0.1912	0.1892		2.97	3.00	-1.0	20.0
DCB Decachlorobiphenyl	Ave	0.0672	0.0631		4.69	5.00	-6.2	20.0
Decachlorobiphenyl-13C12	Ave	0.0783	0.0698		4.45	5.00	-10.9	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab File ID: XG1628.D DFTPP Injection Date: 07/17/2014

Instrument ID: CMSX DFTPP Injection Time: 00:10

Analysis Batch No.: 339357

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	56.4
197	Less than 1 % of mass 198	0.0
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.2
275	10 - 30% of mass 198	26.5
365	Greater than 1% of mass 198	3.7
441	Present but less than mass 443	11.0 (78.1)2
442	Greater than 40% of mass 198	69.2
443	17 - 23% of mass 442	14.0 (20.3)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-339357/3	XG1629.D	07/17/2014	00:40
	CCVIS 680-339357/4	XG1630.D	07/17/2014	01:10
SD-239-03	680-102468-4	XG1641.D	07/17/2014	06:23
SD-238-SS	680-102468-5	XG1642.D	07/17/2014	06:52
SD-238-01	680-102468-6	XG1643.D	07/17/2014	07:20
SD-238-02	680-102468-7	XG1644.D	07/17/2014	07:49
SD-238-03	680-102468-8	XG1645.D	07/17/2014	08:17
SD-240-SS	680-102468-9	XG1646.D	07/17/2014	08:45
SD-240-02	680-102468-11	XG1648.D	07/17/2014	09:42
SD-240-03	680-102468-12	XG1649.D	07/17/2014	10:11
SD-240-01	680-102468-10	XG1668.D	07/17/2014	10:39
	CCV 680-339357/24	XG1650.D	07/17/2014	11:08

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab Sample ID: CCVIS 680-339357/4 Calibration Date: 07/17/2014 01:10

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG1630.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.8595		0.932	1.00	-6.8	20.0
Dichlorobiphenyl	Ave	0.6403	0.6466		1.01	1.00	1.0	20.0
Trichlorobiphenyl	Ave	0.4446	0.4841		1.09	1.00	8.9	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3284		2.02	2.00	0.9	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2733		2.19	2.00	9.5	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2616		2.13	2.00	6.4	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2194		3.16	3.00	5.4	20.0
Octachlorobiphenyl	Ave	0.1912	0.1879		2.95	3.00	-1.7	20.0
DCB Decachlorobiphenyl	Ave	0.0672	0.0645		4.80	5.00	-4.0	20.0
Decachlorobiphenyl-13C12	Ave	0.0783	0.0709		4.53	5.00	-9.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab Sample ID: CCV 680-339357/24 Calibration Date: 07/17/2014 11:08

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG1650.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.7934		0.861	1.00	-13.9	20.0
Dichlorobiphenyl	Ave	0.6403	0.6132		0.958	1.00	-4.2	20.0
Trichlorobiphenyl	Ave	0.4446	0.4622		1.04	1.00	3.9	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3190		1.96	2.00	-2.0	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2592		2.08	2.00	3.9	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2507		2.04	2.00	2.0	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2100		3.03	3.00	0.9	20.0
Octachlorobiphenyl	Ave	0.1912	0.1841		2.89	3.00	-3.7	20.0
DCB Decachlorobiphenyl	Ave	0.0672	0.0639		4.75	5.00	-4.9	20.0
Decachlorobiphenyl-13C12	Ave	0.0783	0.0677		4.32	5.00	-13.6	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab File ID: XG1826.D DFTPP Injection Date: 07/18/2014

Instrument ID: CMSX DFTPP Injection Time: 09:36

Analysis Batch No.: 339564

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	52.3
197	Less than 1 % of mass 198	0.0
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.7
275	10 - 30% of mass 198	28.4
365	Greater than 1% of mass 198	5.1
441	Present but less than mass 443	14.2 (86.5)2
442	Greater than 40% of mass 198	87.4
443	17 - 23% of mass 442	16.4 (18.8)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-339564/3	XG1803.D	07/18/2014	10:09
	CCVIS 680-339564/4	XG1804.D	07/18/2014	10:43
SD-241-SS	680-102468-13	XG1806.D	07/18/2014	12:02
SD-241-02	680-102468-15	XG1808.D	07/18/2014	12:59
SD-241-03	680-102468-16	XG1809.D	07/18/2014	13:27
SD-242-SS	680-102468-18	XG1811.D	07/18/2014	14:24
SD-242-01	680-102468-19	XG1812.D	07/18/2014	14:53
	MB 680-338575/21-A	XG1814.D	07/18/2014	15:50
	LCS 680-338575/22-A	XG1815.D	07/18/2014	16:19
SD-247-02 MS	680-102468-40 MS	XG1816.D	07/18/2014	16:47
SD-247-02 MSD	680-102468-40 MSD	XG1817.D	07/18/2014	17:16
SD-247-02	680-102468-40	XG1818.D	07/18/2014	17:44
SD-243-SS	680-102468-22	XG1820.D	07/18/2014	18:41
SD-243-01	680-102468-23	XG1821.D	07/18/2014	19:09
SD-243-02	680-102468-24	XG1822.D	07/18/2014	19:38
	CCV 680-339564/23	XG1823.D	07/18/2014	20:06

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab Sample ID: CCVIS 680-339564/4 Calibration Date: 07/18/2014 10:43

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG1804.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.9556		1.04	1.00	3.7	20.0
Dichlorobiphenyl	Ave	0.6403	0.6670		1.04	1.00	4.2	20.0
Trichlorobiphenyl	Ave	0.4446	0.4876		1.10	1.00	9.7	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3366		2.07	2.00	3.4	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2582		2.07	2.00	3.5	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2417		1.97	2.00	-1.7	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2108		3.04	3.00	1.3	20.0
Octachlorobiphenyl	Ave	0.1912	0.1987		3.12	3.00	3.9	20.0
DCB Decachlorobiphenyl	Ave	0.0672	0.0628		4.67	5.00	-6.6	20.0
Decachlorobiphenyl-13C12	Ave	0.0783	0.0744		4.75	5.00	-5.0	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab Sample ID: CCV 680-339564/23 Calibration Date: 07/18/2014 20:06

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG1823.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.8476		0.920	1.00	-8.0	20.0
Dichlorobiphenyl	Ave	0.6403	0.6318		0.987	1.00	-1.3	20.0
Trichlorobiphenyl	Ave	0.4446	0.4793		1.08	1.00	7.8	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3209		1.97	2.00	-1.5	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2680		2.15	2.00	7.4	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2445		1.99	2.00	-0.5	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2286		3.30	3.00	9.9	20.0
Octachlorobiphenyl	Ave	0.1912	0.2200		3.45	3.00	15.1	20.0
DCB Decachlorobiphenyl	Ave	0.0672	0.0683		5.08	5.00	1.6	20.0
Decachlorobiphenyl-13C12	Ave	0.0783	0.0826		5.28	5.00	5.6	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab File ID: XG1907.D DFTPP Injection Date: 07/19/2014

Instrument ID: CMSX DFTPP Injection Time: 21:51

Analysis Batch No.: 339932

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	54.3
197	Less than 1 % of mass 198	0.2
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.9
275	10 - 30% of mass 198	30.0
365	Greater than 1% of mass 198	4.8
441	Present but less than mass 443	13.3 (84.6)2
442	Greater than 40% of mass 198	86.0
443	17 - 23% of mass 442	15.7 (18.3)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-339932/3	XG1908.D	07/19/2014	22:21
	ICISAV 680-339932/4	XG1909.D	07/19/2014	22:52
	IC 680-339932/5	XG1910.D	07/19/2014	23:20
	IC 680-339932/6	XG1911.D	07/19/2014	23:49
	IC 680-339932/7	XG1912.D	07/20/2014	00:17
	IC 680-339932/8	XG1913.D	07/20/2014	00:46
	ICV 680-339932/9	XG1914.D	07/20/2014	01:14
SD-241-01	680-102468-14	XG1916.D	07/20/2014	02:11
SD-Dup-04	680-102468-17	XG1917.D	07/20/2014	02:40
SD-242-02	680-102468-20	XG1918.D	07/20/2014	03:08
SD-242-03	680-102468-21	XG1919.D	07/20/2014	03:36
SD-243-03	680-102468-25	XG1920.D	07/20/2014	04:05
SD-244-SS	680-102468-26	XG1921.D	07/20/2014	04:33
SD-244-02	680-102468-28	XG1923.D	07/20/2014	05:30
SD-244-03	680-102468-29	XG1924.D	07/20/2014	05:59
SD-245-SS	680-102468-30	XG1925.D	07/20/2014	06:27
SD-245-01	680-102468-31	XG1926.D	07/20/2014	06:55
SD-245-02	680-102468-32	XG1927.D	07/20/2014	07:24
SD-245-03	680-102468-33	XG1928.D	07/20/2014	07:52
SD-246-SS	680-102468-34	XG1929.D	07/20/2014	08:21
	CCV 680-339932/25	XG1930.D	07/20/2014	08:49

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102468-1 Analy Batch No.: 339932

SDG No.: 680102468-1

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2014 22:52 Calibration End Date: 07/20/2014 00:46 Calibration ID: 32129

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-339932/8	XG1913.D
Level 2	IC 680-339932/7	XG1912.D
Level 3	ICISAV 680-339932/4	XG1909.D
Level 4	IC 680-339932/6	XG1911.D
Level 5	IC 680-339932/5	XG1910.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.8353	0.8456	0.9098	0.8813	0.8734	Ave		0.8691				3.4		20.0			
Dichlorobiphenyl	0.5776	0.5823	0.6122	0.6067	0.5987	Ave		0.5955				2.5		20.0			
Trichlorobiphenyl	0.3996	0.4135	0.4348	0.4389	0.4410	Ave		0.4256				4.3		20.0			
PCB-104			0.3302			Ave		0.3302						30.0			
Tetrachlorobiphenyl	0.2755	0.2817	0.3033	0.2909	0.2951	Ave		0.2893				3.8		20.0			
Pentachlorobiphenyl	0.2123	0.2203	0.2262	0.2270	0.2357	Ave		0.2243				3.9		20.0			
PCB-77			0.4767			Ave		0.4767						30.0			
Hexachlorobiphenyl	0.1966	0.2022	0.2225	0.2132	0.2185	Ave		0.2106				5.2		20.0			
Heptachlorobiphenyl	0.1540	0.1656	0.1696	0.1700	0.1695	Ave		0.1657				4.1		20.0			
Octachlorobiphenyl	0.1373	0.1488	0.1535	0.1521	0.1669	Ave		0.1517				7.0		20.0			
PCB-208			0.0569			Ave		0.0569						30.0			
Nonachlorobiphenyl			0.0443			Ave		0.0363				11.0		20.0			
DCB Decachlorobiphenyl	0.0321	0.0328	0.0379	0.0370	0.0414	Ave		0.0363				11.0		20.0			
Decachlorobiphenyl-13C12	0.0407	0.0484	0.0517	0.0504	0.0567	Ave		0.0496				12.0		20.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab Sample ID: ICV 680-339932/9 Calibration Date: 07/20/2014 01:14

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG1914.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8287		0.953	1.00	-4.7	20.0
Dichlorobiphenyl	Ave	0.5955	0.5788		0.972	1.00	-2.8	20.0
Trichlorobiphenyl	Ave	0.4256	0.4300		1.01	1.00	1.0	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2870		1.98	2.00	-0.8	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2168		1.93	2.00	-3.3	20.0
Hexachlorobiphenyl	Ave	0.2106	0.2122		2.02	2.00	0.8	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1650		2.99	3.00	-0.4	20.0
Octachlorobiphenyl	Ave	0.1517	0.1560		3.08	3.00	2.8	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0351		4.84	5.00	-3.1	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab Sample ID: CCV 680-339932/25 Calibration Date: 07/20/2014 08:49

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG1930.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8234		0.947	1.00	-5.3	20.0
Dichlorobiphenyl	Ave	0.5955	0.5746		0.965	1.00	-3.5	20.0
Trichlorobiphenyl	Ave	0.4256	0.4157		0.977	1.00	-2.3	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2797		1.93	2.00	-3.3	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2121		1.89	2.00	-5.5	20.0
Hexachlorobiphenyl	Ave	0.2106	0.2060		1.96	2.00	-2.2	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1590		2.88	3.00	-4.0	20.0
Octachlorobiphenyl	Ave	0.1517	0.1434		2.84	3.00	-5.5	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0293		4.04	5.00	-19.2	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0415		4.18	5.00	-16.4	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab File ID: XG2002.D DFTPP Injection Date: 07/20/2014

Instrument ID: CMSX DFTPP Injection Time: 15:46

Analysis Batch No.: 339960

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	52.2	
197	Less than 1 % of mass 198	0.2	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.5	
275	10 - 30% of mass 198	28.8	
365	Greater than 1% of mass 198	4.2	
441	Present but less than mass 443	13.4	(84.0)2
442	Greater than 40% of mass 198	84.3	
443	17 - 23% of mass 442	16.0	(18.9)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-339960/3	XG2003.D	07/20/2014	16:16
	CCVIS 680-339960/4	XG2004.D	07/20/2014	16:47
SD-246-01	680-102468-35	XG2006.D	07/20/2014	17:44
SD-246-02	680-102468-36	XG2007.D	07/20/2014	18:12
SD-246-03	680-102468-37	XG2008.D	07/20/2014	18:41
SD-247-SS	680-102468-38	XG2009.D	07/20/2014	19:09
SD-247-01	680-102468-39	XG2010.D	07/20/2014	19:38
	MB 680-338712/15-A	XG2012.D	07/20/2014	20:35
	LCS 680-338712/16-A	XG2013.D	07/20/2014	21:03
SD-248-01 MS	680-102468-43 MS	XG2014.D	07/20/2014	21:32
SD-248-01 MSD	680-102468-43 MSD	XG2015.D	07/20/2014	22:00
SD-248-01	680-102468-43	XG2016.D	07/20/2014	22:28
SD-248-SS	680-102468-42	XG2018.D	07/20/2014	23:25
SD-248-02	680-102468-44	XG2019.D	07/20/2014	23:54
SD-249-02	680-102468-48	XG2023.D	07/21/2014	01:47
SD-249-03	680-102468-49	XG2024.D	07/21/2014	02:16
	CCV 680-339960/23	XG2025.D	07/21/2014	02:44

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab Sample ID: CCVIS 680-339960/4 Calibration Date: 07/20/2014 16:47

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2004.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8723		1.00	1.00	0.4	20.0
Dichlorobiphenyl	Ave	0.5955	0.5927		0.995	1.00	-0.5	20.0
Trichlorobiphenyl	Ave	0.4256	0.4215		0.990	1.00	-1.0	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2855		1.97	2.00	-1.3	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2086		1.86	2.00	-7.0	20.0
Hexachlorobiphenyl	Ave	0.2106	0.2050		1.95	2.00	-2.6	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1563		2.83	3.00	-5.7	20.0
Octachlorobiphenyl	Ave	0.1517	0.1399		2.77	3.00	-7.8	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0300		4.13	5.00	-17.4	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0402		4.05	5.00	-18.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab Sample ID: CCV 680-339960/23 Calibration Date: 07/21/2014 02:44

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2025.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8474		0.975	1.00	-2.5	20.0
Dichlorobiphenyl	Ave	0.5955	0.5905		0.992	1.00	-0.8	20.0
Trichlorobiphenyl	Ave	0.4256	0.4195		0.986	1.00	-1.4	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2829		1.96	2.00	-2.2	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2112		1.88	2.00	-5.8	20.0
Hexachlorobiphenyl	Ave	0.2106	0.2079		1.97	2.00	-1.3	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1593		2.88	3.00	-3.9	20.0
Octachlorobiphenyl	Ave	0.1517	0.1440		2.85	3.00	-5.1	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0310		4.27	5.00	-14.5	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0434		4.38	5.00	-12.4	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab File ID: XG2102.D DFTPP Injection Date: 07/21/2014

Instrument ID: CMSX DFTPP Injection Time: 14:32

Analysis Batch No.: 340118

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	52.7	
197	Less than 1 % of mass 198	0.0	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.5	
275	10 - 30% of mass 198	28.1	
365	Greater than 1% of mass 198	4.4	
441	Present but less than mass 443	12.4	(81.7)2
442	Greater than 40% of mass 198	80.2	
443	17 - 23% of mass 442	15.2	(19.0)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-340118/3	XG2103.D	07/21/2014	15:02
	CCVIS 680-340118/4	XG2104.D	07/21/2014	15:33
SD-249-01	680-102468-47	XG2123.D	07/22/2014	00:34
	CCV 680-340118/24	XG2124.D	07/22/2014	01:03

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab Sample ID: CCVIS 680-340118/4 Calibration Date: 07/21/2014 15:33

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2104.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8954		1.03	1.00	3.0	20.0
Dichlorobiphenyl	Ave	0.5955	0.6077		1.02	1.00	2.0	20.0
Trichlorobiphenyl	Ave	0.4256	0.4221		0.992	1.00	-0.8	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2907		2.01	2.00	0.5	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2026		1.81	2.00	-9.7	20.0
Hexachlorobiphenyl	Ave	0.2106	0.2026		1.92	2.00	-3.8	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1500		2.71	3.00	-9.5	20.0
Octachlorobiphenyl	Ave	0.1517	0.1284		2.54	3.00	-15.4	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0269		3.71	5.00	-25.8*	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0369		3.72	5.00	-25.6*	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab Sample ID: CCV 680-340118/24 Calibration Date: 07/22/2014 01:03

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2124.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8720		1.00	1.00	0.3	20.0
Dichlorobiphenyl	Ave	0.5955	0.6038		1.01	1.00	1.4	20.0
Trichlorobiphenyl	Ave	0.4256	0.4309		1.01	1.00	1.3	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2892		2.00	2.00	-0.0	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2181		1.94	2.00	-2.8	20.0
Hexachlorobiphenyl	Ave	0.2106	0.2127		2.02	2.00	1.0	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1622		2.94	3.00	-2.2	20.0
Octachlorobiphenyl	Ave	0.1517	0.1406		2.78	3.00	-7.3	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0293		4.03	5.00	-19.3	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0400		4.04	5.00	-19.3	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab File ID: XG2502.D DFTPP Injection Date: 07/25/2014

Instrument ID: CMSX DFTPP Injection Time: 18:29

Analysis Batch No.: 340971

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	51.2	
197	Less than 1 % of mass 198	0.2	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.5	
275	10 - 30% of mass 198	29.0	
365	Greater than 1% of mass 198	3.9	
441	Present but less than mass 443	9.3	(52.2)2
442	Greater than 40% of mass 198	90.8	
443	17 - 23% of mass 442	17.9	(19.7)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-340971/3	XG2503.D	07/25/2014	18:59
	CCVIS 680-340971/4	XG2504.D	07/25/2014	19:30
	MB 680-340491/21-A	XG2513.D	07/25/2014	23:47
	LCS 680-340491/22-A	XG2514.D	07/26/2014	00:15
	CCV 680-340971/25	XG2525.D	07/26/2014	05:27

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab Sample ID: CCVIS 680-340971/4 Calibration Date: 07/25/2014 19:30

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2504.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8017		0.923	1.00	-7.7	20.0
Dichlorobiphenyl	Ave	0.5955	0.5563		0.934	1.00	-6.6	20.0
Trichlorobiphenyl	Ave	0.4256	0.3997		0.939	1.00	-6.1	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2602		1.80	2.00	-10.1	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2010		1.79	2.00	-10.4	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1945		1.85	2.00	-7.6	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1524		2.76	3.00	-8.0	20.0
Octachlorobiphenyl	Ave	0.1517	0.1344		2.66	3.00	-11.4	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0304		4.19	5.00	-16.2	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0442		4.45	5.00	-10.9	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab File ID: XG0802.D DFTPP Injection Date: 07/08/2014

Instrument ID: CMSX DFTPP Injection Time: 11:48

Analysis Batch No.: 338065

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	50.8
197	Less than 1 % of mass 198	0.3
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.7
275	10 - 30% of mass 198	27.8
365	Greater than 1% of mass 198	4.5
441	Present but less than mass 443	14.0 (80.5)2
442	Greater than 40% of mass 198	92.8
443	17 - 23% of mass 442	17.3 (18.7)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICISAV 680-338065/4	XG0804.D	07/08/2014	14:04
	IC 680-338065/5	XG0805.D	07/08/2014	14:32
	IC 680-338065/6	XG0806.D	07/08/2014	15:01
	IC 680-338065/7	XG0807.D	07/08/2014	15:29
	IC 680-338065/8	XG0808.D	07/08/2014	15:58
	ICV 680-338065/9	XG0809.D	07/08/2014	16:27

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102468-1 Analy Batch No.: 338065

SDG No.: 680102468-1

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/08/2014 14:04 Calibration End Date: 07/08/2014 15:58 Calibration ID: 31919

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-338065/8	XG0808.D
Level 2	IC 680-338065/7	XG0807.D
Level 3	ICISAV 680-338065/4	XG0804.D
Level 4	IC 680-338065/6	XG0806.D
Level 5	IC 680-338065/5	XG0805.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.9065	0.8925	0.9538	0.9322	0.9238	Ave		0.9218				2.6		20.0			
Dichlorobiphenyl	0.5915	0.6255	0.6459	0.6725	0.6659	Ave		0.6403				5.1		20.0			
Trichlorobiphenyl	0.3952	0.4252	0.4540	0.4764	0.4724	Ave		0.4446				7.7		20.0			
PCB-104			0.3459			Ave		0.3459						30.0			
Tetrachlorobiphenyl	0.2979	0.3138	0.3348	0.3431	0.3385	Ave		0.3256				5.9		20.0			
Pentachlorobiphenyl	0.1953	0.2349	0.2632	0.2716	0.2824	Ave		0.2495				14.0		20.0			
PCB-77			0.4735			Ave		0.4735						30.0			
Hexachlorobiphenyl	0.1989	0.2390	0.2639	0.2669	0.2604	Ave		0.2458				12.0		20.0			
Heptachlorobiphenyl	0.1683	0.1973	0.2134	0.2347	0.2265	Ave		0.2081				13.0		20.0			
Octachlorobiphenyl	0.1458	0.1847	0.1949	0.2143	0.2163	Ave		0.1912				15.0		20.0			
PCB-208			0.0906			Ave		0.0906						30.0			
Nonachlorobiphenyl			0.0725			Ave		0.0672				15.0		20.0			
DCB Decachlorobiphenyl	0.0507	0.0661	0.0711	0.0735	0.0747	Ave		0.0672				15.0		20.0			
Decachlorobiphenyl-13C12	0.0604	0.0799	0.0831	0.0851	0.0829	Ave		0.0783				13.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab Sample ID: ICV 680-338065/9 Calibration Date: 07/08/2014 16:27

Instrument ID: CMSX Calib Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/08/2014 15:58

Lab File ID: XG0809.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.9218	0.8805		0.955	1.00	-4.5	20.0
Dichlorobiphenyl	Ave	0.6403	0.6291		0.983	1.00	-1.7	20.0
Trichlorobiphenyl	Ave	0.4446	0.4497		1.01	1.00	1.1	20.0
Tetrachlorobiphenyl	Ave	0.3256	0.3210		1.97	2.00	-1.4	20.0
Pentachlorobiphenyl	Ave	0.2495	0.2325		1.86	2.00	-6.8	20.0
Hexachlorobiphenyl	Ave	0.2458	0.2501		2.03	2.00	1.7	20.0
Heptachlorobiphenyl	Ave	0.2081	0.2019		2.91	3.00	-3.0	20.0
Octachlorobiphenyl	Ave	0.1912	0.1790		2.81	3.00	-6.4	20.0
DCB Decachlorobiphenyl	Ave	0.0672	0.0596		4.44	5.00	-11.3	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab Sample ID: CCV 680-340971/25 Calibration Date: 07/26/2014 05:27

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2525.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8156		0.938	1.00	-6.2	20.0
Dichlorobiphenyl	Ave	0.5955	0.5691		0.956	1.00	-4.4	20.0
Trichlorobiphenyl	Ave	0.4256	0.4048		0.951	1.00	-4.9	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2686		1.86	2.00	-7.1	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2080		1.85	2.00	-7.3	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1988		1.89	2.00	-5.6	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1617		2.93	3.00	-2.4	20.0
Octachlorobiphenyl	Ave	0.1517	0.1480		2.93	3.00	-2.4	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0360		4.96	5.00	-0.8	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0464		4.68	5.00	-6.4	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab File ID: XG2528.D DFTPP Injection Date: 07/26/2014

Instrument ID: CMSX DFTPP Injection Time: 06:55

Analysis Batch No.: 340977

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
127	40 - 60 % of mass 198	58.7	
197	Less than 1 % of mass 198	0.0	
198	Base peak, 100 % Relative abundance	100.0	
199	5 - 9 % of mass 198	6.9	
275	10 - 30% of mass 198	27.4	
365	Greater than 1% of mass 198	3.8	
441	Present but less than mass 443	11.3	(81.0)2
442	Greater than 40% of mass 198	71.0	
443	17 - 23% of mass 442	14.0	(19.7)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-340977/3	XG2529.D	07/26/2014	07:25
	CCVIS 680-340977/4	XG2530.D	07/26/2014	07:55
SD-244-01	680-102468-27	XG2536.D	07/26/2014	10:46
SD-248-03	680-102468-45	XG2544.D	07/26/2014	14:35
SD-249-SS	680-102468-46	XG2545.D	07/26/2014	15:04
	CCV 680-340977/19	XG2547.D	07/26/2014	16:02

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab Sample ID: CCVIS 680-340977/4 Calibration Date: 07/26/2014 07:55

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2530.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8296		0.955	1.00	-4.5	20.0
Dichlorobiphenyl	Ave	0.5955	0.5831		0.979	1.00	-2.1	20.0
Trichlorobiphenyl	Ave	0.4256	0.4191		0.985	1.00	-1.5	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2788		1.93	2.00	-3.6	20.0
Pentachlorobiphenyl	Ave	0.2243	0.2171		1.94	2.00	-3.2	20.0
Hexachlorobiphenyl	Ave	0.2106	0.2078		1.97	2.00	-1.3	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1661		3.01	3.00	0.2	20.0
Octachlorobiphenyl	Ave	0.1517	0.1504		2.97	3.00	-0.8	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0350		4.83	5.00	-3.5	20.0
Decachlorobiphenyl-13Cl2	Ave	0.0496	0.0470		4.74	5.00	-5.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab Sample ID: CCV 680-340977/19 Calibration Date: 07/26/2014 16:02

Instrument ID: CMSX Calib Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/20/2014 00:46

Lab File ID: XG2547.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.8691	0.8014		0.922	1.00	-7.8	20.0
Dichlorobiphenyl	Ave	0.5955	0.5616		0.943	1.00	-5.7	20.0
Trichlorobiphenyl	Ave	0.4256	0.3935		0.925	1.00	-7.5	20.0
Tetrachlorobiphenyl	Ave	0.2893	0.2603		1.80	2.00	-10.0	20.0
Pentachlorobiphenyl	Ave	0.2243	0.1991		1.78	2.00	-11.2	20.0
Hexachlorobiphenyl	Ave	0.2106	0.1897		1.80	2.00	-9.9	20.0
Heptachlorobiphenyl	Ave	0.1657	0.1470		2.66	3.00	-11.3	20.0
Octachlorobiphenyl	Ave	0.1517	0.1339		2.65	3.00	-11.7	20.0
DCB Decachlorobiphenyl	Ave	0.0363	0.0296		4.08	5.00	-18.5	20.0
Decachlorobiphenyl-13C12	Ave	0.0496	0.0424		4.28	5.00	-14.5	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab File ID: XG2906.D DFTPP Injection Date: 07/29/2014

Instrument ID: CMSX DFTPP Injection Time: 22:19

Analysis Batch No.: 341490

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	51.8
197	Less than 1 % of mass 198	0.0
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.6
275	10 - 30% of mass 198	29.6
365	Greater than 1% of mass 198	4.6
441	Present but less than mass 443	15.1 (81.7)2
442	Greater than 40% of mass 198	93.1
443	17 - 23% of mass 442	18.4 (19.8)1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-341490/2	XG2907.D	07/29/2014	22:49
	ICISAV 680-341490/3	XG2908.D	07/29/2014	23:20
	IC 680-341490/4	XG2909.D	07/29/2014	23:49
	IC 680-341490/5	XG2910.D	07/30/2014	00:17
	IC 680-341490/6	XG2911.D	07/30/2014	00:46
	IC 680-341490/7	XG2912.D	07/30/2014	01:15
	ICV 680-341490/8	XG2913.D	07/30/2014	01:43
SD-247-03	680-102468-41	XG2915.D	07/30/2014	02:41
	CCV 680-341490/22	XG2927.D	07/30/2014	09:58

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102468-1 Analy Batch No.: 341490

SDG No.: 680102468-1

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/29/2014 23:20 Calibration End Date: 07/30/2014 01:15 Calibration ID: 32707

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-341490/7	XG2912.D
Level 2	IC 680-341490/6	XG2911.D
Level 3	ICISAV 680-341490/3	XG2908.D
Level 4	IC 680-341490/5	XG2910.D
Level 5	IC 680-341490/4	XG2909.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.7921	0.7705	0.8099	0.7988	0.7964	Ave		0.7935				1.8		20.0			
Dichlorobiphenyl	0.5284	0.5186	0.5209	0.5416	0.5248	Ave		0.5269				1.7		20.0			
Trichlorobiphenyl	0.3754	0.3671	0.3622	0.3850	0.3830	Ave		0.3745				2.6		20.0			
PCB-104			0.2799			Ave		0.2799						30.0			
Tetrachlorobiphenyl	0.2501	0.2513	0.2524	0.2552	0.2537	Ave		0.2526				0.8		20.0			
Pentachlorobiphenyl	0.1969	0.1993	0.1832	0.2038	0.2132	Ave		0.1993				5.5		20.0			
PCB-77			0.3725			Ave		0.3725						30.0			
Hexachlorobiphenyl	0.1822	0.1911	0.1904	0.1957	0.2013	Ave		0.1922				3.7		20.0			
Heptachlorobiphenyl	0.1478	0.1500	0.1425	0.1568	0.1664	Ave		0.1527				6.0		20.0			
Octachlorobiphenyl	0.1288	0.1424	0.1289	0.1458	0.1571	Ave		0.1406				8.6		20.0			
PCB-208			0.0459			Ave		0.0459						30.0			
Nonachlorobiphenyl			0.0367			Ave		0.0349				9.9		20.0			
DCB Decachlorobiphenyl	0.0323	0.0337	0.0316	0.0368	0.0399	Ave		0.0349				9.9		20.0			
Decachlorobiphenyl-13C12	0.0428	0.0516	0.0426	0.0504	0.0560	Ave		0.0487				12.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab Sample ID: ICV 680-341490/8 Calibration Date: 07/30/2014 01:43

Instrument ID: CMSX Calib Start Date: 07/29/2014 23:20

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/30/2014 01:15

Lab File ID: XG2913.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7935	0.7728		0.974	1.00	-2.6	20.0
Dichlorobiphenyl	Ave	0.5269	0.5308		1.01	1.00	0.7	20.0
Trichlorobiphenyl	Ave	0.3745	0.3902		1.04	1.00	4.2	20.0
Tetrachlorobiphenyl	Ave	0.2526	0.2598		2.06	2.00	2.9	20.0
Pentachlorobiphenyl	Ave	0.1993	0.2014		2.02	2.00	1.1	20.0
Hexachlorobiphenyl	Ave	0.1922	0.1898		1.98	2.00	-1.2	20.0
Heptachlorobiphenyl	Ave	0.1527	0.1595		3.13	3.00	4.4	20.0
Octachlorobiphenyl	Ave	0.1406	0.1416		3.02	3.00	0.7	20.0
DCB Decachlorobiphenyl	Ave	0.0349	0.0347		4.98	5.00	-0.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab Sample ID: CCV 680-341490/22 Calibration Date: 07/30/2014 09:58

Instrument ID: CMSX Calib Start Date: 07/29/2014 23:20

GC Column: DB-5MS ID: 0.25(mm) Calib End Date: 07/30/2014 01:15

Lab File ID: XG2927.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7935	0.7280		0.917	1.00	-8.3	20.0
Dichlorobiphenyl	Ave	0.5269	0.4890		0.928	1.00	-7.2	20.0
Trichlorobiphenyl	Ave	0.3745	0.3465		0.925	1.00	-7.5	20.0
Tetrachlorobiphenyl	Ave	0.2526	0.2372		1.88	2.00	-6.1	20.0
Pentachlorobiphenyl	Ave	0.1993	0.1861		1.87	2.00	-6.6	20.0
Hexachlorobiphenyl	Ave	0.1922	0.1841		1.92	2.00	-4.2	20.0
Heptachlorobiphenyl	Ave	0.1527	0.1448		2.85	3.00	-5.2	20.0
Octachlorobiphenyl	Ave	0.1406	0.1332		2.84	3.00	-5.3	20.0
DCB Decachlorobiphenyl	Ave	0.0349	0.0303		4.34	5.00	-13.1	20.0
Decachlorobiphenyl-13C12	Ave	0.0487	0.0429		4.41	5.00	-11.8	20.0

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Matrix: Solid Level: Low

GC Column (1): DB-5MS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	13DCB	#	
SD-239-SS	680-102468-1	56		
SD-239-01	680-102468-2	25	X	
SD-239-02	680-102468-3	68		
SD-239-03	680-102468-4	59		
SD-238-SS	680-102468-5	109		
SD-238-01	680-102468-6	10	X	
SD-238-02	680-102468-7	27	X	
SD-238-03	680-102468-8	89		
SD-240-SS	680-102468-9	21	X	
SD-240-01	680-102468-10	0	D	20X
SD-240-02	680-102468-11	30		
SD-240-03	680-102468-12	79		
SD-241-SS	680-102468-13	27	X	
SD-241-01	680-102468-14	0	D	10X
SD-241-02	680-102468-15	57		
SD-241-03	680-102468-16	84		
SD-Dup-04	680-102468-17	36		
SD-242-SS	680-102468-18	16	X	
SD-242-01	680-102468-19	28	X	
SD-242-02	680-102468-20	0	D	10X
SD-242-03	680-102468-21	31		
SD-243-SS	680-102468-22	44		
SD-243-01	680-102468-23	72	*	
SD-243-02	680-102468-24	62		
SD-243-03	680-102468-25	57		
SD-244-SS	680-102468-26	0	D	20X
SD-244-01	680-102468-27	15	X	5X
SD-244-02	680-102468-28	19	X	2X
SD-244-03	680-102468-29	56		
SD-245-SS	680-102468-30	13	X	
SD-245-01	680-102468-31	0	D	10X
SD-245-02	680-102468-32	17	X	2X
SD-245-03	680-102468-33	36		
SD-246-SS	680-102468-34	0	D	50X
SD-246-01	680-102468-35	0	D	20X

13DCB = Decachlorobiphenyl-13C12

QC LIMITS
30-130

Column to be used to flag recovery values

FORM II 680

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Matrix: Solid Level: Low

GC Column (1): DB-5MS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	13DCB	#	
SD-246-02	680-102468-36	13	X	
SD-246-03	680-102468-37	33		
SD-247-SS	680-102468-38	0	D	10X
SD-247-01	680-102468-39	21	X	5X
SD-247-02	680-102468-40	43		
SD-247-03	680-102468-41	0	D	10X
SD-248-SS	680-102468-42	20	X	
SD-248-01	680-102468-43	5	X	
SD-248-02	680-102468-44	47		
SD-248-03	680-102468-45	39		
SD-249-SS	680-102468-46	31		
SD-249-01	680-102468-47	0	D	5X
SD-249-02	680-102468-48	44		
SD-249-03	680-102468-49	58		
	MB 680-338575/21-A	64		
	MB 680-338581/21-A	77		
	MB 680-338712/15-A	51		
	MB 680-340491/21-A	64		
	LCS 680-338575/22-A	66		
	LCS 680-338581/22-A	98		
	LCS 680-338712/16-A	69		
	LCS 680-340491/22-A	81		
	680-102468-A-20-G MS	17	X	
SD-247-02 MS	680-102468-40 MS	13	X	
SD-248-01 MS	680-102468-43 MS	14	X	
	680-102468-A-20-H MSD	36		
SD-247-02 MSD	680-102468-40 MSD	19	X	
SD-248-01 MSD	680-102468-43 MSD	23	X	

13DCB = Decachlorobiphenyl-13C12

QC LIMITS
30-130

Column to be used to flag recovery values

FORM II 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Matrix: Solid Level: Low Lab File ID: XG1339.D

Lab ID: 680-102468-A-20-G MS Client ID: SD-242-02 - Done on batch

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	3380	84 U	617	18	30-130	F1
Dichlorobiphenyl	677	35 U	135	20	30-130	F1
Heptachlorobiphenyl	2030	1300	3120	91	40-140	
Hexachlorobiphenyl	1350	1300	3250	141	40-140	F1
Monochlorobiphenyl	677	19 U	127	19	30-130	F1
Nonachlorobiphenyl	3380	330 U	1050	31	30-130	
Octachlorobiphenyl	2030	54 U	740	36	40-140	F1
Pentachlorobiphenyl	1350	5900	3450	-178	40-140	4
Tetrachlorobiphenyl	1350	39000	14300	-1833	40-140	E 4
Trichlorobiphenyl	677	2800	1090	-247	30-130	4

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Matrix: Solid Level: Low Lab File ID: XG1340.D

Lab ID: 680-102468-A-20-H MSD Client ID: — Done on batch not sample

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
DCB Decachlorobiphenyl	3370	1280	38	70	50	30-130	F2
Dichlorobiphenyl	674	299	40	76	50	30-130	F2
Heptachlorobiphenyl	2020	11400	495	114	50	40-140	F1 F2
Hexachlorobiphenyl	1350	7630	460	81	50	40-140	F1 F2
Monochlorobiphenyl	674	253	37	66	50	30-130	F2
Nonachlorobiphenyl	3370	2150	64	68	50	30-130	F2
Octachlorobiphenyl	2020	3010	125	121	50	40-140	F2
Pentachlorobiphenyl	1350	7550	158	75	50	40-140	4 F2
Tetrachlorobiphenyl	1350	36500	136	87	50	40-140	E 4 F2
Trichlorobiphenyl	674	2710	19	85	50	30-130	F1 F2

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Matrix: Solid Level: Low Lab File ID: XG1816.D

Lab ID: 680-102468-40 MS Client ID: SD-247-02 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	3180	7.9 U	399	13	30-130	F1
Dichlorobiphenyl	635	3.3 U	94.3	15	30-130	F1
Heptachlorobiphenyl	1910	52 J	317	14	40-140	F1
Hexachlorobiphenyl	1270	220	265	3	40-140	F1
Monochlorobiphenyl	635	1.8 U	80.8	13	30-130	F1
Nonachlorobiphenyl	3180	32 U	607	19	30-130	F1
Octachlorobiphenyl	1910	5.1 U	303	16	40-140	F1
Pentachlorobiphenyl	1270	710	329	-30	40-140	F1
Tetrachlorobiphenyl	1270	3200	949	-174	40-140	F1
Trichlorobiphenyl	635	79	200	19	30-130	F1

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Matrix: Solid Level: Low Lab File ID: XG1817.D

Lab ID: 680-102468-40 MSD Client ID: SD-247-02 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
DCB Decachlorobiphenyl	3200	628	20	45	50	30-130	F1
Dichlorobiphenyl	640	125	20	28	50	30-130	F1
Heptachlorobiphenyl	1920	483	22	41	50	40-140	F1
Hexachlorobiphenyl	1280	367	11	32	50	40-140	F1
Monochlorobiphenyl	640	102	16	23	50	30-130	F1
Nonachlorobiphenyl	3200	919	29	41	50	30-130	F1
Octachlorobiphenyl	1920	449	23	39	50	40-140	F1
Pentachlorobiphenyl	1280	460	-19	33	50	40-140	F1
Tetrachlorobiphenyl	1280	981	-170	3	50	40-140	F1
Trichlorobiphenyl	640	241	25	18	50	30-130	F1

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Matrix: Solid Level: Low Lab File ID: XG2014.D

Lab ID: 680-102468-43 MS Client ID: SD-248-01 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	1130	2.5 U	81.6	7	30-130	F1
Dichlorobiphenyl	226	1.1 U	20.8	9	30-130	F1
Heptachlorobiphenyl	678	15 J	87.5	11	40-140	F1
Hexachlorobiphenyl	452	52	116	14	40-140	F1
Monochlorobiphenyl	226	0.58 U	19.9	9	30-130	F1
Nonachlorobiphenyl	1130	10 U	139	12	30-130	F1
Octachlorobiphenyl	678	1.6 U	57.2	8	40-140	F1
Pentachlorobiphenyl	452	62	154	20	40-140	F1
Tetrachlorobiphenyl	452	210	321	25	40-140	F1
Trichlorobiphenyl	226	13	49.5	16	30-130	F1

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Matrix: Solid Level: Low Lab File ID: XG2015.D

Lab ID: 680-102468-43 MSD Client ID: SD-248-01 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
DCB Decachlorobiphenyl	1100	264	24	106	50	30-130	F1 F2
Dichlorobiphenyl	221	69.4	31	108	50	30-130	F2
Heptachlorobiphenyl	663	235	33	91	50	40-140	F1 F2
Hexachlorobiphenyl	442	264	ck 48	78	50	40-140	F2
Monochlorobiphenyl	221	64.8	29	106	50	30-130	F1 F2
Nonachlorobiphenyl	1100	466	42	108	50	30-130	F2
Octachlorobiphenyl	663	191	29	108	50	40-140	F1 F2
Pentachlorobiphenyl	442	276	48	56	50	40-140	F2
Tetrachlorobiphenyl	442	997	178	103	50	40-140	F1 F2
Trichlorobiphenyl	221	118	48	82	50	30-130	F2

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab File ID: XG1337.D Lab Sample ID: MB 680-338581/21-A

Matrix: Solid Date Extracted: 07/11/2014 14:11

Instrument ID: CMSX Date Analyzed: 07/14/2014 13:11

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-338581/22-A	XG1338.D	07/14/2014 13:40
	680-102468-A-20-G MS	XG1339.D	07/14/2014 14:08
	680-102468-A-20-H MSD	XG1340.D	07/14/2014 14:37
SD-239-SS	680-102468-1	XG1341.D	07/14/2014 15:05
SD-239-01	680-102468-2	XG1342.D	07/14/2014 15:34
SD-239-02	680-102468-3	XG1343.D	07/14/2014 16:03
SD-239-03	680-102468-4	XG1641.D	07/17/2014 06:23
SD-238-SS	680-102468-5	XG1642.D	07/17/2014 06:52
SD-238-01	680-102468-6	XG1643.D	07/17/2014 07:20
SD-238-02	680-102468-7	XG1644.D	07/17/2014 07:49
SD-238-03	680-102468-8	XG1645.D	07/17/2014 08:17
SD-240-SS	680-102468-9	XG1646.D	07/17/2014 08:45
SD-240-02	680-102468-11	XG1648.D	07/17/2014 09:42
SD-240-03	680-102468-12	XG1649.D	07/17/2014 10:11
SD-240-01	680-102468-10	XG1668.D	07/17/2014 10:39
SD-241-SS	680-102468-13	XG1806.D	07/18/2014 12:02
SD-241-02	680-102468-15	XG1808.D	07/18/2014 12:59
SD-241-03	680-102468-16	XG1809.D	07/18/2014 13:27
SD-242-SS	680-102468-18	XG1811.D	07/18/2014 14:24
SD-242-01	680-102468-19	XG1812.D	07/18/2014 14:53
SD-241-01	680-102468-14	XG1916.D	07/20/2014 02:11
SD-Dup-04	680-102468-17	XG1917.D	07/20/2014 02:40
SD-242-02	680-102468-20	XG1918.D	07/20/2014 03:08

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102468-1
SDG No.: 680102468-1
Client Sample ID:
Lab Sample ID: MB 680-338581/21-A
Matrix: Solid
Lab File ID: XG1337.D
Analysis Method: 680
Date Collected:
Extract. Method: 680
Date Extracted: 07/11/2014 14:11
Sample wt/vol: 30.05(g)
Date Analyzed: 07/14/2014 13:11
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 338831
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.83	U	17	0.83
25512-42-9	Dichlorobiphenyl	0.35	U	3.3	0.35
28655-71-2	Heptachlorobiphenyl	0.50	U	10	0.50
26601-64-9	Hexachlorobiphenyl	0.33	U	6.7	0.33
27323-18-8	Monochlorobiphenyl	0.19	U	3.3	0.19
53742-07-7	Nonachlorobiphenyl	3.3	U	17	3.3
55722-26-4	Octachlorobiphenyl	0.53	U	10	0.53
25429-29-2	Pentachlorobiphenyl	0.34	U	6.7	0.34
26914-33-0	Tetrachlorobiphenyl	0.37	U	6.7	0.37
25323-68-6	Trichlorobiphenyl	0.17	U	3.3	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	77		30-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Matrix: Solid Level: Low Lab File ID: XG1338.D

Lab ID: LCS 680-338581/22-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	332	325	98	30-130	
Dichlorobiphenyl	66.4	53.5	81	30-130	
Heptachlorobiphenyl	199	191	96	40-140	
Hexachlorobiphenyl	133	124	94	40-140	
Monochlorobiphenyl	66.4	53.9	81	30-130	
Nonachlorobiphenyl	332	443	134	30-130	*
Octachlorobiphenyl	199	197	99	40-140	
Pentachlorobiphenyl	133	128	97	40-140	
Tetrachlorobiphenyl	133	112	84	40-140	
Trichlorobiphenyl	66.4	56.7	85	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab File ID: XG1814.D Lab Sample ID: MB 680-338575/21-A

Matrix: Solid Date Extracted: 07/11/2014 14:44

Instrument ID: CMSX Date Analyzed: 07/18/2014 15:50

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-338575/22-A	XG1815.D	07/18/2014 16:19
SD-247-02 MS	680-102468-40 MS	XG1816.D	07/18/2014 16:47
SD-247-02 MSD	680-102468-40 MSD	XG1817.D	07/18/2014 17:16
SD-247-02	680-102468-40	XG1818.D	07/18/2014 17:44
SD-243-SS	680-102468-22	XG1820.D	07/18/2014 18:41
SD-243-01	680-102468-23	XG1821.D	07/18/2014 19:09
SD-243-02	680-102468-24	XG1822.D	07/18/2014 19:38
SD-242-03	680-102468-21	XG1919.D	07/20/2014 03:36
SD-243-03	680-102468-25	XG1920.D	07/20/2014 04:05
SD-244-SS	680-102468-26	XG1921.D	07/20/2014 04:33
SD-244-02	680-102468-28	XG1923.D	07/20/2014 05:30
SD-244-03	680-102468-29	XG1924.D	07/20/2014 05:59
SD-245-SS	680-102468-30	XG1925.D	07/20/2014 06:27
SD-245-01	680-102468-31	XG1926.D	07/20/2014 06:55
SD-245-02	680-102468-32	XG1927.D	07/20/2014 07:24
SD-245-03	680-102468-33	XG1928.D	07/20/2014 07:52
SD-246-SS	680-102468-34	XG1929.D	07/20/2014 08:21
SD-246-01	680-102468-35	XG2006.D	07/20/2014 17:44
SD-246-02	680-102468-36	XG2007.D	07/20/2014 18:12
SD-246-03	680-102468-37	XG2008.D	07/20/2014 18:41
SD-247-SS	680-102468-38	XG2009.D	07/20/2014 19:09
SD-247-01	680-102468-39	XG2010.D	07/20/2014 19:38

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: | Lab Sample ID: MB 680-338575/21-A

Matrix: Solid | Lab File ID: XG1814.D

Analysis Method: 680 | Date Collected:

Extract. Method: 680 | Date Extracted: 07/11/2014 14:44

Sample wt/vol: 10.12(g) | Date Analyzed: 07/18/2014 15:50

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339564 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	2.5	U	50	2.5
25512-42-9	Dichlorobiphenyl	1.0	U	9.8	1.0
28655-71-2	Heptachlorobiphenyl	1.5	U	30	1.5
26601-64-9	Hexachlorobiphenyl	0.98	U	20	0.98
27323-18-8	Monochlorobiphenyl	0.56	U	9.8	0.56
53742-07-7	Nonachlorobiphenyl	9.8	U	50	9.8
55722-26-4	Octachlorobiphenyl	1.6	U	30	1.6
25429-29-2	Pentachlorobiphenyl	1.0	U	20	1.0
26914-33-0	Tetrachlorobiphenyl	1.1	U	20	1.1
25323-68-6	Trichlorobiphenyl	0.50	U	9.8	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	64		30-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Matrix: Solid Level: Low Lab File ID: XG1815.D

Lab ID: LCS 680-338575/22-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	333	223	67	30-130	
Dichlorobiphenyl	66.6	38.1	57	30-130	
Heptachlorobiphenyl	200	145	73	40-140	
Hexachlorobiphenyl	133	89.2	67	40-140	
Monochlorobiphenyl	66.6	33.7	51	30-130	
Nonachlorobiphenyl	333	316	95	30-130	
Octachlorobiphenyl	200	158	79	40-140	
Pentachlorobiphenyl	133	97.2	73	40-140	
Tetrachlorobiphenyl	133	79.6	60	40-140	
Trichlorobiphenyl	66.6	43.0	65	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab File ID: XG2012.D Lab Sample ID: MB 680-338712/15-A

Matrix: Solid Date Extracted: 07/12/2014 13:20

Instrument ID: CMSX Date Analyzed: 07/20/2014 20:35

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-338712/16-A	XG2013.D	07/20/2014 21:03
SD-248-01 MS	680-102468-43 MS	XG2014.D	07/20/2014 21:32
SD-248-01 MSD	680-102468-43 MSD	XG2015.D	07/20/2014 22:00
SD-248-01	680-102468-43	XG2016.D	07/20/2014 22:28
SD-248-SS	680-102468-42	XG2018.D	07/20/2014 23:25
SD-248-02	680-102468-44	XG2019.D	07/20/2014 23:54
SD-249-02	680-102468-48	XG2023.D	07/21/2014 01:47
SD-249-03	680-102468-49	XG2024.D	07/21/2014 02:16
SD-249-01	680-102468-47	XG2123.D	07/22/2014 00:34
SD-247-03	680-102468-41	XG2915.D	07/30/2014 02:41

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-102468-1

SDG No.: 680102468-1

Client Sample ID: | Lab Sample ID: MB 680-338712/15-A

Matrix: Solid | Lab File ID: XG2012.D

Analysis Method: 680 | Date Collected:

Extract. Method: 680 | Date Extracted: 07/12/2014 13:20

Sample wt/vol: 30.10(g) | Date Analyzed: 07/20/2014 20:35

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 339960 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.83	U	17	0.83
25512-42-9	Dichlorobiphenyl	0.35	U	3.3	0.35
28655-71-2	Heptachlorobiphenyl	0.50	U	10	0.50
26601-64-9	Hexachlorobiphenyl	0.33	U	6.7	0.33
27323-18-8	Monochlorobiphenyl	0.19	U	3.3	0.19
53742-07-7	Nonachlorobiphenyl	3.3	U	17	3.3
55722-26-4	Octachlorobiphenyl	0.53	U	10	0.53
25429-29-2	Pentachlorobiphenyl	0.34	U	6.7	0.34
26914-33-0	Tetrachlorobiphenyl	0.37	U	6.7	0.37
25323-68-6	Trichlorobiphenyl	0.17	U	3.3	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	51		30-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Matrix: Solid Level: Low Lab File ID: XG2013.D

Lab ID: LCS 680-338712/16-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	332	243	73	30-130	
Dichlorobiphenyl	66.3	47.5	72	30-130	
Heptachlorobiphenyl	199	153	77	40-140	
Hexachlorobiphenyl	133	100	75	40-140	
Monochlorobiphenyl	66.3	45.5	69	30-130	
Nonachlorobiphenyl	332	385	116	30-130	
Octachlorobiphenyl	199	157	79	40-140	
Pentachlorobiphenyl	133	101	76	40-140	
Tetrachlorobiphenyl	133	95.3	72	40-140	
Trichlorobiphenyl	66.3	47.7	72	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Lab File ID: XG2513.D Lab Sample ID: MB 680-340491/21-A

Matrix: Solid Date Extracted: 07/23/2014 17:34

Instrument ID: CMSX Date Analyzed: 07/25/2014 23:47

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-340491/22-A	XG2514.D	07/26/2014 00:15
SD-244-01	680-102468-27	XG2536.D	07/26/2014 10:46
SD-248-03	680-102468-45	XG2544.D	07/26/2014 14:35
SD-249-SS	680-102468-46	XG2545.D	07/26/2014 15:04

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102468-1
SDG No.: 680102468-1
Client Sample ID:
Lab Sample ID: MB 680-340491/21-A
Matrix: Solid
Lab File ID: XG2513.D
Analysis Method: 680
Date Collected:
Extract. Method: 680
Date Extracted: 07/23/2014 17:34
Sample wt/vol: 30.03(g)
Date Analyzed: 07/25/2014 23:47
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 340971
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	0.83	U	17	0.83
25512-42-9	Dichlorobiphenyl	0.35	U	3.3	0.35
28655-71-2	Heptachlorobiphenyl	0.50	U	10	0.50
26601-64-9	Hexachlorobiphenyl	0.33	U	6.7	0.33
27323-18-8	Monochlorobiphenyl	0.19	U	3.3	0.19
53742-07-7	Nonachlorobiphenyl	3.3	U	17	3.3
55722-26-4	Octachlorobiphenyl	0.53	U	10	0.53
25429-29-2	Pentachlorobiphenyl	0.34	U	6.7	0.34
26914-33-0	Tetrachlorobiphenyl	0.37	U	6.7	0.37
25323-68-6	Trichlorobiphenyl	0.17	U	3.3	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	64		30-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Matrix: Solid Level: Low Lab File ID: XG2514.D

Lab ID: LCS 680-340491/22-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
DCB Decachlorobiphenyl	333	279	84	30-130	
Dichlorobiphenyl	66.6	53.6	80	30-130	
Heptachlorobiphenyl	200	179	89	40-140	
Hexachlorobiphenyl	133	118	89	40-140	
Monochlorobiphenyl	66.6	50.5	76	30-130	
Nonachlorobiphenyl	333	466	140	30-130	*
Octachlorobiphenyl	200	182	91	40-140	
Pentachlorobiphenyl	133	112	84	40-140	
Tetrachlorobiphenyl	133	109	82	40-140	
Trichlorobiphenyl	66.6	55.8	84	30-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Instrument ID: CMSX Calibration Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calibration End Date: 07/08/2014 15:58

Calibration ID: 31919

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		82146	10.37	111835	16.51		
UPPER LIMIT		123219	10.87	167753	17.01		
LOWER LIMIT		41073	9.87	55918	16.01		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-338065/9		84988	10.37	88856	16.51		
CCVIS 680-338831/4		78618	10.29	119625	16.41		
MB 680-338581/21-A		60107	10.29	72051	16.41		
LCS 680-338581/22-A		59008	10.29	71987	16.41		
680-102468-A-20-G MS		65236	10.29	81501	16.42		
680-102468-A-20-H MSD		76087	10.29	110759	16.42		
680-102468-1	SD-239-SS	63701	10.29	83247	16.41		
680-102468-2	SD-239-01	73581	10.29	87475	16.41		
680-102468-3	SD-239-02	61525	10.29	76732	16.41		
CCV 680-338831/21		86965	10.29	129566	16.41		
CCVIS 680-339357/4		86759	10.23	127559	16.36		
680-102468-4	SD-239-03	65012	10.23	73423	16.36		
680-102468-5	SD-238-SS	72882	10.23	93312	16.36		
680-102468-6	SD-238-01	75006	10.23	91524	16.36		
680-102468-7	SD-238-02	74846	10.23	94474	16.36		
680-102468-8	SD-238-03	72728	10.23	85177	16.36		
680-102468-9	SD-240-SS	74220	10.23	90663	16.36		
680-102468-11	SD-240-02	78428	10.25	93815	16.36		
680-102468-12	SD-240-03	86782	10.25	100206	16.36		
680-102468-10	SD-240-01	95194	10.23	109523	16.36		
CCV 680-339357/24		100233	10.23	141450	16.36		
CCVIS 680-339564/4		104828	10.19	154939	16.30		
680-102468-13	SD-241-SS	81176	10.19	100623*	16.30	OK	
680-102468-15	SD-241-02	105277	10.19	135396	16.32		
680-102468-16	SD-241-03	79770	10.19	106754*	16.30		
680-102468-18	SD-242-SS	71457*	10.19	83218*	16.30		
680-102468-19	SD-242-01	74379	10.19	97209*	16.30		
MB 680-338575/21-A		81268	10.19	98412*	16.30		
LCS 680-338575/22-A		73623	10.19	89998*	16.30		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Instrument ID: CMSX Calibration Start Date: 07/08/2014 14:04

GC Column: DB-5MS ID: 0.25(mm) Calibration End Date: 07/08/2014 15:58

Calibration ID: 31919

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		82146	10.37	111835	16.51		
UPPER LIMIT		123219	10.87	167753	17.01		
LOWER LIMIT		41073	9.87	55918	16.01		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102468-40 MS	SD-247-02 MS	123254	10.19	156001	16.30		
680-102468-40 MSD	SD-247-02 MSD	79594	10.19	106728*	16.30		
680-102468-40	SD-247-02	82376	10.19	97738*	16.32		
680-102468-22	SD-243-SS	83509	10.19	95431*	16.30		
680-102468-23	SD-243-01	66472*	10.19	80577*	16.30		
680-102468-24	SD-243-02	84173	10.19	94444*	16.30		
CCV 680-339564/23		100880	10.19	166662	16.30		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Sample No.: CCVIS 680-338831/4 Date Analyzed: 07/14/2014 07:52

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG1327.D Heated Purge: (Y/N) N

Calibration ID: 31919

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		78618	10.29	119625	16.41		
UPPER LIMIT		102203	10.79	155513	16.91		
LOWER LIMIT		55033	9.79	83738	15.91		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-338581/21-A		60107	10.29	72051	16.41		
LCS 680-338581/22-A		59008	10.29	71987	16.41		
680-102468-A-20-G MS		65236	10.29	81501	16.42		
680-102468-A-20-H MSD		76087	10.29	110759	16.42		
680-102468-1	SD-239-SS	63701	10.29	83247	16.41		
680-102468-2	SD-239-01	73581	10.29	87475	16.41		
680-102468-3	SD-239-02	61525	10.29	76732	16.41		
CCV 680-338831/21		86965	10.29	129566	16.41		

50% 64783

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Sample No.: CCVIS 680-339357/4 Date Analyzed: 07/17/2014 01:10

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG1630.D Heated Purge: (Y/N) N

Calibration ID: 31919

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		86759	10.23	127559	16.36		
UPPER LIMIT		112787	10.73	165827	16.86		
LOWER LIMIT		60731	9.73	89291	15.86		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102468-4	SD-239-03	65012	10.23	73423	16.36		
680-102468-5	SD-238-SS	72882	10.23	93312	16.36		
680-102468-6	SD-238-01	75006	10.23	91524	16.36		
680-102468-7	SD-238-02	74846	10.23	94474	16.36		
680-102468-8	SD-238-03	72728	10.23	85177	16.36		
680-102468-9	SD-240-SS	74220	10.23	90663	16.36		
680-102468-11	SD-240-02	78428	10.25	93815	16.36		
680-102468-12	SD-240-03	86782	10.25	100206	16.36		
680-102468-10	SD-240-01	95194	10.23	109523	16.36		
CCV 680-339357/24		100233	10.23	141450	16.36		

50%
708725

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Sample No.: CCVIS 680-339564/4 Date Analyzed: 07/18/2014 10:43

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25 (mm)

Lab File ID (Standard): XG1804.D Heated Purge: (Y/N) N

Calibration ID: 31919

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		104828	10.19	154939	16.30		
UPPER LIMIT		136276	10.69	201421	16.80		
LOWER LIMIT		73380	9.69	108457	15.80		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102468-13	SD-241-SS	81176	10.19	100623*	16.30		
680-102468-15	SD-241-02	105277	10.19	135396	16.32		
680-102468-16	SD-241-03	79770	10.19	106754*	16.30		
680-102468-18	SD-242-SS	71457*	10.19	83218*	16.30		
680-102468-19	SD-242-01	74379	10.19	97209*	16.30		
MB 680-338575/21-A		81268	10.19	98412*	16.30		
LCS 680-338575/22-A		73623	10.19	89998*	16.30		
680-102468-40 MS	SD-247-02 MS	123254	10.19	156001	16.30		
680-102468-40 MSD	SD-247-02 MSD	79594	10.19	106728*	16.30		
680-102468-40	SD-247-02	82376	10.19	97738*	16.32		
680-102468-22	SD-243-SS	83509	10.19	95431*	16.30		
680-102468-23	SD-243-01	66472*	10.19	80577*	16.30		
680-102468-24	SD-243-02	84173	10.19	94444*	16.30		
CCV 680-339564/23		100880	10.19	166662	16.30		

50% 50% 50% 8.333T

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

TestAmerica Savannah
Target Compound Quantitation Report

Data File: \\SAVCHROM\ChromData\CMSX\20140717-11092.b\XG1804.D
Lims ID: ccvis
Client ID:
Sample Type: CCV
Inject. Date: 18-Jul-2014 10:43:30 ALS Bottle#: 3 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 680-0011092-004
Operator ID: nmd Instrument ID: CMSX
Sublist: chrom-680_CMSX*sub1

Method: \\SAVCHROM\ChromData\CMSX\20140717-11092.b\680_CMSX.m
Limit Group: 680
Last Update: 29-Jul-2014 22:36:58 Calib Date: 08-Jul-2014 15:58:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\SAVCHROM\ChromData\CMSX\20140708-10816.b\XG0808.D

Column 1 : Det: MS SCAN
Process Host: XAWRK047

First Level Reviewer: davisn Date: 18-Jul-2014 11:32:06

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
A 23 Chlorobiphenyl	188	7.730	7.264 -	8.196	0	133560	1.04	
A 24 Dichlorobiphenyl	222	9.437	8.507 -	10.366	0	93222	1.04	
* 5 Phenanthrene-d10	188	10.186	10.186	0.0	98	104828	0.7500	
A 25 Trichlorobiphenyl	256	11.064	9.751 -	12.378	0	68150	1.10	
9 PCB-104	326	12.174	12.174	0.0	91	98416	2.04	
A 26 Tetrachlorobiphenyl	292	12.543	10.846 -	14.240	0	94103	2.07	
A 27 Pentachlorobiphenyl	326	13.948	12.114 -	15.781	0	72175	2.07	
12 PCB-77	292	14.180	14.180	0.0	95	127757	1.93	
A 28 1,1'-Biphenyl, hexachloro-	360	15.231	13.280 -	17.182	0	67557	1.97	
* 15 Chrysene-d12	240	16.298	16.298	0.0	100	154939	0.7500	
A 29 1,1'-Biphenyl, heptachloro-	394	16.364	14.903 -	17.825	0	88399	3.04	
A 30 1,1'-Biphenyl, octachloro-	430	17.444	16.377 -	18.510	0	83314	3.12	
19 PCB-208	464	18.007	18.007	0.0	96	46204	3.65	
A 31 1,1'-Biphenyl, nonachloro-	464	18.497	17.947 -	19.047	0	46204	4.92	
32 DCB Decachlorobiphenyl	498	19.496	19.496	0.0	94	43864	4.67	
$ 22 Decachlorobiphenyl-13C12	510	19.496	19.496	0.0	94	51964	4.75	

Reagents:

680isomerCal3_00008 Amount Added: 1.00 Units: mL

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Instrument ID: CMSX Calibration Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calibration End Date: 07/20/2014 00:46

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		160628	10.11	229918	16.23		
UPPER LIMIT		240942	10.61	344877	16.73		
LOWER LIMIT		80314	9.61	114959	15.73		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-339932/9		166018	10.11	232985	16.22		
680-102468-14	SD-241-01	164315	10.11	214151	16.22		
680-102468-17	SD-Dup-04	171862	10.13	224815	16.24		
680-102468-20	SD-242-02	177039	10.11	226868	16.22		
680-102468-21	SD-242-03	199841	10.13	251847	16.24		
680-102468-25	SD-243-03	170078	10.11	203944	16.22		
680-102468-26	SD-244-SS	178788	10.11	221734	16.24		
680-102468-28	SD-244-02	167931	10.11	213992	16.24		
680-102468-29	SD-244-03	169182	10.13	208938	16.24		
680-102468-30	SD-245-SS	182516	10.13	208125	16.24		
680-102468-31	SD-245-01	164838	10.13	187403	16.24		
680-102468-32	SD-245-02	176203	10.13	221776	16.24		
680-102468-33	SD-245-03	216802	10.14	280852	16.29		
680-102468-34	SD-246-SS	170986	10.13	193279	16.24		
CCV 680-339932/25		151460	10.13	163045	16.24		
CCVIS 680-339960/4		156930	10.13	160983	16.24		
680-102468-35	SD-246-01	160668	10.13	176990	16.24		
680-102468-36	SD-246-02	175097	10.13	208564	16.24		
680-102468-37	SD-246-03	152112	10.13	174211	16.24		
680-102468-38	SD-247-SS	163456	10.13	182903	16.24		
680-102468-39	SD-247-01	166643	10.13	194024	16.24		
MB 680-338712/15-A		147280	10.13	155989	16.24		
LCS 680-338712/16-A		139972	10.13	145084	16.24		
680-102468-43 MS	SD-248-01 MS	142037	10.13	164616	16.24		
680-102468-43 MSD	SD-248-01 MSD	159058	10.13	181215	16.24		
680-102468-43	SD-248-01	167752	10.13	178384	16.24		
680-102468-42	SD-248-SS	142951	10.13	157215	16.24		
680-102468-44	SD-248-02	138288	10.13	147732	16.24		
680-102468-48	SD-249-02	155536	10.13	170462	16.24		
680-102468-49	SD-249-03	138768	10.13	152173	16.24		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Instrument ID: CMSX Calibration Start Date: 07/19/2014 22:52

GC Column: DB-5MS ID: 0.25(mm) Calibration End Date: 07/20/2014 00:46

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		160628	10.11	229918	16.23		
UPPER LIMIT		240942	10.61	344877	16.73		
LOWER LIMIT		80314	9.61	114959	15.73		
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 680-339960/23		146361	10.13	150656	16.24		
CCVIS 680-340118/4		152714	10.13	135608	16.24		
680-102468-47	SD-249-01	166157	10.13	159257	16.24		
CCV 680-340118/24		152797	10.13	138511	16.24		
CCVIS 680-340971/4		126429	9.98	126053	16.09		
MB 680-340491/21-A		126557	9.98	119839	16.09		
LCS 680-340491/22-A		232677	9.98	229551	16.09		
CCV 680-340971/25		127070	9.98	135551	16.09		
CCVIS 680-340977/4		124896	9.98	130014	16.09		
680-102468-27	SD-244-01	135727	9.98	141853	16.09		
680-102468-45	SD-248-03	109641	9.98	106063	16.09		
680-102468-46	SD-249-SS	122776	9.98	134272	16.09		
CCV 680-340977/19		139321	9.98	145026	16.09		

50% 78513

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Sample No.: CCVIS 680-339960/4 Date Analyzed: 07/20/2014 16:47

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG2004.D Heated Purge: (Y/N) N

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		156930	10.13	160983	16.24		
UPPER LIMIT		204009	10.63	209278	16.74		
LOWER LIMIT		109851	9.63	112688	15.74		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102468-35	SD-246-01	160668	10.13	176990	16.24		
680-102468-36	SD-246-02	175097	10.13	208564	16.24		
680-102468-37	SD-246-03	152112	10.13	174211	16.24		
680-102468-38	SD-247-SS	163456	10.13	182903	16.24		
680-102468-39	SD-247-01	166643	10.13	194024	16.24		
MB 680-338712/15-A		147280	10.13	155989	16.24		
LCS 680-338712/16-A		139972	10.13	145084	16.24		
680-102468-43 MS	SD-248-01 MS	142037	10.13	164616	16.24		
680-102468-43 MSD	SD-248-01 MSD	159058	10.13	181215	16.24		
680-102468-43	SD-248-01	167752	10.13	178384	16.24		
680-102468-42	SD-248-SS	142951	10.13	157215	16.24		
680-102468-44	SD-248-02	138288	10.13	147732	16.24		
680-102468-48	SD-249-02	155536	10.13	170462	16.24		
680-102468-49	SD-249-03	138768	10.13	152173	16.24		
CCV 680-339960/23		146361	10.13	150656	16.24		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Sample No.: CCVIS 680-340118/4 Date Analyzed: 07/21/2014 15:33

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG2104.D Heated Purge: (Y/N) N

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		152714	10.13	135608	16.24		
UPPER LIMIT		198528	10.63	176290	16.74		
LOWER LIMIT		106900	9.63	94926	15.74		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102468-47	SD-249-01	166157	10.13	159257	16.24		
CCV 680-340118/24		152797	10.13	138511	16.24		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Sample No.: CCVIS 680-340971/4 Date Analyzed: 07/25/2014 19:30

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG2504.D Heated Purge: (Y/N) N

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		126429	9.98	126053	16.09		
UPPER LIMIT		164358	10.48	163869	16.59		
LOWER LIMIT		88500	9.48	88237	15.59		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-340491/21-A		126557	9.98	119839	16.09		
LCS 680-340491/22-A		232677	9.98	229551	16.09		
CCV 680-340971/25		127070	9.98	135551	16.09		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Sample No.: CCVIS 680-340977/4 Date Analyzed: 07/26/2014 07:55

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm)

Lab File ID (Standard): XG2530.D Heated Purge: (Y/N) N

Calibration ID: 32129

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		124896	9.98	130014	16.09		
UPPER LIMIT		162365	10.48	169018	16.59		
LOWER LIMIT		87427	9.48	91010	15.59		
LAB SAMPLE ID	CLIENT SAMPLE ID						
680-102468-27	SD-244-01	135727	9.98	141853	16.09		
680-102468-45	SD-248-03	109641	9.98	106063	16.09		
680-102468-46	SD-249-SS	122776	9.98	134272	16.09		
CCV 680-340977/19		139321	9.98	145026	16.09		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 680-102468-1

SDG No.: 680102468-1

Instrument ID: CMSX Calibration Start Date: 07/29/2014 23:20

GC Column: DB-5MS ID: 0.25(mm) Calibration End Date: 07/30/2014 01:15

Calibration ID: 32707

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		146426	9.77	207821	15.85		
UPPER LIMIT		219639	10.27	311732	16.35		
LOWER LIMIT		73213	9.27	103911	15.35		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-341490/8		132962	9.77	182303	15.85		
680-102468-41	SD-247-03	148357	9.77	172954	15.86		
CCV 680-341490/22		161910	9.78	198715	15.86		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

SAMPLE ID **SD-246-SS**

SAMPLE CALC for tetrachlorobiphenyl

IS AREA	DILUTION	COMPOUND OF INTEREST AREA	IS AMOUNT (ug/mL)	Final Extract Volume (mL)	AVE RRF	CONCENTRATION PPB
170986	50	462956	0.75	1	0.2893	105732.29

Sample Weight (g)
10.12

Percent Solids
32.8

Sample Calculation

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah
Job No.: 680-102468-1
SDG No.: 680102468-1
Client Sample ID: SD-246-SS
Lab Sample ID: 680-102468-34
Matrix: Solid
Lab File ID: XG1929.D
Analysis Method: 680
Date Collected: 06/17/2014 12:05
Extract. Method: 680
Date Extracted: 07/11/2014 14:44
Sample wt/vol: 10.12(g)
Date Analyzed: 07/20/2014 08:21
Con. Extract Vol.: 1(mL)
Dilution Factor: 50
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 67.2
GPC Cleanup:(Y/N) N
Analysis Batch No.: 339932
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2051-24-3	DCB Decachlorobiphenyl	380	U	7700	380
25512-42-9	Dichlorobiphenyl	160	U	1500	160
28655-71-2	Heptachlorobiphenyl	15000		4500	230
26601-64-9	Hexachlorobiphenyl	17000		3000	150
27323-18-8	Monochlorobiphenyl	86	U	1500	86
53742-07-7	Nonachlorobiphenyl	1500	U	7700	1500
55722-26-4	Octachlorobiphenyl	2700	J	4500	240
25429-29-2	Pentachlorobiphenyl	25000		3000	150
26914-33-0	Tetrachlorobiphenyl	110000		3000	170
25323-68-6	Trichlorobiphenyl	7700		1500	77

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	0	D	30-130

Report Date: 27-Jul-2014 16:33:42 Chrom Revision: 2.2 24-Jul-2014 14:43:32

TestAmerica Savannah
Target Compound Quantitation Report

Sample Calc.

Data File: \\SAVCHROM\ChromData\CMSX\20140719-11146.b\XG1929.D
Lims ID: 680-102468-A-34-A Lab Sample ID: 680-102468-34
Client ID: SD-246-SS
Sample Type: Client
Inject. Date: 20-Jul-2014 08:21:30 ALS Bottle#: 23 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 50.0000
Sample Info: 102468-A-34 DL=50
Misc. Info.: 680-0011146-024
Operator ID: nmd Instrument ID: CMSX

Method: \\SAVCHROM\ChromData\CMSX\20140719-11146.b\680_CMSX.m
Limit Group: 680
Last Update: 27-Jul-2014 16:33:31 Calib Date: 20-Jul-2014 00:46:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\SAVCHROM\ChromData\CMSX\20140719-11146.b\XG1913.D

Column 1 : Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: davisn Date: 24-Jul-2014 12:04:12

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
A 24 Dichlorobiphenyl	222	9.373	8.444	- 10.303	0	807	0.005944	
* 5 Phenanthrene-d10	188	10.127	10.112	0.015	99	170986	0.7500	
A 25 Trichlorobiphenyl	256	11.001	9.687	- 12.315	0	49608	0.5113	
A 26 Tetrachlorobiphenyl	292	12.482	10.783	-14.181	0	462956	7.02	
A 27 Pentachlorobiphenyl	326	13.887	12.056	-15.718	0	85856	1.68	
A 28 1,1'-Biphenyl, hexachloro-	360	15.168	13.217	-17.119	0	53284	1.11	
* 15 Chrysene-d12	240	16.241	16.224	0.017	100	193279	0.7500	
A 29 1,1'-Biphenyl, heptachloro-	394	16.295	14.829	-17.762	0	38110	1.01	
A 30 1,1'-Biphenyl, octachloro-	430	17.380	16.314	-18.447	0	6107	0.1766	

Reagents:

SM-680istd_00028 Amount Added: 30.00 Units: uL Run Reagent

Sample Calc.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 680-102468-1 Analy Batch No.: 339932

SDG No.: 680102468-1

Instrument ID: CMSX GC Column: DB-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/19/2014 22:52 Calibration End Date: 07/20/2014 00:46 Calibration ID: 32129

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-339932/8	XG1913.D
Level 2	IC 680-339932/7	XG1912.D
Level 3	ICISAV 680-339932/4	XG1909.D
Level 4	IC 680-339932/6	XG1911.D
Level 5	IC 680-339932/5	XG1910.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.8353	0.8456	0.9098	0.8813	0.8734	Ave		0.8691				3.4		20.0			
Dichlorobiphenyl	0.5776	0.5823	0.6122	0.6067	0.5987	Ave		0.5955				2.5		20.0			
Trichlorobiphenyl	0.3996	0.4135	0.4348	0.4389	0.4410	Ave		0.4256				4.3		20.0			
PCB-104			0.3302			Ave		0.3302						30.0			
Tetrachlorobiphenyl	0.2755	0.2817	0.3033	0.2909	0.2951	Ave		0.2893				3.8		20.0			
Pentachlorobiphenyl	0.2123	0.2203	0.2262	0.2270	0.2357	Ave		0.2243				3.9		20.0			
PCB-77			0.4767			Ave		0.4767						30.0			
Hexachlorobiphenyl	0.1966	0.2022	0.2225	0.2132	0.2185	Ave		0.2106				5.2		20.0			
Heptachlorobiphenyl	0.1540	0.1656	0.1696	0.1700	0.1695	Ave		0.1657				4.1		20.0			
Octachlorobiphenyl	0.1373	0.1488	0.1535	0.1521	0.1669	Ave		0.1517				7.0		20.0			
PCB-208			0.0569			Ave		0.0569						30.0			
Nonachlorobiphenyl			0.0443			Ave		0.0363				11.0		20.0			
DCB Decachlorobiphenyl	0.0321	0.0328	0.0379	0.0370	0.0414	Ave		0.0363				11.0		20.0			
Decachlorobiphenyl-13C12	0.0407	0.0484	0.0517	0.0504	0.0567	Ave		0.0496				12.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

ATTACHMENT D—BALTIMORE COUNTY SANITARY SEWER SYSTEM INDUSTRIAL USER DISCHARGE PERMIT WWDP #1645

November 17, 2014

Ms. Lynette Drake
Lockheed Martin Corporation
2323 Eastern Boulevard
Baltimore, Maryland 21220

RE: INDUSTRIAL USER PERMIT
NUMBER WWDP #1645

Dear Mr. Blackman:

Your application for issuance of a Discharge Permit has been reviewed and processed in accordance with Sections 20-5-101 to 20-5-132, inclusive, Baltimore County Code.

The enclosed permit, Number WWDP #1645 covers the wastewater discharge from the facility located at 2323 Eastern Boulevard, Baltimore, Maryland 21220 into the Baltimore County Sanitary Sewer System. All discharges from this facility and actions and reports relating thereto shall be in accordance with the terms and conditions of this permit.

If you wish to challenge any effluent limitations, pretreatment requirements, or conditions imposed in this permit, please contact me at 410-887-1893 to discuss, within thirty (30) days of permit receipt.

Sincerely,

Thomas Kiefer P.E.
Chief, Bureau of Utilities

TK:JT
c: File
Enc.

PART 1. SPECIAL CONDITIONS

PART 1. EFFLUENT LIMITATIONS

A. Outfall and Wastestream Description(s)

1. During the period of 11/17/2014 to 04/15/2015 the permittee is authorized to discharge industrial wastewater to the Baltimore County Public Sanitary Sewer System from the outfall(s) listed below.

Description of outfall(s):

Outfall	Wastestream	Description
001	001	Wastewater generated from dewatering sludge contaminated by PCB's.

Note: Primary contaminate of the sludge is Polychlorinated Biphenyls (PCB's). Water collected at the dewatering pad will be transferred to holding tanks for initial settling. Next the water will be processed through two (2) 4 stage 8'x 30" bag filters for particulate removal and two (2) 5,000 pound capacity 8"x 30" activated carbon pressure vessels for final polishing.

2. Prohibition
No release of waste to the sanitary sewer from the following source(s) is allowed:

A. Untreated wastewater separated from the sludge.

PART 1.

B. Outfall(s) (001) Wastestream(s) (001)

During the period of 11/17/2014 to 04/15/2014 the discharge from wastestream(s) 001 shall not exceed the following effluent limitations. In addition, the discharge shall comply with all other applicable regulations and standards contained in Section 20-5-101 through 20-5-132, et seq, Baltimore County Code. Effluent from this wastestream(s) consists of wastewater generated as a result of dewatering PCB contaminated sludge.

EFFLUENT LIMITATIONS

Constituent	Daily Maximum (mg/L)
Cadmium (T) (1)	0.21
Chromium (T) (1)	6.89
Copper (T) (1)	6.59
Cyanide (T) (1)	1.9
Lead (T) (1)	6.81
Mercury (T) (1)	0.01
Nickel (T) (1)	2.82
Silver (T) (1)	1.20
Zinc (T) (1)	17.85
TTO (Volatile Organic Portion)(1)	2.13(2)
TTO (Non-Volatile Organic Portion)(1)	2.13(2)
TPH (1,3)	100.0
pH (1,4)	6.0 to 10.0 std. units at all times
COD	No established limit; to be used as measure of contamination.

SURCHARGEABLE LEVELS

BOD (5)	300.0
TKN (5)	30.0
TSS (5)	300.0
Phosphorous (T) (5)	12.0

(1) Local Limit
(2) Total of volatile and non-volatile organics should not exceed 2.13 mg/l.
(3) Use E.P.A. Test Method # 1664 Hexane Extraction.
(4) General Prohibitive Standard as set by Section 20-5-111 Baltimore County Code
(5) Surchargeable Level

PART 1.

C. Monitoring Requirements Outfall (001)
Wastestream (001)

The permittee shall monitor Outfall (001) Wastestream (001) for the following parameters at the sampling port just prior to the flow meter on top of Manhole PVT #506.

Parameter	Measurement Frequency	Sample Type[1]
Cadmium (T)	Once/five months	Composite [2]
Chromium (T)	Once/five months	Composite [2]
Copper (T)	Once/five months	Composite [2]
Cyanide (T)	Once/five months	Grab [3]
Lead (T)	Once/five months	Composite [2]
Mercury (T)	Once/five months	Composite [2]
Nickel (T)	Once/five months	Composite [2]
Silver (T)	Once/five months	Composite [2]
TTO (Volatile Organics Portion)	Once/five months	Grab [3]
TTO (Non-Volatile Portion)	Once/one month	Composite [2,4]
Zinc (T)	Once/five months	Composite [2]
TPH	Once/five months	Grab [5]
pH	Once/one month	Grab [3]
Flow	See Footnote #6	Measured

(1) Definition of sample types can be found in Part II, Standard Conditions, Section A.10 of this permit.
(2) The reported value should be should be from a composite of samples collected to represent the wastewater characteristics over the period of discharge, not to exceed twenty-four hours. Composite sampling is to be performed at the commencement of discharge to the sewer.
(3) Grab samples are to be collected one (1) time on day(s) that composite sampling occurs.
(4) The initial sample for Non Volatiles is to be analyzed using E.P.A. Test Method 625 and E.P.A.Test Method 608. Subsequent samples are to be analyzed using E.P.A Test Method 608 only.
(5) E.P.A Method 1664 Hexane extraction must be used to determine the concentration of this parameter.
(6) A flow meter measures the volume discharged from the two holding tanks used to hold treated wastewater. Meter Readings are to be taken at the end of each month. Using this data report the total flow, average daily flow and an estimate of maximum daily flow. Submit the monthly readings. Report flow in gallon units.

ALL HANDLING AND PRESERVATION OF COLLECTED SAMPLES AND LABORATORY ANALYSES OF SAMPLES SHALL BE PERFORMED IN ACCORDANCE WITH 40 CFR PART 136 AND AMENDMENTS THERETO UNLESS SPECIFIED OTHERWISE.

PART 1.

D. SAMPLING SITE MAP-OUTFALL (001)
WASTESTREAM (001) Local Limits

Overview:

PART 1.

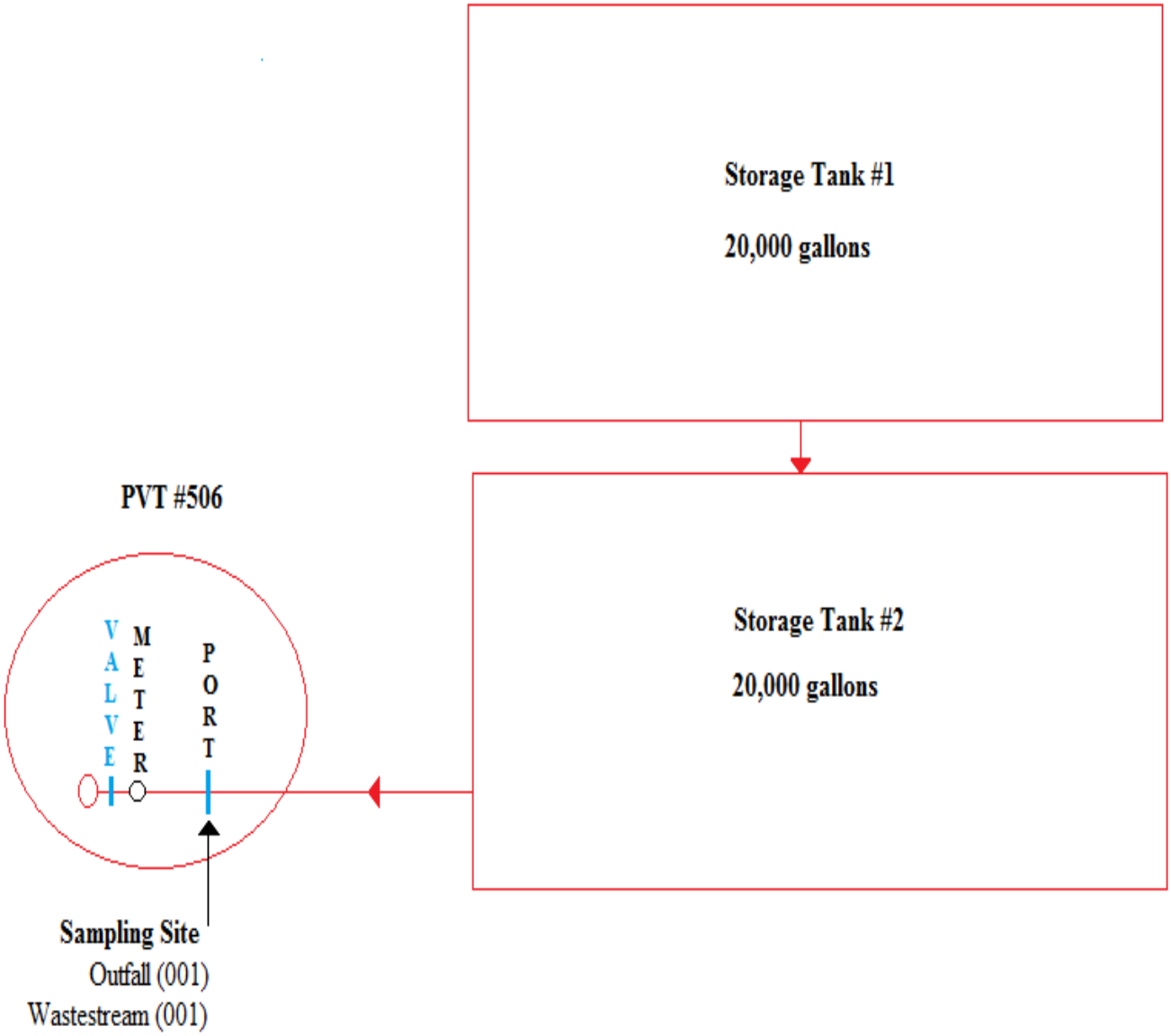
D. SAMPLING SITE MAP-OUTFALL (001)
WASTESTREAM (001) Local Limits

Overview:

PART 1.

D. SAMPLING SITE MAP-OUTFALL (001)
WASTESTREAM (001) Local Limits

Sampling Site: The sampling port prior to the flow meter on top of Manhole PVT #506.



PART 2. Reporting Requirements

A. Monitoring Reports

Monitoring reports obtained shall be summarized and reported on an Industrial User Monitoring Report Form. The reports are due no later than Sixty (60) days from the last sampling event or no later than the 15th day of the following months for each year the permit is in effect.

Sampling Period	Report Due	Parameters
August – September	January 15th	All
October – December	April 15th	TTO(Non Volatile Portion) and pH only.

The initial report for this permit is due on January 15, 2014.

The report should indicate the nature and concentration of all pollutants in the effluent which are regulated by the limits set forth in Part 1, Section C, and should include maximum and average daily flows.

B. Automatic Resampling

If the results of the permittee's wastewater analysis indicated that a violation has occurred, the permittee must:

a. Inform the Engineering and Regulation Division of the violation within 24 hours of becoming aware of the violation and

b. Resample and resubmit the results, for the effluent which had the violation, within 30 days of receiving the original sampling results.

C. Report Submission

All reports required by this permit shall be submitted to the Engineering and Regulation Division at the following address:

Baltimore County
Department of Public Works
Bureau of Utilities
4419 Bucks School House Road
Baltimore, Maryland 21237-3310

Attn: Engineering and Regulation Division

PART 3.

A. REOPENER CLAUSE

This permit may be reopened and modified with any applicable more stringent requirement contained in a National Categorical Pretreatment Standard promulgated per 40 CFR 403 or any applicable more stringent requirement resulting from the re-evaluation of Local Limits or as necessary to ensure POTW compliance with sludge management requirements promulgated by the EPA or the State of Maryland.

B. FAILURE TO COMPLY

Failure to comply with any condition of this Wastewater Discharge Permit will place the facility in violation and subject to enforcement activities which include Citations, Penalty Assessments of not more than One Thousand Dollars ($1,000.00) per day for each violation, Consent Orders/Agreements and/or Closure Orders.