EcolSciences, Inc.
Environmental Management & Regulatory Compliance

September 8, 2017

James S. Haklar, Ph.D.
Sr. PCB Disposal Specialist
Division of Enforcement and Compliance Assistance
United States Environmental Protection Agency – Region 2

Re: Building and Steel Materials PCB Evaluation
450-490 South Avenue and 50 Center Street
Borough of Garwood
Block 401, Lots 1 and 2
Union County, New Jersey
NJDEP PI# 032470 and 631620

Dear Dr. Haklar:

This letter has been prepared on behalf of South Ave Urban Renewal, LLC, to summarize the results of the building materials Polychlorinated Biphenyl (PCB) evaluation and the results of the building dust and steel wipe sampling conducted within the buildings at 450-490 South Avenue and 50 Center Street in Garwood, New Jersey. The evaluations were conducted by Environmental Health Investigations, Inc. (EHI) under the oversight of William Kerbel, a Certified Industrial Hygienist (CIH), in accordance with the protocols set forth in correspondence between EcolSciences, Inc. (EcolSciences) and the United State Environmental Protection Agency (USEPA) dated November 9, 2016 and March 16, 2017. The sampling was conducted in accordance with 40 CFR 761 regulations, with PCB extraction conducted in accordance with method 3550C and PCB analysis via method 8082A in accordance with 40 CFR 761 subpart N. The EHI Reports are included in Attachments A and B. A discussion of the sampling is as follows.

Building Materials Evaluation

The building materials PCB sampling was conducted in accordance with the USEPA Comment 7 response in EcolSciences' November 9, 2016 letter and is discussed as follows. The laboratory analysis was conducted by IAL Laboratories in Randolph, New Jersey.

450-490 South Avenue (Block 401, Lot 1)

Eight distinct building materials potentially containing PCBs were identified in this portion of the Site by EHI as set forth in the following table. One five-point composite sample was collected from each of the building materials. The results are as follows:

Material	PCB Concentration (mg/kg)
Window Caulk – White	ND (0.076)
Window Glazing – White	0.768
Window Caulk – Grey	ND (0.143)
Door Caulk – White	ND (0.077)
Window Caulk – Tan	ND (0.154)
Asphalt Siding	26,700
Window Glazing – Pink	ND (0.014)

Material	PCB Concentration (mg/kg)
Roof Tar	ND (0.568)

value in parenthesis indicates the method detection limit

The asphalt siding covers approximately 2,000 square feet of wall portions of the building.

50 Center Street (Block 401, Lot 2)
Six distinct building materials potentially containing PCBs were identified in this portion of the Site as set forth in the following table. One five point composite sample was collected from each of the building materials.

Material	PCB Concentration (mg/kg)
Garage Door Caulk	0.371
Window Caulk – Tan	ND (0.014)
Window Glazing – White	1.35
Window Glazing – Pink	0.729
Floor Tar associated with wood block floor	ND (0.304)
Waterproof Coating	ND (0.293)

value in parenthesis indicates the method detection limit

Building Materials Evaluation Conclusions
As indicated in the tables above, with the exception of the asphalt siding in the 450-490 South Avenue building (Lot 1), PCBs were not detected in the building materials above 50 mg/kg, the PCB bulk product waste threshold. A copy of EHI's report of findings is attached.

The asphalt siding materials PCB bulk product waste and the attached wall material will be appropriately handled as one material during demolition and disposed of as PCB bulk product waste at either Conestoga Landfill in Morgantown, Pennsylvania (a facility proposed in the November 9, 2016 correspondence for receiving PCB remediation waste below 50 mg/kg) or at ACUA Landfill in Egg Harbor, New Jersey. Both landfills are acceptable facilities for PCB bulk product waste pursuant to 40 CFR 761.62. During demolition, the PCB bulk product waste will be handled carefully in accordance with 40 CFR 761 to prevent cross contamination of other materials and all equipment will be properly decontaminated. The remaining construction and demolition building materials will be handled in accordance with traditional construction and demolition debris practices.

Building Dust and Steel Wipe Sampling
The dust and steel materials wipe PCB sampling is discussed in the following subsections. The laboratory analysis was conducted by EMSL Analytical, Inc. of Cinnaminson, New Jersey. EHI conducted the wipe sampling from discrete 100 square centimeter areas in accordance with 40 CR 761 subpart G.

Dust Characterization Wipe Sampling – Area 5
The dust sampling was conducted in accordance with EcolSciences' March 16, 2017 correspondence to the USEPA. Specifically, six wipe samples were collected from the flat, horizontal surfaces where dusts would accumulate in the 'Area 5' portion of the property. This portion of the building was utilized by ALCOA for die casting operations and PCB hydraulic oils are suspected to have been utilized during ACLOA's operations in this portion of the building as indicated on the mapping presented in our January 27, 2017 correspondence. The

purpose of this sampling was to determine if aerosol or mist discharges of PCBs may have occurred in the past and whether these discharges contaminated the dust on horizontal surfaces above the areas where PCBs were utilized on the Site. Samples were collected from five different areas and labeled samples 1 through 5, with a duplicate sample (sample 6) collected from sample location 4. A blank sample was also analyzed in accordance with our March 16, 2017 correspondence.

Total PCB concentrations ranged from 3.09 micrograms/100 square centimeters ($\mu g/100cm^2$) to 18.7 $\mu g/100cm^2$. Two of the five samples, samples 4 and 5 (and sample 6, the duplicate of sample 4), collected from the easternmost portion of Area 5 contained total PCB concentrations marginally above the 10 $\mu g/100cm^2$ threshold up to a maximum concentration of 18.7 $\mu g/100cm^2$, well below 100 $\mu g/100cm^2$.

Steel Materials Wipe Sampling – Areas 1-3

During our March 9, 2017 site inspection and as indicated in our March 16, 2017 correspondence, the USEPA required the steel materials of the building to be wipe sampled for PCBs after demolition and before transfer to a general scrap yard to ensure that PCBs potentially associated with building materials (i.e. PCB bulk product materials) did not contaminate the steel during demolition activities. As a precautionary measure and to preemptively understand potential costs associated with managing the steel during demolition, South Ave Urban Renewal, LLC proceeded with characterizing the steel prior to demolition. In accordance with our March 16, 2017 correspondence, eleven wipe samples were conducted from the steel throughout the portions of the Site buildings where PCB remediation waste has not been identified below the building slab. Wipe sampling was not conducted in Area 4, which is an office area with no exposed structural steel. Samples were collected from ten different areas and labelled samples 1A through 11A, with a duplicate sample (sample 7A) collected from sample location 6A and a blank also analyzed.

The results indicated that PCB concentrations throughout the building primarily ranged from 0.77 $\mu g/100cm^2$ to 16 $\mu g/100cm^2$ with two samples containing PCBs above 10 $\mu g/100cm^2$ at concentrations of 13.1 $\mu g/100cm^2$ and 16 $\mu g/100cm^2$. One sample point (6A) located in the southeastern portion of Area 2 exhibited a concentration of 105 $\mu g/100cm^2$. A duplicate sample collected from the sample 6A location (sample 7A) contained PCBs at 91 $\mu g/100cm^2$. The average PCB concentration at sample location 6A/7A is 98 $\mu g/100cm^2$.

Dust and Steel Materials Conclusions

Based on this investigation which included analysis of eleven samples from throughout the building, the steel building components contain PCBs at low concentrations (ranging from 0.77$\mu g/100cm^2$ to 16 $\mu g/100cm^2$). One exception was identified at the 6A/7A location where PCBs were identified at an average concentration of 98 $\mu g/100cm^2$.

To confirm that the steel building components in the vicinity of sample 6A/7A contain PCBs below 100 $\mu g/100cm^2$ four additional wipe samples will be conducted from four discreet locations within approximately 20 feet of the 6A/7A location. Specifically, two vertical locations on the same steel truss approximately 20 feet away from location 6A/7A and two locations on adjacent separate trusses approximately 20 feet away will be sampled. Assuming the results from these four samples contain PCBs below 100 $\mu g/100cm^2$, this area will have been confirmed to contain PCBs below 100 $\mu g/100cm^2$. If PCBs are identified above 100 $\mu g/100cm^2$ in this area, additional steel sampling will be conducted in consultation with USEPA to delineate the extent of the steel containing PCBs above 100 $\mu g/100cm^2$ from the remainder of the building. The steel will then be addressed as follows:

- The building will be demolished and the steel segregated into two waste streams – one of steel containing PCBs above 100 µg/100cm^2 (if any such concentrations are identified) and a second for steel containing PCBs below 100 µg/100cm^2;

- Based on the pre-demolition PCB concentrations, the steel waste stream containing PCBs below 100 µg/100cm^2 (anticipated to be all the steel within the building subject to the additional delineation sampling described above) will be wipe sampled prior to disposal with 10 samples collected and analyzed for PCBs;

- The steel containing PCBs below 100 µg/100cm^2 based on pre-demolition and post-demolition analysis will be transported for disposal in accordance with 40 CFR 761.61(a)(5)(i)B(*2*)(*ii*) at a Conestoga Landfill or ACUA Landfill or a scrap recycler/smelter pursuant to 40 CFR 761 subpart D (i.e. G&S Technologies in Kearny, New Jersey or equivalent);

- If any steel contains PCBs above 100 µg/100cm^2 based on pre and post-demolition sampling, it will be disposed at a RCRA subtitle C landfill or a TSCA landfill (i.e. CWM Chemical Services, LLC in Model City, New York or Wayne Disposal, Inc. in Belleville, Michigan, or equivalent);

- In the unlikely event that steel assumed to contain PCBs below 100 µg/100cm^2 based on pre-demolition sampling is found to exhibit PCBs above 100 µg/100cm^2 after demolition, the findings will be confirmed through additional testing and testing will be conducted to separate the steel with PCBs above 100 µg/100cm^2 from the remainder of the steel material. The testing will be conducted in consultation with the USEPA. The two steel waste streams will be disposed as discussed above

Should you have any questions, comments, or require additional information, please contact me at 973-366-9500. Thank you in advance for your immediate attention to this matter.

Very truly yours,

EcolSciences, Inc.

Peter A. Hansen, LSRP, LEP
Vice President

Attachments

cc: Ed Russo, South Ave Urban Renewal, LLC
David Loeffler, LSRP

Attachment A

EHI Building Materials Evaluation

EcolSciences, Inc.

Environmental Management & Regulatory Compliance

Environmental Health Investigations, Inc.

655 West Shore Trail
Sparta, New Jersey 07871

Phone/Fax: 973-729-5649
www.ehi-inc.com

July 7, 2017

Mr. Edward Russo
Russo Development
570 Commerce Blvd.
Carlstadt, NJ 07072

Email: erusso@russodevelopment.com

Re: Pre-Demolition PCB's in Building Materials
Petro/Casale Properties
450 South Avenue/50 Center St., Garwood, NJ
EHI Project #: 0558-6923

Dear Mr. Russo:

Attached is our report relevant to the pre-demolition PCB's in building materials survey conducted at the Petro/Casale at 450 South Avenue/50 Center Street in Garwood, NJ.

Thank you for the opportunity to provide our services. Should you have any questions regarding this report, please do not hesitate to contact me.

Very truly yours,

Charles Hoffman

Charles Hoffman
Sr. Project Manager

Environmental Health Investigations, Inc.

655 West Shore Trail
Sparta, New Jersey 07871

Phone/Fax: 973-729-5649
www.ehi-inc.com

REPORT OF FINDINGS

PCB's in Building Materials

At:

Petro/Casale
450 South Avenue
50 Center Street
Garwood, NJ

On Behalf Of:

Russo Development
570 Commerce Blvd.
Carlstadt, NJ 07072

Date Conducted: June 29, 2017

Report Dated: July 7, 2017

EHI Project #: 0558-6923

1.0 Introduction

Environmental Health Investigations, Inc. (EHI) was retained by Russo Development to conduct predemolition PCB's in building materials survey at the former Petro/Casale located at 450 South Avenue and 50 Center Street in Garwood, New Jersey.

The work was conducted on June 29, 2017 by Charles Hoffman and Kennith Newsome of EHI.

The goal of the predemolition PCB in building materials survey was to ascertain whether certain building materials found on the site contained PCB's in concentrations greater than 50 ppm.

2.0 Sampling Methods

Composite samples of each type of building material were collected from multiple locations. Door caulk, window caulk, window glazing, waterproofing, mastics and tars on both the interior and exterior of the buildings were collected.

The samples were hand delivered for PCB analysis in accordance with Method 8082A to Integrated Analytical Laboratories in Randolph, New Jersey.

3.0 Results

Sample Identification	Type of Material	Location	PCB Concentration mg/kg
PCG-50-062917-1	Garage Door Caulk - Grey	Casale - 50 Center Street	0.371

Sample Identification	Building	Location	PCB Concentration mg/kg
PCG-50-062917-2	Window Caulk - Tan	Casale - 50 Center Street	ND
PCG-50-062917-3	Window Glazing - White	Casale - 50 Center Street	1.35
PCG-50-062917-4	Window Glazing - Pink	Casale - 50 Center Street	0.729
PCG-50-062917-5	Floor Tar Associated w/ Wood Block Floor	Casale - 50 Center Street	ND
PCG-50-062917-6	Waterproof Coating	Casale - 50 Center Street	ND
PCG-450-062917-1	Window Caulk - White	Petro - 450 South Avenue	ND
PCG-450-062917-2	Window Glazing - White	Petro - 450 South Avenue	0.768
PCG-450-062917-3	Window Caulk - Grey	Petro - 450 South Avenue	ND
PCG-450-062917-4	Door Caulk - White	Petro - 450 South Avenue	ND
PCG-450-062917-5	Window Caulk - Tan	Petro - 450 South Avenue	ND
PCG-450-062917-6	Asphalt Siding	Petro - 450 South Avenue	26,700
PCG-450-062917-7	Window Glazing - Pink	Petro - 450 South Avenue	ND
PCG-450-062917-8	Roof Tar	Petro - 450 South Avenue	ND

4.0 Discussion

Those materials containing greater than 50 ppm total PCBs must be disposed of as PCB bulk product waste.

Survey & Report By: Charles Hoffman
Charles Hoffman
Project Manager

Reviewed By: William S. Kerbel
William S. Kerbel, CIH
President

A P P E N D I X

IAL Laboratory Reports

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Environmental Health Investigations, Inc.
Project: CASALE/PETRO GARWOOD
Lab Case No.: E17-05390

Lab ID:	05390-001			05390-002			05390-003			05390-004		
Client ID:	PCG-50-062917-1			PCG-50-062917-2			PCG-50-062917-3			PCG-50-062917-4		
Matrix:	Solid			Solid			Solid			Solid		
Sampled Date	6/29/17			6/29/17			6/29/17			6/29/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Aroclor-1016	ND		0.015	ND		0.014	ND		0.014	ND		0.014
Aroclor-1221	ND		0.015	ND		0.014	ND		0.014	ND		0.014
Aroclor-1232	ND		0.015	ND		0.014	ND		0.014	ND		0.014
Aroclor-1242	ND		0.015	ND		0.014	ND		0.014	ND		0.014
Aroclor-1248	ND		0.015	ND		0.014	ND		0.014	ND		0.014
Aroclor-1254	0.371		0.015	ND		0.014	1.35		0.014	0.729		0.014
Aroclor-1260	ND		0.015	ND		0.014	ND		0.014	ND		0.014
Aroclor-1262	ND		0.015	ND		0.014	ND		0.014	ND		0.014
Aroclor-1268	ND		0.015	ND		0.014	ND		0.014	ND		0.014
PCBs	0.371		0.015	ND		0.014	1.35		0.014	0.729		0.014

Lab ID:	05390-005			05390-006		
Client ID:	PCG-50-062917-5			PCG-50-062917-6		
Matrix:	Solid			Solid		
Sampled Date	6/29/17			6/29/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	*(mg/Kg)*			*(mg/Kg)*		
Aroclor-1016	ND		0.304	ND		0.293
Aroclor-1221	ND		0.304	ND		0.293
Aroclor-1232	ND		0.304	ND		0.293
Aroclor-1242	ND		0.304	ND		0.293
Aroclor-1248	ND		0.304	ND		0.293
Aroclor-1254	ND		0.304	ND		0.293
Aroclor-1260	ND		0.304	ND		0.293
Aroclor-1262	ND		0.304	ND		0.293
Aroclor-1268	ND		0.304	ND		0.293
PCBs	ND		0.304	ND		0.293

ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Environmental Health Investigations, Inc.
Project: CASALE/PETRO GARWOOD
Lab Case No.: E17-05391

Lab ID:	05391-001			05391-002			05391-003			05391-004		
Client ID:	PCG-450-062917-1			PCG-450-062917-2			PCG-450-062917-3			PCG-450-062917-4		
Matrix:	Solid			Solid			Solid			Solid		
Sampled Date	6/29/17			6/29/17			6/29/17			6/29/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Aroclor-1016	ND		0.076	ND		0.015	ND		0.143	ND		0.077
Aroclor-1221	ND		0.076	ND		0.015	ND		0.143	ND		0.077
Aroclor-1232	ND		0.076	ND		0.015	ND		0.143	ND		0.077
Aroclor-1242	ND		0.076	ND		0.015	ND		0.143	ND		0.077
Aroclor-1248	ND		0.076	ND		0.015	ND		0.143	ND		0.077
Aroclor-1254	ND		0.076	ND		0.015	ND		0.143	ND		0.077
Aroclor-1260	ND		0.076	ND		0.015	ND		0.143	ND		0.077
Aroclor-1262	ND		0.076	ND		0.015	ND		0.143	ND		0.077
Aroclor-1268	ND		0.076	0.768		0.015	ND		0.143	ND		0.077
PCBs	ND		0.076	0.768		0.015	ND		0.143	ND		0.077

Lab ID:	05391-005			05391-006			05391-007			05391-008		
Client ID:	PCG-450-062917-5			PCG-450-062917-6			PCG-450-062917-7			PCG-450-062917-8		
Matrix:	Solid			Solid			Solid			Solid		
Sampled Date	6/29/17			6/29/17			6/29/17			6/29/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Aroclor-1016	ND		0.154	ND		28.5	ND		0.014	ND		0.568
Aroclor-1221	ND		0.154	ND		28.5	ND		0.014	ND		0.568
Aroclor-1232	ND		0.154	ND		28.5	ND		0.014	ND		0.568
Aroclor-1242	ND		0.154	ND		28.5	ND		0.014	ND		0.568
Aroclor-1248	ND		0.154	ND		28.5	ND		0.014	ND		0.568
Aroclor-1254	ND		0.154	ND		28.5	ND		0.014	ND		0.568
Aroclor-1260	ND		0.154	ND		28.5	ND		0.014	ND		0.568
Aroclor-1262	ND		0.154	ND		28.5	ND		0.014	ND		0.568
Aroclor-1268	ND		0.154	26700	D	285	ND		0.014	ND		0.568
PCBs	ND		0.154	26700	D	285	ND		0.014	ND		0.568

Lab ID:	05391-009		
Client ID:	PCG-450-062917-9		
Matrix:	Solid		
Sampled Date	6/29/17		
PARAMETER(Units)	Conc	Q	MDL
PCB's (Units)	*(mg/Kg)*		
Aroclor-1016	ND		0.143
Aroclor-1221	ND		0.143
Aroclor-1232	ND		0.143
Aroclor-1242	ND		0.143
Aroclor-1248	ND		0.143
Aroclor-1254	ND		0.143
Aroclor-1260	ND		0.143
Aroclor-1262	ND		0.143
Aroclor-1268	ND		0.143
PCBs	ND		0.143

ND = Analyzed for but Not Detected at the MDL

D = The compound was reported from the Diluted analysis

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

Environmental Health Investigations, Inc.
655 West Shore Trail
Sparta, NJ 07871

Project Name: **CASALE/PETRO GARWOOD**
IAL Case Number: **E17-05390**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAP accredited lab (TNI01284) and maintains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).

INTEGRATED ANALYTICAL LABORATORIES, LLC.

TABLE OF CONTENTS

This report was finalized on July 07, 2017

* Methodology is included in the IAL Project Information Page

Sample Summary

IAL Case No.

E17-05390

Client Environmental Health Investigations, Inc.

Project CASALE/PETRO GARWOOD

Received On 6/29/2017@12:30

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
05390-001	PCG-50-062917-1	n/a	6/29/2017@11:00	Solid	1
05390-002	PCG-50-062917-2	n/a	6/29/2017@11:00	Solid	1
05390-003	PCG-50-062917-3	n/a	6/29/2017@11:00	Solid	1
05390-004	PCG-50-062917-4	n/a	6/29/2017@11:00	Solid	1
05390-005	PCG-50-062917-5	n/a	6/29/2017@11:00	Solid	1
05390-006	PCG-50-062917-6	n/a	6/29/2017@11:00	Solid	1

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES, LLC.

DEFINITIONS / QUALIFIERS

DATA QUALIFIERS

B Indicates the analyte was found in the associated method blank as well as in the sample. It indicates probable laboratory contamination.

C Indicates analyte is a common laboratory contaminant.

D Indicates analyte was reported from diluted analysis.

E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument.

J Indicates an estimated value. This flag is used when the concentration in the sample is below the RL but above the MDL or for qualification of tentatively identified compounds.

N Presumptive evidence of a compound from the use of GC/MS library search.

X Indicates samples analyzed for total and dissolved metals differ at ≤20% RPD.

Z Indicates internal standard failure. Sample results are either biased high or biased low.

REPORTING DEFINITIONS

RL Reporting Limit. The RL is determined by the lowest concentration in the calibration curve. For most Wet Chemistry methods, the RL is defined by using the PQL.

MDL Method Detection Limit as determined according to 40CFR Part 136 Appendix B.

PQL Practical Quantitation Limit. Usually defined as a value 3-5 times the MDL.

ND Indicates analyte was analyzed for but not detected above the MDL.

DF Dilution Factor

LCS Laboratory Control Sample

LCSD Laboratory Control Sample Duplicate

MS Matrix Spike

MSD Matrix Spike Duplicate

DUP Duplicate

SAMPLE DELIVERY GROUP CASE NARRATIVE
(Conformance / Non-Conformance Summary)

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-05390

Integrated Analytical Laboratories, LLC. received six (6) samples** from Environmental Health Investigations, Inc. (IAL SDG# **E17-05390**, Project: CASALE/PETRO GARWOOD) on June 29, 2017 for the analysis of :

(6) TCL PCB

**Number of samples listed above may be greater than what is listed on the chain of custody. Any samples that require in-house filtration or splitting will be counted as separate samples.

Samples were received in good condition with documentation in order.
Cooler temperature was acceptable at 4 ± 2°C

PCB By 8082A	**Batch: 170629-14**	**Matrix: Solid**

QC

- Calibration curve met QC criteria.
- Surrogate percent recovery did not meet QC criteria due to matrix interference for #005; #006. NJDEP DKQP criteria not met.
- Method blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- The RPD between the primary and secondary column was >40% for the following samples: #001. Per SW-846 8000D, the lower of the two concentrations was reported.
- The following samples were cleaned up using method 3660B to remove sulfur: 001, 002, 003, 004, 005, 006.

E17-05390

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-05390-001	1	NA
E17-05390-002	1	NA
E17-05390-003	1	NA
E17-05390-004	1	NA
E17-05390-005	20	Matrix Interference.
E17-05390-006	20	Matrix Interference.

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

7/6/2017
Date

E17-05390 0004

DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

Laboratory Name: Integrated Analytical Laboratories
Client: Environmental Health Investigations, Inc.
Project Location: CASALE/PETRO GARWOOD
IAL Project #: E17-05390
IAL Sample ID(s): E17-05390-001 ~ -006
Sampling Date(s): 6/29/2017

List of DKQP Method Used:
TCL PCB by 8082A

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information is provided in the case narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Data of Known Quality."

		YES	NO	N/A
1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP	X		
1A	Were the method specified handling, preservation, and holding time requirements met?	X		
1B	EPH Method: Was the EPH method conducted without significant modifications? (see Section 11.3 of respective DKQ methods)			X
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	X		
3	Were samples received at an appropriate temperature (4±2° C)?	X		
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?		X	
5A	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?		X	
5B	Were these reporting limits met?			X
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	X		
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?		X	

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Environmental Health Investigations, Inc.
Project: CASALE/PETRO GARWOOD
Lab Case No.: E17-05390

Lab ID:	05390-001			05390-002			05390-003			05390-004		
Client ID:	PCG-50-062917-1			PCG-50-062917-2			PCG-50-062917-3			PCG-50-062917-4		
Matrix:	Solid			Solid			Solid			Solid		
Sampled Date	6/29/17			6/29/17			6/29/17			6/29/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Aroclor-1016	ND		0.015	ND		0.014	ND		0.014	ND		0.014
Aroclor-1221	ND		0.015	ND		0.014	ND		0.014	ND		0.014
Aroclor-1232	ND		0.015	ND		0.014	ND		0.014	ND		0.014
Aroclor-1242	ND		0.015	ND		0.014	ND		0.014	ND		0.014
Aroclor-1248	ND		0.015	ND		0.014	ND		0.014	ND		0.014
Aroclor-1254	0.371		0.015	ND		0.014	1.35		0.014	0.729		0.014
Aroclor-1260	ND		0.015	ND		0.014	ND		0.014	ND		0.014
Aroclor-1262	ND		0.015	ND		0.014	ND		0.014	ND		0.014
Aroclor-1268	ND		0.015	ND		0.014	ND		0.014	ND		0.014
PCBs	0.371		0.015	ND		0.014	1.35		0.014	0.729		0.014

Lab ID:	05390-005			05390-006		
Client ID:	PCG-50-062917-5			PCG-50-062917-6		
Matrix:	Solid			Solid		
Sampled Date	6/29/17			6/29/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	*(mg/Kg)*			*(mg/Kg)*		
Aroclor-1016	ND		0.304	ND		0.293
Aroclor-1221	ND		0.304	ND		0.293
Aroclor-1232	ND		0.304	ND		0.293
Aroclor-1242	ND		0.304	ND		0.293
Aroclor-1248	ND		0.304	ND		0.293
Aroclor-1254	ND		0.304	ND		0.293
Aroclor-1260	ND		0.304	ND		0.293
Aroclor-1262	ND		0.304	ND		0.293
Aroclor-1268	ND		0.304	ND		0.293
PCBs	ND		0.304	ND		0.293

ND = Analyzed for but Not Detected at the MDL

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-05390-001
Client ID: PCG-50-0
Date Received: 06/29/2017
Date Extracted: 06/29/2017
Date Analyzed: 07/05/2017
Data file: Y4365.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.37g
Matrix-Units: Solid-mg/Kg
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.037	0.015
Aroclor-1221	ND		0.037	0.015
Aroclor-1232	ND		0.037	0.015
Aroclor-1242	ND		0.037	0.015
Aroclor-1248	ND		0.037	0.015
Aroclor-1254	0.371		0.037	0.015
Aroclor-1260	ND		0.037	0.015
Aroclor-1262	ND		0.037	0.015
Aroclor-1268	ND		0.037	0.015
PCBs	0.371		0.037	0.015

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-05390-002
Client ID: PCG-50-0
Date Received: 06/29/2017
Date Extracted: 06/29/2017
Date Analyzed: 07/05/2017
Data file: Y4366.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.55g
Matrix-Units: Solid-mg/Kg
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.036	0.014
Aroclor-1221	ND		0.036	0.014
Aroclor-1232	ND		0.036	0.014
Aroclor-1242	ND		0.036	0.014
Aroclor-1248	ND		0.036	0.014
Aroclor-1254	ND		0.036	0.014
Aroclor-1260	ND		0.036	0.014
Aroclor-1262	ND		0.036	0.014
Aroclor-1268	ND		0.036	0.014
PCBs	ND		0.036	0.014

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

E17-05390 0010

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-05390-003
Client ID: PCG-50-0
Date Received: 06/29/2017
Date Extracted: 06/29/2017
Date Analyzed: 07/05/2017
Data file: Y4367.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.67g
Matrix-Units: Solid-mg/Kg
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.035	0.014
Aroclor-1221	ND		0.035	0.014
Aroclor-1232	ND		0.035	0.014
Aroclor-1242	ND		0.035	0.014
Aroclor-1248	ND		0.035	0.014
Aroclor-1254	1.35		0.035	0.014
Aroclor-1260	ND		0.035	0.014
Aroclor-1262	ND		0.035	0.014
Aroclor-1268	ND		0.035	0.014
PCBs	1.35		0.035	0.014

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

E17-05390 0011

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-05390-004
Client ID: PCG-50-0
Date Received: 06/29/2017
Date Extracted: 06/29/2017
Date Analyzed: 07/05/2017
Data file: Y4368.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.80g
Matrix-Units: Solid-mg/Kg
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.035	0.014
Aroclor-1221	ND		0.035	0.014
Aroclor-1232	ND		0.035	0.014
Aroclor-1242	ND		0.035	0.014
Aroclor-1248	ND		0.035	0.014
Aroclor-1254	0.729		0.035	0.014
Aroclor-1260	ND		0.035	0.014
Aroclor-1262	ND		0.035	0.014
Aroclor-1268	ND		0.035	0.014
PCBs	0.729		0.035	0.014

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

E17-05390 0012

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-05390-005
Client ID: PCG-50-0
Date Received: 06/29/2017
Date Extracted: 06/29/2017
Date Analyzed: 07/05/2017
Data file: Y4369.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.26g
Matrix-Units: Solid-mg/Kg
Dilution Factor: 20
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.760	0.304
Aroclor-1221	ND		0.760	0.304
Aroclor-1232	ND		0.760	0.304
Aroclor-1242	ND		0.760	0.304
Aroclor-1248	ND		0.760	0.304
Aroclor-1254	ND		0.760	0.304
Aroclor-1260	ND		0.760	0.304
Aroclor-1262	ND		0.760	0.304
Aroclor-1268	ND		0.760	0.304
PCBs	ND		0.760	0.304

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

E17-05390 0013

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-05390-006
Client ID: PCG-50-0
Date Received: 06/29/2017
Date Extracted: 06/29/2017
Date Analyzed: 07/05/2017
Data file: Y4370.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.46g
Matrix-Units: Solid-mg/Kg
Dilution Factor: 20
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.733	0.293
Aroclor-1221	ND		0.733	0.293
Aroclor-1232	ND		0.733	0.293
Aroclor-1242	ND		0.733	0.293
Aroclor-1248	ND		0.733	0.293
Aroclor-1254	ND		0.733	0.293
Aroclor-1260	ND		0.733	0.293
Aroclor-1262	ND		0.733	0.293
Aroclor-1268	ND		0.733	0.293
PCBs	ND		0.733	0.293

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

E17-05390 0014

PCB DATA

PCB QC SUMMARY

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/05/2017

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	BLKS170629-14	SOIL	95		64		94		84	
PCB	LCSS170629-14	SOIL	97		67		95		107	
PCB	E17-05390-001MS	SOLID	73		57		88		91	
PCB	E17-05390-001MS	SOLID	74		67		88		88	
PCG-50-0	E17-05390-001	SOLID	80		75		96		106	
PCG-50-0	E17-05390-002	SOLID	80		76		100		125	
PCG-50-0	E17-05390-003	SOLID	83		107		99		166	
PCG-50-0	E17-05390-004	SOLID	87		75		99		107	
PCG-50-0	E17-05390-005	SOLID	68		324	M	84		410	M
PCG-50-0	E17-05390-006	SOLID	106		130		96		704	M
PCG-450-	E17-05391-001	SOLID	93		64		90		73	
PCG-450-	E17-05391-002	SOLID	84		62		98		117	
PCG-450-	E17-05391-003	SOLID	91		95		93		89	
PCG-450-	E17-05391-004	SOLID	92		61		99		96	
PCG-450-	E17-05391-005	SOLID	95		64		93		112	
PCG-450-	E17-05391-006	SOLID	0	D	0	D	0	D	0	D
PCG-450-	E17-05391-007	SOLID	84		67		97		115	
PCG-450-	E17-05391-008	SOLID	80		108		84		132	
PCG-450-	E17-05391-009	SOLID	98		82		100		127	
PCG-450-	E17-05391-006DL	SOLID	0	D	0	D	0	D	0	D

Surrogate QC Limits	Soil	Aqueous/Leachate
TCMX = Tetrachloro-m-xylene	25-162	52-131
DCB = Decachlorobiphenyl	24-172	58-149

\# Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

PCB LCS ACCURACY REPORT

Lab ID: LCSS170629-14
Date Received: NA
Date Extracted: 06/29/2017
Date Analyzed: 07/05/2017
Data file: Y4362.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	#	QC Limits
Aroclor-1016	500	0.0	533.8	107		40-137
Aroclor-1260	500	0.0	497.5	100		57-147

	Aqueous	Soil/Sediment
LCS Recovery Limits (DKQP)	40-140	40-140

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

PCB MS/MSD ACCURACY REPORT

Lab ID: E17-05390-001
Date Received: 06/29/2017
Date Extracted: 06/29/2017
Date Analyzed: 07/05/2017
MS Data file: Y4363.D
MSD Data file: Y4364.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.37g
Matrix-Units: Solid-ug/Kg
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	QC Limits
Aroclor-1016	500	0.0	473.5	95		462.4	92		2		12-163/25
Aroclor-1260	500	0.0	440.6	88		395.4	79		11		16-178/27

	Aqueous	Soil/Sediment
MS/MSD Recovery Limits (DKQP)	30-150	30-150
MS/MSD RPD Limits (DKQP)	20	30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

PCB METHOD BLANK SUMMARY

Lab File ID: Y4361.D

Instrument ID: GC-Y

Date Extracted: 06/29/2017

Matrix: SOIL

Date Analyzed: 07/05/2017

Time Analyzed: 11:51

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
PCB	LCSS170629-14	07/05/2017	12:09
PCB	E17-05390-001MS	07/05/2017	12:26
PCB	E17-05390-001MSD	07/05/2017	12:44
PCG-50-0	E17-05390-001	07/05/2017	13:01
PCG-50-0	E17-05390-002	07/05/2017	13:18
PCG-50-0	E17-05390-003	07/05/2017	13:36
PCG-50-0	E17-05390-004	07/05/2017	13:53
PCG-50-0	E17-05390-005	07/05/2017	14:10
PCG-50-0	E17-05390-006	07/05/2017	14:28
PCG-450-	E17-05391-001	07/05/2017	14:45
PCG-450-	E17-05391-002	07/05/2017	15:03
PCG-450-	E17-05391-003	07/05/2017	15:20
PCG-450-	E17-05391-004	07/05/2017	15:37
PCG-450-	E17-05391-005	07/05/2017	15:55
PCG-450-	E17-05391-006	07/05/2017	16:12
PCG-450-	E17-05391-007	07/05/2017	16:30
PCG-450-	E17-05391-008	07/05/2017	16:47
PCG-450-	E17-05391-009	07/05/2017	17:05
PCG-450-	E17-05391-006DL	07/06/2017	09:54

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/16/2017 **Instrument ID:** GC-Y

GC Column (1st): DB-5

Data File: Y3983.D Y3982.D Y3981.D Y3980.D Y3979.D

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	10	50	500	1000	2000	RT	FROM	TO
Aroclor-1016	3.28	3.29	3.29	3.29	3.29	3.29	3.22	3.36
Aroclor-1016 {2}	4.13	4.13	4.13	4.13	4.13	4.13	4.06	4.20
Aroclor-1016 {3}	4.68	4.69	4.69	4.69	4.68	4.68	4.61	4.75
Aroclor-1016 {4}	5.19	5.20	5.19	5.19	5.19	5.19	5.12	5.26
Aroclor-1016 {5}	5.59	5.59	5.59	5.59	5.59	5.59	5.52	5.66
Aroclor-1221			2.17				2.10	2.24
Aroclor-1221 {2}			3.08				3.01	3.15
Aroclor-1221 {3}			3.21				3.14	3.28
Aroclor-1221 {4}			3.29				3.22	3.36
Aroclor-1221 {5}			3.89				3.82	3.96
Aroclor-1232			3.29				3.22	3.36
Aroclor-1232 {2}			4.13				4.06	4.20
Aroclor-1232 {3}			4.80				4.73	4.87
Aroclor-1232 {4}			5.40				5.33	5.47
Aroclor-1232 {5}			5.59				5.52	5.66
Aroclor-1242			4.13				4.06	4.20
Aroclor-1242 {2}			5.07				5.00	5.14
Aroclor-1242 {3}			5.40				5.33	5.47
Aroclor-1242 {4}			6.10				6.03	6.17
Aroclor-1242 {5}			6.37				6.30	6.44
Aroclor-1248			4.53				4.45	4.61
Aroclor-1248 {2}			5.08				5.00	5.16
Aroclor-1248 {3}			5.40				5.32	5.48
Aroclor-1248 {4}			6.10				6.02	6.18
Aroclor-1248 {5}			6.37				6.29	6.45
Aroclor-1254			6.49				6.41	6.57
Aroclor-1254 {2}			6.93				6.85	7.01
Aroclor-1254 {3}			7.10				7.01	7.19
Aroclor-1254 {4}			7.53				7.44	7.62
Aroclor-1254 {5}			8.39				8.30	8.48
Aroclor-1260	8.38	8.38	8.38	8.38	8.38	8.38	7.48	9.28
Aroclor-1260 {2}	9.06	9.06	9.06	9.06	9.06	9.06	8.16	9.96
Aroclor-1260 {3}	9.54	9.53	9.53	9.53	9.53	9.53	8.63	10.43
Aroclor-1260 {4}	10.02	10.02	10.02	10.02	10.02	10.02	9.12	10.92
Aroclor-1260 {5}	11.08	11.08	11.08	11.08	11.08	11.08	10.18	11.98

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/16/2017 **Instrument ID:** GC-Y
GC Column (1st): DB-5

Data File: Y3983.D Y3982.D Y3981.D Y3980.D Y3979.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	574793	617153	685529	663944	649996	638283	6.79
Aroclor-1016 {2}	887952	823631	903128	884636	845133	868896	3.82
Aroclor-1016 {3}	982786	1179449	1250157	1196509	1175466	1156874	8.80
Aroclor-1016 {4}	582434	545539	591672	557494	548079	565044	3.69
Aroclor-1016 {5}	898231	900419	989620	958836	957415	940904	4.26
Aroclor-1221			128318				
Aroclor-1221 {2}			494149				
Aroclor-1221 {3}			310617				
Aroclor-1221 {4}			1023072				
Aroclor-1221 {5}			213565				
Aroclor-1232			691554				
Aroclor-1232 {2}			386085				
Aroclor-1232 {3}			364866				
Aroclor-1232 {4}			369844				
Aroclor-1232 {5}			504050				
Aroclor-1242			717678				
Aroclor-1242 {2}			476541				
Aroclor-1242 {3}			628417				
Aroclor-1242 {4}			1066741				
Aroclor-1242 {5}			842758				
Aroclor-1248			1497470				
Aroclor-1248 {2}			857932				
Aroclor-1248 {3}			1075252				
Aroclor-1248 {4}			1886522				
Aroclor-1248 {5}			1302700				
Aroclor-1254			2064723				
Aroclor-1254 {2}			1301576				
Aroclor-1254 {3}			2485702				
Aroclor-1254 {4}			2727557				
Aroclor-1254 {5}			2508808				
Aroclor-1260	2862815	2872101	3138931	3076464	3129115	3015885	4.56
Aroclor-1260 {2}	1395588	1301725	1407688	1411449	1352742	1373838	3.39
Aroclor-1260 {3}	3831401	3929630	4531643	4482311	4579617	4270920	8.42
Aroclor-1260 {4}	1927492	1849361	2106415	2105079	2159642	2029598	6.58
Aroclor-1260 {5}	1082275	899558	1087019	1098348	1095968	1052634	8.15
					Average %RSD		5.85

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/16/2017 **Instrument ID:** GC-Y
GC Column (2nd): DB-1701P

Data File: Y3983.C Y3982.C Y3981.C Y3980.C Y3979.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1016	3.74	3.74	3.75	3.75	3.75	3.75	3.68	3.82
Aroclor-1016 {2}	4.34	4.35	4.35	4.35	4.35	4.35	4.28	4.42
Aroclor-1016 {3}	5.10	5.10	5.10	5.10	5.10	5.10	5.03	5.17
Aroclor-1016 {4}	5.31	5.31	5.31	5.31	5.31	5.31	5.24	5.38
Aroclor-1016 {5}	5.48	5.48	5.48	5.48	5.48	5.48	5.41	5.55
Aroclor-1221			2.41				2.34	2.48
Aroclor-1221 {2}			3.42				3.35	3.49
Aroclor-1221 {3}			3.65				3.58	3.72
Aroclor-1221 {4}			3.75				3.68	3.82
Aroclor-1221 {5}			5.10				5.03	5.17
Aroclor-1232			3.65				3.58	3.72
Aroclor-1232 {2}			4.66				4.59	4.73
Aroclor-1232 {3}			5.10				5.03	5.17
Aroclor-1232 {4}			5.31				5.24	5.38
Aroclor-1232 {5}			6.08				6.01	6.15
Aroclor-1242			4.73				4.66	4.80
Aroclor-1242 {2}			5.48				5.41	5.55
Aroclor-1242 {3}			6.08				6.01	6.15
Aroclor-1242 {4}			6.23				6.16	6.30
Aroclor-1242 {5}			6.78				6.71	6.85
Aroclor-1248			5.10				5.02	5.18
Aroclor-1248 {2}			5.68				5.60	5.76
Aroclor-1248 {3}			6.08				6.00	6.16
Aroclor-1248 {4}			6.23				6.15	6.31
Aroclor-1248 {5}			6.58				6.50	6.66
Aroclor-1254			7.08				7.00	7.16
Aroclor-1254 {2}			7.66				7.58	7.74
Aroclor-1254 {3}			8.10				8.01	8.19
Aroclor-1254 {4}			8.28				8.19	8.37
Aroclor-1254 {5}			9.10				9.01	9.19
Aroclor-1260	7.85	7.85	7.85	7.85	7.85	7.85	6.95	8.75
Aroclor-1260 {2}	8.10	8.10	8.10	8.10	8.10	8.10	7.20	9.00
Aroclor-1260 {3}	9.70	9.70	9.70	9.70	9.70	9.70	8.80	10.60
Aroclor-1260 {4}	10.21	10.20	10.20	10.20	10.20	10.20	9.30	11.10
Aroclor-1260 {5}	10.80	10.79	10.79	10.79	10.79	10.79	9.89	11.69

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/16/2017 **Instrument ID:** GC-Y
GC Column (2nd): DB-1701P

Data File: Y3983.C Y3982.C Y3981.C Y3980.C Y3979.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	489086	462974	441638	408786	397332	439963	8.61
Aroclor-1016 {2}	970843	952702	871963	835973	820448	890386	7.65
Aroclor-1016 {3}	2145454	2050432	1976078	1911170	1929579	2002543	4.81
Aroclor-1016 {4}	779242	978495	871169	825226	815964	854019	9.01
Aroclor-1016 {5}	667972	710343	663475	637878	638307	663595	4.46
Aroclor-1221			94396				
Aroclor-1221 {2}			284451				
Aroclor-1221 {3}			190658				
Aroclor-1221 {4}			647487				
Aroclor-1221 {5}			120049				
Aroclor-1232			131309				
Aroclor-1232 {2}			126332				
Aroclor-1232 {3}			852020				
Aroclor-1232 {4}			391947				
Aroclor-1232 {5}			405510				
Aroclor-1242			305513				
Aroclor-1242 {2}			535631				
Aroclor-1242 {3}			686097				
Aroclor-1242 {4}			581315				
Aroclor-1242 {5}			1151749				
Aroclor-1248			977401				
Aroclor-1248 {2}			1466918				
Aroclor-1248 {3}			1053808				
Aroclor-1248 {4}			973261				
Aroclor-1248 {5}			542146				
Aroclor-1254			1408042				
Aroclor-1254 {2}			1120344				
Aroclor-1254 {3}			745551				
Aroclor-1254 {4}			1137374				
Aroclor-1254 {5}			1718777				
Aroclor-1260	818516	844376	795171	768414	776474	800590	3.89
Aroclor-1260 {2}	1295423	1243249	1166349	1119263	1122015	1189260	6.53
Aroclor-1260 {3}	1201055	1143794	1145528	1118396	1179752	1157705	2.82
Aroclor-1260 {4}	2824762	2829523	2924476	2881824	2995235	2891164	2.46
Aroclor-1260 {5}	1942866	2009132	2070818	2021638	2089479	2026787	2.84
					Average %RSD		5.31

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/16/2017

Instrument ID: GC-Y

GC Column (1st): DB-5

Data File: Y3983.D Y3982.D Y3981.D Y3980.D Y3979.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1262			8.67				8.55	8.79
Aroclor-1262 {2}			9.53				9.41	9.65
Aroclor-1262 {3}			10.17				10.05	10.29
Aroclor-1262 {4}			10.25				10.13	10.37
Aroclor-1262 {5}			11.08				10.96	11.20
Aroclor-1268			10.17				10.05	10.29
Aroclor-1268 {2}			10.25				10.13	10.37
Aroclor-1268 {3}			10.72				10.60	10.84
Aroclor-1268 {4}			10.85				10.73	10.97
Aroclor-1268 {5}			11.68				11.56	11.80

GC Column (2nd): DB-1701P

Data File: Y3983.C Y3982.C Y3981.C Y3980.C Y3979.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1262			9.70				9.58	9.82
Aroclor-1262 {2}			10.20				10.08	10.32
Aroclor-1262 {3}			10.70				10.58	10.82
Aroclor-1262 {4}			10.79				10.67	10.91
Aroclor-1262 {5}			11.39				11.27	11.51
Aroclor-1268			10.70				10.58	10.82
Aroclor-1268 {2}			10.78				10.66	10.90
Aroclor-1268 {3}			11.04				10.92	11.16
Aroclor-1268 {4}			11.83				11.71	11.95
Aroclor-1268 {5}			12.26				12.14	12.38

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/16/2017 **Instrument ID:** GC-Y
GC Column (1st): DB-5

Data File: Y3983.D Y3982.D Y3981.D Y3980.D Y3979.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			2812669				
Aroclor-1262 {2}			5584001				
Aroclor-1262 {3}			2305558				
Aroclor-1262 {4}			2590700				
Aroclor-1262 {5}			2076191				
Aroclor-1268			6316558				
Aroclor-1268 {2}			6892845				
Aroclor-1268 {3}			5738393				
Aroclor-1268 {4}			1443744				
Aroclor-1268 {5}			17140314				

GC Column (2nd): DB-1701P

Data File: Y3983.C Y3982.C Y3981.C Y3980.C Y3979.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			1432566				
Aroclor-1262 {2}			3680107				
Aroclor-1262 {3}			1363490				
Aroclor-1262 {4}			2584717				
Aroclor-1262 {5}			498883				
Aroclor-1268			4131901				
Aroclor-1268 {2}			4097990				
Aroclor-1268 {3}			3507105				
Aroclor-1268 {4}			1418886				
Aroclor-1268 {5}			10817383				

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/05/2017 **Instrument ID:** GC-Y

Data File: Y4360.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.29	3.22	3.36	638283	692096	8.43
Aroclor-1016 {2}	4.13	4.06	4.20	868896	948993	9.22
Aroclor-1016 {3}	4.69	4.61	4.75	1156874	1270968	9.86
Aroclor-1016 {4}	5.20	5.12	5.26	565044	571085	1.07
Aroclor-1016 {5}	5.59	5.52	5.66	940904	977963	3.94
Aroclor-1260	8.39	7.48	9.28	3015885	2808104	6.89
Aroclor-1260 {2}	9.06	8.16	9.96	1373838	1214721	11.58
Aroclor-1260 {3}	9.54	8.63	10.43	4270920	3484532	18.41
Aroclor-1260 {4}	10.02	9.12	10.92	2029598	1668759	17.78
Aroclor-1260 {5}	11.08	10.18	11.98	1052634	1032751	1.89

Data File: Y4360.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.75	3.68	3.82	439963	463350	5.32
Aroclor-1016 {2}	4.35	4.28	4.42	890386	910464	2.25
Aroclor-1016 {3}	5.10	5.03	5.17	2002543	2075455	3.64
Aroclor-1016 {4}	5.31	5.24	5.38	854019	885141	3.64
Aroclor-1016 {5}	5.48	5.41	5.55	663595	677884	2.15
Aroclor-1260	7.85	6.95	8.75	800590	787204	1.67
Aroclor-1260 {2}	8.11	7.20	9.00	1189260	1120495	5.78
Aroclor-1260 {3}	9.70	8.80	10.60	1157705	1166295	0.74
Aroclor-1260 {4}	10.21	9.30	11.10	2891164	2709786	6.27
Aroclor-1260 {5}	10.80	9.89	11.69	2026787	1941381	4.21

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/05/2017 **Instrument ID:** GC-Y

Data File: Y4380.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.29	3.22	3.36	638283	727917	14.04
Aroclor-1016 {2}	4.13	4.06	4.20	868896	958782	10.34
Aroclor-1016 {3}	4.69	4.61	4.75	1156874	1302893	12.62
Aroclor-1016 {4}	5.20	5.12	5.26	565044	571396	1.12
Aroclor-1016 {5}	5.60	5.52	5.66	940904	1016918	8.08
Aroclor-1260	8.39	7.48	9.28	3015885	2947930	2.25
Aroclor-1260 {2}	9.07	8.16	9.96	1373838	1266602	7.81
Aroclor-1260 {3}	9.54	8.63	10.43	4270920	3835912	10.19
Aroclor-1260 {4}	10.02	9.12	10.92	2029598	1777119	12.44
Aroclor-1260 {5}	11.08	10.18	11.98	1052634	987168	6.22

Data File: Y4380.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.74	3.68	3.82	439963	490545	11.50
Aroclor-1016 {2}	4.35	4.28	4.42	890386	959359	7.75
Aroclor-1016 {3}	5.10	5.03	5.17	2002543	2220566	10.89
Aroclor-1016 {4}	5.31	5.24	5.38	854019	900849	5.48
Aroclor-1016 {5}	5.48	5.41	5.55	663595	704413	6.15
Aroclor-1260	7.85	6.95	8.75	800590	825064	3.06
Aroclor-1260 {2}	8.11	7.20	9.00	1189260	1172120	1.44
Aroclor-1260 {3}	9.70	8.80	10.60	1157705	1233580	6.55
Aroclor-1260 {4}	10.21	9.30	11.10	2891164	3140139	8.61
Aroclor-1260 {5}	10.79	9.89	11.69	2026787	2312468	14.10

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/06/2017 **Instrument ID:** GC-Y

Data File: Y4387.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.29	3.22	3.36	638283	697812	9.33
Aroclor-1016 {2}	4.13	4.06	4.20	868896	914679	5.27
Aroclor-1016 {3}	4.69	4.61	4.75	1156874	1252220	8.24
Aroclor-1016 {4}	5.20	5.12	5.26	565044	575003	1.76
Aroclor-1016 {5}	5.60	5.52	5.66	940904	984227	4.60
Aroclor-1260	8.39	7.48	9.28	3015885	3014532	0.04
Aroclor-1260 {2}	9.07	8.16	9.96	1373838	1326911	3.42
Aroclor-1260 {3}	9.54	8.63	10.43	4270920	4146792	2.91
Aroclor-1260 {4}	10.02	9.12	10.92	2029598	1891143	6.82
Aroclor-1260 {5}	11.09	10.18	11.98	1052634	882724	16.14

Data File: Y4387.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.74	3.68	3.82	439963	446015	1.38
Aroclor-1016 {2}	4.35	4.28	4.42	890386	876322	1.58
Aroclor-1016 {3}	5.10	5.03	5.17	2002543	2019937	0.87
Aroclor-1016 {4}	5.31	5.24	5.38	854019	863644	1.13
Aroclor-1016 {5}	5.48	5.41	5.55	663595	665596	0.30
Aroclor-1260	7.85	6.95	8.75	800590	785210	1.92
Aroclor-1260 {2}	8.11	7.20	9.00	1189260	1126867	5.25
Aroclor-1260 {3}	9.70	8.80	10.60	1157705	1104632	4.58
Aroclor-1260 {4}	10.21	9.30	11.10	2891164	2862296	1.00
Aroclor-1260 {5}	10.80	9.89	11.69	2026787	1987570	1.93

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/06/2017 **Instrument ID:** GC-Y

Data File: Y4390.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.29	3.22	3.36	638283	683598	7.10
Aroclor-1016 {2}	4.13	4.06	4.20	868896	899651	3.54
Aroclor-1016 {3}	4.69	4.61	4.75	1156874	1236290	6.86
Aroclor-1016 {4}	5.20	5.12	5.26	565044	576870	2.09
Aroclor-1016 {5}	5.60	5.52	5.66	940904	981125	4.27
Aroclor-1260	8.39	7.48	9.28	3015885	2868209	4.90
Aroclor-1260 {2}	9.07	8.16	9.96	1373838	1253235	8.78
Aroclor-1260 {3}	9.54	8.63	10.43	4270920	3905546	8.55
Aroclor-1260 {4}	10.03	9.12	10.92	2029598	1767656	12.91
Aroclor-1260 {5}	11.09	10.18	11.98	1052634	918447	12.75

Data File: Y4390.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.74	3.68	3.82	439963	451151	2.54
Aroclor-1016 {2}	4.35	4.28	4.42	890386	889769	0.07
Aroclor-1016 {3}	5.10	5.03	5.17	2002543	2044008	2.07
Aroclor-1016 {4}	5.31	5.24	5.38	854019	880189	3.06
Aroclor-1016 {5}	5.48	5.41	5.55	663595	676596	1.96
Aroclor-1260	7.85	6.95	8.75	800590	799699	0.11
Aroclor-1260 {2}	8.10	7.20	9.00	1189260	1152448	3.10
Aroclor-1260 {3}	9.70	8.80	10.60	1157705	1119269	3.32
Aroclor-1260 {4}	10.21	9.30	11.10	2891164	2898362	0.25
Aroclor-1260 {5}	10.79	9.89	11.69	2026787	2004228	1.11

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Y **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 2.82 **DCB 1** 12.18 **TCMX 2** 2.87 **DCB 2** 12.48

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
PCB	BLKS170629-14	07/05/2017	11:51	2.82		12.18		2.87		12.48	
PCB	LCSS170629-14	07/05/2017	12:09	2.82		12.18		2.87		12.48	
PCB	E17-05390-001MS	07/05/2017	12:26	2.82		12.18		2.87		12.48	
PCB	E17-05390-001MSD	07/05/2017	12:44	2.82		12.18		2.87		12.48	
PCG-50-0	E17-05390-001	07/05/2017	13:01	2.82		12.18		2.87		12.49	
PCG-50-0	E17-05390-002	07/05/2017	13:18	2.82		12.18		2.87		12.49	
PCG-50-0	E17-05390-003	07/05/2017	13:36	2.82		12.18		2.87		12.49	
PCG-50-0	E17-05390-004	07/05/2017	13:53	2.82		12.18		2.87		12.48	
PCG-50-0	E17-05390-005	07/05/2017	14:10	2.82		12.18		2.87		12.52	
PCG-50-0	E17-05390-006	07/05/2017	14:28	2.82		12.18		2.87		12.60	M
PCG-450-	E17-05391-001	07/05/2017	14:45	2.82		12.18		2.87		12.48	
PCG-450-	E17-05391-002	07/05/2017	15:03	2.82		12.18		2.87		12.48	
PCG-450-	E17-05391-003	07/05/2017	15:20	2.82		12.18		2.87		12.48	
PCG-450-	E17-05391-004	07/05/2017	15:37	2.82		12.18		2.87		12.48	
PCG-450-	E17-05391-005	07/05/2017	15:55	2.82		12.18		2.87		12.49	
PCG-450-	E17-05391-006	07/05/2017	16:12	0.00	D	0.00	D	0.00	D	0.00	D
PCG-450-	E17-05391-007	07/05/2017	16:30	2.82		12.18		2.87		12.49	
PCG-450-	E17-05391-008	07/05/2017	16:47	2.82		12.17		2.87		12.48	
PCG-450-	E17-05391-009	07/05/2017	17:05	2.82		12.18		2.87		12.48	
PCG-450-	E17-05391-006DL	07/06/2017	09:54	0.00	D	0.00	D	0.00	D	0.00	D

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4365.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 13:01
Operator : IB
Sample : PCG-50-0,E17-05390-001,Xs,5.37g,0,20
Misc : 170629-14,06/29/17,06/29/17,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 15:22:10 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.87	6407.5E6	5097.6E6	160.608	192.311
Spiked Amount 200.000			Recovery =		80.30%	96.16%
2) S DCB	12.18	12.49	5891.7E6	5781.5E6	148.916	212.369 #
Spiked Amount 200.000			Recovery =		74.46%	106.18%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
28) L7 Aroclor-1254	6.50	7.08	118.0E6	108.5E6	57.169	77.029m#
29) L7 Aroclor-1254 {2}	6.96	7.70	141.2E6	239.3E6	108.511m	213.613m#
30) L7 Aroclor-1254 {3}	7.10	8.11	359.0E6	164.7E6	144.430m	220.892m#
31) L7 Aroclor-1254 {4}	7.52	8.29	261.1E6	266.8E6	95.745m	234.610m#
32) L7 Aroclor-1254 {5}	8.39	9.10	231.5E6	208.8E6	92.285m	121.484m#
Sum Aroclor-1254			1111.0E6	988.1E6	498.141	867.628
Average Aroclor-1254					99.628	173.526
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

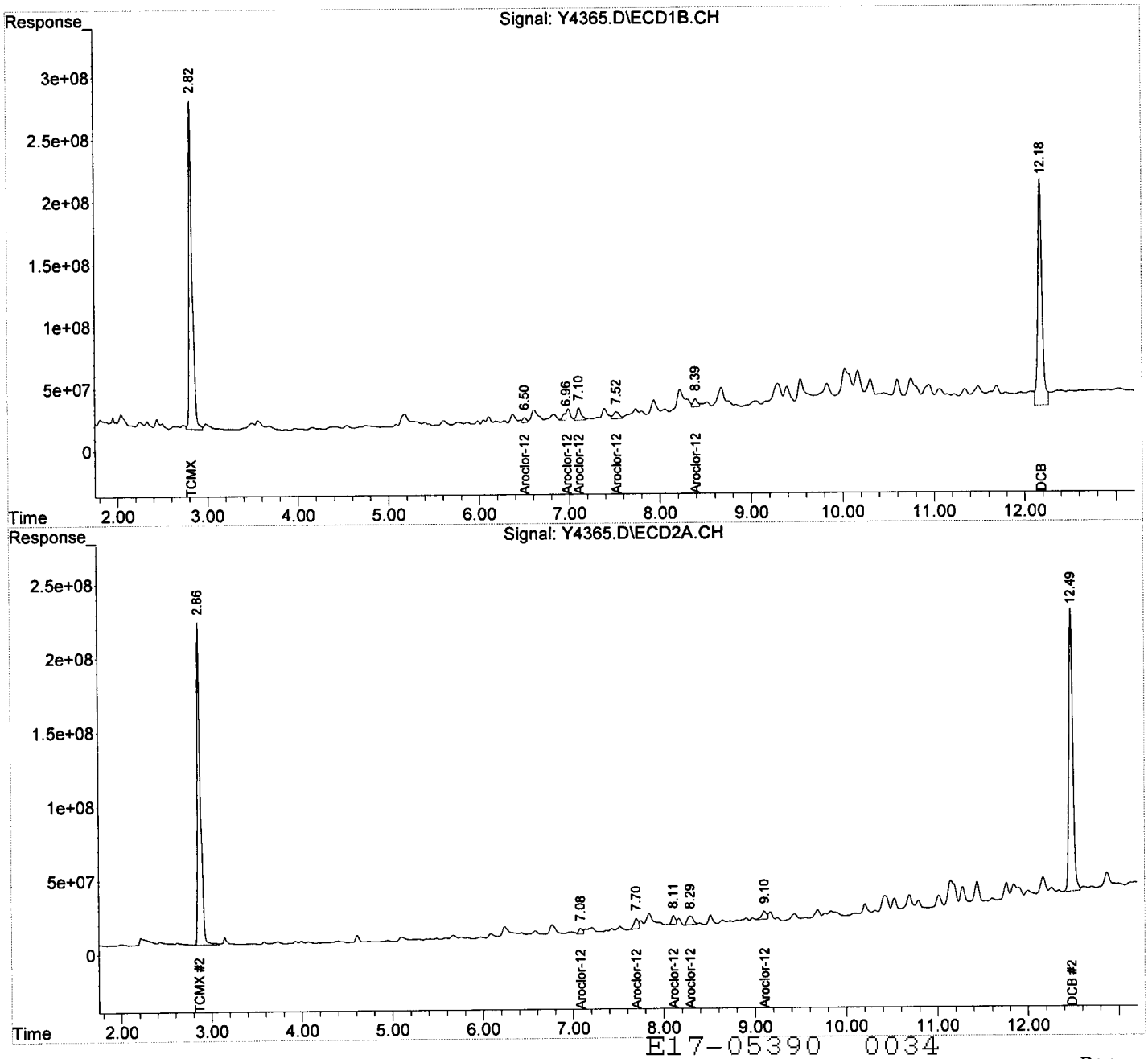
E17-05390 0033

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4365.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 13:01
Operator : IB
Sample : PCG-50-0,E17-05390-001,Xs,5.37g,0,20
Misc : 170629-14,06/29/17,06/29/17,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 15:22:10 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4366.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 13:18
Operator : IB
Sample : PCG-50-0,E17-05390-002,Xs,5.55g,0,20
Misc : 170629-14,06/29/17,06/29/17,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 13:48:35 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.87	6409.4E6	5323.5E6	160.655	200.831 #
Spiked Amount 200.000			Recovery	=	80.33%	100.42%
2) S DCB	12.18	12.49	6048.6E6	6782.8E6	152.880m	249.151 #
Spiked Amount 200.000			Recovery	=	76.44%	124.58%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

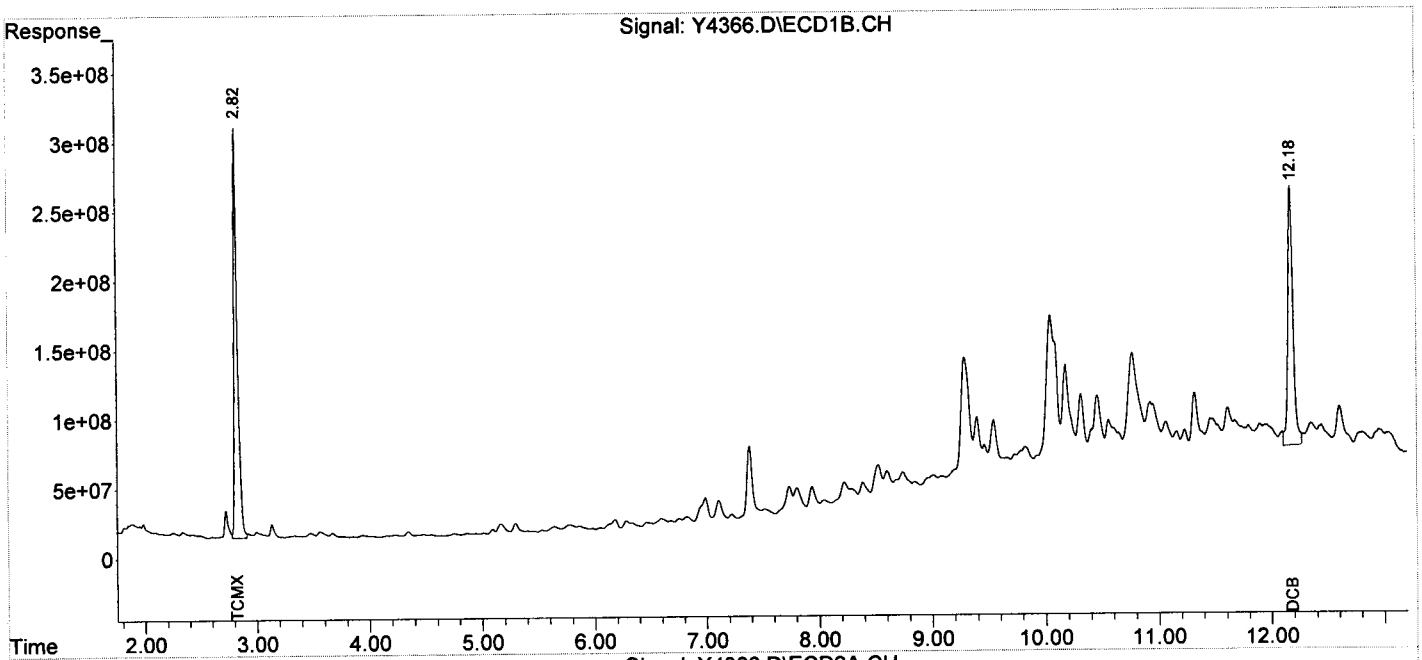
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

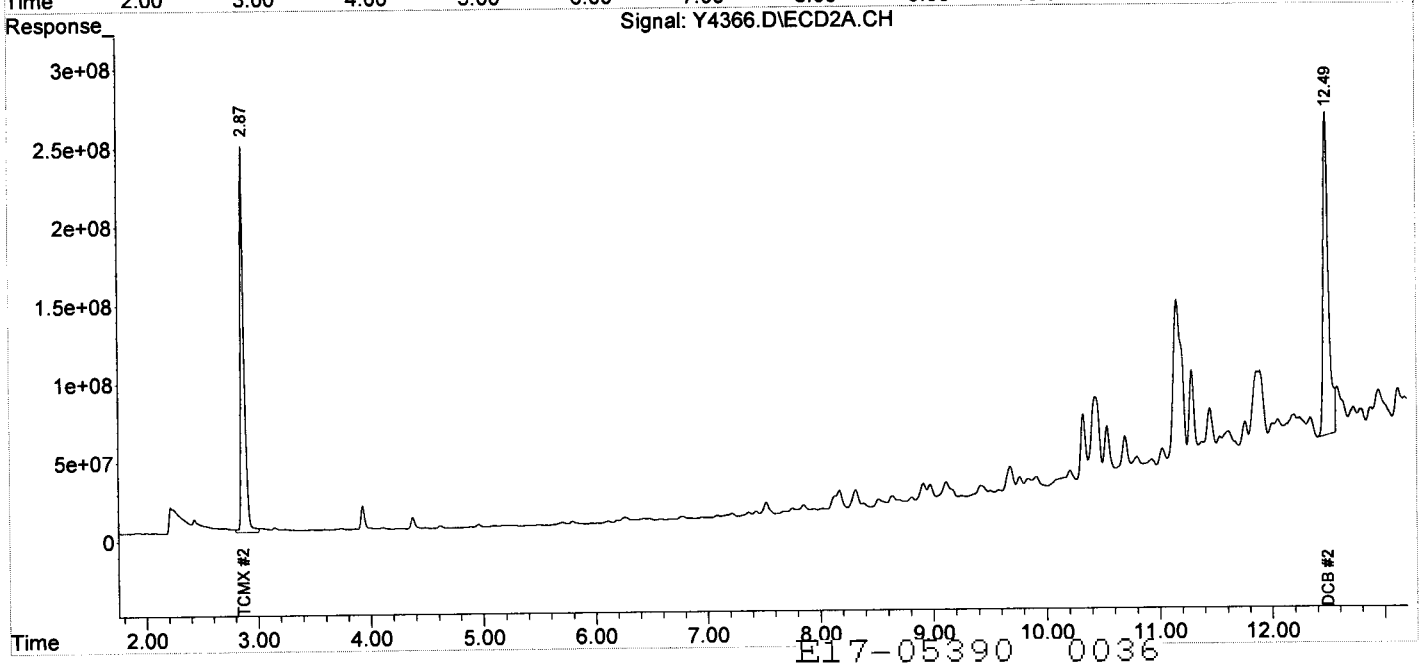
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4366.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 13:18
Operator : IB
Sample : PCG-50-0,E17-05390-002,Xs,5.55g,0,20
Misc : 170629-14,06/29/17,06/29/17,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 13:48:35 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4367.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 13:36
Operator : IB
Sample : PCG-50-0,E17-05390-003,Xs,5.67g,0,20
Misc : 170629-14,06/29/17,06/29/17,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 15:23:53 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.87	6640.5E6	5265.0E6	166.448	198.626
Spiked Amount 200.000			Recovery	=	83.22%	99.31%
2) S DCB	12.18	12.49	8440.9E6	9028.2E6	213.348	331.630 #
Spiked Amount 200.000			Recovery	=	106.67%	165.82%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
28) L7 Aroclor-1254	6.51	7.09	554.8E6	251.0E6	268.720m	178.296 #
29) L7 Aroclor-1254 {2}	6.93	7.70	586.5E6	605.2E6	450.633m	540.156m
30) L7 Aroclor-1254 {3}	7.11	8.11	1003.0E6	468.0E6	403.500m	627.719m#
31) L7 Aroclor-1254 {4}	7.55	0.00	1068.7E6	0	391.805m	N.D. d#
32) L7 Aroclor-1254 {5}	8.39	9.10	997.9E6	884.0E6	397.753m	514.324m#
Sum Aroclor-1254			4210.9E6	2208.2E6	1912.411	1860.496
Average Aroclor-1254					382.482	465.124
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

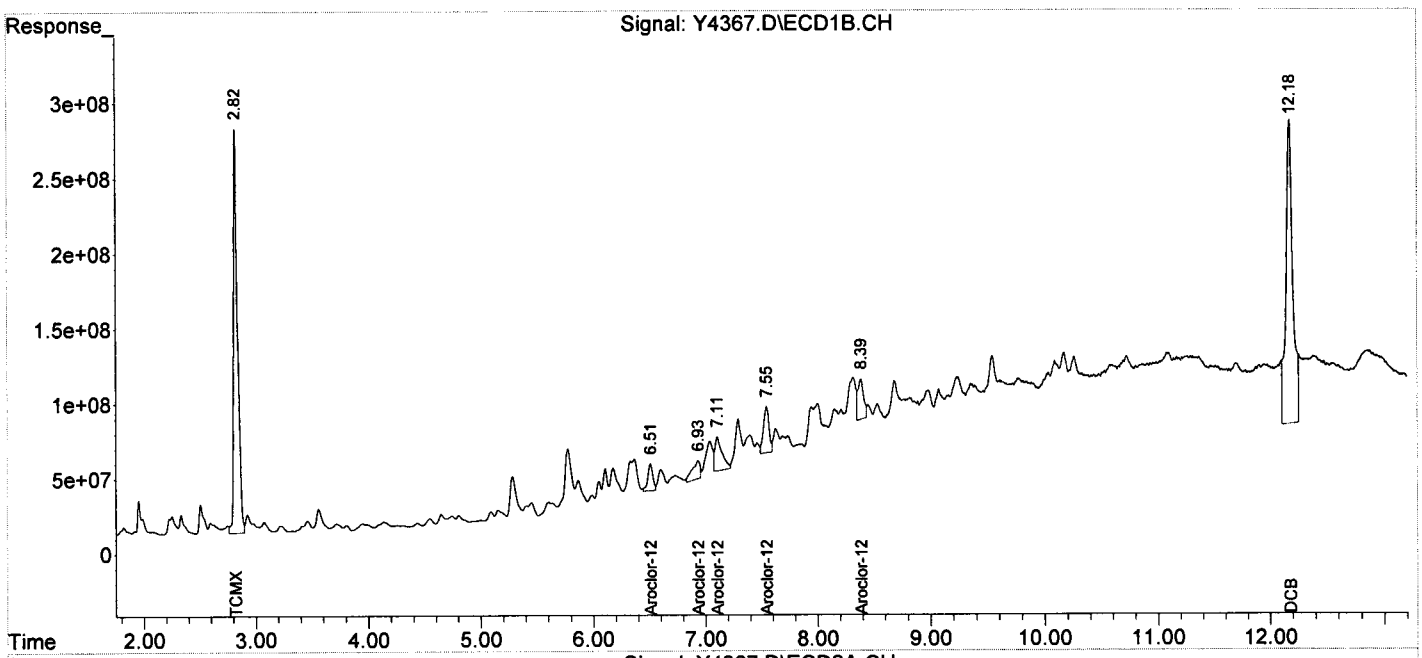
E17-05390 0037

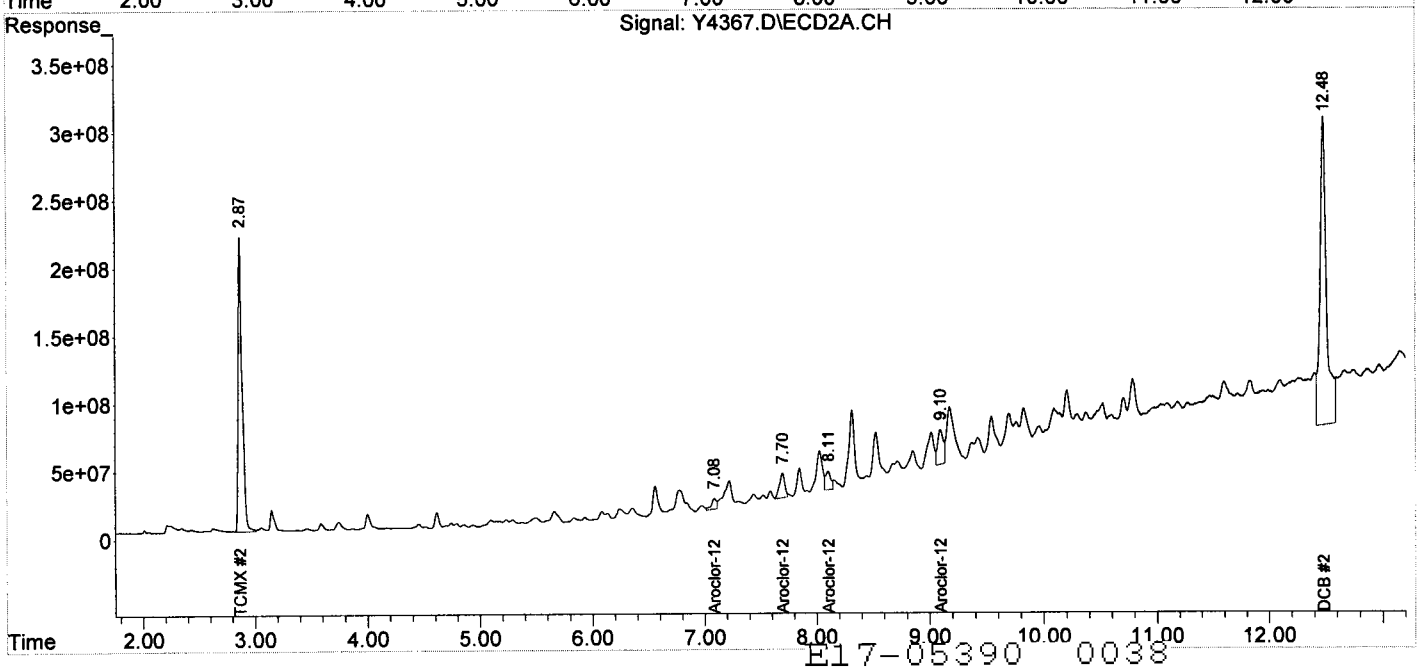
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4367.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 13:36
Operator : IB
Sample : PCG-50-0,E17-05390-003,Xs,5.67g,0,20
Misc : 170629-14,06/29/17,06/29/17,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 15:23:53 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





E17-05390 0038

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4368.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 13:53
Operator : IB
Sample : PCG-50-0,E17-05390-004,Xs,5.80g,0,20
Misc : 170629-14,06/29/17,06/29/17,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 15:15:02 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.87	6953.4E6	5222.7E6	174.293	197.027
Spiked Amount 200.000			Recovery	=	87.15%	98.51%
2) S DCB	12.18	12.48	5939.8E6	5828.0E6	150.131m	214.077m#
Spiked Amount 200.000			Recovery	=	75.07%	107.04%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
28) L7 Aroclor-1254	6.50	7.08	222.1E6	158.7E6	107.588	112.727
29) L7 Aroclor-1254 {2}	6.94	7.70	205.5E6	361.6E6	157.893	322.764 #
30) L7 Aroclor-1254 {3}	7.10	8.10	511.8E6	249.9E6	205.898	335.192m#
31) L7 Aroclor-1254 {4}	7.54	8.28	809.9E6	444.6E6	296.925	390.938m#
32) L7 Aroclor-1254 {5}	8.39	9.10	722.9E6	397.5E6	288.142m	231.292m
Sum Aroclor-1254			2472.2E6	1612.4E6	1056.446	1392.913
Average Aroclor-1254					211.289	278.583
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

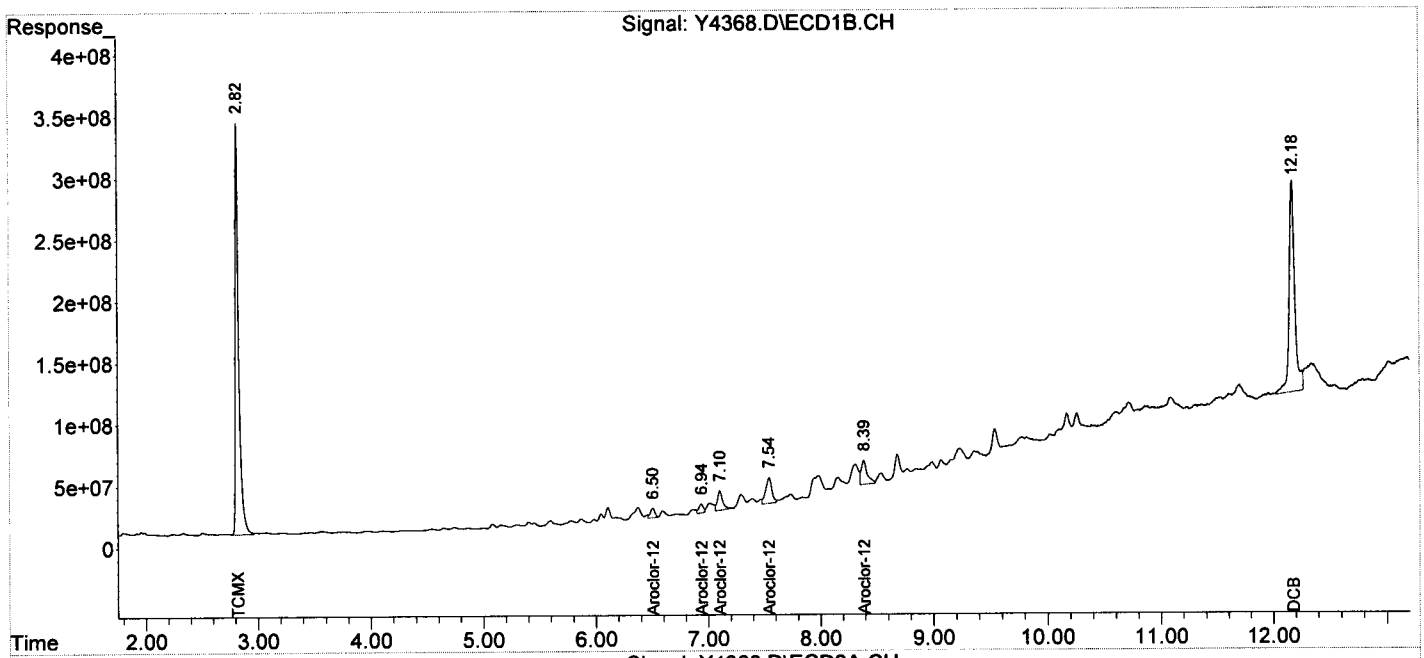
E17-05390 0039

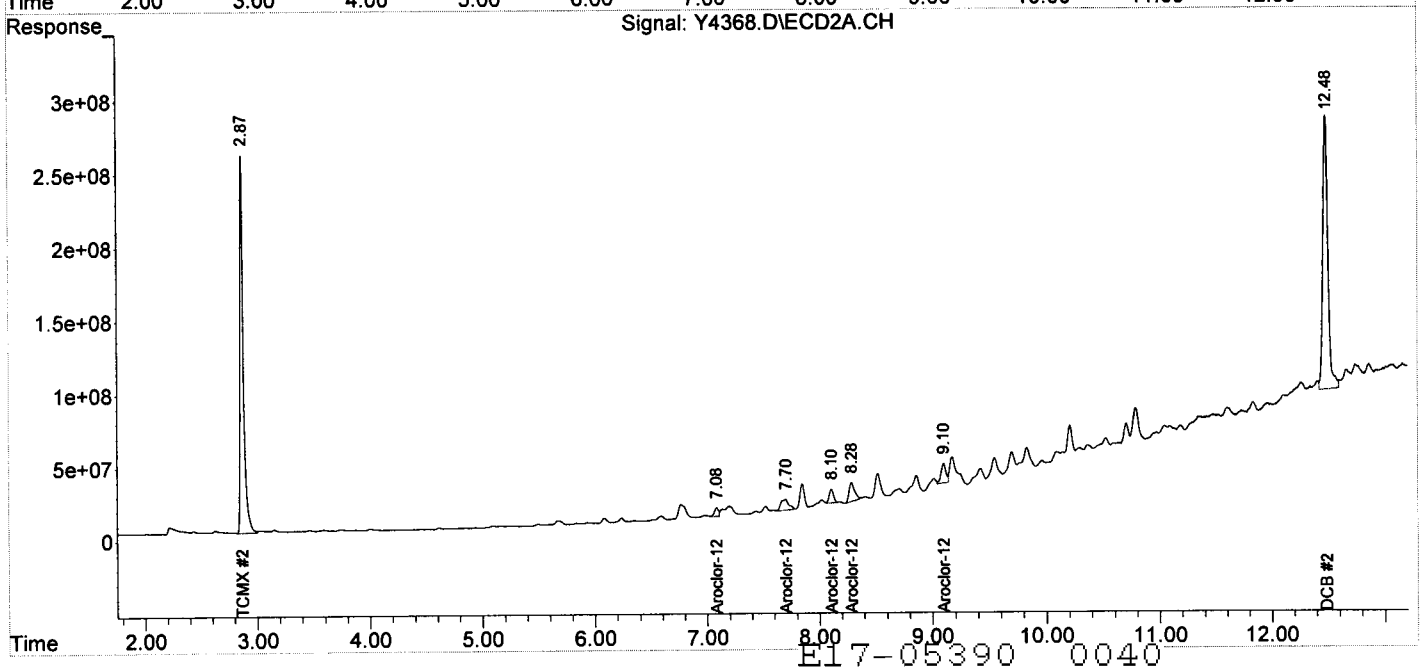
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4368.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 13:53
Operator : IB
Sample : PCG-50-0,E17-05390-004,Xs,5.80g,0,20
Misc : 170629-14,06/29/17,06/29/17,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 15:15:02 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4369.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 14:10
Operator : IB
Sample : PCG-50-0,E17-05390-005,Xs,5.26g,0,20
Misc : 170629-14,06/29/17,06/29/17,20
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 15:25:39 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.87	270.4E6	223.9E6	6.777	8.448
Spiked Amount 200.000			Recovery	=	3.39%	4.22%
2) S DCB	12.18	12.52	1280.1E6	1117.3E6	32.355m	41.040m#
Spiked Amount 200.000			Recovery	=	16.18%	20.52%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

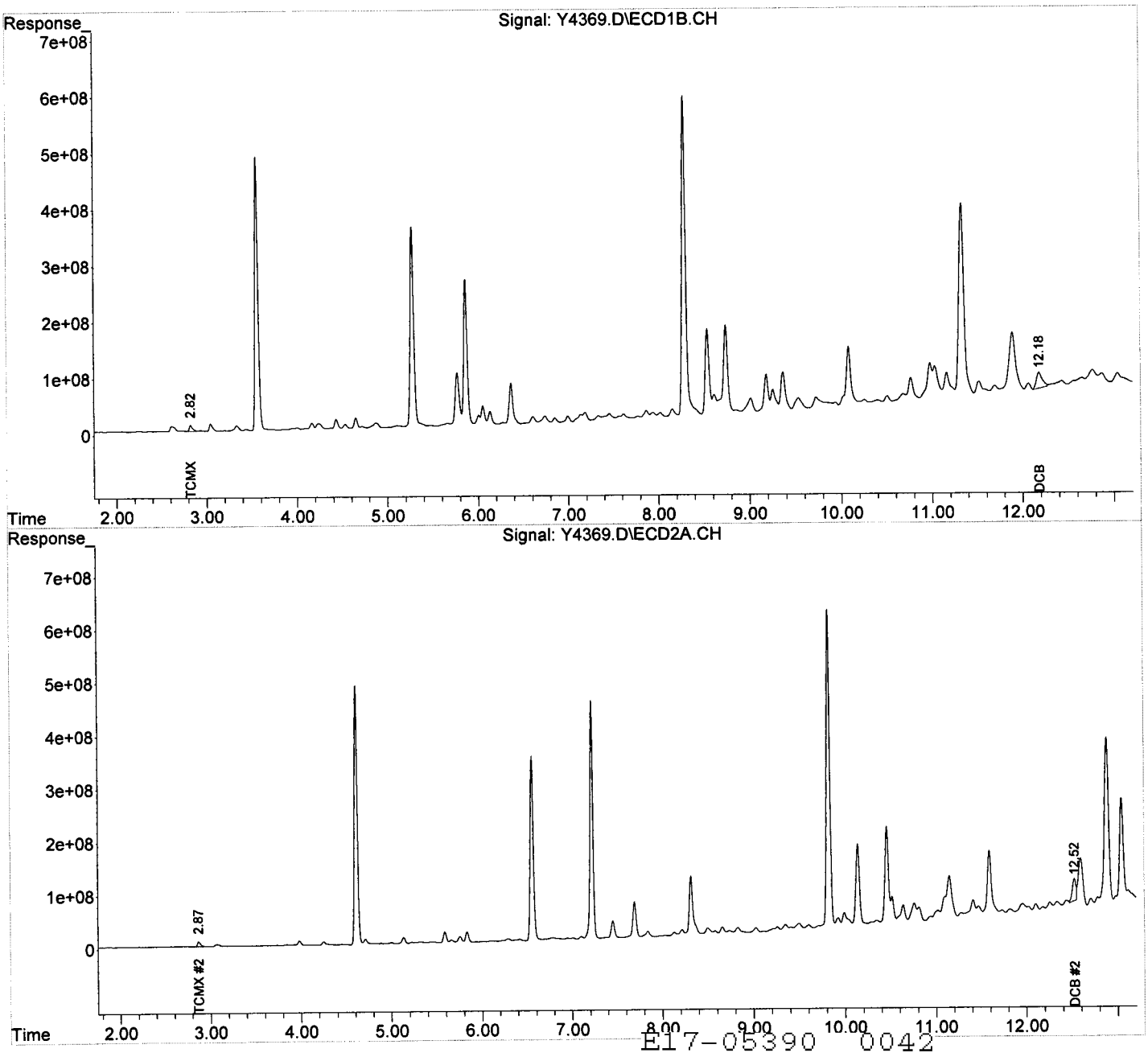
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4369.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 14:10
Operator : IB
Sample : PCG-50-0,E17-05390-005,Xs,5.26g,0,20
Misc : 170629-14,06/29/17,06/29/17,20
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 15:25:39 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4370.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 14:28
Operator : IB
Sample : PCG-50-0,E17-05390-006,Xs,5.46g,0,20
Misc : 170629-14,06/29/17,06/29/17,20
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 15:26:48 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.87	422.0E6	252.2E6	10.577	9.513
Spiked Amount 200.000			Recovery	=	5.29%	4.76%
2) S DCB	12.18	12.60	512.2E6	1915.0E6	12.946m	70.345m#
Spiked Amount 200.000			Recovery	=	6.47%	35.17%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

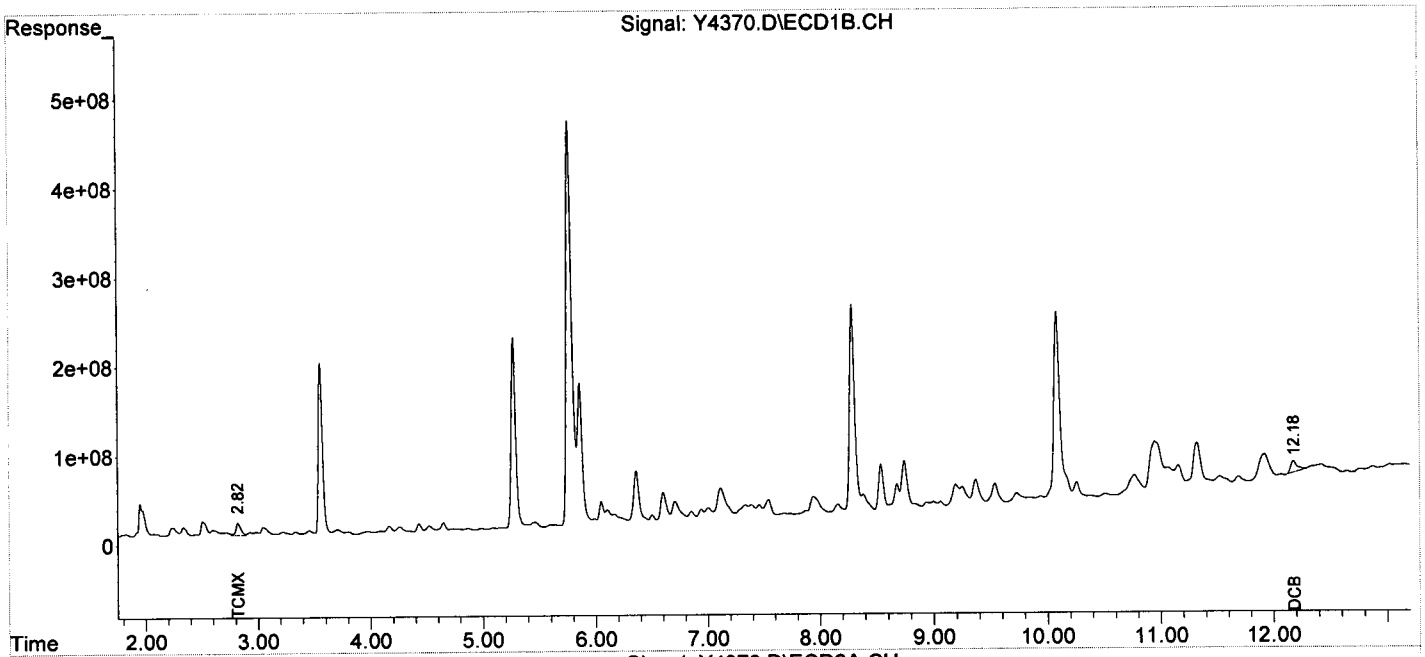
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

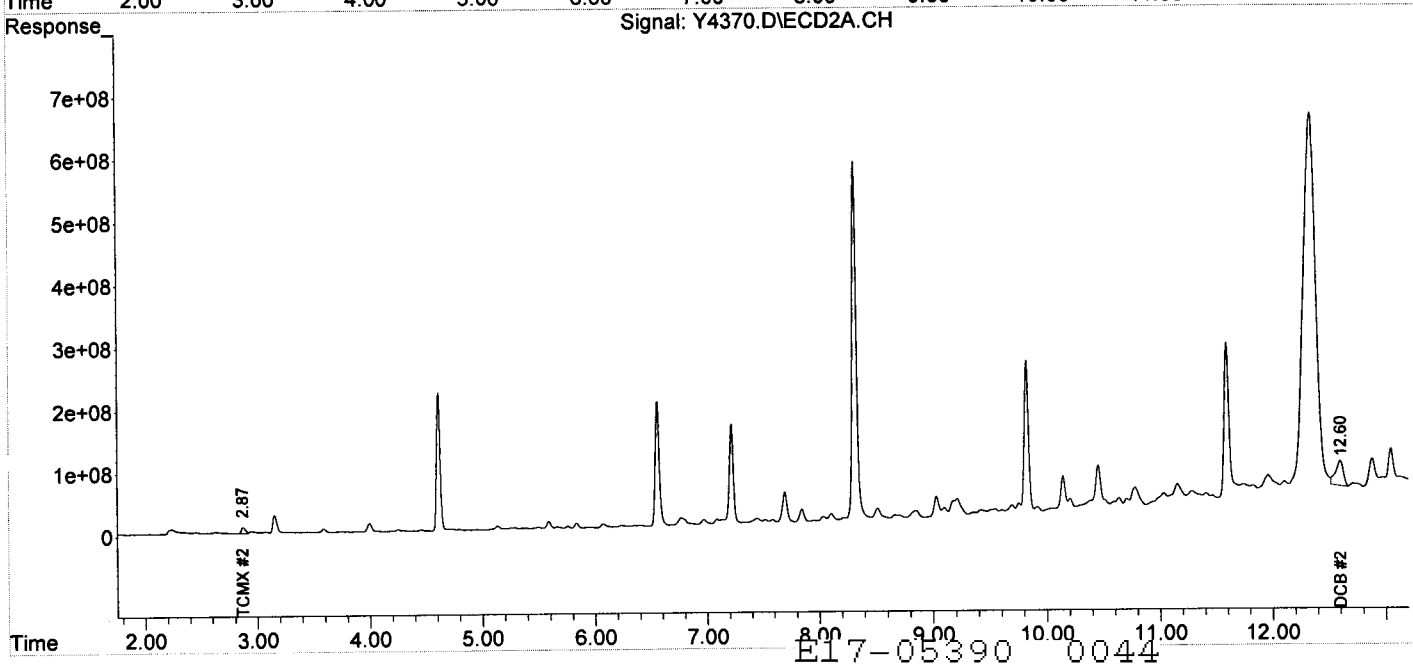
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4370.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 14:28
Operator : IB
Sample : PCG-50-0,E17-05390-006,Xs,5.46g,0,20
Misc : 170629-14,06/29/17,06/29/17,20
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 15:26:48 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKS170629-14
Client ID: PCB
Date Received: NA
Date Extracted: 06/29/2017
Date Analyzed: 07/05/2017
Data file: Y4361.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.040	0.016
Aroclor-1221	ND		0.040	0.016
Aroclor-1232	ND		0.040	0.016
Aroclor-1242	ND		0.040	0.016
Aroclor-1248	ND		0.040	0.016
Aroclor-1254	ND		0.040	0.016
Aroclor-1260	ND		0.040	0.016
Aroclor-1262	ND		0.040	0.016
Aroclor-1268	ND		0.040	0.016
PCBs	ND		0.040	0.016

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

E17-05390 0045

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4361.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 11:51
Operator : IB
Sample : PCB,BLKS170629-14,S,5g,0,20
Misc : 170629-14,06/29/17,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 13:43:08 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.87	7551.8E6	4969.5E6	189.291	187.478
Spiked Amount 200.000			Recovery	=	94.65%	93.74%
2) S DCB	12.18	12.48	5022.9E6	4592.4E6	126.957	168.693 #
Spiked Amount 200.000			Recovery	=	63.48%	84.35%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

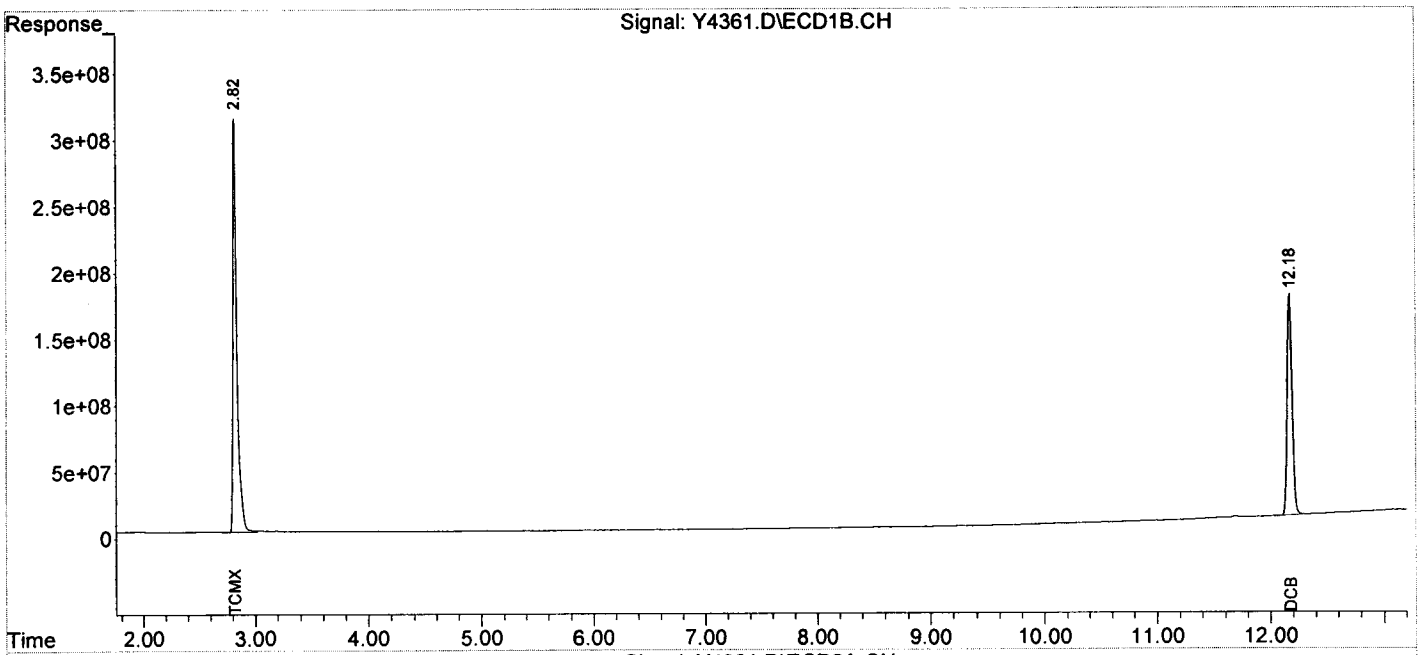
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

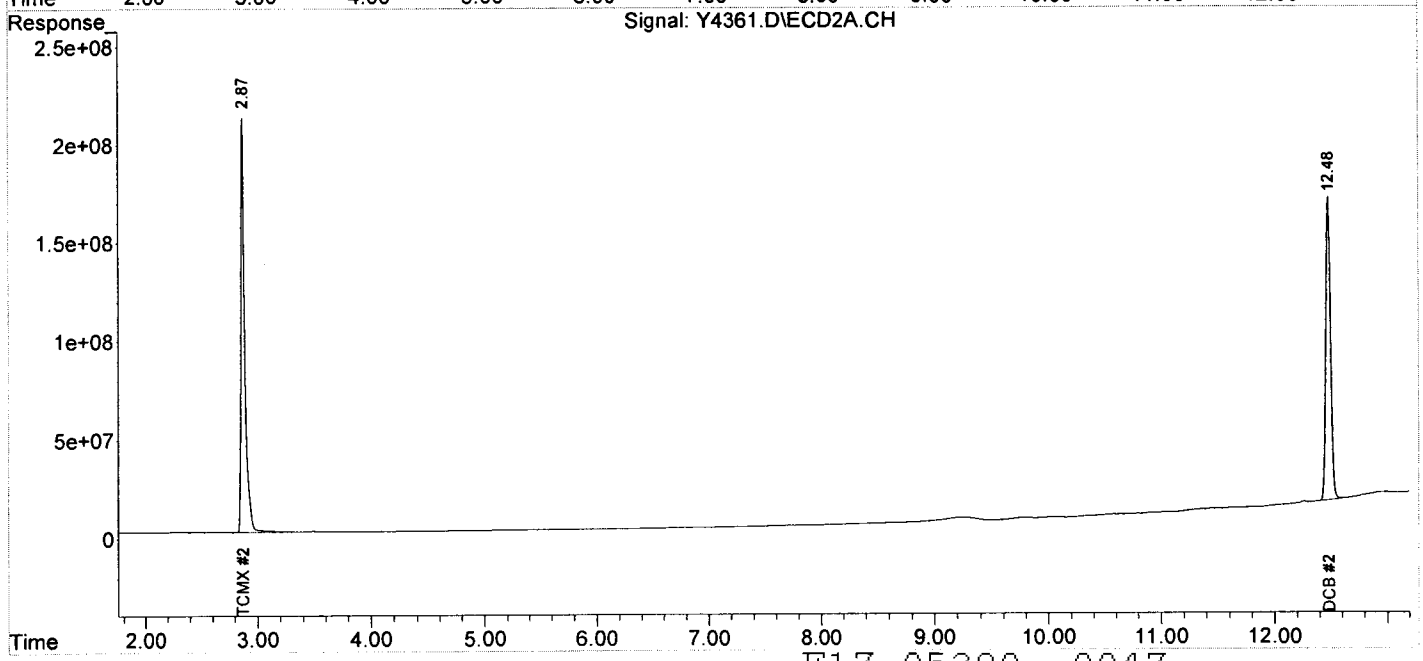
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4361.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 11:51
Operator : IB
Sample : PCB,BLKS170629-14,S,5g,0,20
Misc : 170629-14,06/29/17,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 13:43:08 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





SAMPLE TRACKING

IAL
Integrated Analytical Laboratories LLC

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

Customer Information

Company: Environmental Health Invest.
Address: 657 West Shore Trail
Sparta NJ 07871
Telephone #: 973 729 5649
Fax #: 973 729 5649
Project Manager: Charles Hoffman
EMAIL Address: choffman@ehi-inc.com
Project Name: Casale/Petro Garwood
Project Location (State): NJ
Bottle Order #:
☑ "Report to"/"Invoice To" same as above
Sampled by:

COMPLETED BY IAL:
___ Field Sampling ___ Equipment Rental

Reporting Information

REPORT TO:
Address: Same
Attn:
FAX #
INVOICE TO:
Address: Same
Attn:
PO #
Quote #

Sample Matrix

DW - Drinking Water
WW - Waste Water
GW - Groundwater
SW - Surface Water
LIQ - Liquid (Specify)
OI - Oil
S - Soil
SOL - Solid
SL - Sludge
W - Wipe
B - Biphasic

**Rush TAT Charge

24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day - 10%

Deliverables

NJ, CT, PA	NY
☐ Results Only	☐ ASP Category A
☒ Reduced	☐ ASP Category B*
☐ Regulatory/ Full*	

EDDs

☐ NJ SRP
☐ NYSDEC EQuIS
☐ lab approved custom EDD
☐ NO EDD REQ'D

Concentrations Expected:

Low (Med) High — Don't Know

These samples have been previously analyzed by IAL
☐ YES ☒ NO

Turn-Around Time (TAT)

Standard (10 business days) Verbal
Rush/date needed (only if pre-approved)** 72 Hrs
Hard Copy: Std 3 week
Other - call for price

Petroleum Hydrocarbons - Selection is REQUIRED

☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2
TAT for PHC (if other than 2 weeks):
☐ DRO-8015

Regulatory Requirement

New Jersey	New York
☐ GWQS	☐ AWQS (TOGS Table 1)
☐ IGW	☐ GWEL (TOGS Table 5)
☐ SRS	☐ Part 375-6.8(a) - Unrestricted
☐ Ecological	☐ Part 375-6.8(b) - Restricted
☐ DW	☐ CP-51 Table 2 or 3 (selection required)
☐ SPLP	OTHER Reg. Req. (specify)

SAMPLE INFORMATION

ANALYTICAL PARAMETERS (please note if contingent)

Use Extraction Method 3500B/3540C or 3500B/3550B
Analyze Method 8082 of SW-846

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	PCB
PCB-SD-062917-1		6/29/17	11 00	SOL	1	1	X
" -2						2	X
" -3						3	X
" -4						4	X
" -5						5	X
" -6						6	X

Sample Specific Notes:

Known Hazard: YES (NO)
Description:

Preservative Code: 1 = None, 2 = HCl, 3 = HNO3, 4 = MeOH, 5 = NaOH, 6 = H2SO4, 7 = Other
Container Code: A = Amber Glass, B = Plastic, C = Vial, D = Glass, E = EnCore, T = Terracore

Preservative (use code): 1
Container Type (use code): D

Special Instructions/QC Requirements & Comments: Call C. Hoffman 973-657-1373 w/ Questions
Email Report: choffman@ehi-inc.com; bkerbel@ehi-inc.com
jpvondoehren@ehi-inc.com

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab > 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

Carrier (check one):
☐ IAL Courier
☑ Client Courier
☐ FedEx/UPS***
***Tracking #:

FOR LAB USE ONLY
SDG #: 5390
Cooler Temp: 4 °C

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
Charles Hoffman	6/29/17	4:30 pm	Fred Connell / IAL	6/29/17	12:30

PAGE: 1 of 1

IAL Rev 2/2014
LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK
Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E17-05390: CASALE/PETRO GARWOOD

To: Charles Hoffman
Environmental Health Investigations, Inc.
Fax:
EMail: choffman@ehi-inc.com

Report To

Environmental Health Investigations, Inc.
655 West Shore Trail
Sparta, NJ 07871
Attn: Charles Hoffman

Bill To

Environmental Health Investigations, Inc.
655 West Shore Trail
Sparta, NJ 07871
Attn: Tracy Brucato

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Reduced		Jun 29, 2017 @ 12:30	NA	Jul 06, 2017	Jul 24, 2017 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. Not Required

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
05390-001	PCG-50-062917-1	NA	06/29/17@11:00	Solid	mg/Kg (ppm)	
05390-002	PCG-50-062917-2	NA	06/29/17@11:00	Solid	mg/Kg (ppm)	
05390-003	PCG-50-062917-3	NA	06/29/17@11:00	Solid	mg/Kg (ppm)	
05390-004	PCG-50-062917-4	NA	06/29/17@11:00	Solid	mg/Kg (ppm)	
05390-005	PCG-50-062917-5	NA	06/29/17@11:00	Solid	mg/Kg (ppm)	
05390-006	PCG-50-062917-6	NA	06/29/17@11:00	Solid	mg/Kg (ppm)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TCL PCB	Analyze	8082A	RUSH 72 HRS	6/29/2018
002	TCL PCB	Analyze	8082A	RUSH 72 HRS	6/29/2018
003	TCL PCB	Analyze	8082A	RUSH 72 HRS	6/29/2018
004	TCL PCB	Analyze	8082A	RUSH 72 HRS	6/29/2018
005	TCL PCB	Analyze	8082A	RUSH 72 HRS	6/29/2018
006	TCL PCB	Analyze	8082A	RUSH 72 HRS	6/29/2018

Project Notes:

NOTE 1 taken by kfalconer on 06/29/2017 04:16
PER COC INSTRUCTION: USE EXTRACTION METHOD 3500B/3540C OR 3500B/3550B

NOTE 2 taken by kfalconer on 06/29/2017 04:22
EMAIL REPORTS TO:
CHOFFMAN@EHI-INC.COM;BKERBEL@EHI-INC.OM;JPVONDOEHREN@EHI-INC.COM

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

E17-05390 0050

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 17** **05390** CLIENT: EHT

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA

✗ = NO

VOA received: ☐ Encore ☐ IGW - Methanol

(check one) ☐ Terra Core ☐ No Preservative

✓	Bottles Intact
✓	no-Missing Bottles
✓	no-Extra Bottles
✓	Sufficient Sample Volume
✓	no-headspace/bubbles in VOs
✓	Labels intact/correct
✓	pH Check (exclude VOs)[1]
✓	Correct bottles/preservative
✓	Sufficient Holding/Prep Time[1]
☐	Multiphasic Sample
☐	Sample to be Subcontracted
✓	**Chain of Custody is Clear**

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS: Some samples may need particle size

SAMPLE(S) VERIFIED BY: INITIAL [initials] DATE 6/29/17

CORRECTIVE ACTION REQUIRED: **YES** ☐ (SEE BELOW) **NO** ✓

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES ☐ Date/ Time: _____ NO ☐

PROJECT CONTACT: _____

SUBCONTRACTED LAB: _____

DATE SHIPPED: _____

ADDITIONAL COMMENTS: _____

VERIFIED/TAKEN BY: INITIAL KJ E17-05390 06/29/17

REV 03/2013

PS 2 of 2

BULK SAMPLE DATA FORM

ENVIRONMENTAL HEALTH INVESTIGATIONS, INC.
655 WEST SHORE TRAIL
SPARTA, NJ 07871
PHONE: (973) 729-5649 FAX: (973) 729-5649

Client: Ecol Sciences **Project #:** 0215-6923

Location: Casale / Petro Garwood Property - Garwood NJ

Date Collected: 6/29/17

Collected By: KN CA CP

Sample #	Type of Material	Location	Analysis Required PLM Only	Analysis Required NOB
PCG-50 062917 -1	Garage Door Caulk - Grey	Casale - 50 Center ST		
-2	Window Caulk Tan	Casale - 50 Center ST		
-3	Window Glazing White	Casale - 50 Center ST		
-4	Window Glazing Pink	Casale - 50 Center ST		
-5	Floor TAR Assoc. w/ Wood Block Floor	Casale - 50 Center ST East Home Open Area		
-6	Water Proof Coating	Casale 50 Center ST		

Laboratory Custody Chronicle

IAL Case No.

E17-05390

Client Environmental Health Investigations, Inc.

Project CASALE/PETRO GARWOOD

Received On 6/29/2017@12:30

Department: GC			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL PCB	05390-001	Solid	6/30/17	Archimede	7/ 6/17	Iwona
"	-002	"	6/29/17	Archimede	7/ 6/17	Iwona
"	-003	"	6/29/17	Archimede	7/ 6/17	Iwona
"	-004	"	6/29/17	Archimede	7/ 6/17	Iwona
"	-005	"	6/29/17	Archimede	7/ 6/17	Iwona
"	-006	"	6/29/17	Archimede	7/ 6/17	Iwona

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

Environmental Health Investigations, Inc.
655 West Shore Trail
Sparta, NJ 07871

Project Name: **CASALE/PETRO GARWOOD**
IAL Case Number: **E17-05391**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAP accredited lab (TNI01284) and maintains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).

INTEGRATED ANALYTICAL LABORATORIES, LLC.

TABLE OF CONTENTS

This report was finalized on July 07, 2017

* Methodology is included in the IAL Project Information Page

Sample Summary

IAL Case No.

E17-05391

Client Environmental Health Investigations, Inc.

Project CASALE/PETRO GARWOOD

Received On 6/29/2017@13:00

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
05391-001	PCG-450-062917-1	n/a	6/29/2017@11:00	Solid	1
05391-002	PCG-450-062917-2	n/a	6/29/2017@11:00	Solid	1
05391-003	PCG-450-062917-3	n/a	6/29/2017@11:00	Solid	1
05391-004	PCG-450-062917-4	n/a	6/29/2017@11:00	Solid	1
05391-005	PCG-450-062917-5	n/a	6/29/2017@11:00	Solid	1
05391-006	PCG-450-062917-6	n/a	6/29/2017@11:00	Solid	1
05391-007	PCG-450-062917-7	n/a	6/29/2017@11:00	Solid	1
05391-008	PCG-450-062917-8	n/a	6/29/2017@11:00	Solid	1
05391-009	PCG-450-062917-9	n/a	6/29/2017@11:00	Solid	1

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES, LLC.

DEFINITIONS / QUALIFIERS

DATA QUALIFIERS

B Indicates the analyte was found in the associated method blank as well as in the sample. It indicates probable laboratory contamination.

C Indicates analyte is a common laboratory contaminant.

D Indicates analyte was reported from diluted analysis.

E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument.

J Indicates an estimated value. This flag is used when the concentration in the sample is below the RL but above the MDL or for qualification of tentatively identified compounds.

N Presumptive evidence of a compound from the use of GC/MS library search.

X Indicates samples analyzed for total and dissolved metals differ at ≤20% RPD.

Z Indicates internal standard failure. Sample results are either biased high or biased low.

REPORTING DEFINITIONS

RL Reporting Limit. The RL is determined by the lowest concentration in the calibration curve. For most Wet Chemistry methods, the RL is defined by using the PQL.

MDL Method Detection Limit as determined according to 40CFR Part 136 Appendix B.

PQL Practical Quantitation Limit. Usually defined as a value 3-5 times the MDL.

ND Indicates analyte was analyzed for but not detected above the MDL.

DF Dilution Factor

LCS Laboratory Control Sample

LCSD Laboratory Control Sample Duplicate

MS Matrix Spike

MSD Matrix Spike Duplicate

DUP Duplicate

SAMPLE DELIVERY GROUP CASE NARRATIVE
(Conformance / Non-Conformance Summary)

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E17-05391

Integrated Analytical Laboratories, LLC. received nine (9) samples** from Environmental Health Investigations, Inc. (IAL SDG# **E17-05391**, Project: CASALE/PETRO GARWOOD) on June 29, 2017 for the analysis of :

(9) TCL PCB

**Number of samples listed above may be greater than what is listed on the chain of custody. Any samples that require in-house filtration or splitting will be counted as separate samples.

Samples were received in good condition with documentation in order.
Cooler temperature was acceptable at 4 ± 2°C

PCB By 8082A	**Batch: 170629-14**	**Matrix: Solid**

QC

- Calibration curve met QC criteria.
- Surrogate percent recovery did not meet QC criteria due to high concentration of the target compound for #006. NJDEP DKQP criteria not met.
- Method blank met QC criteria.
- LCS Percent Recovery met QC criteria.
- RPD between MS/MSD met QC criteria.
- MS/MSD Percent Recovery met QC criteria.
- The following samples were cleaned up using method 3660B to remove sulfur: 001, 002, 003, 004, 005, 006, 007, 008, 009.

E17-05391

- All samples were extracted within holding time.
- All samples were analyzed within holding time.
- Retention Time Shift met QC criteria.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E17-05391-001	5	Matrix Interference.
E17-05391-002	1	NA
E17-05391-003	10	Matrix Interference.
E17-05391-004	5	Matrix Interference.
E17-05391-005	10	Matrix Interference.
E17-05391-006	2000;20000	Target compound(s).
E17-05391-007	1	NA
E17-05391-008	40	Matrix Interference.
E17-05391-009	10	Matrix Interference.

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

7/6/2017
Date

E17-05391 0004

DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

Laboratory Name: Integrated Analytical Laboratories
Client: Environmental Health Investigations, Inc.
Project Location: CASALE/PETRO GARWOOD
IAL Project #: E17-05391
IAL Sample ID(s): E17-05391-001 ~ -009
Sampling Date(s): 6/29/2017

List of DKQP Method Used:
TCL PCB by 8082A

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information is provided in the case narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Data of Known Quality."

		YES	NO	N/A
1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP	X		
1A	Were the method specified handling, preservation, and holding time requirements met?	X		
1B	EPH Method: Was the EPH method conducted without significant modifications? (see Section 11.3 of respective DKQ methods)			X
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	X		
3	Were samples received at an appropriate temperature (4±2° C)?	X		
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?		X	
5A	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	X		
5B	Were these reporting limits met?		X	
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	X		
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?		X	

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Environmental Health Investigations, Inc.
Project: CASALE/PETRO GARWOOD
Lab Case No.: E17-05391

Lab ID:	05391-001			05391-002			05391-003			05391-004		
Client ID:	PCG-450-062917-1			PCG-450-062917-2			PCG-450-062917-3			PCG-450-062917-4		
Matrix:	Solid			Solid			Solid			Solid		
Sampled Date	6/29/17			6/29/17			6/29/17			6/29/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Aroclor-1016	ND		0.076	ND		0.015	ND		0.143	ND		0.077
Aroclor-1221	ND		0.076	ND		0.015	ND		0.143	ND		0.077
Aroclor-1232	ND		0.076	ND		0.015	ND		0.143	ND		0.077
Aroclor-1242	ND		0.076	ND		0.015	ND		0.143	ND		0.077
Aroclor-1248	ND		0.076	ND		0.015	ND		0.143	ND		0.077
Aroclor-1254	ND		0.076	ND		0.015	ND		0.143	ND		0.077
Aroclor-1260	ND		0.076	ND		0.015	ND		0.143	ND		0.077
Aroclor-1262	ND		0.076	ND		0.015	ND		0.143	ND		0.077
Aroclor-1268	ND		0.076	0.768		0.015	ND		0.143	ND		0.077
PCBs	ND		0.076	0.768		0.015	ND		0.143	ND		0.077

Lab ID:	05391-005			05391-006			05391-007			05391-008		
Client ID:	PCG-450-062917-5			PCG-450-062917-6			PCG-450-062917-7			PCG-450-062917-8		
Matrix:	Solid			Solid			Solid			Solid		
Sampled Date	6/29/17			6/29/17			6/29/17			6/29/17		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*			*(mg/Kg)*		
Aroclor-1016	ND		0.154	ND		28.5	ND		0.014	ND		0.568
Aroclor-1221	ND		0.154	ND		28.5	ND		0.014	ND		0.568
Aroclor-1232	ND		0.154	ND		28.5	ND		0.014	ND		0.568
Aroclor-1242	ND		0.154	ND		28.5	ND		0.014	ND		0.568
Aroclor-1248	ND		0.154	ND		28.5	ND		0.014	ND		0.568
Aroclor-1254	ND		0.154	ND		28.5	ND		0.014	ND		0.568
Aroclor-1260	ND		0.154	ND		28.5	ND		0.014	ND		0.568
Aroclor-1262	ND		0.154	ND		28.5	ND		0.014	ND		0.568
Aroclor-1268	ND		0.154	26700	D	285	ND		0.014	ND		0.568
PCBs	ND		0.154	26700	D	285	ND		0.014	ND		0.568

Lab ID:	05391-009		
Client ID:	PCG-450-062917-9		
Matrix:	Solid		
Sampled Date	6/29/17		
PARAMETER(Units)	Conc	Q	MDL
PCB's (Units)	*(mg/Kg)*		
Aroclor-1016	ND		0.143
Aroclor-1221	ND		0.143
Aroclor-1232	ND		0.143
Aroclor-1242	ND		0.143
Aroclor-1248	ND		0.143
Aroclor-1254	ND		0.143
Aroclor-1260	ND		0.143
Aroclor-1262	ND		0.143
Aroclor-1268	ND		0.143
PCBs	ND		0.143

ND = Analyzed for but Not Detected at the MDL
D = The compound was reported from the Diluted analysis

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-05391-001
Client ID: PCG-450-
Date Received: 06/29/2017
Date Extracted: 06/29/2017
Date Analyzed: 07/05/2017
Data file: Y4371.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.30g
Matrix-Units: Solid-mg/Kg
Dilution Factor: 5
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.189	0.076
Aroclor-1221	ND		0.189	0.076
Aroclor-1232	ND		0.189	0.076
Aroclor-1242	ND		0.189	0.076
Aroclor-1248	ND		0.189	0.076
Aroclor-1254	ND		0.189	0.076
Aroclor-1260	ND		0.189	0.076
Aroclor-1262	ND		0.189	0.076
Aroclor-1268	ND		0.189	0.076
PCBs	ND		0.189	0.076

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

E17-05391 0009

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-05391-002
Client ID: PCG-450-
Date Received: 06/29/2017
Date Extracted: 06/29/2017
Date Analyzed: 07/05/2017
Data file: Y4372.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.31g
Matrix-Units: Solid-mg/Kg
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.038	0.015
Aroclor-1221	ND		0.038	0.015
Aroclor-1232	ND		0.038	0.015
Aroclor-1242	ND		0.038	0.015
Aroclor-1248	ND		0.038	0.015
Aroclor-1254	ND		0.038	0.015
Aroclor-1260	ND		0.038	0.015
Aroclor-1262	ND		0.038	0.015
Aroclor-1268	0.768		0.038	0.015
PCBs	0.768		0.038	0.015

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

E17-05391 0010

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-05391-003
Client ID: PCG-450-
Date Received: 06/29/2017
Date Extracted: 06/29/2017
Date Analyzed: 07/05/2017
Data file: Y4373.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.58g
Matrix-Units: Solid-mg/Kg
Dilution Factor: 10
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.358	0.143
Aroclor-1221	ND		0.358	0.143
Aroclor-1232	ND		0.358	0.143
Aroclor-1242	ND		0.358	0.143
Aroclor-1248	ND		0.358	0.143
Aroclor-1254	ND		0.358	0.143
Aroclor-1260	ND		0.358	0.143
Aroclor-1262	ND		0.358	0.143
Aroclor-1268	ND		0.358	0.143
PCBs	ND		0.358	0.143

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

E17-05391 0011

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-05391-004
Client ID: PCG-450-
Date Received: 06/29/2017
Date Extracted: 06/29/2017
Date Analyzed: 07/05/2017
Data file: Y4374.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.23g
Matrix-Units: Solid-mg/Kg
Dilution Factor: 5
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.191	0.077
Aroclor-1221	ND		0.191	0.077
Aroclor-1232	ND		0.191	0.077
Aroclor-1242	ND		0.191	0.077
Aroclor-1248	ND		0.191	0.077
Aroclor-1254	ND		0.191	0.077
Aroclor-1260	ND		0.191	0.077
Aroclor-1262	ND		0.191	0.077
Aroclor-1268	ND		0.191	0.077
PCBs	ND		0.191	0.077

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

E17-05391 0012

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-05391-005
Client ID: PCG-450-
Date Received: 06/29/2017
Date Extracted: 06/29/2017
Date Analyzed: 07/05/2017
Data file: Y4375.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.20g
Matrix-Units: Solid-mg/Kg
Dilution Factor: 10
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.385	0.154
Aroclor-1221	ND		0.385	0.154
Aroclor-1232	ND		0.385	0.154
Aroclor-1242	ND		0.385	0.154
Aroclor-1248	ND		0.385	0.154
Aroclor-1254	ND		0.385	0.154
Aroclor-1260	ND		0.385	0.154
Aroclor-1262	ND		0.385	0.154
Aroclor-1268	ND		0.385	0.154
PCBs	ND		0.385	0.154

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

E17-05391 0013

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-05391-006
Client ID: PCG-450-
Date Received: 06/29/2017
Date Extracted: 06/29/2017
Date Analyzed: 07/05/2017
Data file: Y4376.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.62g
Matrix-Units: Solid-mg/Kg
Dilution Factor: 2000
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		71.2	28.5
Aroclor-1221	ND		71.2	28.5
Aroclor-1232	ND		71.2	28.5
Aroclor-1242	ND		71.2	28.5
Aroclor-1248	ND		71.2	28.5
Aroclor-1254	ND		71.2	28.5
Aroclor-1260	ND		71.2	28.5
Aroclor-1262	ND		71.2	28.5
Aroclor-1268	23700	E	71.2	28.5
PCBs	23700	E	71.2	28.5

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

E17-05391 0014

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-05391-006DL
Client ID: PCG-450-
Date Received: 06/29/2017
Date Extracted: 06/29/2017
Date Analyzed: 07/06/2017
Data file: Y4389.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.62g
Matrix-Units: Solid-mg/Kg
Dilution Factor: 20000
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		712	285
Aroclor-1221	ND		712	285
Aroclor-1232	ND		712	285
Aroclor-1242	ND		712	285
Aroclor-1248	ND		712	285
Aroclor-1254	ND		712	285
Aroclor-1260	ND		712	285
Aroclor-1262	ND		712	285
Aroclor-1268	26700	D	712	285
PCBs	26700	D	712	285

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

E17-05391 0015

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-05391-007
Client ID: PCG-450-
Date Received: 06/29/2017
Date Extracted: 06/29/2017
Date Analyzed: 07/05/2017
Data file: Y4377.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.73g
Matrix-Units: Solid-mg/Kg
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.035	0.014
Aroclor-1221	ND		0.035	0.014
Aroclor-1232	ND		0.035	0.014
Aroclor-1242	ND		0.035	0.014
Aroclor-1248	ND		0.035	0.014
Aroclor-1254	ND		0.035	0.014
Aroclor-1260	ND		0.035	0.014
Aroclor-1262	ND		0.035	0.014
Aroclor-1268	ND		0.035	0.014
PCBs	ND		0.035	0.014

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

E17-05391 0016

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-05391-008
Client ID: PCG-450-
Date Received: 06/29/2017
Date Extracted: 06/29/2017
Date Analyzed: 07/05/2017
Data file: Y4378.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.63g
Matrix-Units: Solid-mg/Kg
Dilution Factor: 40
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		1.42	0.568
Aroclor-1221	ND		1.42	0.568
Aroclor-1232	ND		1.42	0.568
Aroclor-1242	ND		1.42	0.568
Aroclor-1248	ND		1.42	0.568
Aroclor-1254	ND		1.42	0.568
Aroclor-1260	ND		1.42	0.568
Aroclor-1262	ND		1.42	0.568
Aroclor-1268	ND		1.42	0.568
PCBs	ND		1.42	0.568

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

E17-05391 0017

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: E17-05391-009
Client ID: PCG-450-
Date Received: 06/29/2017
Date Extracted: 06/30/2017
Date Analyzed: 07/05/2017
Data file: Y4379.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.58g
Matrix-Units: Solid-mg/Kg
Dilution Factor: 10
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.358	0.143
Aroclor-1221	ND		0.358	0.143
Aroclor-1232	ND		0.358	0.143
Aroclor-1242	ND		0.358	0.143
Aroclor-1248	ND		0.358	0.143
Aroclor-1254	ND		0.358	0.143
Aroclor-1260	ND		0.358	0.143
Aroclor-1262	ND		0.358	0.143
Aroclor-1268	ND		0.358	0.143
PCBs	ND		0.358	0.143

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

E17-05391 0018

PCB DATA

PCB QC SUMMARY

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/05/2017

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	BLKS170629-14	SOIL	95		64		94		84	
PCB	LCSS170629-14	SOIL	97		67		95		107	
PCB	E17-05390-001MS	SOLID	73		57		88		91	
PCB	E17-05390-001MS	SOLID	74		67		88		88	
PCG-50-0	E17-05390-001	SOLID	80		75		96		106	
PCG-50-0	E17-05390-002	SOLID	80		76		100		125	
PCG-50-0	E17-05390-003	SOLID	83		107		99		166	
PCG-50-0	E17-05390-004	SOLID	87		75		99		107	
PCG-50-0	E17-05390-005	SOLID	68		324	M	84		410	M
PCG-50-0	E17-05390-006	SOLID	106		130		96		704	M
PCG-450-	E17-05391-001	SOLID	93		64		90		73	
PCG-450-	E17-05391-002	SOLID	84		62		98		117	
PCG-450-	E17-05391-003	SOLID	91		95		93		89	
PCG-450-	E17-05391-004	SOLID	92		61		99		96	
PCG-450-	E17-05391-005	SOLID	95		64		93		112	
PCG-450-	E17-05391-006	SOLID	0	D	0	D	0	D	0	D
PCG-450-	E17-05391-007	SOLID	84		67		97		115	
PCG-450-	E17-05391-008	SOLID	80		108		84		132	
PCG-450-	E17-05391-009	SOLID	98		82		100		127	
PCG-450-	E17-05391-006DL	SOLID	0	D	0	D	0	D	0	D

Surrogate QC Limits	Soil	Aqueous/Leachate
TCMX = Tetrachloro-m-xylene	25-162	52-131
DCB = Decachlorobiphenyl	24-172	58-149

\# Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

PCB LCS ACCURACY REPORT

Lab ID: LCSS170629-14
Date Received: NA
Date Extracted: 06/29/2017
Date Analyzed: 07/05/2017
Data file: Y4362.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	#	QC Limits
Aroclor-1016	500	0.0	533.8	107		40-137
Aroclor-1260	500	0.0	497.5	100		57-147

	Aqueous	Soil/Sediment
LCS Recovery Limits (DKQP)	40-140	40-140

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES

PCB MS/MSD ACCURACY REPORT

Lab ID: E17-05390-001
Date Received: 06/29/2017
Date Extracted: 06/29/2017
Date Analyzed: 07/05/2017
MS Data file: Y4363.D
MSD Data file: Y4364.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.37g
Matrix-Units: Solid-ug/Kg
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	QC Limits
Aroclor-1016	500	0.0	473.5	95		462.4	92		2		12-163/25
Aroclor-1260	500	0.0	440.6	88		395.4	79		11		16-178/27

	Aqueous	Soil/Sediment
MS/MSD Recovery Limits (DKQP)	30-150	30-150
MS/MSD RPD Limits (DKQP)	20	30

Column used to flag recovery and RPD values that did not meet criteria
* Values outside of QC limits
$ Values outside of NJ DKQP limits
NC Not calculable

PCB METHOD BLANK SUMMARY

Lab File ID: Y4361.D

Instrument ID: GC-Y

Date Extracted: 06/29/2017

Matrix: SOIL

Date Analyzed: 07/05/2017

Time Analyzed: 11:51

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
PCB	LCSS170629-14	07/05/2017	12:09
PCB	E17-05390-001MS	07/05/2017	12:26
PCB	E17-05390-001MSD	07/05/2017	12:44
PCG-50-0	E17-05390-001	07/05/2017	13:01
PCG-50-0	E17-05390-002	07/05/2017	13:18
PCG-50-0	E17-05390-003	07/05/2017	13:36
PCG-50-0	E17-05390-004	07/05/2017	13:53
PCG-50-0	E17-05390-005	07/05/2017	14:10
PCG-50-0	E17-05390-006	07/05/2017	14:28
PCG-450-	E17-05391-001	07/05/2017	14:45
PCG-450-	E17-05391-002	07/05/2017	15:03
PCG-450-	E17-05391-003	07/05/2017	15:20
PCG-450-	E17-05391-004	07/05/2017	15:37
PCG-450-	E17-05391-005	07/05/2017	15:55
PCG-450-	E17-05391-006	07/05/2017	16:12
PCG-450-	E17-05391-007	07/05/2017	16:30
PCG-450-	E17-05391-008	07/05/2017	16:47
PCG-450-	E17-05391-009	07/05/2017	17:05
PCG-450-	E17-05391-006DL	07/06/2017	09:54

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/16/2017 **Instrument ID:** GC-Y

GC Column (1st): DB-5

Data File: Y3983.D Y3982.D Y3981.D Y3980.D Y3979.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1016	3.28	3.29	3.29	3.29	3.29	3.29	3.22	3.36
Aroclor-1016 {2}	4.13	4.13	4.13	4.13	4.13	4.13	4.06	4.20
Aroclor-1016 {3}	4.68	4.69	4.69	4.69	4.68	4.68	4.61	4.75
Aroclor-1016 {4}	5.19	5.20	5.19	5.19	5.19	5.19	5.12	5.26
Aroclor-1016 {5}	5.59	5.59	5.59	5.59	5.59	5.59	5.52	5.66
Aroclor-1221			2.17				2.10	2.24
Aroclor-1221 {2}			3.08				3.01	3.15
Aroclor-1221 {3}			3.21				3.14	3.28
Aroclor-1221 {4}			3.29				3.22	3.36
Aroclor-1221 {5}			3.89				3.82	3.96
Aroclor-1232			3.29				3.22	3.36
Aroclor-1232 {2}			4.13				4.06	4.20
Aroclor-1232 {3}			4.80				4.73	4.87
Aroclor-1232 {4}			5.40				5.33	5.47
Aroclor-1232 {5}			5.59				5.52	5.66
Aroclor-1242			4.13				4.06	4.20
Aroclor-1242 {2}			5.07				5.00	5.14
Aroclor-1242 {3}			5.40				5.33	5.47
Aroclor-1242 {4}			6.10				6.03	6.17
Aroclor-1242 {5}			6.37				6.30	6.44
Aroclor-1248			4.53				4.45	4.61
Aroclor-1248 {2}			5.08				5.00	5.16
Aroclor-1248 {3}			5.40				5.32	5.48
Aroclor-1248 {4}			6.10				6.02	6.18
Aroclor-1248 {5}			6.37				6.29	6.45
Aroclor-1254			6.49				6.41	6.57
Aroclor-1254 {2}			6.93				6.85	7.01
Aroclor-1254 {3}			7.10				7.01	7.19
Aroclor-1254 {4}			7.53				7.44	7.62
Aroclor-1254 {5}			8.39				8.30	8.48
Aroclor-1260	8.38	8.38	8.38	8.38	8.38	8.38	7.48	9.28
Aroclor-1260 {2}	9.06	9.06	9.06	9.06	9.06	9.06	8.16	9.96
Aroclor-1260 {3}	9.54	9.53	9.53	9.53	9.53	9.53	8.63	10.43
Aroclor-1260 {4}	10.02	10.02	10.02	10.02	10.02	10.02	9.12	10.92
Aroclor-1260 {5}	11.08	11.08	11.08	11.08	11.08	11.08	10.18	11.98

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/16/2017 **Instrument ID:** GC-Y

GC Column (1st): DB-5

Data File: Y3983.D Y3982.D Y3981.D Y3980.D Y3979.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	574793	617153	685529	663944	649996	638283	6.79
Aroclor-1016 {2}	887952	823631	903128	884636	845133	868896	3.82
Aroclor-1016 {3}	982786	1179449	1250157	1196509	1175466	1156874	8.80
Aroclor-1016 {4}	582434	545539	591672	557494	548079	565044	3.69
Aroclor-1016 {5}	898231	900419	989620	958836	957415	940904	4.26
Aroclor-1221			128318				
Aroclor-1221 {2}			494149				
Aroclor-1221 {3}			310617				
Aroclor-1221 {4}			1023072				
Aroclor-1221 {5}			213565				
Aroclor-1232			691554				
Aroclor-1232 {2}			386085				
Aroclor-1232 {3}			364866				
Aroclor-1232 {4}			369844				
Aroclor-1232 {5}			504050				
Aroclor-1242			717678				
Aroclor-1242 {2}			476541				
Aroclor-1242 {3}			628417				
Aroclor-1242 {4}			1066741				
Aroclor-1242 {5}			842758				
Aroclor-1248			1497470				
Aroclor-1248 {2}			857932				
Aroclor-1248 {3}			1075252				
Aroclor-1248 {4}			1886522				
Aroclor-1248 {5}			1302700				
Aroclor-1254			2064723				
Aroclor-1254 {2}			1301576				
Aroclor-1254 {3}			2485702				
Aroclor-1254 {4}			2727557				
Aroclor-1254 {5}			2508808				
Aroclor-1260	2862815	2872101	3138931	3076464	3129115	3015885	4.56
Aroclor-1260 {2}	1395588	1301725	1407688	1411449	1352742	1373838	3.39
Aroclor-1260 {3}	3831401	3929630	4531643	4482311	4579617	4270920	8.42
Aroclor-1260 {4}	1927492	1849361	2106415	2105079	2159642	2029598	6.58
Aroclor-1260 {5}	1082275	899558	1087019	1098348	1095968	1052634	8.15
					Average %RSD		5.85

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/16/2017 **Instrument ID:** GC-Y

GC Column (2nd): DB-1701P

Data File: Y3983.C Y3982.C Y3981.C Y3980.C Y3979.C

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	10	50	500	1000	2000	RT	FROM	TO
Aroclor-1016	3.74	3.74	3.75	3.75	3.75	3.75	3.68	3.82
Aroclor-1016 {2}	4.34	4.35	4.35	4.35	4.35	4.35	4.28	4.42
Aroclor-1016 {3}	5.10	5.10	5.10	5.10	5.10	5.10	5.03	5.17
Aroclor-1016 {4}	5.31	5.31	5.31	5.31	5.31	5.31	5.24	5.38
Aroclor-1016 {5}	5.48	5.48	5.48	5.48	5.48	5.48	5.41	5.55
Aroclor-1221			2.41				2.34	2.48
Aroclor-1221 {2}			3.42				3.35	3.49
Aroclor-1221 {3}			3.65				3.58	3.72
Aroclor-1221 {4}			3.75				3.68	3.82
Aroclor-1221 {5}			5.10				5.03	5.17
Aroclor-1232			3.65				3.58	3.72
Aroclor-1232 {2}			4.66				4.59	4.73
Aroclor-1232 {3}			5.10				5.03	5.17
Aroclor-1232 {4}			5.31				5.24	5.38
Aroclor-1232 {5}			6.08				6.01	6.15
Aroclor-1242			4.73				4.66	4.80
Aroclor-1242 {2}			5.48				5.41	5.55
Aroclor-1242 {3}			6.08				6.01	6.15
Aroclor-1242 {4}			6.23				6.16	6.30
Aroclor-1242 {5}			6.78				6.71	6.85
Aroclor-1248			5.10				5.02	5.18
Aroclor-1248 {2}			5.68				5.60	5.76
Aroclor-1248 {3}			6.08				6.00	6.16
Aroclor-1248 {4}			6.23				6.15	6.31
Aroclor-1248 {5}			6.58				6.50	6.66
Aroclor-1254			7.08				7.00	7.16
Aroclor-1254 {2}			7.66				7.58	7.74
Aroclor-1254 {3}			8.10				8.01	8.19
Aroclor-1254 {4}			8.28				8.19	8.37
Aroclor-1254 {5}			9.10				9.01	9.19
Aroclor-1260	7.85	7.85	7.85	7.85	7.85	7.85	6.95	8.75
Aroclor-1260 {2}	8.10	8.10	8.10	8.10	8.10	8.10	7.20	9.00
Aroclor-1260 {3}	9.70	9.70	9.70	9.70	9.70	9.70	8.80	10.60
Aroclor-1260 {4}	10.21	10.20	10.20	10.20	10.20	10.20	9.30	11.10
Aroclor-1260 {5}	10.80	10.79	10.79	10.79	10.79	10.79	9.89	11.69

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/16/2017 **Instrument ID:** GC-Y
GC Column (2nd): DB-1701P

Data File: Y3983.C Y3982.C Y3981.C Y3980.C Y3979.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	489086	462974	441638	408786	397332	439963	8.61
Aroclor-1016 {2}	970843	952702	871963	835973	820448	890386	7.65
Aroclor-1016 {3}	2145454	2050432	1976078	1911170	1929579	2002543	4.81
Aroclor-1016 {4}	779242	978495	871169	825226	815964	854019	9.01
Aroclor-1016 {5}	667972	710343	663475	637878	638307	663595	4.46
Aroclor-1221			94396				
Aroclor-1221 {2}			284451				
Aroclor-1221 {3}			190658				
Aroclor-1221 {4}			647487				
Aroclor-1221 {5}			120049				
Aroclor-1232			131309				
Aroclor-1232 {2}			126332				
Aroclor-1232 {3}			852020				
Aroclor-1232 {4}			391947				
Aroclor-1232 {5}			405510				
Aroclor-1242			305513				
Aroclor-1242 {2}			535631				
Aroclor-1242 {3}			686097				
Aroclor-1242 {4}			581315				
Aroclor-1242 {5}			1151749				
Aroclor-1248			977401				
Aroclor-1248 {2}			1466918				
Aroclor-1248 {3}			1053808				
Aroclor-1248 {4}			973261				
Aroclor-1248 {5}			542146				
Aroclor-1254			1408042				
Aroclor-1254 {2}			1120344				
Aroclor-1254 {3}			745551				
Aroclor-1254 {4}			1137374				
Aroclor-1254 {5}			1718777				
Aroclor-1260	818516	844376	795171	768414	776474	800590	3.89
Aroclor-1260 {2}	1295423	1243249	1166349	1119263	1122015	1189260	6.53
Aroclor-1260 {3}	1201055	1143794	1145528	1118396	1179752	1157705	2.82
Aroclor-1260 {4}	2824762	2829523	2924476	2881824	2995235	2891164	2.46
Aroclor-1260 {5}	1942866	2009132	2070818	2021638	2089479	2026787	2.84
					Average %RSD		5.31

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/16/2017

Instrument ID: GC-Y

GC Column (1st): DB-5

Data File: Y3983.D Y3982.D Y3981.D Y3980.D Y3979.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1262			8.67				8.55	8.79
Aroclor-1262 {2}			9.53				9.41	9.65
Aroclor-1262 {3}			10.17				10.05	10.29
Aroclor-1262 {4}			10.25				10.13	10.37
Aroclor-1262 {5}			11.08				10.96	11.20
Aroclor-1268			10.17				10.05	10.29
Aroclor-1268 {2}			10.25				10.13	10.37
Aroclor-1268 {3}			10.72				10.60	10.84
Aroclor-1268 {4}			10.85				10.73	10.97
Aroclor-1268 {5}			11.68				11.56	11.80

GC Column (2nd): DB-1701P

Data File: Y3983.C Y3982.C Y3981.C Y3980.C Y3979.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1262			9.70				9.58	9.82
Aroclor-1262 {2}			10.20				10.08	10.32
Aroclor-1262 {3}			10.70				10.58	10.82
Aroclor-1262 {4}			10.79				10.67	10.91
Aroclor-1262 {5}			11.39				11.27	11.51
Aroclor-1268			10.70				10.58	10.82
Aroclor-1268 {2}			10.78				10.66	10.90
Aroclor-1268 {3}			11.04				10.92	11.16
Aroclor-1268 {4}			11.83				11.71	11.95
Aroclor-1268 {5}			12.26				12.14	12.38

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/16/2017 **Instrument ID:** GC-Y
GC Column (1st): DB-5

Data File: Y3983.D Y3982.D Y3981.D Y3980.D Y3979.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			2812669				
Aroclor-1262 {2}			5584001				
Aroclor-1262 {3}			2305558				
Aroclor-1262 {4}			2590700				
Aroclor-1262 {5}			2076191				
Aroclor-1268			6316558				
Aroclor-1268 {2}			6892845				
Aroclor-1268 {3}			5738393				
Aroclor-1268 {4}			1443744				
Aroclor-1268 {5}			17140314				

GC Column (2nd): DB-1701P

Data File: Y3983.C Y3982.C Y3981.C Y3980.C Y3979.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			1432566				
Aroclor-1262 {2}			3680107				
Aroclor-1262 {3}			1363490				
Aroclor-1262 {4}			2584717				
Aroclor-1262 {5}			498883				
Aroclor-1268			4131901				
Aroclor-1268 {2}			4097990				
Aroclor-1268 {3}			3507105				
Aroclor-1268 {4}			1418886				
Aroclor-1268 {5}			10817383				

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/05/2017 **Instrument ID:** GC-Y

Data File: Y4360.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.29	3.22	3.36	638283	692096	8.43
Aroclor-1016 {2}	4.13	4.06	4.20	868896	948993	9.22
Aroclor-1016 {3}	4.69	4.61	4.75	1156874	1270968	9.86
Aroclor-1016 {4}	5.20	5.12	5.26	565044	571085	1.07
Aroclor-1016 {5}	5.59	5.52	5.66	940904	977963	3.94
Aroclor-1260	8.39	7.48	9.28	3015885	2808104	6.89
Aroclor-1260 {2}	9.06	8.16	9.96	1373838	1214721	11.58
Aroclor-1260 {3}	9.54	8.63	10.43	4270920	3484532	18.41
Aroclor-1260 {4}	10.02	9.12	10.92	2029598	1668759	17.78
Aroclor-1260 {5}	11.08	10.18	11.98	1052634	1032751	1.89

Data File: Y4360.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.75	3.68	3.82	439963	463350	5.32
Aroclor-1016 {2}	4.35	4.28	4.42	890386	910464	2.25
Aroclor-1016 {3}	5.10	5.03	5.17	2002543	2075455	3.64
Aroclor-1016 {4}	5.31	5.24	5.38	854019	885141	3.64
Aroclor-1016 {5}	5.48	5.41	5.55	663595	677884	2.15
Aroclor-1260	7.85	6.95	8.75	800590	787204	1.67
Aroclor-1260 {2}	8.11	7.20	9.00	1189260	1120495	5.78
Aroclor-1260 {3}	9.70	8.80	10.60	1157705	1166295	0.74
Aroclor-1260 {4}	10.21	9.30	11.10	2891164	2709786	6.27
Aroclor-1260 {5}	10.80	9.89	11.69	2026787	1941381	4.21

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/05/2017 **Instrument ID:** GC-Y

Data File: Y4380.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.29	3.22	3.36	638283	727917	14.04
Aroclor-1016 {2}	4.13	4.06	4.20	868896	958782	10.34
Aroclor-1016 {3}	4.69	4.61	4.75	1156874	1302893	12.62
Aroclor-1016 {4}	5.20	5.12	5.26	565044	571396	1.12
Aroclor-1016 {5}	5.60	5.52	5.66	940904	1016918	8.08
Aroclor-1260	8.39	7.48	9.28	3015885	2947930	2.25
Aroclor-1260 {2}	9.07	8.16	9.96	1373838	1266602	7.81
Aroclor-1260 {3}	9.54	8.63	10.43	4270920	3835912	10.19
Aroclor-1260 {4}	10.02	9.12	10.92	2029598	1777119	12.44
Aroclor-1260 {5}	11.08	10.18	11.98	1052634	987168	6.22

Data File: Y4380.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.74	3.68	3.82	439963	490545	11.50
Aroclor-1016 {2}	4.35	4.28	4.42	890386	959359	7.75
Aroclor-1016 {3}	5.10	5.03	5.17	2002543	2220566	10.89
Aroclor-1016 {4}	5.31	5.24	5.38	854019	900849	5.48
Aroclor-1016 {5}	5.48	5.41	5.55	663595	704413	6.15
Aroclor-1260	7.85	6.95	8.75	800590	825064	3.06
Aroclor-1260 {2}	8.11	7.20	9.00	1189260	1172120	1.44
Aroclor-1260 {3}	9.70	8.80	10.60	1157705	1233580	6.55
Aroclor-1260 {4}	10.21	9.30	11.10	2891164	3140139	8.61
Aroclor-1260 {5}	10.79	9.89	11.69	2026787	2312468	14.10

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/06/2017 **Instrument ID:** GC-Y

Data File: Y4387.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.29	3.22	3.36	638283	697812	9.33
Aroclor-1016 {2}	4.13	4.06	4.20	868896	914679	5.27
Aroclor-1016 {3}	4.69	4.61	4.75	1156874	1252220	8.24
Aroclor-1016 {4}	5.20	5.12	5.26	565044	575003	1.76
Aroclor-1016 {5}	5.60	5.52	5.66	940904	984227	4.60
Aroclor-1260	8.39	7.48	9.28	3015885	3014532	0.04
Aroclor-1260 {2}	9.07	8.16	9.96	1373838	1326911	3.42
Aroclor-1260 {3}	9.54	8.63	10.43	4270920	4146792	2.91
Aroclor-1260 {4}	10.02	9.12	10.92	2029598	1891143	6.82
Aroclor-1260 {5}	11.09	10.18	11.98	1052634	882724	16.14

Data File: Y4387.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.74	3.68	3.82	439963	446015	1.38
Aroclor-1016 {2}	4.35	4.28	4.42	890386	876322	1.58
Aroclor-1016 {3}	5.10	5.03	5.17	2002543	2019937	0.87
Aroclor-1016 {4}	5.31	5.24	5.38	854019	863644	1.13
Aroclor-1016 {5}	5.48	5.41	5.55	663595	665596	0.30
Aroclor-1260	7.85	6.95	8.75	800590	785210	1.92
Aroclor-1260 {2}	8.11	7.20	9.00	1189260	1126867	5.25
Aroclor-1260 {3}	9.70	8.80	10.60	1157705	1104632	4.58
Aroclor-1260 {4}	10.21	9.30	11.10	2891164	2862296	1.00
Aroclor-1260 {5}	10.80	9.89	11.69	2026787	1987570	1.93

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/06/2017 **Instrument ID:** GC-Y

Data File: Y4390.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.29	3.22	3.36	638283	683598	7.10
Aroclor-1016 {2}	4.13	4.06	4.20	868896	899651	3.54
Aroclor-1016 {3}	4.69	4.61	4.75	1156874	1236290	6.86
Aroclor-1016 {4}	5.20	5.12	5.26	565044	576870	2.09
Aroclor-1016 {5}	5.60	5.52	5.66	940904	981125	4.27
Aroclor-1260	8.39	7.48	9.28	3015885	2868209	4.90
Aroclor-1260 {2}	9.07	8.16	9.96	1373838	1253235	8.78
Aroclor-1260 {3}	9.54	8.63	10.43	4270920	3905546	8.55
Aroclor-1260 {4}	10.03	9.12	10.92	2029598	1767656	12.91
Aroclor-1260 {5}	11.09	10.18	11.98	1052634	918447	12.75

Data File: Y4390.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.74	3.68	3.82	439963	451151	2.54
Aroclor-1016 {2}	4.35	4.28	4.42	890386	889769	0.07
Aroclor-1016 {3}	5.10	5.03	5.17	2002543	2044008	2.07
Aroclor-1016 {4}	5.31	5.24	5.38	854019	880189	3.06
Aroclor-1016 {5}	5.48	5.41	5.55	663595	676596	1.96
Aroclor-1260	7.85	6.95	8.75	800590	799699	0.11
Aroclor-1260 {2}	8.10	7.20	9.00	1189260	1152448	3.10
Aroclor-1260 {3}	9.70	8.80	10.60	1157705	1119269	3.32
Aroclor-1260 {4}	10.21	9.30	11.10	2891164	2898362	0.25
Aroclor-1260 {5}	10.79	9.89	11.69	2026787	2004228	1.11

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Y **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 2.82 **DCB 1** 12.18 **TCMX 2** 2.87 **DCB 2** 12.48

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
PCB	BLKS170629-14	07/05/2017	11:51	2.82		12.18		2.87		12.48	
PCB	LCSS170629-14	07/05/2017	12:09	2.82		12.18		2.87		12.48	
PCB	E17-05390-001MS	07/05/2017	12:26	2.82		12.18		2.87		12.48	
PCB	E17-05390-001MSD	07/05/2017	12:44	2.82		12.18		2.87		12.48	
PCG-50-0	E17-05390-001	07/05/2017	13:01	2.82		12.18		2.87		12.49	
PCG-50-0	E17-05390-002	07/05/2017	13:18	2.82		12.18		2.87		12.49	
PCG-50-0	E17-05390-003	07/05/2017	13:36	2.82		12.18		2.87		12.49	
PCG-50-0	E17-05390-004	07/05/2017	13:53	2.82		12.18		2.87		12.48	
PCG-50-0	E17-05390-005	07/05/2017	14:10	2.82		12.18		2.87		12.52	
PCG-50-0	E17-05390-006	07/05/2017	14:28	2.82		12.18		2.87		12.60	M
PCG-450-	E17-05391-001	07/05/2017	14:45	2.82		12.18		2.87		12.48	
PCG-450-	E17-05391-002	07/05/2017	15:03	2.82		12.18		2.87		12.48	
PCG-450-	E17-05391-003	07/05/2017	15:20	2.82		12.18		2.87		12.48	
PCG-450-	E17-05391-004	07/05/2017	15:37	2.82		12.18		2.87		12.48	
PCG-450-	E17-05391-005	07/05/2017	15:55	2.82		12.18		2.87		12.49	
PCG-450-	E17-05391-006	07/05/2017	16:12	0.00	D	0.00	D	0.00	D	0.00	D
PCG-450-	E17-05391-007	07/05/2017	16:30	2.82		12.18		2.87		12.49	
PCG-450-	E17-05391-008	07/05/2017	16:47	2.82		12.17		2.87		12.48	
PCG-450-	E17-05391-009	07/05/2017	17:05	2.82		12.18		2.87		12.48	
PCG-450-	E17-05391-006DL	07/06/2017	09:54	0.00	D	0.00	D	0.00	D	0.00	D

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4371.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 14:45
Operator : IB
Sample : PCG-450-,E17-05391-001,Xs,5.30g,0,20
Misc : 170629-14,06/29/17,06/29/17,5
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 15:27:39 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.87	1475.3E6	949.3E6	36.979	35.813
Spiked Amount 200.000			Recovery =		18.49%	17.91%
2) S DCB	12.18	12.48	1016.5E6	786.8E6	25.693	28.901m
Spiked Amount 200.000			Recovery =		12.85%	14.45%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

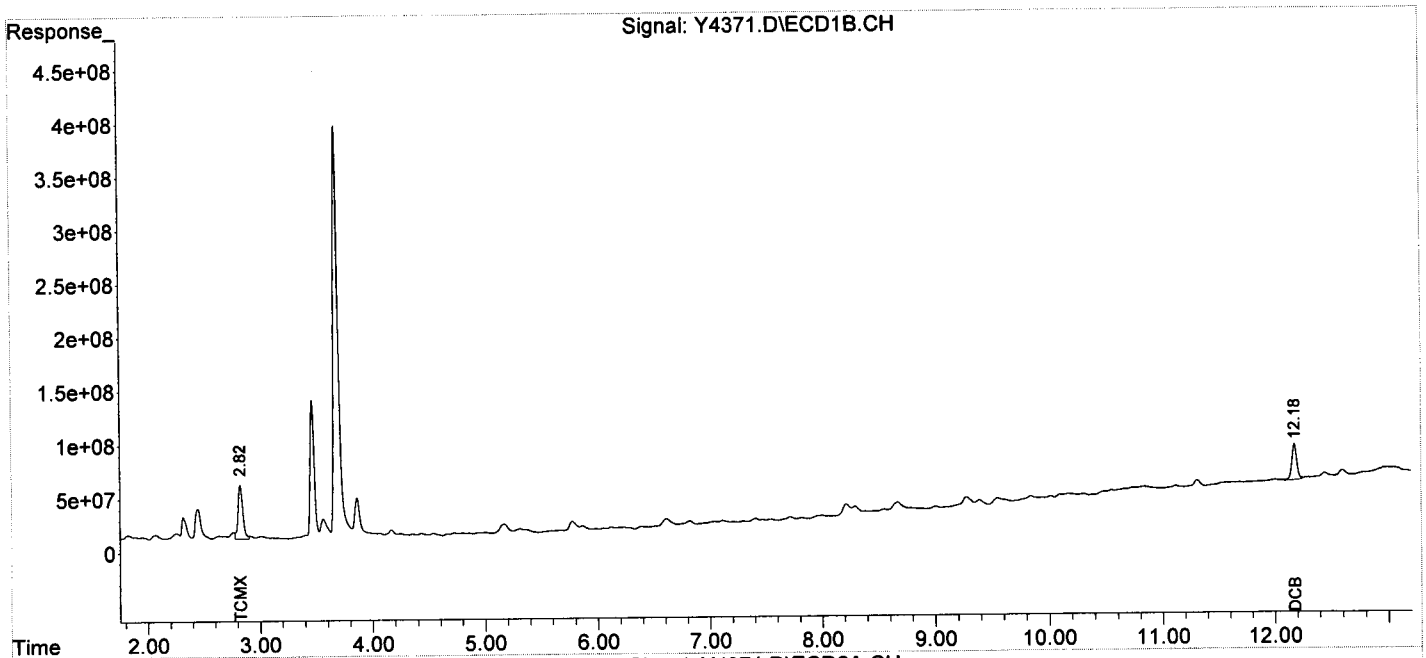
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

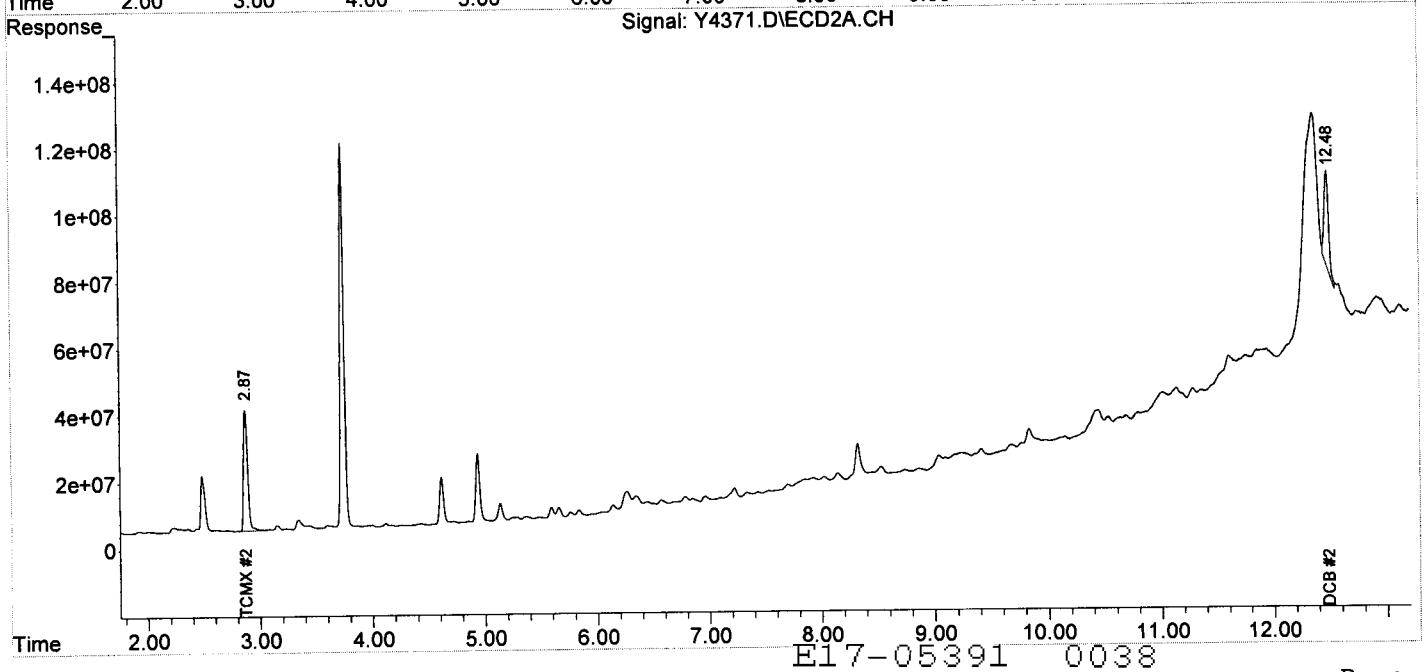
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4371.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 14:45
Operator : IB
Sample : PCG-450-,E17-05391-001,Xs,5.30g,0,20
Misc : 170629-14,06/29/17,06/29/17,5
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 15:27:39 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4372.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 15:03
Operator : IB
Sample : PCG-450-,E17-05391-002,Xs,5.31g,0,20
Misc : 170629-14,06/29/17,06/29/17,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 15:34:08 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.87	6660.1E6	5215.6E6	166.940	196.759
Spiked Amount 200.000			Recovery	=	83.47%	98.38%
2) S DCB	12.18	12.48	4882.8E6	6354.1E6	123.416	233.403m#
Spiked Amount 200.000			Recovery	=	61.71%	116.70%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
43) L10 Aroclor-1268	10.17	10.70	1866.3E6	1723.2E6	295.468m	417.039m#
44) L10 Aroclor-1268 {2}	10.26	10.79	2151.8E6	2236.9E6	312.179m	545.853m#
45) L10 Aroclor-1268 {3}	10.73	11.04	706.9E6	437.3E6	123.183m	124.691m
46) L10 Aroclor-1268 {4}	10.86	11.83	349.6E6	639.2E6	242.168m	450.488m#
47) L10 Aroclor-1268 {5}	11.69	12.26	803.6E6	621.5E6	46.883m	57.454m
Sum Aroclor-1268			5878.2E6	5658.1E6	1019.881	1595.524
Average Aroclor-1268					203.976	319.105

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

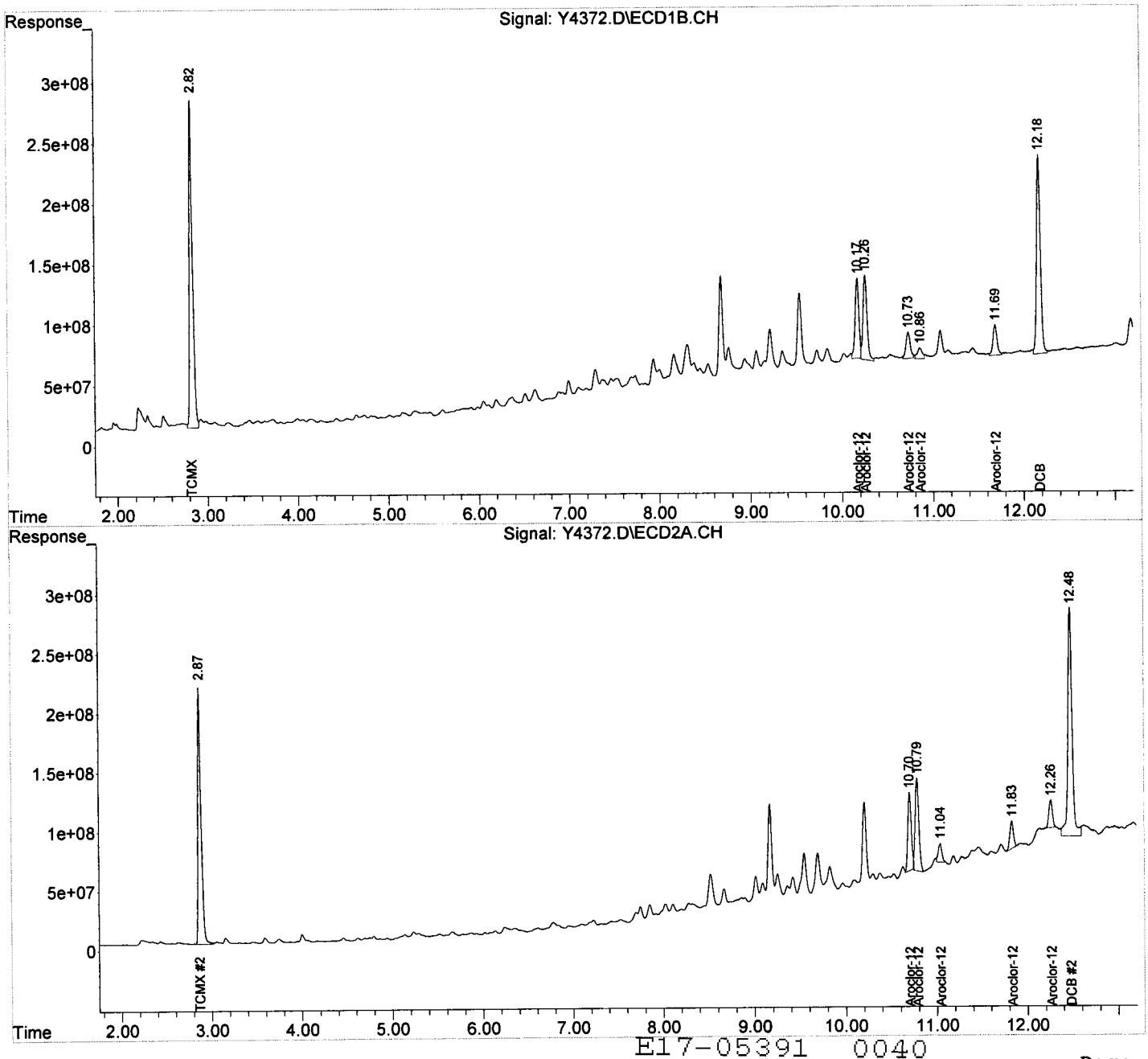
E17-05391 0039

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4372.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 15:03
Operator : IB
Sample : PCG-450-,E17-05391-002,Xs,5.31g,0,20
Misc : 170629-14,06/29/17,06/29/17,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 15:34:08 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4373.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 15:20
Operator : IB
Sample : PCG-450-,E17-05391-003,Xs,5.58g,0,20
Misc : 170629-14,06/29/17,06/29/17,10
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 15:35:23 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

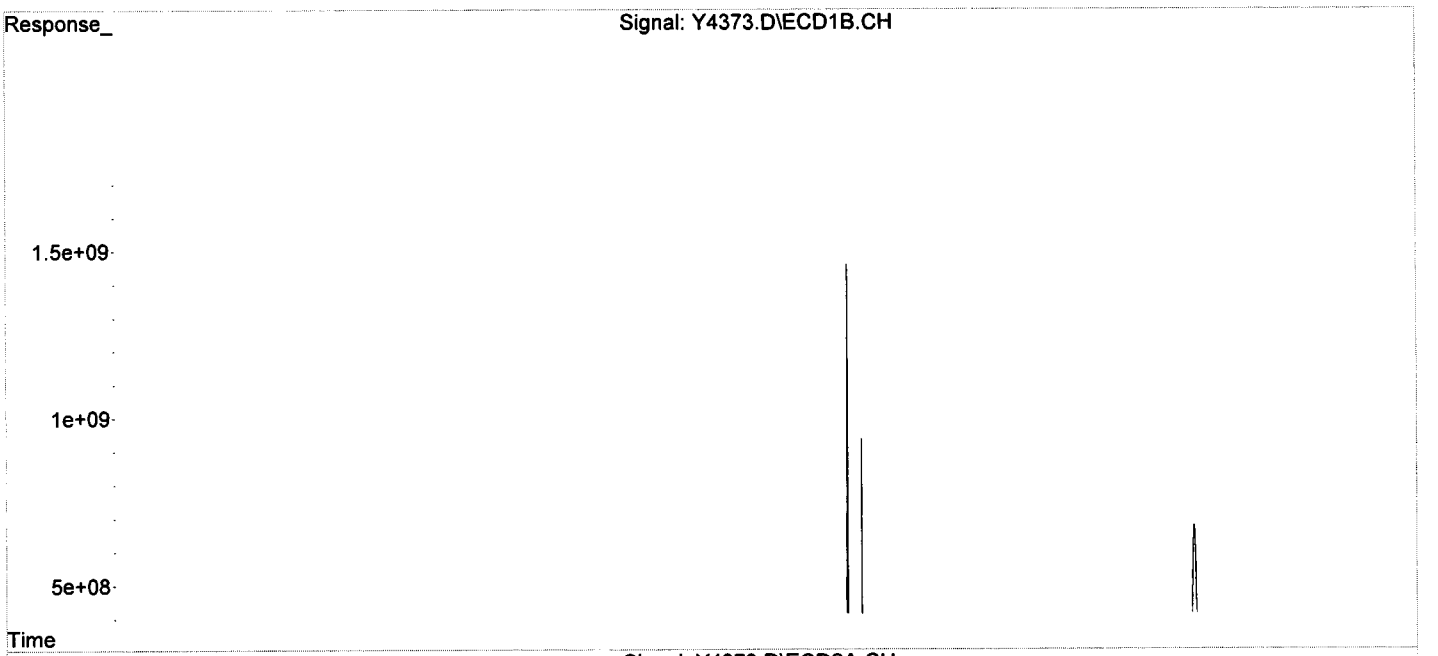
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.87	727.7E6	492.2E6	18.240	18.570m
Spiked Amount 200.000			Recovery =		9.12%	9.29%
2) S DCB	12.18	12.48	751.9E6	485.2E6	19.005m	17.824m
Spiked Amount 200.000			Recovery =		9.50%	8.91%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

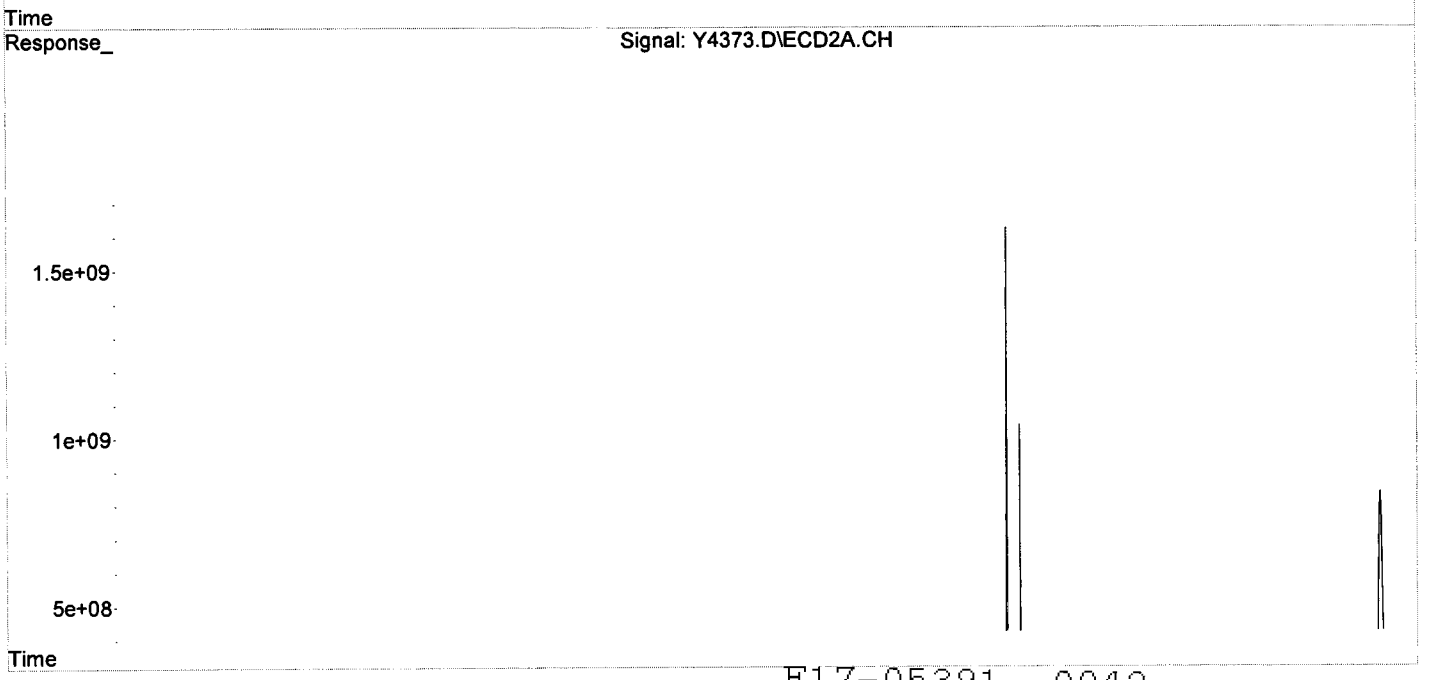
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4373.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 15:20
Operator : IB
Sample : PCG-450-,E17-05391-003,Xs,5.58g,0,20
Misc : 170629-14,06/29/17,06/29/17,10
ALS Vial : 14 Sample Multiplier: 1

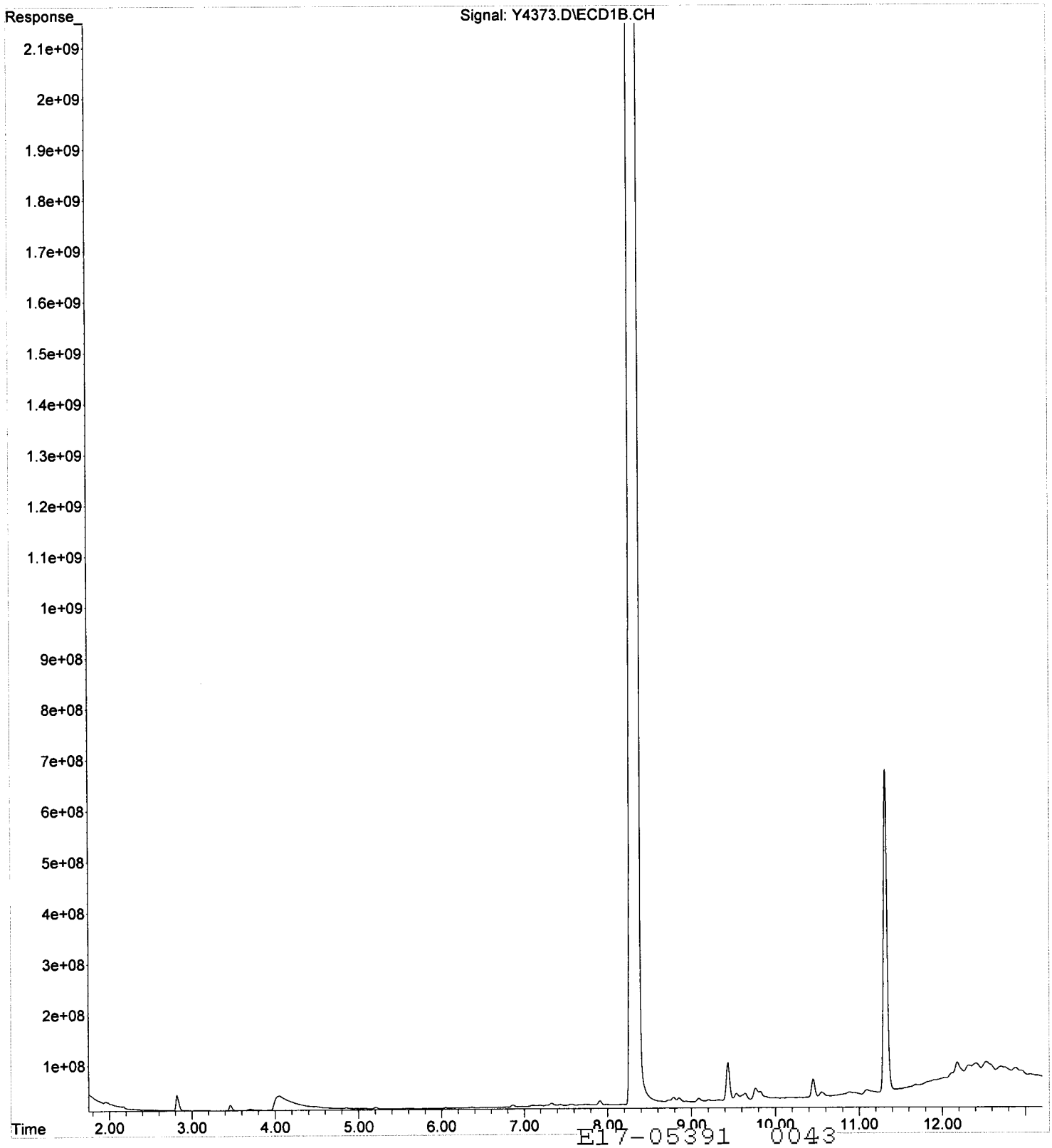
Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 15:35:23 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



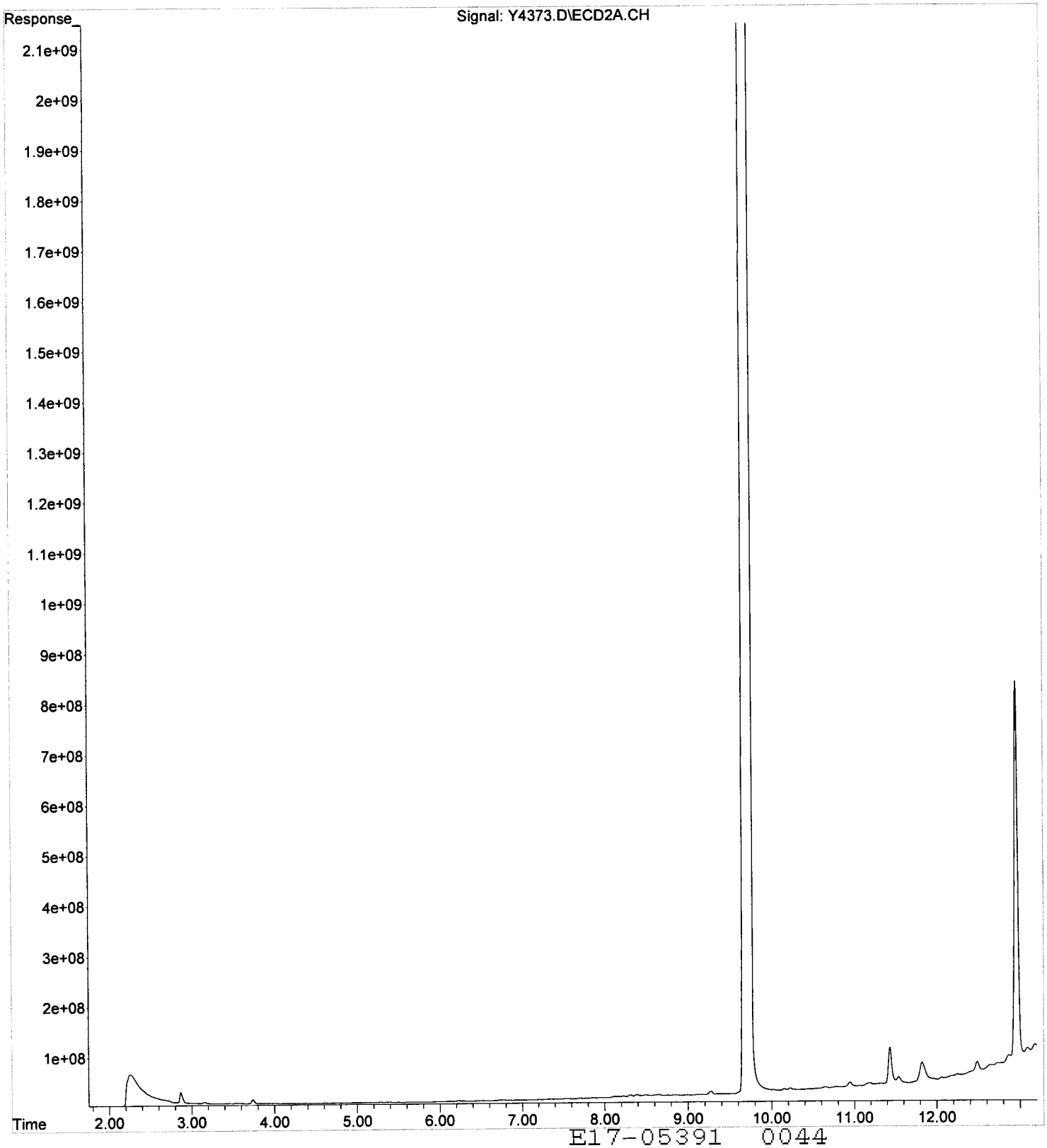


File :C:\MSDCHEM\1\DATA\17-07-05\Y4373.D
Operator : IB
Acquired : 05 Jul 2017 15:20 using AcqMethod YPCB0616.M
Instrument : GC-Y
Sample Name: PCG-450-,E17-05391-003,Xs,5.58g,0,20
Misc Info : 170629-14,06/29/17,06/29/17,10
Vial Number: 14



E17-05391 0043

File :C:\MSDCHEM\1\DATA\17-07-05\Y4373.D
Operator : IB
Acquired : 05 Jul 2017 15:20 using AcqMethod YPCB0616.M
Instrument : GC-Y
Sample Name: PCG-450-,E17-05391-003,Xs,5.58g,0,20
Misc Info : 170629-14,06/29/17,06/29/17,10
Vial Number: 14



E17-05391 0044

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4374.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 15:37
Operator : IB
Sample : PCG-450-,E17-05391-004,Xs,5.23g,0,20
Misc : 170629-14,06/29/17,06/29/17,5
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 16:17:01 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.87	1460.3E6	1048.4E6	36.604	39.552
Spiked Amount 200.000			Recovery	=	18.30%	19.78%
2) S DCB	12.18	12.48	962.7E6	1042.8E6	24.333m	38.306m#
Spiked Amount 200.000			Recovery	=	12.17%	19.15%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

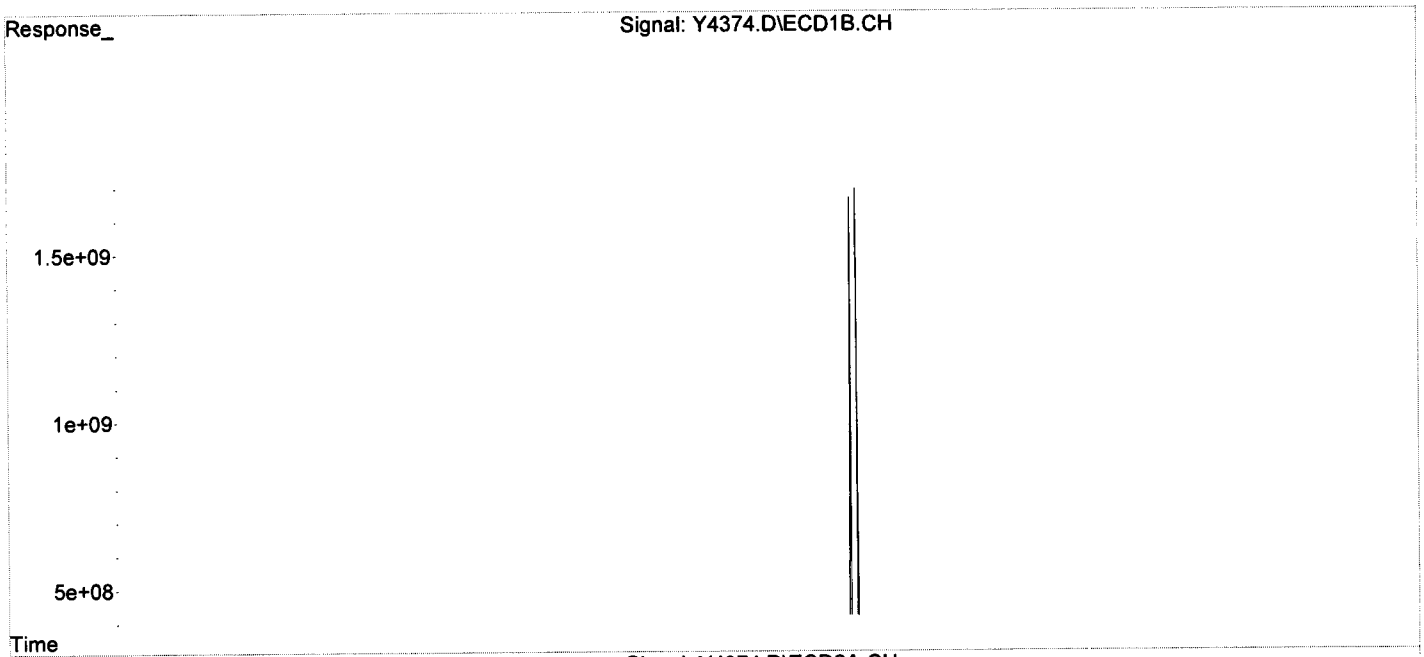
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

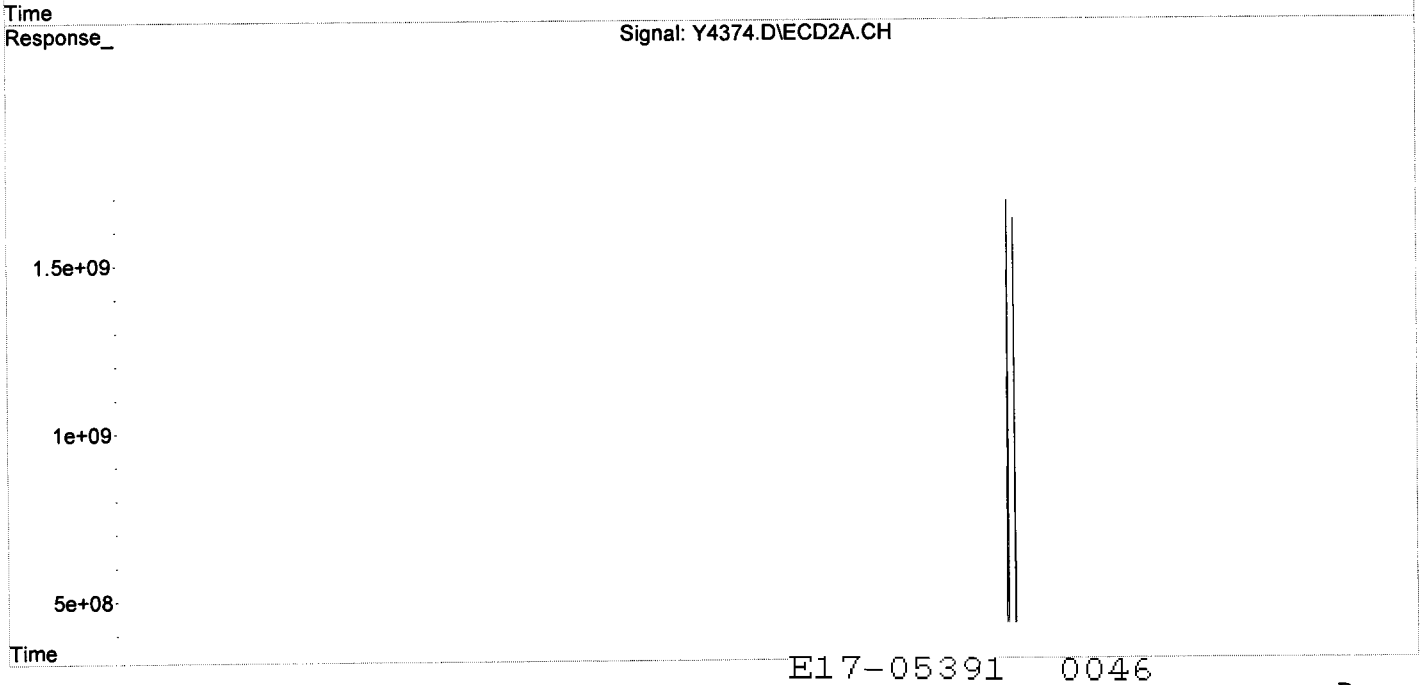
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4374.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 15:37
Operator : IB
Sample : PCG-450-,E17-05391-004,Xs,5.23g,0,20
Misc : 170629-14,06/29/17,06/29/17,5
ALS Vial : 15 Sample Multiplier: 1

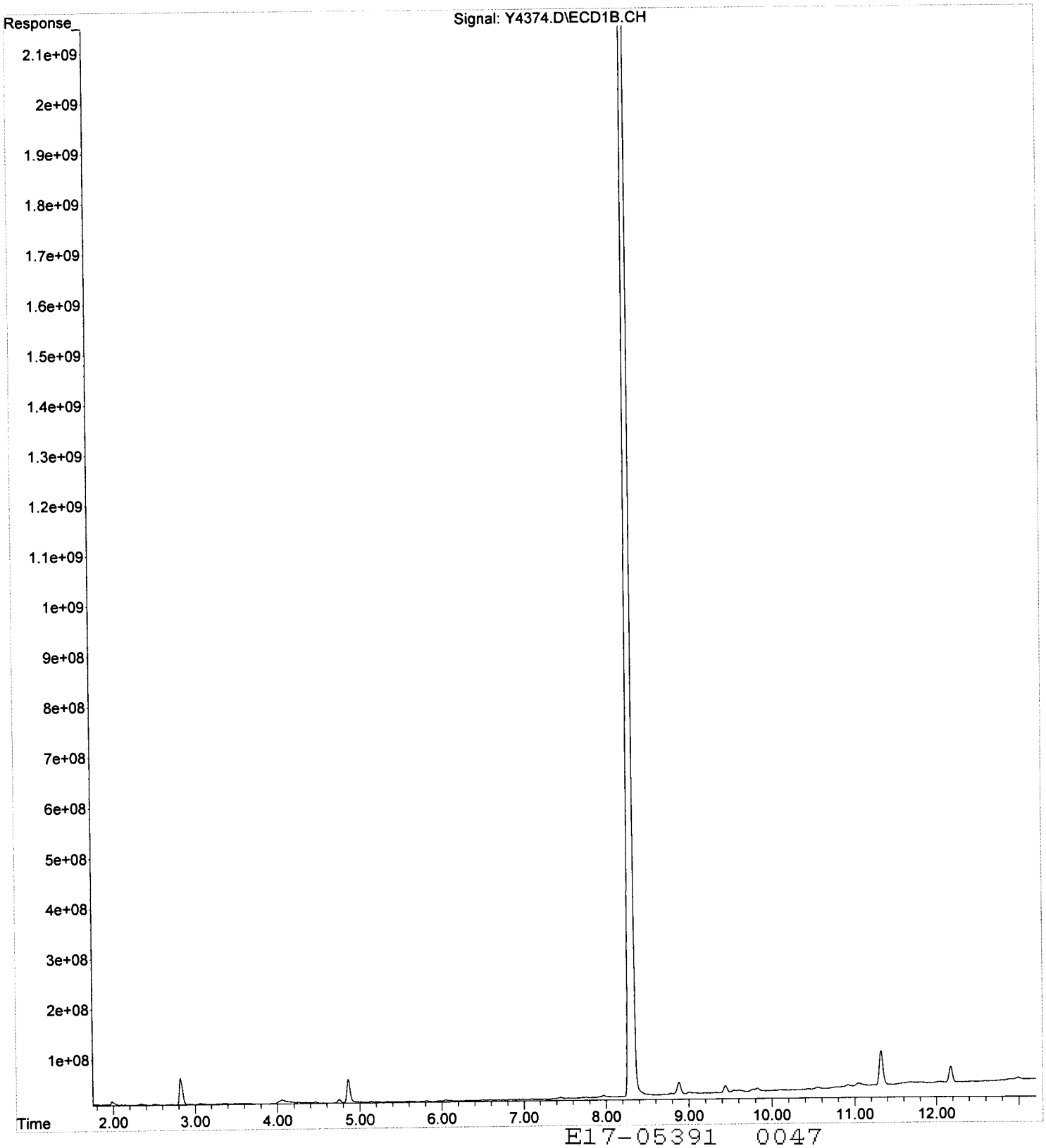
Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 16:17:01 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



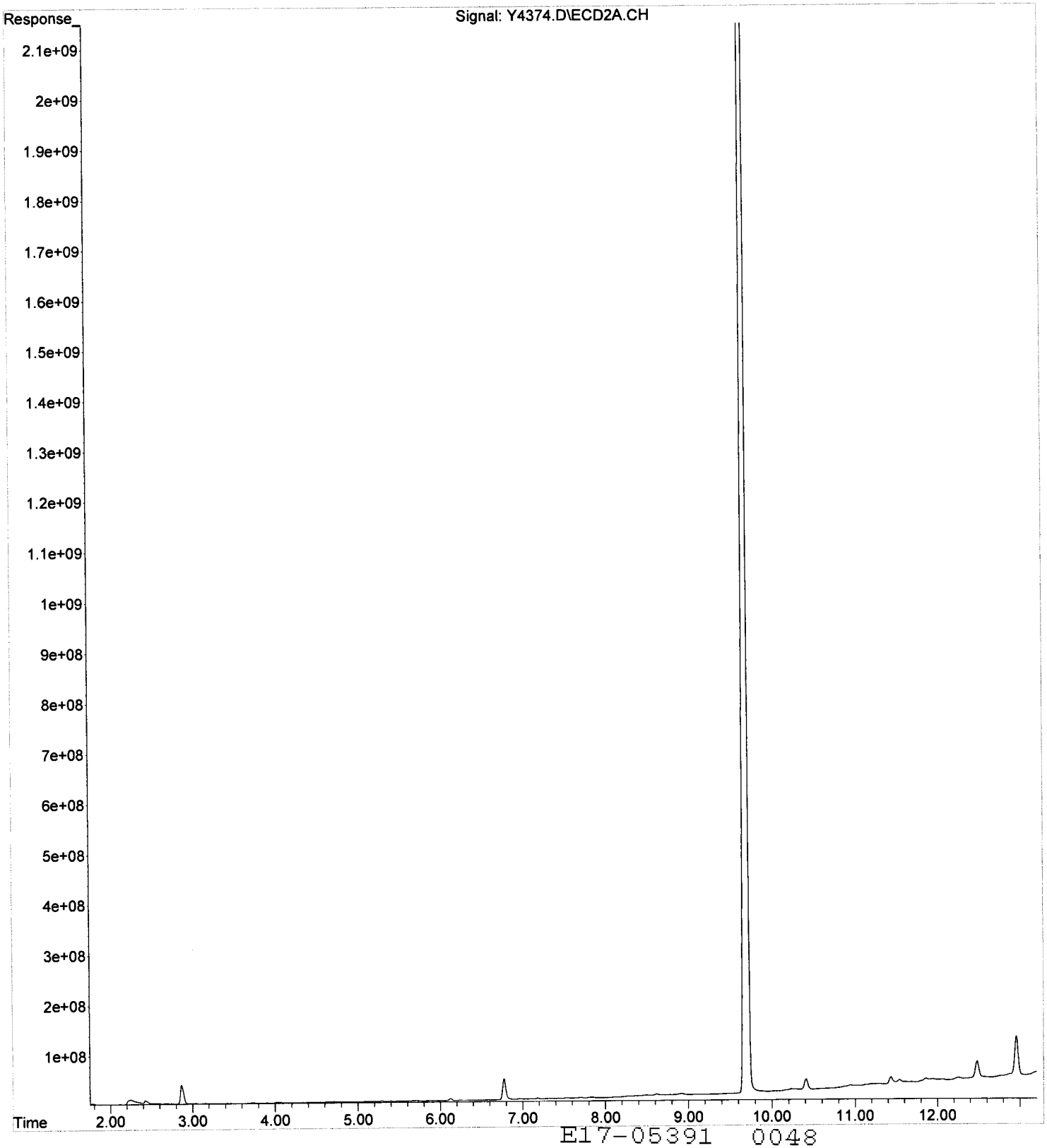


File :C:\MSDCHEM\1\DATA\17-07-05\Y4374.D
Operator : IB
Acquired : 05 Jul 2017 15:37 using AcqMethod YPCB0616.M
Instrument : GC-Y
Sample Name: PCG-450-,E17-05391-004,Xs,5.23g,0,20
Misc Info : 170629-14,06/29/17,06/29/17,5
Vial Number: 15



E17-05391 0047

File :C:\MSDCHEM\1\DATA\17-07-05\Y4374.D
Operator : IB
Acquired : 05 Jul 2017 15:37 using AcqMethod YPCB0616.M
Instrument : GC-Y
Sample Name: PCG-450-,E17-05391-004,Xs,5.23g,0,20
Misc Info : 170629-14,06/29/17,06/29/17,5
Vial Number: 15



E17-05391 0048

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4375.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 15:55
Operator : IB
Sample : PCG-450-,E17-05391-005,Xs,5.20g,0,20
Misc : 170629-14,06/29/17,06/29/17,10
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 16:20:03 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.87	758.3E6	492.5E6	19.007	18.581
Spiked Amount 200.000			Recovery =		9.50%	9.29%
2) S DCB	12.18	12.49	509.0E6	610.6E6	12.864	22.428m#
Spiked Amount 200.000			Recovery =		6.43%	11.21%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

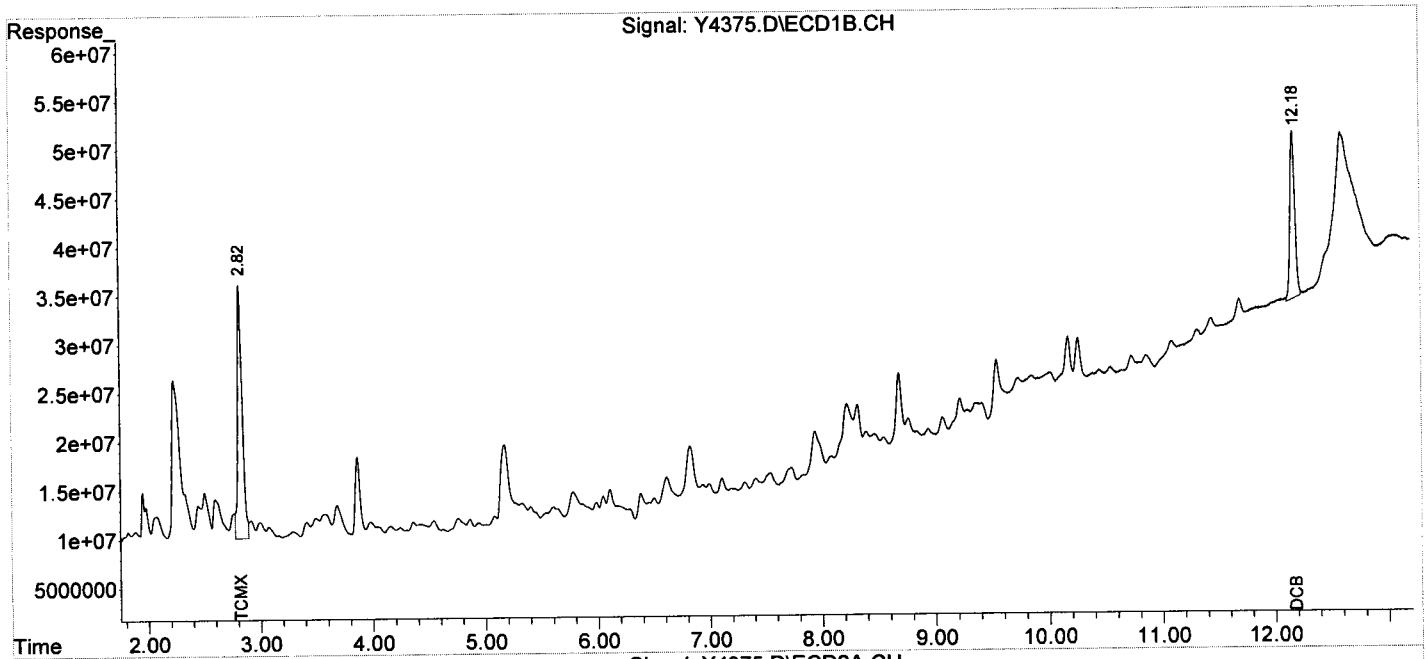
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

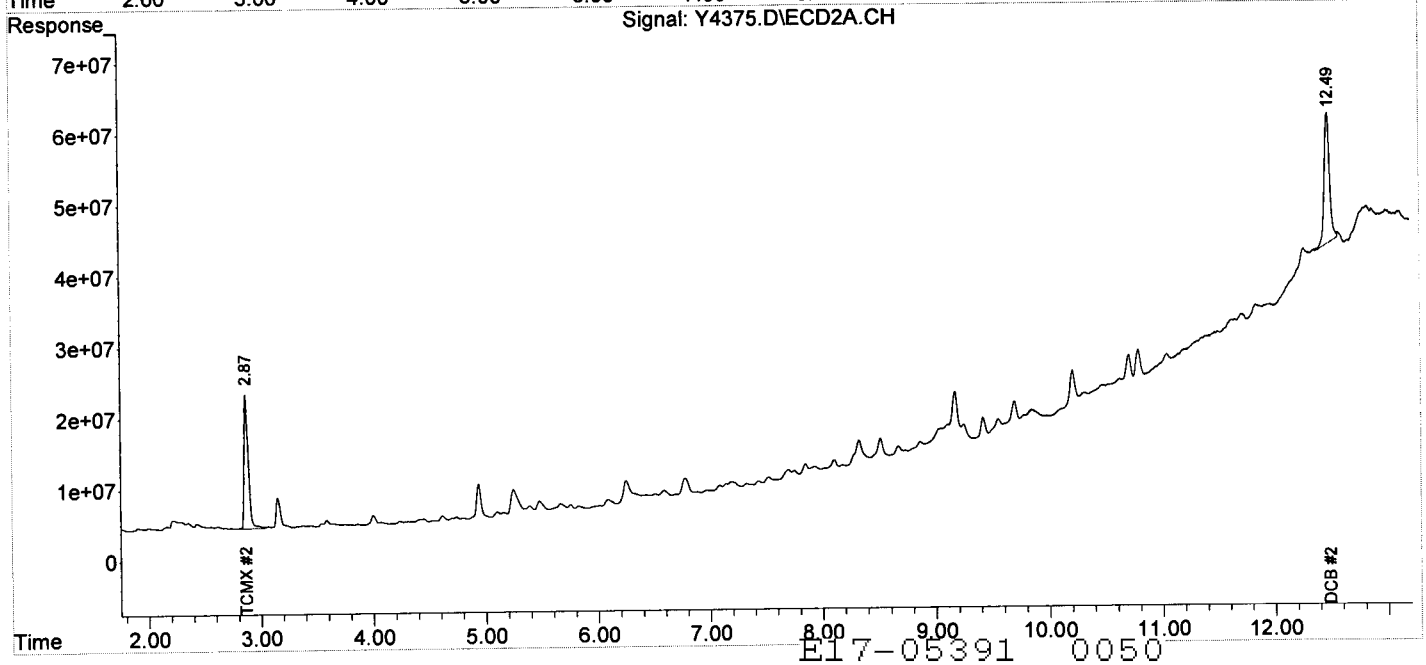
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4375.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 15:55
Operator : IB
Sample : PCG-450-,E17-05391-005,Xs,5.20g,0,20
Misc : 170629-14,06/29/17,06/29/17,10
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 16:20:03 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4376.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 16:12
Operator : IB
Sample : PCG-450-,E17-05391-006,Xs,5.62g,0,20
Misc : 170629-14,06/29/17,06/29/17,2000
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 06 08:39:27 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
43) L10 Aroclor-1268		10.17	10.70	30195.3E6	27964.6E6	4780.335	6767.974 #
44) L10 Aroclor-1268	{2}	10.26	10.79	34651.5E6	33856.2E6	5027.172	8261.669 #
45) L10 Aroclor-1268	{3}	10.73	11.04	11148.9E6	8062.1E6	1942.863	2298.777
46) L10 Aroclor-1268	{4}	10.86	11.83	3750.0E6	22511.1E6	2597.445	15865.330 #
47) L10 Aroclor-1268	{5}	11.69	12.26	39969.7E6	43884.3E6	2331.914	4056.831 #
Sum Aroclor-1268				119715.5E6	136278.3E6	16679.730	37250.581
Average Aroclor-1268						3335.946	7450.116

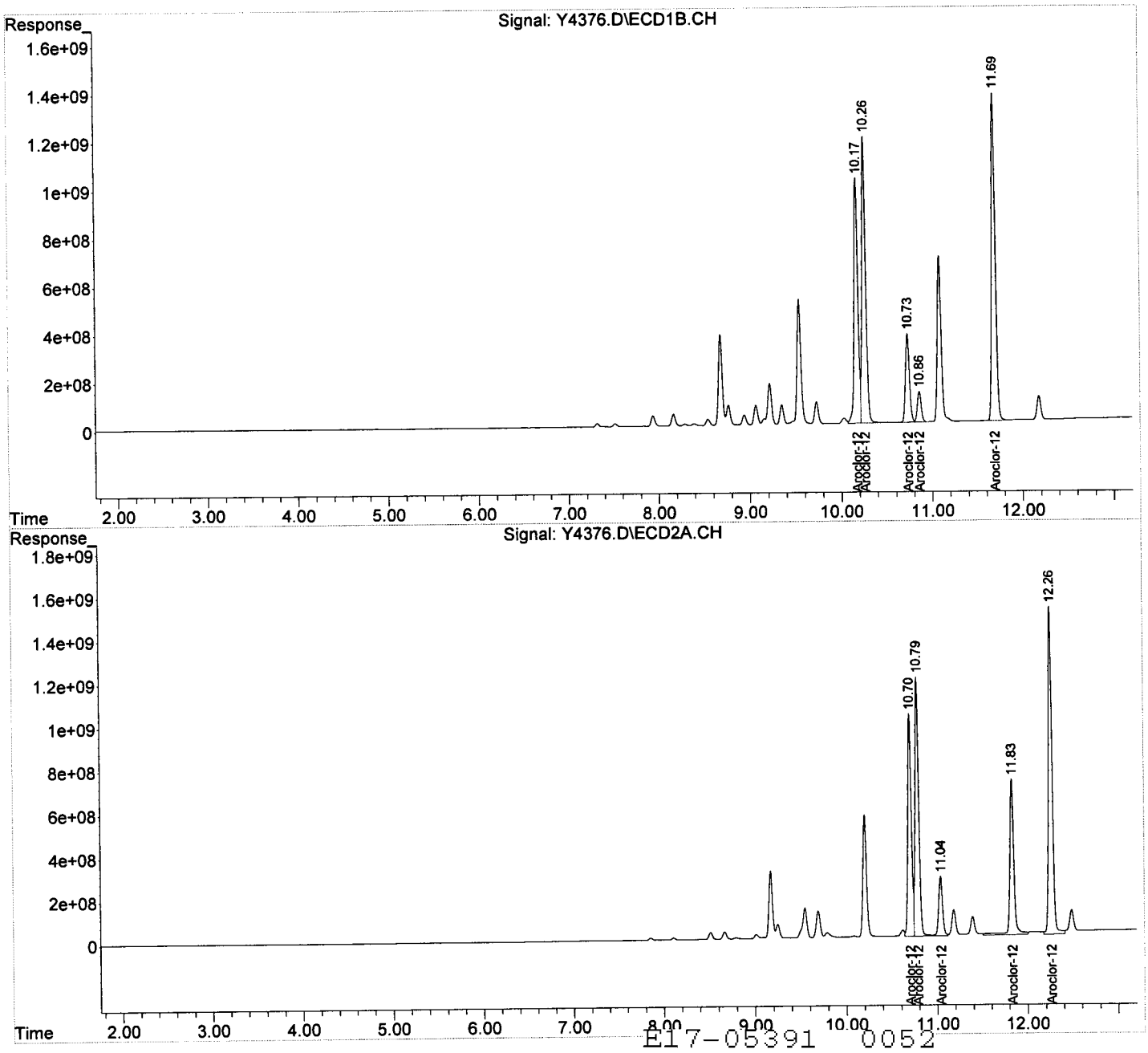
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4376.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 16:12
Operator : IB
Sample : PCG-450-,E17-05391-006,Xs,5.62g,0,20
Misc : 170629-14,06/29/17,06/29/17,2000
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 06 08:39:27 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-06\
Data File : Y4389.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 06 Jul 2017 9:54
Operator : IB
Sample : PCG-450-,E17-05391-006DL,Xs,5.62g,0,20
Misc : 170629-14,06/29/17,06/29/17,20000
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 06 10:07:07 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Thu Jul 06 09:50:54 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
43) L10 Aroclor-1268	10.17	10.70	3264.0E6	2530.9E6	516.731	612.530
44) L10 Aroclor-1268 {2}	10.26	10.79	3827.2E6	3076.8E6	555.240	750.817 #
45) L10 Aroclor-1268 {3}	10.73	11.04	1241.9E6	756.4E6	216.421	215.669
46) L10 Aroclor-1268 {4}	10.86	11.83	492.0E6	1841.4E6	340.787	1297.800 #
47) L10 Aroclor-1268 {5}	11.69	12.26	4213.4E6	3957.9E6	245.820	365.885 #
Sum Aroclor-1268			13038.5E6	12163.5E6	1874.999	3242.701
Average Aroclor-1268					375.000	648.540

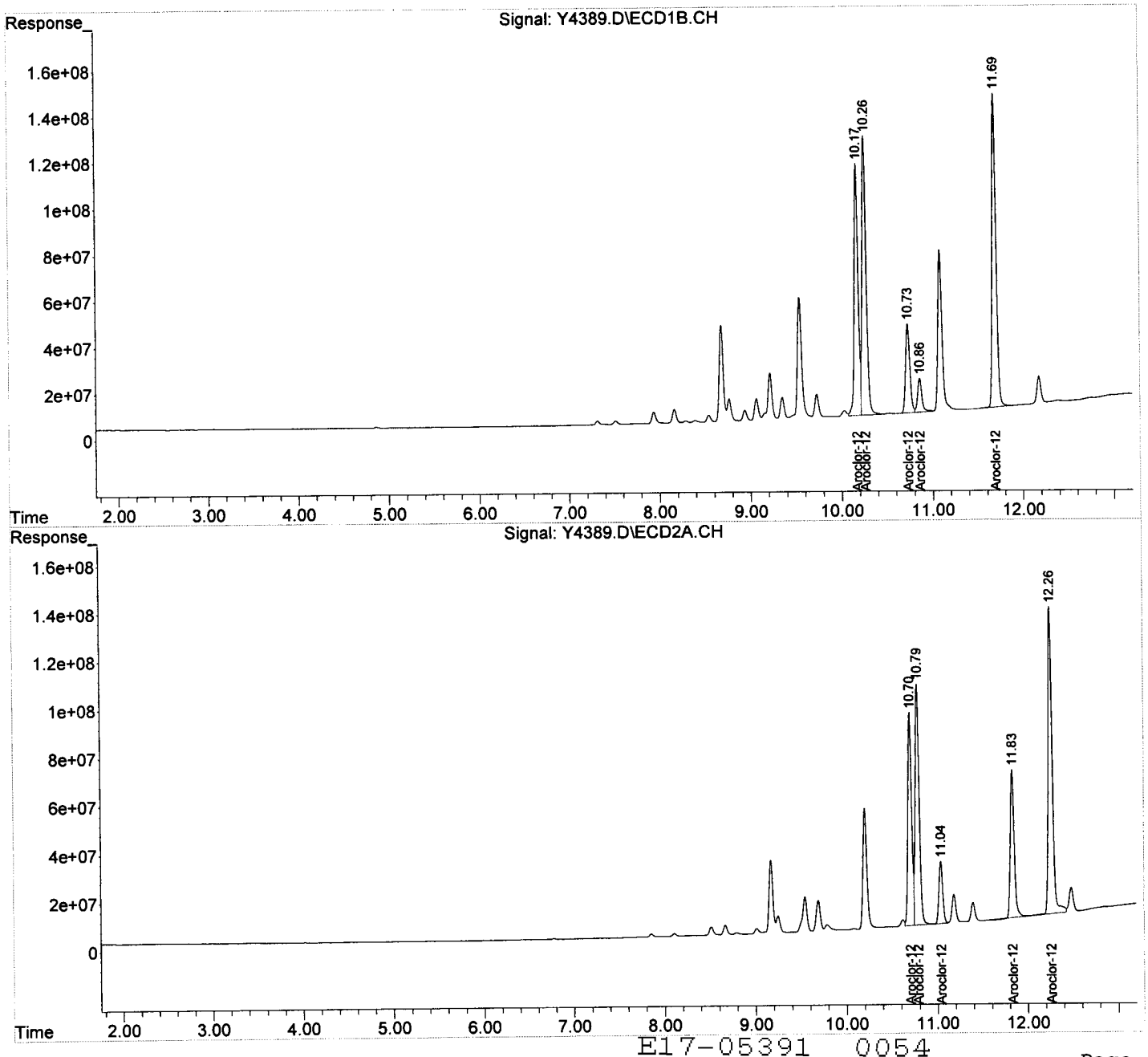
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-06\
Data File : Y4389.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 06 Jul 2017 9:54
Operator : IB
Sample : PCG-450-,E17-05391-006DL,Xs,5.62g,0,20
Misc : 170629-14,06/29/17,06/29/17,20000
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 06 10:07:07 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Thu Jul 06 09:50:54 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4377.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 16:30
Operator : IB
Sample : PCG-450-,E17-05391-007,Xs,5.73g,0,20
Misc : 170629-14,06/29/17,06/29/17,1
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 06 08:45:12 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.87	6720.7E6	5118.4E6	168.458	193.092
Spiked Amount 200.000			Recovery =		84.23%	96.55%
2) S DCB	12.18	12.49	5325.7E6	6272.2E6	134.611m	230.394m#
Spiked Amount 200.000			Recovery =		67.31%	115.20%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

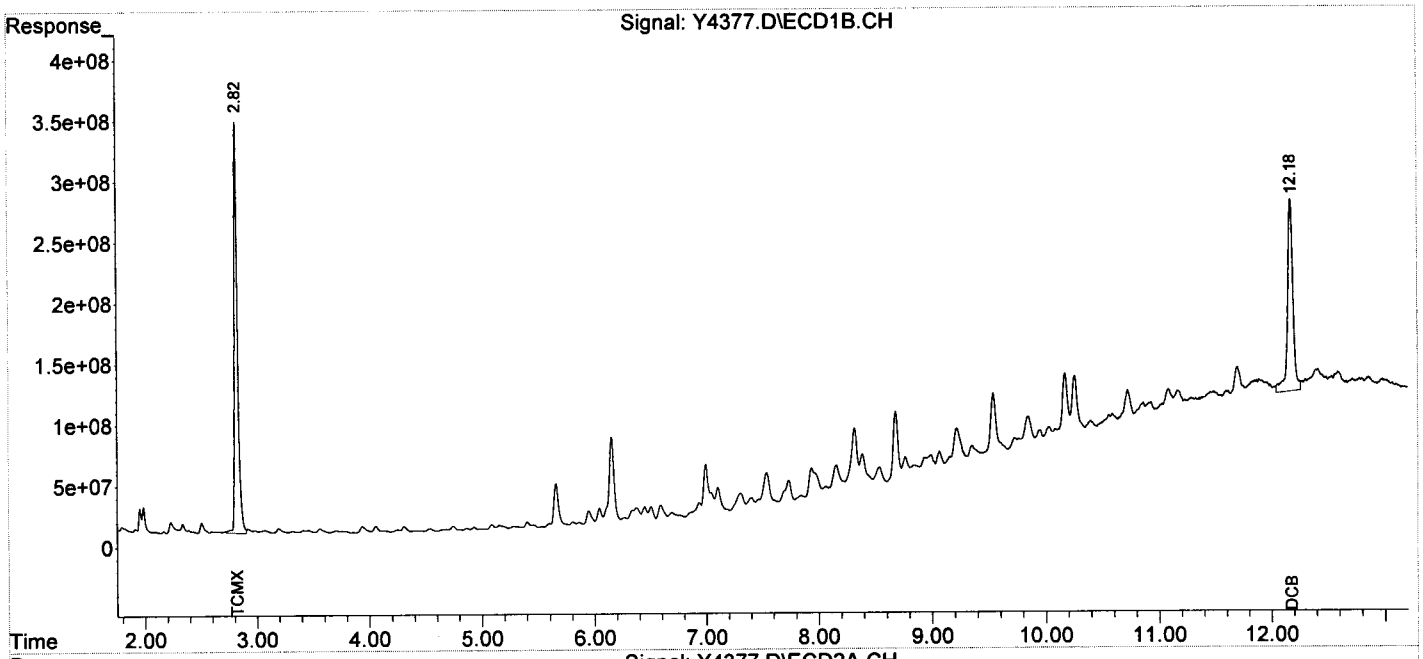
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

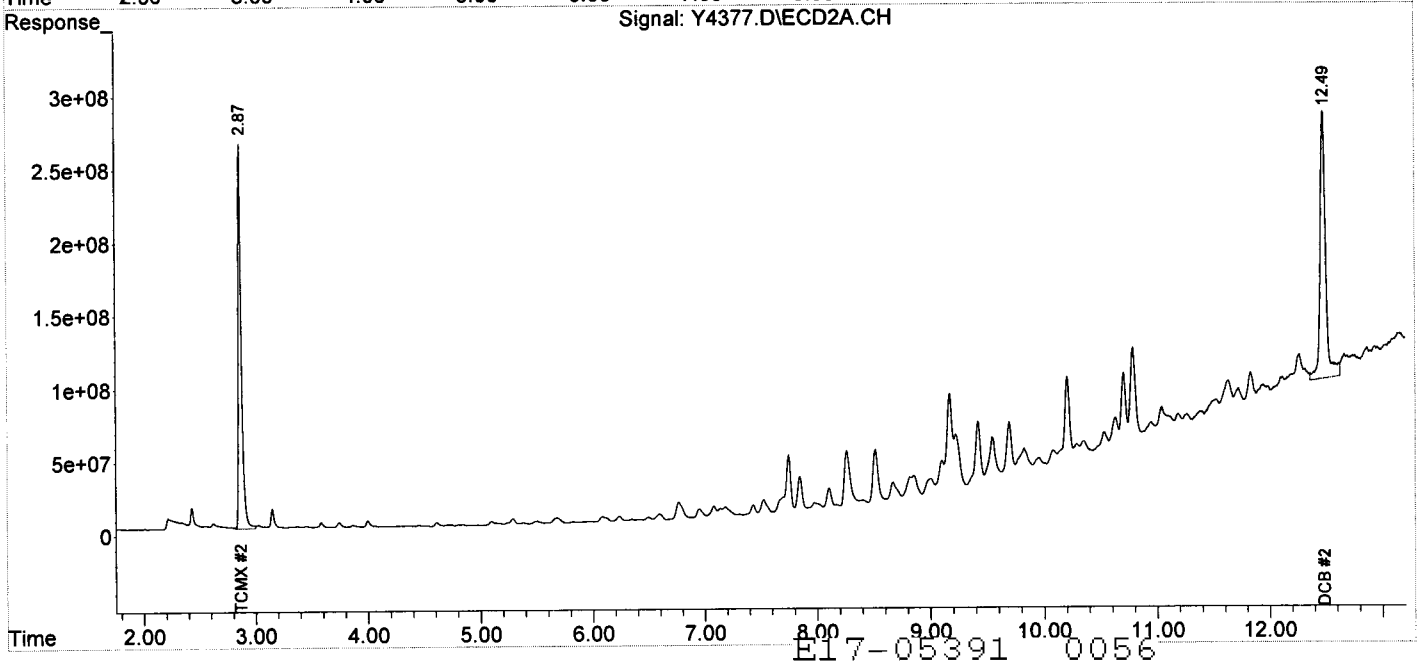
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4377.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 16:30
Operator : IB
Sample : PCG-450-,E17-05391-007,Xs,5.73g,0,20
Misc : 170629-14,06/29/17,06/29/17,1
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 06 08:45:12 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4378.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 16:47
Operator : IB
Sample : PCG-450-,E17-05391-008,Xs,5.63g,0,20
Misc : 170629-14,06/29/17,06/29/17,40
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 06 08:46:53 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.87	158.7E6	110.3E6	3.977	4.159m
Spiked Amount 200.000			Recovery	=	1.99%	2.08%
2) S DCB	12.17	12.48	213.0E6	182.4E6	5.384m	6.699m
Spiked Amount 200.000			Recovery	=	2.69%	3.35%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

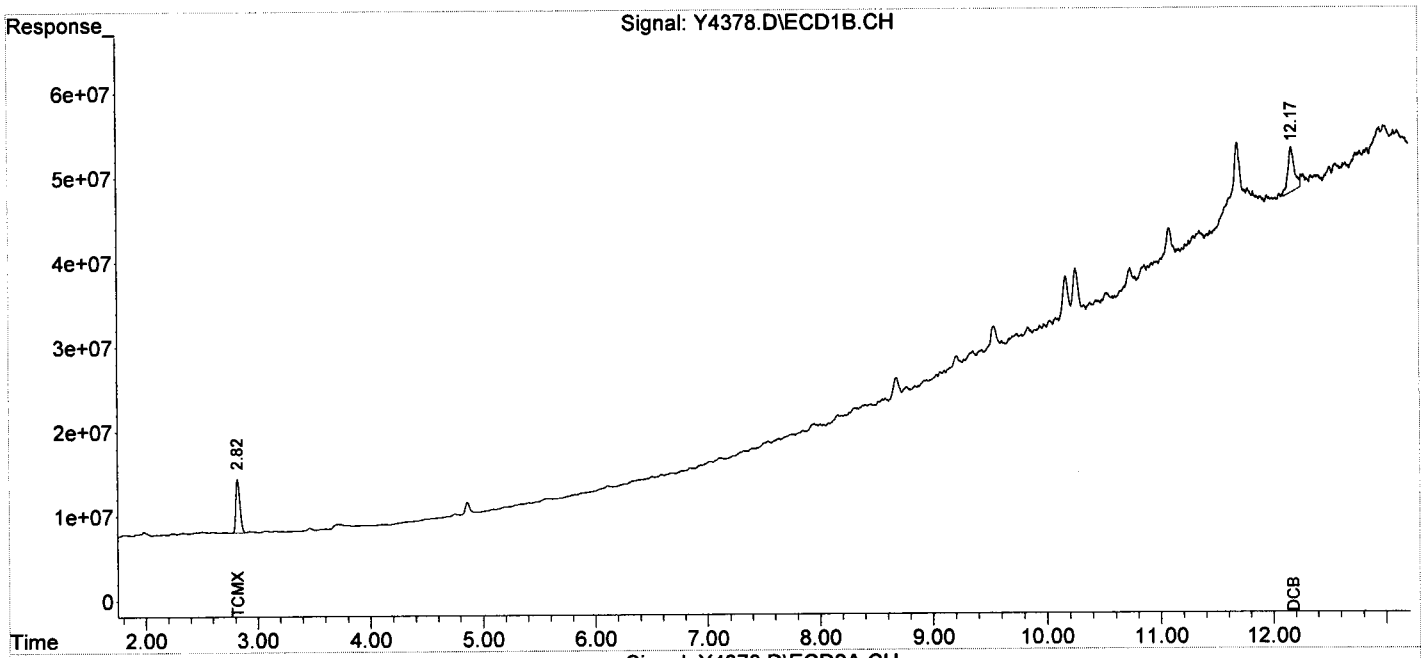
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

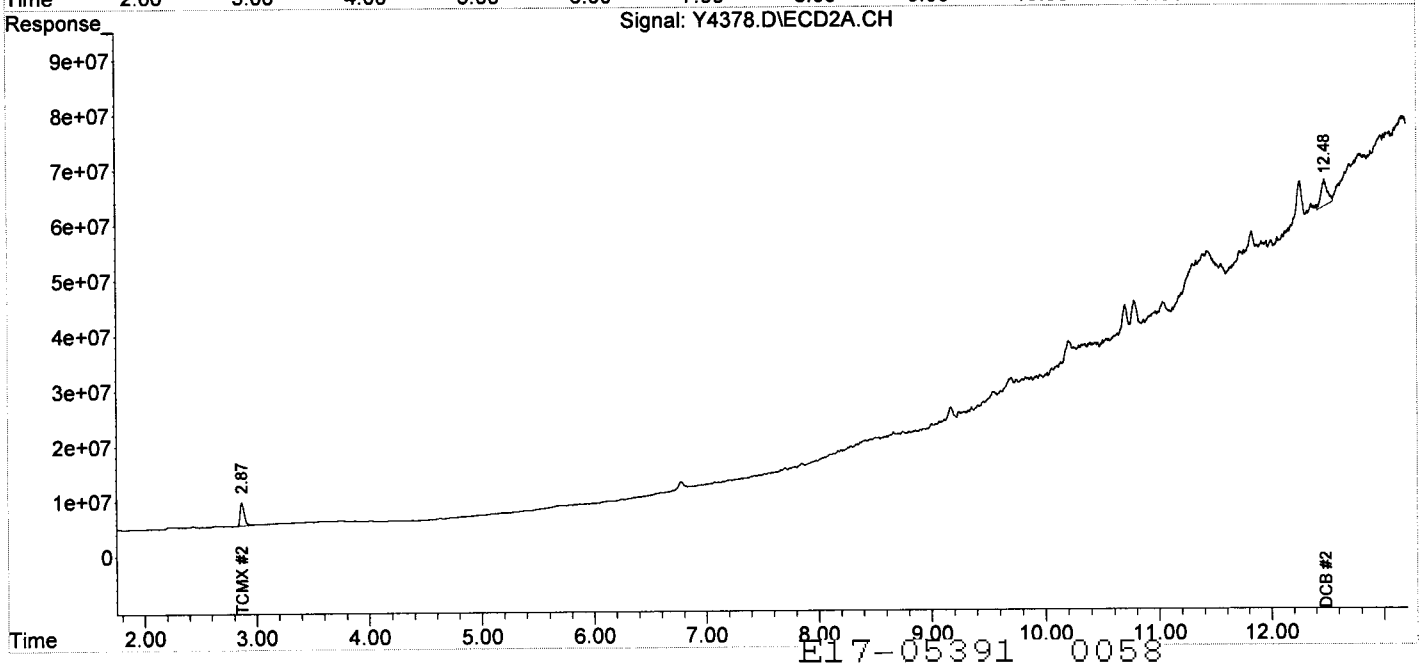
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4378.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 16:47
Operator : IB
Sample : PCG-450-,E17-05391-008,Xs,5.63g,0,20
Misc : 170629-14,06/29/17,06/29/17,40
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 06 08:46:53 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4379.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 17:05
Operator : IB
Sample : PCG-450-,E17-05391-009,Xs,5.58g,0,20
Misc : 170629-14,06/30/17,06/29/17,10
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 06 08:47:45 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.87	782.6E6	530.1E6	19.617	19.997m
Spiked Amount 200.000			Recovery	=	9.81%	10.00%
2) S DCB	12.18	12.48	649.3E6	690.8E6	16.412m	25.375m#
Spiked Amount 200.000			Recovery	=	8.21%	12.69%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

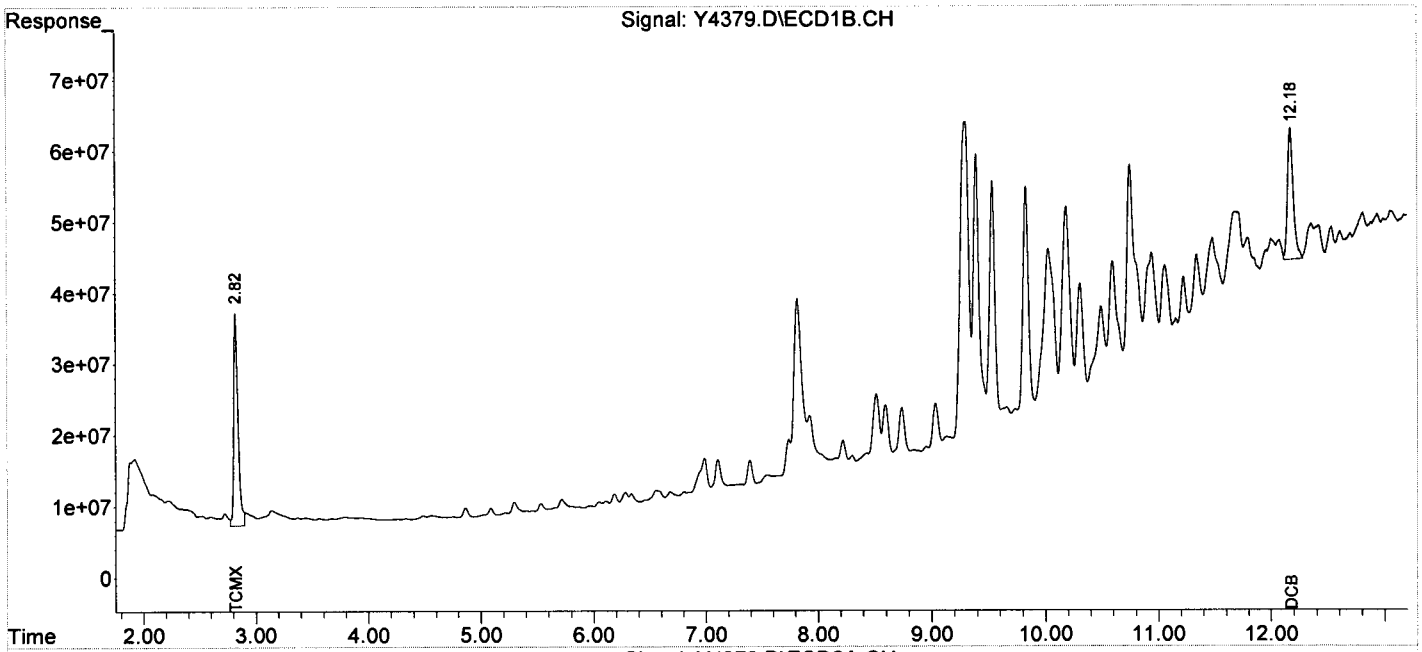
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

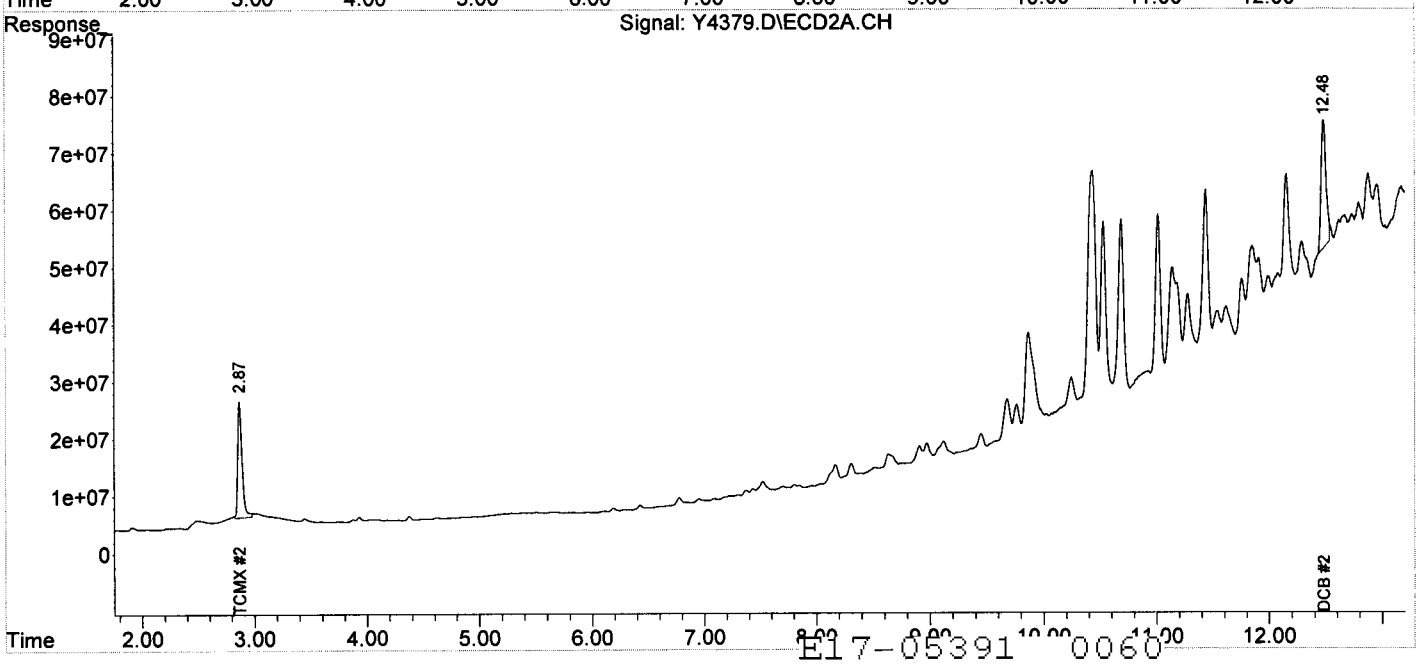
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4379.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 17:05
Operator : IB
Sample : PCG-450-,E17-05391-009,Xs,5.58g,0,20
Misc : 170629-14,06/30/17,06/29/17,10
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 06 08:47:45 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





E17-05391 0060

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKS170629-14
Client ID: PCB
Date Received: NA
Date Extracted: 06/29/2017
Date Analyzed: 07/05/2017
Data file: Y4361.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.040	0.016
Aroclor-1221	ND		0.040	0.016
Aroclor-1232	ND		0.040	0.016
Aroclor-1242	ND		0.040	0.016
Aroclor-1248	ND		0.040	0.016
Aroclor-1254	ND		0.040	0.016
Aroclor-1260	ND		0.040	0.016
Aroclor-1262	ND		0.040	0.016
Aroclor-1268	ND		0.040	0.016
PCBs	ND		0.040	0.016

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

E17-05391 0061

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4361.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 11:51
Operator : IB
Sample : PCB,BLKS170629-14,S,5g,0,20
Misc : 170629-14,06/29/17,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 13:43:08 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.87	7551.8E6	4969.5E6	189.291	187.478
Spiked Amount 200.000			Recovery	=	94.65%	93.74%
2) S DCB	12.18	12.48	5022.9E6	4592.4E6	126.957	168.693 #
Spiked Amount 200.000			Recovery	=	63.48%	84.35%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

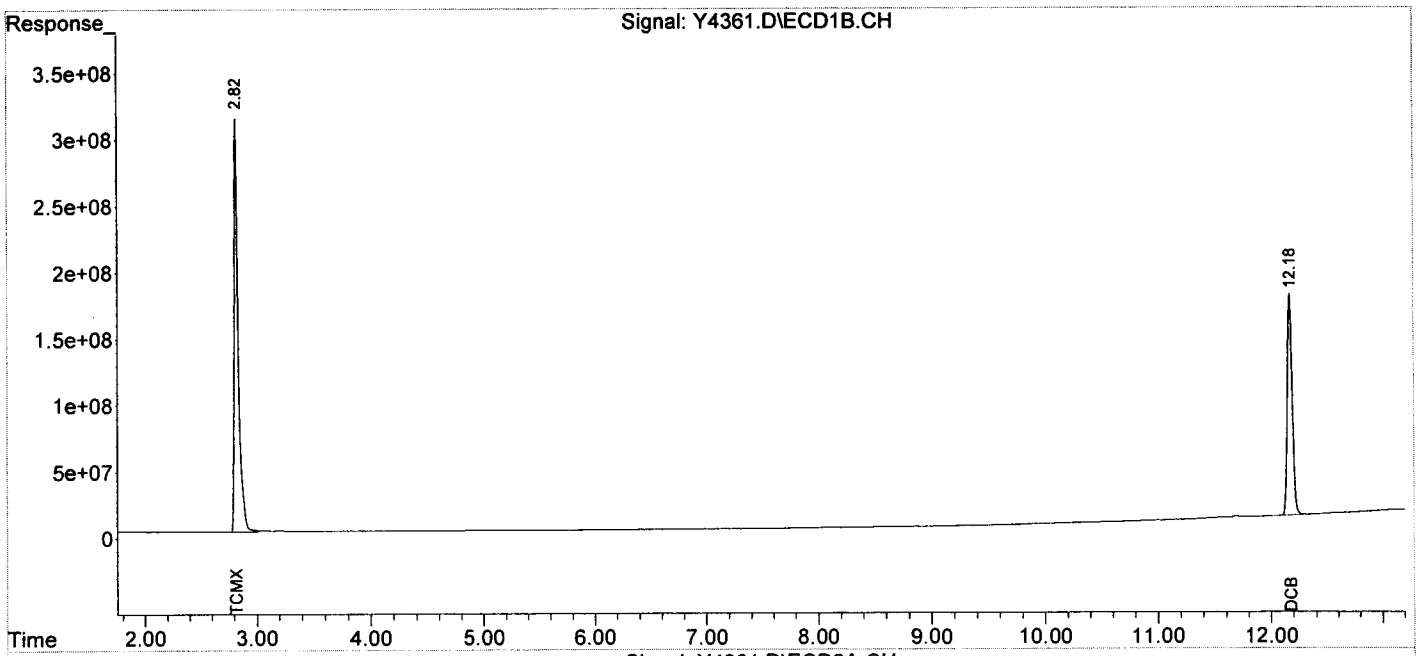
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

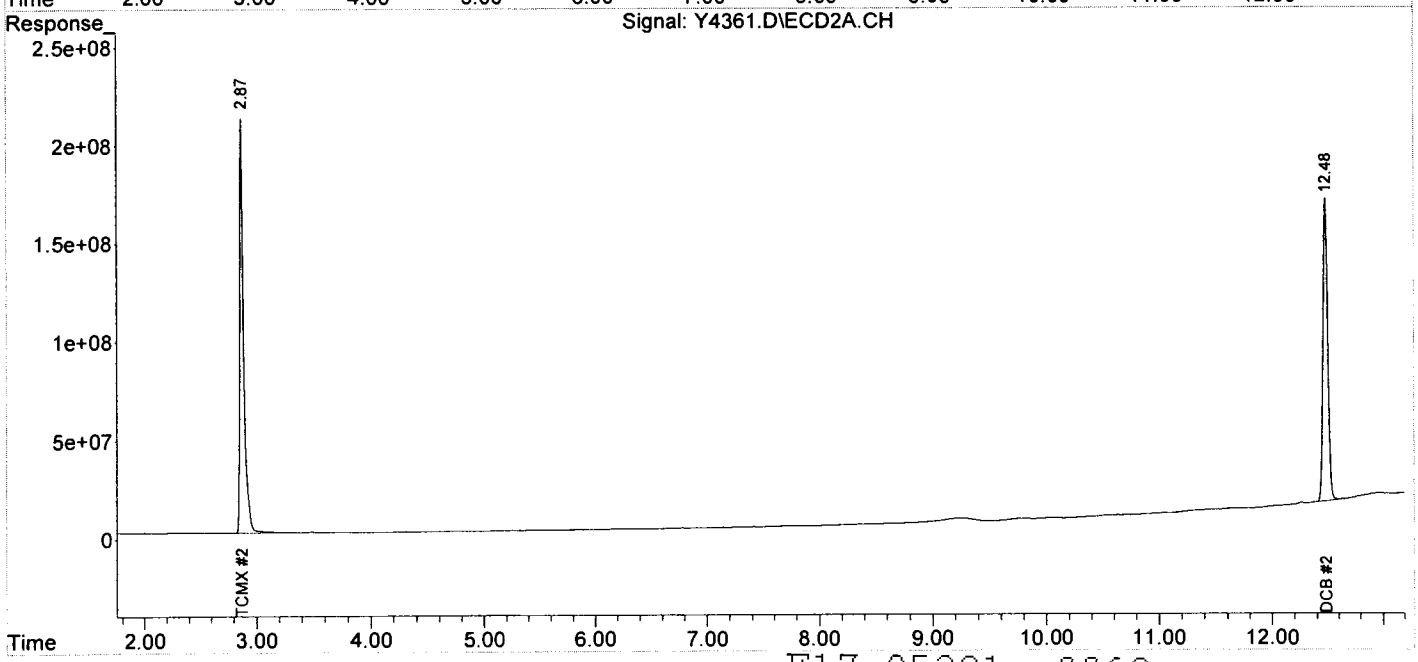
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\17-07-05\
Data File : Y4361.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2017 11:51
Operator : IB
Sample : PCB,BLKS170629-14,S,5g,0,20
Misc : 170629-14,06/29/17,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 13:43:08 2017
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0616.M
Quant Title :
QLast Update : Wed Jul 05 11:45:09 2017
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





SAMPLE TRACKING

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.lalonline.com

Customer Information

Company: Environmental Health Invest.
Address: 655 West Shore Trail
Sparta NJ
Telephone #: 973 729 5649
Fax #: 973 729 5649
Project Manager: C. Hoffman
EMAIL Address: choffman@ehi-inc.com
Project Name: Caiola/Galaxy Carwood
Project Location (State): NJ
Bottle Order #:
☒ "Report to"/"Invoice To" same as above
Sampled by: KN CP CA

COMPLETED BY IAL:
____ Field Sampling ____ Equipment Rental

Reporting Information

REPORT TO:
Address: same
Attn:
FAX #
INVOICE TO:
Address: same
Attn:
PO #
Quote #

Sample Matrix

DW - Drinking Water
WW - Waste Water
GW - Groundwater
SW - Surface Water
LIQ - Liquid (Specify)
OI - Oil
S - Soil
SOL - Solid
SL - Sludge
W - Wipe
B - Biphasic

Rush TAT Charge

24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day - 10%

Deliverables

NJ, CT, PA
☐ Results Only
☒ Reduced
☐ Regulatory/ Full*

NY
☐ ASP Category A
☐ ASP Category B*

EDDs

☐ NJ SRP
☐ NYSDEC EQuIS
☐ lab approved custom EDD
☐ NO EDD REQ'D

Concentrations Expected:

Low Med High

These samples have been previously analyzed by IAL
☐ YES ☒ NO

Turn-Around Time (TAT)

Standard (10 business days) Verbal
Rush/date needed (only if pre-approved)** 72 Hrs
Hard Copy: Std 3 week Other - call for price

Regulatory Requirement

New Jersey	New York
☐ GWQS	☐ AWQS (TOGS Table 1)
☐ IGW	☐ GWEL (TOGS Table 5)
☐ SRS	☐ Part 375-6.8(a) - Unrestricted
☐ Ecological	☐ Part 375-6.8(b) - Restricted
☐ DW	☐ CP-51 Table 2 or 3 (selection required)
☐ SPLP	OTHER Reg. Req. (specify)

Petroleum Hydrocarbons - Selection is REQUIRED

☐ NJ EPH-DRO - Category 1
☐ NJ EPH-C40 - Category 2
☐ NJ EPH-Fractionated - Cat 2
☐ DRO-8015
TAT for PHC (if other than 2 weeks):

ANALYTICAL PARAMETERS (please note if contingent)

Extraction Method 3500B/3540C or 3500B/3550B
Analysis Method 8082 of SW-846

SAMPLE INFORMATION

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	PCB	Sample Specific Notes:
PCG-4SD-062917-1		6/29/17	11:00	SOL	1	1	X	
" -2		"	"	"		2	X	
" -3		"	"	"		3	X	
" -4		"	"	"		4	X	
" -5		"	"	"		5	X	
" -6		"	"	"		6	X	
" -7		"	"	"		7	X	
" -8		"	"	"		8	X	

Known Hazard: YES / NO
Describe:

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab > 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

Preservative Code:
1 = None
2 = HCl
3 = HNO3
4 = MeOH
5 = NaOH
6 = H2SO4
7 = Other

Container Code:
A = Amber Glass
B = Plastic
C = Vial
D = Glass
E = EnCore
T = Terracore

Preservative (use code): 1
Container Type (use code): D

Carrier (check one :
☐ IAL Courier
☒ Client Courier
☐ FedEx/UPS***
***Tracking #:

Special Instructions/QC Requirements & Comments:
Call C. Hoffman with any Questions
Report to: bkorbel@ehi-inc.com, choffman@ehi-inc.com
jpvandoehven@ehi-inc.com

FOR LAB USE ONLY
SDG #: 5991
Cooler Temp: 4 °C

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
[signature]	6/29/17	13:00	FedEx / IAL	6/29/17	13:00

PAGE: 1 of 1

IAL Rev 2/2014

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E17-05391: CASALE/PETRO GARWOOD

To: Charles Hoffman
Environmental Health Investigations, Inc.
Fax:
EMail: choffman@ehi-inc.com

Report To

Environmental Health Investigations, Inc.
655 West Shore Trail
Sparta, NJ 07871
Attn: Charles Hoffman

Bill To

Environmental Health Investigations, Inc.
655 West Shore Trail
Sparta, NJ 07871
Attn: Tracy Brucato

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Reduced		Jun 29, 2017 @ 13:00	NA	Jul 06, 2017	Jul 24, 2017 *

* Any ***Conditional or Hold*** status will delay final hardcopy report sent date.

Diskette Req. Not Required

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
05391-001	PCG-450-062917-1	NA	06/29/17@11:00	Solid	mg/Kg (ppm)	
05391-002	PCG-450-062917-2	NA	06/29/17@11:00	Solid	mg/Kg (ppm)	
05391-003	PCG-450-062917-3	NA	06/29/17@11:00	Solid	mg/Kg (ppm)	
05391-004	PCG-450-062917-4	NA	06/29/17@11:00	Solid	mg/Kg (ppm)	
05391-005	PCG-450-062917-5	NA	06/29/17@11:00	Solid	mg/Kg (ppm)	
05391-006	PCG-450-062917-6	NA	06/29/17@11:00	Solid	mg/Kg (ppm)	
05391-007	PCG-450-062917-7	NA	06/29/17@11:00	Solid	mg/Kg (ppm)	
05391-008	PCG-450-062917-8	NA	06/29/17@11:00	Solid	mg/Kg (ppm)	
05391-009	PCG-450-062917-9	NA	06/29/17@11:00	Solid	mg/Kg (ppm)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TCL PCB	Analyze	8082A	RUSH 72 HRS	6/29/2018
002	TCL PCB	Analyze	8082A	RUSH 72 HRS	6/29/2018
003	TCL PCB	Analyze	8082A	RUSH 72 HRS	6/29/2018
004	TCL PCB	Analyze	8082A	RUSH 72 HRS	6/29/2018
005	TCL PCB	Analyze	8082A	RUSH 72 HRS	6/29/2018
006	TCL PCB	Analyze	8082A	RUSH 72 HRS	6/29/2018
007	TCL PCB	Analyze	8082A	RUSH 72 HRS	6/29/2018
008	TCL PCB	Analyze	8082A	RUSH 72 HRS	6/29/2018
009	TCL PCB	Analyze	8082A	RUSH 72 HRS	6/29/2018

Project Notes:

NOTE 2 taken by kfalconer on 06/29/2017 04:22
EMAIL REPORTS TO:
CHOFFMAN@EHI-INC.COM;BKERBEL@EHI-INC.OM;JPVONDOEHREN@EHI-INC.COM

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

E17-05391 0066

IAL
Integrated Analytical Laboratories LLC

PROJECT INFORMATION

RUSH

E17-05391: CASALE/PETRO GARWOOD

NOTE 1 taken by kfalconer on 06/29/2017 04:23

PER COC INSTRUCTION: USE EXTRACTION METHOD 3500B/3540C OR 3500B/3550B

NOTE 3 taken by kim on 06/30/2017 10:22

SAMPLE PCG-450-062917-9 RECEIVED, NOT LISTED ON COC.

PER CHARLES HOFFMAN, PLEASE ANALYZE.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

E17-05391 0067

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 17** **05391** CLIENT: EHT

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA

✗ = NO

VOA received: ☐ Encore ☐ IGW - Methanol

(check one) ☐ Terra Core ☐ No Preservative

✓	Bottles Intact	
✓	no-Missing Bottles	
✗	no-Extra Bottles	Extra Sample - 9, labeled as #9
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
☐	Multiphasic Sample	
☐	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [initials] DATE 6/29/18

CORRECTIVE ACTION REQUIRED: **YES** ☐ (SEE BELOW) **NO** ☑

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES ☐ Date/ Time: _____ NO ☐

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL KJ E17-05391 DATE 6/29/18 0068

REV 03/2013

BULK SAMPLE DATA FORM

PS 1 OF 2

ENVIRONMENTAL HEALTH INVESTIGATIONS, INC.
655 WEST SHORE TRAIL
SPARTA, NJ 07871
PHONE: (973) 729-5649 FAX: (973) 729-5649

Client: Ecol Sciences **Project #:** 0215-6923

Location: Casale/Petro Garwood Property - Garwood NJ

Date Collected: 6/29/17

Collected By: CP KN CH

Sample #	Type of Material	Location	Analysis Required PLM Only	Analysis Required NOB
PCG-450 062917-1	Window Caulk White	Petro - 450 South Ave		
PCG-450 062917-2	Window Glazing White	Petro - 450 South AVE		
PCG-450 062917-3	Window Caulk Grey	Petro 450 South Ave		
PCG-450 062917-4	Door Caulk - White	Petro 450 South Ave		
PCG-450 062917-5	Window Caulk Tan	Petro 450 South Ave		
PCG-450 062917-6	Asphalt Siding	Petro 450 South Ave		
PCG-450 062917-7	Window Glazing Pink	Petro 450 South Ave		
PCG-450 062917-8	ROOF TAR	Petro 450 South Ave		

Laboratory Custody Chronicle

IAL Case No.

E17-05391

Client Environmental Health Investigations, Inc.

Project CASALE/PETRO GARWOOD

Received On 6/29/2017@13:00

Department: GC			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL PCB	05391-001	Solid	6/29/17	Archimede	7/ 6/17	Iwona
"	-002	"	6/29/17	Archimede	7/ 6/17	Iwona
"	-003	"	6/29/17	Archimede	7/ 6/17	Iwona
"	-004	"	6/29/17	Archimede	7/ 6/17	Iwona
"	-005	"	6/29/17	Archimede	7/ 6/17	Iwona
"	-006	"	6/29/17	Archimede	7/ 6/17	Iwona
"	-007	"	6/29/17	Archimede	7/ 6/17	Iwona
"	-008	"	6/29/17	Archimede	7/ 6/17	Iwona
"	-009	"	6/30/17	Archimede	7/ 6/17	Iwona

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

Attachment B

EHI Wipe Sampling Evaluation

EcolSciences, Inc.

Environmental Management & Regulatory Compliance

Environmental Health Investigations, Inc.

655 West Shore Trail
Sparta, New Jersey 07871

Phone/Fax: 973-729-5649
www.ehi-inc.com

June 29, 2017

Mr. Ed Russo
Russo Development
570 Commerce Blvd.
Carlstadt, NJ 07072

Email: erusso@russodevelopment.com

Re: PCB Dust Wipe Sampling
Former Alcoa Site, 450 - 490 South Ave. - *"Area 5"*
Garwood, NJ
EHI Project #: 0558-6896

Dear Mr. Russo:

Attached is our report relevant to the PCB dust wipe sampling conducted at the former Alcoa Site located at 450-490 South Avenue in Garwood, New Jersey.

Thank you for the opportunity to provide our services. Should you have any questions, please do not hesitate to contact me.

Very truly yours,

Jean-Paul von Doehren

Jean-Paul von Doehren
Senior Project Manager

Environmental Health Investigations, Inc.

655 West Shore Trail
Sparta, New Jersey 07871

Phone/Fax: 973-729-5649
www.ehi-inc.com

REPORT OF FINDINGS

PCB Dust Wipe Sampling

At:

"Area 5"
450-490 South Ave.
Garwood, NJ

On Behalf Of:

Russo Development
570 Commerce Boulevard
Carlstadt, NJ 07072

Survey Conducted: June 15, 2017

Report Dated: June 29, 2017

EHI Project #: 0558-6896

1.0 Introduction

Environmental Health Investigations, Inc. was retained by Russo Development to conduct a dust wipe sampling for the presence of Polychlorinated Biphenyls (PCBs) inside the former Alcoa structure located at 450-490 South Avenue in Garwood, New Jersey.

The survey was conducted by Mr. Jean-Paul von Doehren and Ms. Jill K. Wack of EHI on June 15, 2017.

2.0 Methods & Observations:

The wipe sampling was performed at the request of the US-EPA to determine the extent of PCB contamination in the settled dust on the structural roof/ceiling beams of an area defined as "Area 5" of the facility. An attached drawing located in *Appendix B* helps define all the "Areas" and further delineates the sample locations from inside "Area 5".

All dust wipe samples were collected and analyzed in accordance with the SW-846 Compendium (extraction via method 3550 and analysis via method 8082), the method in accordance with the Toxic Substances Control Act (TSCA) as administered by the US-EPA.

In order to collect the dust wipe samples, EHI utilized a combination of ladders and a 40' articulating man lift to access the steel structural components of the ceiling/roof structure. Samples were collected from the "top sides" of the steel to capture all the dust/particulate that may have settled on the structural steel /ceiling roof system over the years.

Once areas were selected for sampling, EHI utilized a 10 centimeter by 10 centimeter (100 cm^2) template to delineate the sampling area. With the template in place, a 3 inch by 3 inch piece of gauze was wetted with a ratio 1:4 Acetone/Hexane mixture and EHI wiped the area. Standardized

dust wipe collecting techniques were utilized to ascertain a complete picture of PCB contamination in the dust. This includes wiping north/south, folding over the gauze, then wiping east/west, folding the gauze again and wiping around all 4 corners. EHI also utilized a new set of rubber/latex gloves for the collection of each sample to avoid cross contamination. Once the area was wiped, EHI placed the gauze into a 2 ounce glass jar identifying the sample with a unique number.

One blank and duplicate wipe sample was also be submitted for analysis. The duplicate sample was collected from a spot adjacent to an initial sample. The blank sample was submitted without collecting any dust/particulate. Blank and duplicate samples are designed to provide a quality control for the field sampling personnel as well as the laboratory analysis personnel.

All collected wipe samples were placed along with ice packs inside a cooler and submitted to EMSL Analytical, Inc. located at 200 Rt. 130 North in Cinnaminson, New Jersey.

3.0 Summary of PCB Wipe Sample Results

A summary of the results for the analyses of the wipe samples collected as part of the project is provided below. *Appendix A* of this report contains a copy of the laboratory analytical report from EMSL Analytical, Inc.

According the US-EPA, *PCB-contaminated* is defined as a non-porous surface having a PCB surface concentration greater than 10 micrograms per 100 square centimeters and less than 100 micrograms per 100 square centimeters *(>10µg/100cm^2 and <100µg/100cm^2)*. Samples with concentrations of PCBs in excess of 10µg/100cm^2 are emboldened in the table below.

Sample #:	Location:	Parameter	Result (µg/100 cm^2)
RDV-061517-1	Area 5 - West Mezzanine: Top Side of I-Beam West Half of Mezzanine	Aroclor-1016	ND
		Aroclor-1221	ND
		Aroclor-1232	ND
		Aroclor-1242	ND
		Aroclor-1248	ND
		Aroclor-1254	1.0
		Aroclor-1260	ND
		Aroclor-1262	3.4
		Aroclor-1268	ND
RDV-061517-2	Area 5 - West Mezzanine: Top Side of I-Beam East Half of Mezzanine	Aroclor-1016	ND
		Aroclor-1221	ND
		Aroclor-1232	ND
		Aroclor-1242	ND
		Aroclor-1248	ND
		Aroclor-1254	0.79
		Aroclor-1260	ND
		Aroclor-1262	2.3
		Aroclor-1268	ND
RDV-061517-3	Area 5 - Open Area: Top Side of Beam Flange - West Side of Open Area	Aroclor-1016	ND
		Aroclor-1221	ND
		Aroclor-1232	ND
		Aroclor-1242	ND
		Aroclor-1248	0.66
		Aroclor-1254	1.1
		Aroclor-1260	ND
		Aroclor-1262	1.2
		Aroclor-1268	1.1

Sample #:	Location:	Parameter	Result (µg/100 cm^2)
RDV-061517-4	**Area 5 - Open Area: Top Side of Beam Connection Plate , Center of Open Area above Loading Dock Pit**	Aroclor-1016	ND
		Aroclor-1221	ND
		Aroclor-1232	ND
		Aroclor-1242	ND
		Aroclor-1248	**2.8**
		Aroclor-1254	**4.1**
		Aroclor-1260	ND
		Aroclor-1262	**3.7**
		Aroclor-1268	**3.8**
RDV-061517-5	**Area 5 - Open Area: Top Side of Beam Connection Plate, East Side of Open Area**	Aroclor-1016	ND
		Aroclor-1221	ND
		Aroclor-1232	ND
		Aroclor-1242	ND
		Aroclor-1248	**3.0**
		Aroclor-1254	**3.3**
		Aroclor-1260	ND
		Aroclor-1262	**4.9**
		Aroclor-1268	**3.8**
RDV-061517-6	**DUPLICATE of: RDV-061517-4**	Aroclor-1016	ND
		Aroclor-1221	ND
		Aroclor-1232	ND
		Aroclor-1242	ND
		Aroclor-1248	**2.9**
		Aroclor-1254	**4.3**
		Aroclor-1260	ND
		Aroclor-1262	**4.8**
		Aroclor-1268	**6.7**

Sample #:	Location:	Parameter	Result (µg/100 cm^2)
RDV-061517-7	Blank	Aroclor-1016	ND
		Aroclor-1221	ND
		Aroclor-1232	ND
		Aroclor-1242	ND
		Aroclor-1248	ND
		Aroclor-1254	ND
		Aroclor-1260	ND
		Aroclor-1262	ND
		Aroclor-1268	ND
ND - indicates that the analyte was not detected at the reporting limit (RL) RL (Reporting Limit) = 0.5 µg/100 cm^2			

4.0 Conclusion:

The wipe sampling of settled dust/particulate from the structural steel roof/ceiling system in Area 5 of the former Alcoa Site located at 450-490 South Avenue in Garwood, New Jersey yielded laboratory results that indicate PCB contamination as defined by the US-EPA. Three (3) collected wipe samples were found to have total PCB concentration above 10 µg/100 cm^2. The three samples were collected from two (2) locations, since one of the three samples was a duplicate. Below is summary of the locations where the PCB contaminated wipe samples were collected:

- Area 5 - Open Area: Top Side of Beam Connection Plate , Center of Open Area above Loading Dock Pit (including Duplicate)
- Area 5 - Open Area: Top Side of Beam Connection Plate, East Side of Open Area

Sampling By: Jean-Paul von Doehren
Jill K. Wack

Report By: Jean-Paul von Doehren
Jean-Paul von Doehren
Senior Project Manager

Reviewed By: William S. Kerbel
William S. Kerbel, CIH
President

A P P E N D I X

A

EMSL Analytical, Inc. - PCB Wipe Sample Results

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone: (856) 303-2500 Fax: (856) 858-4571 Email: EnvChemistry2@emsl.com

Attn: **Jean-Paul Von Doehren**
Environmental Health Investigations,Inc.
655 West Shore Trail
Sparta, NJ 07871
Phone: (973) 729-5649
Fax: (973) 729-5649

6/23/2017

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 6/16/2017. The results are tabulated on the attached data pages for the following client designated project:

Russo Development #0558-6896

The reference number for these samples is EMSL Order #011704809. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (856) 303-2500.

Approved By:

Phillip Worby, Environmental Chemistry
Laboratory Director

The test results contained within this report meet the requirements of NELAP and/or the specific certification program that is applicable, unless otherwise noted.
NELAP Certifications: NJ 03036, NY 10872, PA 68-00367, CA ELAP 1877

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856) 303-2500 / (856) 858-4571
http://www.EMSL.com EnvChemistry2@emsl.com

EMSL Order: 011704809
CustomerID: EHII50
CustomerPO:
ProjectID:

Attn: **Jean-Paul Von Doehren**
Environmental Health Investigations,Inc.
655 West Shore Trail
Sparta, NJ 07871

Phone: (973) 729-5649
Fax: (973) 729-5649
Received: 06/16/17 9:00 AM

Project: **Russo Development #0558-6896**

Analytical Results

Client Sample Description RDV-061517-01 ***Collected:*** 6/15/2017 ***Lab ID:*** *011704809-0001*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	0.50	µg/100 cm²	6/20/2017	SD	6/20/2017	EH
3550C/8082A	Aroclor-1221	ND	0.50	µg/100 cm²	6/20/2017	SD	6/20/2017	EH
3550C/8082A	Aroclor-1232	ND	0.50	µg/100 cm²	6/20/2017	SD	6/20/2017	EH
3550C/8082A	Aroclor-1242	ND	0.50	µg/100 cm²	6/20/2017	SD	6/20/2017	EH
3550C/8082A	Aroclor-1248	ND	0.50	µg/100 cm²	6/20/2017	SD	6/20/2017	EH
3550C/8082A	Aroclor-1254	1.0	0.50	µg/100 cm²	6/20/2017	SD	6/20/2017	EH
3550C/8082A	Aroclor-1260	ND	0.50	µg/100 cm²	6/20/2017	SD	6/20/2017	EH
3550C/8082A	Aroclor-1262	3.4	0.50	µg/100 cm²	6/20/2017	SD	6/20/2017	EH
3550C/8082A	Aroclor-1268	ND	0.50	µg/100 cm²	6/20/2017	SD	6/20/2017	EH

Client Sample Description RDV-061517-02 ***Collected:*** 6/15/2017 ***Lab ID:*** *011704809-0002*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1221	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1232	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1242	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1248	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1254	0.79	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1260	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1262	2.3	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1268	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH

Client Sample Description RDV-061517-03 ***Collected:*** 6/15/2017 ***Lab ID:*** *011704809-0003*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1221	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1232	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1242	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1248	0.66	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1254	1.1	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1260	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1262	1.2	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1268	1.1	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856) 303-2500 / (856) 858-4571
http://www.EMSL.com EnvChemistry2@emsl.com

EMSL Order: 011704809
CustomerID: EHII50
CustomerPO:
ProjectID:

Attn: **Jean-Paul Von Doehren**
Environmental Health Investigations,Inc.
655 West Shore Trail
Sparta, NJ 07871

Phone: (973) 729-5649
Fax: (973) 729-5649
Received: 06/16/17 9:00 AM

Project: **Russo Development #0558-6896**

Analytical Results

Client Sample Description RDV-061517-04 ***Collected:*** 6/15/2017 ***Lab ID:*** *011704809-0004*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1221	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1232	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1242	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1248	2.8	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1254	4.1	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1260	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1262	3.7	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1268	3.8	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH

Client Sample Description RDV-061517-05 ***Collected:*** 6/15/2017 ***Lab ID:*** *011704809-0005*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1221	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1232	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1242	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1248	3.0	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1254	3.3	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1260	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1262	4.9	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1268	3.8	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH

Client Sample Description RDV-061517-06 ***Collected:*** 6/15/2017 ***Lab ID:*** *011704809-0006*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1221	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1232	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1242	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1248	2.9	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1254	4.3	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1260	ND	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1262	4.8	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1268	6.7	0.50	µg/100 cm²	6/20/2017	SD	6/21/2017	EH

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856) 303-2500 / (856) 858-4571
http://www.EMSL.com EnvChemistry2@emsl.com

EMSL Order: 011704809
CustomerID: EHII50
CustomerPO:
ProjectID:

Attn: **Jean-Paul Von Doehren**
Environmental Health Investigations,Inc.
655 West Shore Trail
Sparta, NJ 07871

Phone: (973) 729-5649
Fax: (973) 729-5649
Received: 06/16/17 9:00 AM

Project: **Russo Development #0558-6896**

Analytical Results

Client Sample Description RDV-061517-07 ***Collected:*** 6/15/2017 ***Lab ID:*** *011704809-0007*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	0.50	µg/wipe	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1221	ND	0.50	µg/wipe	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1232	ND	0.50	µg/wipe	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1242	ND	0.50	µg/wipe	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1248	ND	0.50	µg/wipe	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1254	ND	0.50	µg/wipe	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1260	ND	0.50	µg/wipe	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1262	ND	0.50	µg/wipe	6/20/2017	SD	6/21/2017	EH
3550C/8082A	Aroclor-1268	ND	0.50	µg/wipe	6/20/2017	SD	6/21/2017	EH

Definitions:

ND - indicates that the analyte was not detected at the reporting limit
RL - Reporting Limit (Analytical)

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Environmental Chemistry Chain of Custody

EMSL Order Number (*Lab Use Only*): 011704809

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 786-5974

OrderID: 011704809

Report To Contact Name: Jean Paul VonDoehren		**Bill To Company:** EHI Inc.	
Company Name: EHI, Inc.		**Attention To:** Jean Paul VonDoehren	
Street: 655 W. Shore Trail		**Street:** 655 West Shore Trail	
City: Sparta	**State/Province:** NJ. **Zip/Postal Code:** 07871	**City:** Sparta	**State/Province:** NJ **Zip/Postal Code:** 07871
Phone : 973-729-5649 **Fax :** —		**Phone:** 973-729-5649 **Fax:** —	
Project Name: Russo Development # 0558-6896	**Email Results To:** JPvondoehren@ehi-inc.com	**U.S. State where Samples Collected:** NJ.	
Number of Samples in Shipment: 7	**Date of Shipment:** 6/15/17	**Purchase Order:**	**Sampled By (Signature):**
Standard Turnaround Time: ~~☐ 2 Weeks~~	**The following TAT's are subject to lab approval:** ☒ 1 Week ☐ 4 Days ☐ 3 Days ☐ 2 Days ☐ 1 Day		

Failure to complete will hinder processing of samples

	Client Sample ID	Comp	Grab	Collect Date/Time	Matrix (W=Water S=Soil A=Air SL=Sludge O= Other)	Preservative (1=HCL 2=HNO3 3=H2SO4 4=ICE 5=Other)	List Test(s) Needed: Extraction Method 3550B (SW-846) Analysis via Method 8082	Comments
(1)	RDV-061517-01	☐	☐	6/15/17 / 0926	Other		X	PCB Dust Wipes
(2)	-02	☐	☐	6/15/17 / 0910			X	
(3)	-03	☐	☐	6/15/17 / 0742			X	
(4)	-04	☐	☐	6/15/17 / 0810			X	
(5)	-05	☐	☐	6/15/17 / 0856			X	
(6)	-06	☐	☐	6/15/17 / 0815			X	

Released By (Signature)	Date & Time	Received By	Date & Time
	6/15/17 12:30pm		6/15/17 1245pm
		UPS Courier 8:30P	6-15-17

Please indicate reporting requirements: ☐ Results Only ☒ Results and QC ☐ Reduced Deliverables ☐ Disk Deliverable ☐ Other _____

Instructions or Comments:

Extraction via 3550B, analysis via 8082

~~4 day TAT per Client~~ afs

afs wrong chain

Page 1 of 2 pages

Rec'd Gross 4°C 6/16/17 09:00

* Wipe Area: 10cm x 10cm per Jean afs

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Environmental Chemistry Chain of Custody

EMSL Order Number (*Lab Use Only*):

011704809

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 786-5974

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Failure to complete will hinder processing of samples				Matrix	Preservative	List Test(s) Needed								
Client Sample ID	Comp	Grab	Collect Date/Time	W=Water S=Soil A=Air SL=Sludge O= Other	1=HCL 2=HNO3 3=H2SO4 4=ICE 5=Other	Extraction Method 3550B Analysis via Method 8082 (SW-846)								Comments
9 RDV-061517-07	☐	☐	6/15/17/10:00	other		X								PCB Dust Wipes
	☐	☐												
	☐	☐												
	☐	☐												
	☐	☐												
	☐	☐												
	☐	☐												
	☐	☐												
	☐	☐												
	☐	☐												
	☐	☐												
	☐	☐												
	☐	☐												
	☐	☐												
	☐	☐												
	☐	☐												
	☐	☐												

OrderID: 011704809

BULK SAMPLE DATA FORM 011704809

ENVIRONMENTAL HEALTH INVESTIGATIONS, INC.
655 WEST SHORE TRAIL
SPARTA, NJ 07871
PHONE: (973) 729-5649 FAX: (973) 729-5649

Client: Russo Development **Project #:** 0558 - 6896

Location: 450-490 South Ave - Garwood, NJ.

Date Collected: 6/15/17

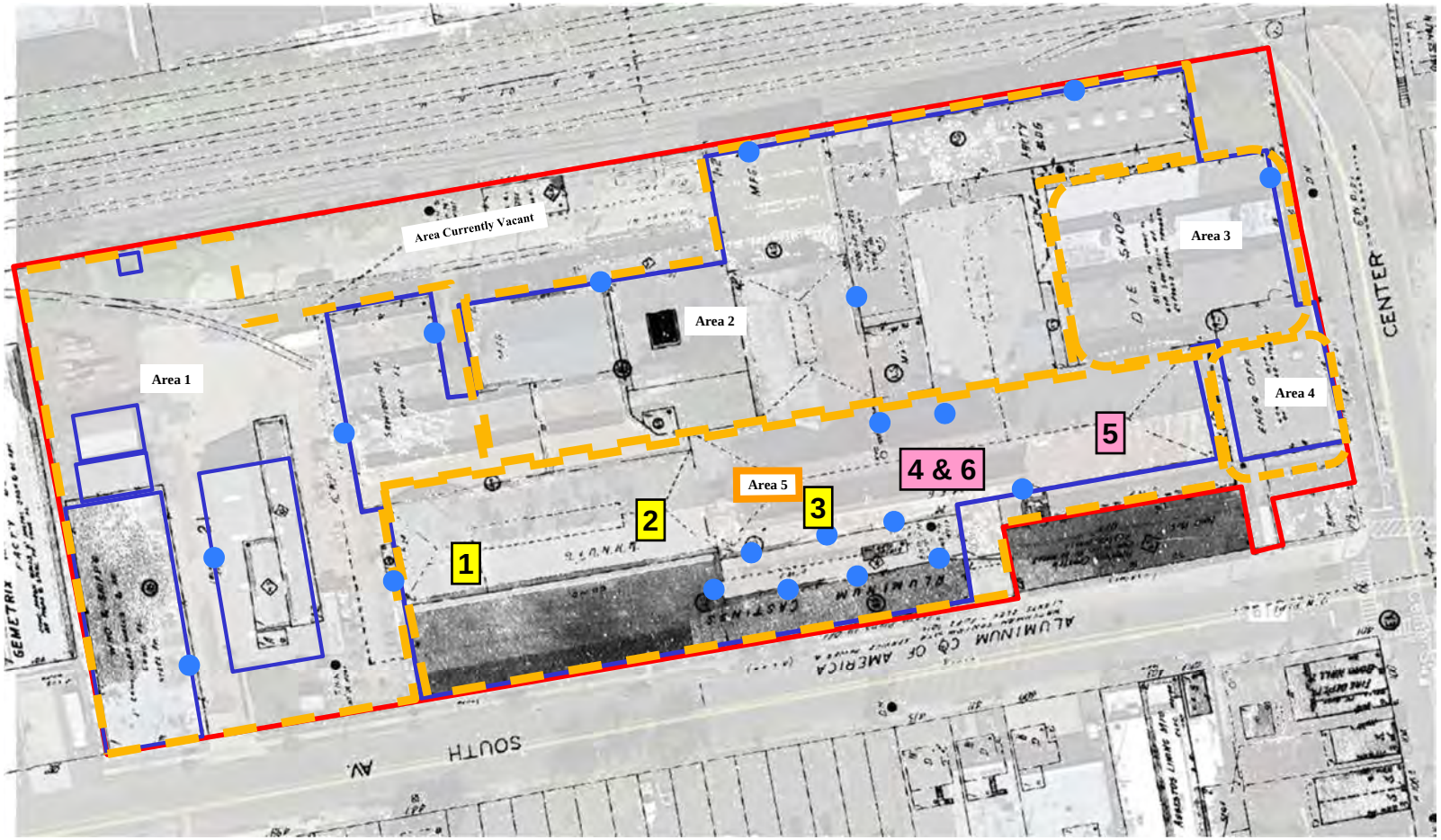
Collected By: JPV, JKW

	Sample #	Type of Material	Location	[redacted]	[redacted]
(1)	RDV-061517-01	Wipe Sample	Area 5 - Top Side of ~~I~~ Beam West Side of Mezz.	PCB Wipe	
(2)	-02	Wipe Sample	Area 5 - Top Side of I-Beam East Side of Mezz.		
(3)	-03	Wipe Sample	Area 5 - Top Side of Beam Flange West Side of Open Area.		
(4)	-04	Wipe Sample	Area 5 - Top Side of Beam Joint Plate Center of Open Area above Loading Dock Pit		
(5)	-05	Wipe Sample	Area 5 - Top Side of Beam Joint Plate East Side of Open Area.		
(6)	-06	Wipe Sample	Area 5 - Duplicate of Sample # 4		
(7)	-07	Wipe Sample	BLANK		

A P P E N D I X

B

Sample Location Drawing



Legend

Site Boundary

Extent of Current Structures

Area Boundaries

XX - Wipe Sample Location with PCB Concentration <10ug/100cm^2

XX - Wipe Sample Location with PCB Concentration >10ug/100cm^2

PCB DUST WIPE SAMPLING AREA 5 - STEEL ROOF STRUCTURE EHI Project #: 0558-6896 Date: JUNE 28, 2017	DRAWING NO. AREA 5
PREPARED BY: Environmental Health Investigations, Inc. 655 West Shore Trail Sparta, NJ 07871 Tel. 973.729.5649 www.ehi-inc.com	SITE LOCATION: 450 - 490 SOUTH AVE. GARWOOD, NJ

Environmental Health Investigations, Inc.

655 West Shore Trail
Sparta, New Jersey 07871

Phone/Fax: 973-729-5649
www.ehi-inc.com

June 29, 2017

Mr. Ed Russo
Russo Development
570 Commerce Blvd.
Carlstadt, NJ 07072

Email: erusso@russodevelopment.com

Re: PCB Dust Wipe Sampling
Former Alcoa Site, 450 - 490 South Ave. - *"Areas 1 -3"*
Garwood, NJ
EHI Project #: 0558-6897

Dear Mr. Russo:

Attached is our report relevant to the PCB dust wipe sampling conducted at the former Alcoa Site located at 450-490 South Avenue in Garwood, New Jersey.

Thank you for the opportunity to provide our services. Should you have any questions, please do not hesitate to contact me.

Very truly yours,

Jean-Paul von Doehren
Senior Project Manager

Environmental Health Investigations, Inc.

655 West Shore Trail
Sparta, New Jersey 07871

Phone/Fax: 973-729-5649
www.ehi-inc.com

REPORT OF FINDINGS

PCB Dust Wipe Sampling

At:

"Areas 1 -3"
450-490 South Ave.
Garwood, NJ

On Behalf Of:

Russo Development
570 Commerce Boulevard
Carlstadt, NJ 07072

Survey Conducted: June 15, 2017

Report Dated: June 29, 2017

EHI Project #: 0558-6897

1.0 Introduction

Environmental Health Investigations, Inc. was retained by Russo Development to conduct a dust wipe sampling for the presence of Polychlorinated Biphenyls (PCBs) inside the former Alcoa structure located at 450-490 South Avenue in Garwood, New Jersey.

The survey was conducted by Mr. Jean-Paul von Doehren and Ms. Jill K. Wack of EHI on June 15, 2017.

2.0 Methods & Observations:

The wipe sampling was performed at the request of the US-EPA to determine the extent of PCB contamination in the settled dust on the structural steel building components in the areas defined as "Areas 1, 2 & 3" of the facility. By design, no samples were collected in Area 5. Area 4 did not appear to have a structural steel build style, therefore no samples were collected. An attached drawing located in *Appendix B* helps define all the "Areas" and further delineates the sample locations.

All dust wipe samples were collected and analyzed in accordance with the SW-846 Compendium (extraction via method 3550 and analysis via method 8082), the method in accordance with the Toxic Substances Control Act (TSCA) as administered by the US-EPA.

In order to collect the dust wipe samples, EHI utilized a combination of working from ground level, ladders and a 40' articulating man lift to access the varying steel structural components of Areas 1, 2 & 3. Samples were collected from the vertical facing of the structural steel building components.

Once areas were selected for sampling, EHI utilized a 10 centimeter by 10 centimeter (100

cm^2) template to delineate the sampling area. With the template in place, a 3 inch by 3 inch piece of gauze was wetted with a ratio 1:4 Acetone/Hexane mixture and EHI wiped the area. Standardized dust wipe collecting techniques were utilized to ascertain a complete picture of PCB contamination in the dust. This includes wiping north/south, folding over the gauze, then wiping east/west, folding the gauze again and wiping around all 4 corners. EHI also utilized a new set of rubber/latex gloves for the collection of each sample to avoid cross contamination. Once the area was wiped, EHI placed the gauze into a 2 ounce glass jar identifying the sample with a unique number.

One blank and duplicate wipe sample was also be submitted for analysis. The duplicate sample was collected from a spot adjacent to an initial sample. The blank sample was submitted without collecting any dust/particulate. Blank and duplicate samples are designed to provide a quality control for the field sampling personnel as well as the laboratory analysis personnel.

All collected wipe samples were placed along with ice packs inside a cooler and submitted to EMSL Analytical, Inc. located at 200 Rt. 130 North in Cinnaminson, New Jersey.

3.0 Summary of PCB Wipe Sample Results

A summary of the results for the analyses of the wipe samples collected as part of the project is provided below. *Appendix A* of this report contains a copy of the laboratory analytical report from EMSL Analytical, Inc.

According the US-EPA, *PCB-contaminated* is defined as a non-porous surface having a PCB surface concentration greater than 10 micrograms per 100 square centimeters and less than 100 micrograms per 100 square centimeters *(>10µg/100cm^2 and <100µg/100cm^2)*. Samples with concentrations of PCBs in excess of 10µg/100cm^2 are emboldened in the table below.

Sample #:	Location:	Parameter	Result (µg/100 cm^2)
RDV-061517-1A	Area 2 - on Beam Connection Plate	Aroclor-1016	ND
		Aroclor-1221	ND
		Aroclor-1232	ND
		Aroclor-1242	ND
		Aroclor-1248	0.90
		Aroclor-1254	1.2
		Aroclor-1260	ND
		Aroclor-1262	1.0
		Aroclor-1268	ND
RDV-061517-2A	Area 3 - Center of Area on Beam Facing	Aroclor-1016	ND
		Aroclor-1221	ND
		Aroclor-1232	ND
		Aroclor-1242	ND
		Aroclor-1248	ND
		Aroclor-1254	ND
		Aroclor-1260	ND
		Aroclor-1262	0.83
		Aroclor-1268	ND
RDV-061517-3A	Area 2 - Center North Section on Beam Facing along Ceiling	Aroclor-1016	ND
		Aroclor-1221	ND
		Aroclor-1232	ND
		Aroclor-1242	ND
		Aroclor-1248	ND
		Aroclor-1254	3.2
		Aroclor-1260	3.1
		Aroclor-1262	ND
		Aroclor-1268	ND

Sample #:	**Location:**	**Parameter**	**Result (µg/100 cm^2)**
RDV-061517-4A	Area 3 - North East Section on Steel Column	Aroclor-1016	ND
		Aroclor-1221	ND
		Aroclor-1232	ND
		Aroclor-1242	ND
		Aroclor-1248	ND
		Aroclor-1254	ND
		Aroclor-1260	ND
		Aroclor-1262	0.77
		Aroclor-1268	ND
RDV-061517-5A	Area 2 - North East Section on Steel Column	Aroclor-1016	ND
		Aroclor-1221	ND
		Aroclor-1232	ND
		Aroclor-1242	ND
		Aroclor-1248	1.7
		Aroclor-1254	2.6
		Aroclor-1260	2.6
		Aroclor-1262	ND
		Aroclor-1268	ND
RDV-061517-6A	**Area 2 - Center South Section on Steel Column**	Aroclor-1016	ND
		Aroclor-1221	ND
		Aroclor-1232	ND
		Aroclor-1242	ND
		Aroclor-1248	ND
		Aroclor-1254	**58**
		Aroclor-1260	**47**
		Aroclor-1262	ND
		Aroclor-1268	ND

Sample #:	Location:	Parameter	Result (µg/100 cm^2)
RDV-061517-7A	**DUPLICATE to Sample 6A**	Aroclor-1016	ND
		Aroclor-1221	ND
		Aroclor-1232	ND
		Aroclor-1242	ND
		Aroclor-1248	ND
		Aroclor-1254	**58**
		Aroclor-1260	**33**
		Aroclor-1262	ND
		Aroclor-1268	ND
RDV-061517-8A	Area 2 - Center North Section on Steel Column	Aroclor-1016	ND
		Aroclor-1221	ND
		Aroclor-1232	ND
		Aroclor-1242	ND
		Aroclor-1248	ND
		Aroclor-1254	0.59
		Aroclor-1260	ND
		Aroclor-1262	0.69
		Aroclor-1268	ND
RDV-061517-9A	**Area 2 - North West Section on Steel Column**	Aroclor-1016	ND
		Aroclor-1221	ND
		Aroclor-1232	ND
		Aroclor-1242	ND
		Aroclor-1248	**1.2**
		Aroclor-1254	**3.0**
		Aroclor-1260	ND
		Aroclor-1262	**6.3**
		Aroclor-1268	**2.6**

Sample #:	Location:	Parameter	Result (µg/100 cm^2)
RDV-061517-10A	Area 1 - North West Section on Steel Column	Aroclor-1016	ND
		Aroclor-1221	ND
		Aroclor-1232	ND
		Aroclor-1242	ND
		Aroclor-1248	ND
		Aroclor-1254	ND
		Aroclor-1260	ND
		Aroclor-1262	ND
		Aroclor-1268	10
RDV-061517-11A	**Area 1 - North East Section on Steel Column**	Aroclor-1016	ND
		Aroclor-1221	ND
		Aroclor-1232	ND
		Aroclor-1242	ND
		Aroclor-1248	ND
		Aroclor-1254	0.93
		Aroclor-1260	ND
		Aroclor-1262	ND
		Aroclor-1268	**16**
RDV-061517-12A	Blank	Aroclor-1016	ND
		Aroclor-1221	ND
		Aroclor-1232	ND
		Aroclor-1242	ND
		Aroclor-1248	ND
		Aroclor-1254	ND
		Aroclor-1260	ND
		Aroclor-1262	ND
		Aroclor-1268	ND

ND - indicates that the analyte was not detected at the reporting limit (RL)
RL (Reporting Limit) = 0.5 µg/100 cm^2

4.0 Conclusion:

The wipe sampling of settled dust/particulate from the structural steel system in Areas 1, 2 & 3 of the former Alcoa Site located at 450-490 South Avenue in Garwood, New Jersey yielded laboratory results that indicate PCB contamination as defined by the US-EPA. Four (4) collected wipe samples were found to have total PCB concentration above 10 µg/100 cm^2. The four samples were collected from three (3) locations, since one of the four samples was a duplicate. Below is summary of the locations where the PCB contaminated wipe samples were collected:

- Area 2 - Center South on Steel Column (including Duplicate)
- Area 2 - North West Section on Steel Column
- Area 1 - North East End on Steel Column

Sample # RDV-061517-11A was found to have a PCB contamination level of 10 µg/100 cm^2. Although technically not greater than 10 µg/100 cm^2 the following sample location should also be considered when formulating a remediation plan:

- Area 1 - North West End on Steel Column

Sampling By: Jean-Paul von Doehren
Jill K. Wack

Report By: Jean-Paul von Doehren
Jean-Paul von Doehren
Senior Project Manager

Reviewed By: William S. Kerbel
William S. Kerbel, CIH
President

A P P E N D I X

A

EMSL Analytical, Inc. - PCB Wipe Sample Results

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone: (856) 303-2500 Fax: (856) 858-4571 Email: EnvChemistry2@emsl.com

Attn: **Jean-Paul Von Doehren** 6/23/2017
Environmental Health Investigations,Inc.
655 West Shore Trail
Sparta, NJ 07871
Phone: (973) 729-5649
Fax: (973) 729-5649

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 6/16/2017. The results are tabulated on the attached data pages for the following client designated project:

Russo Development #0558-6897

The reference number for these samples is EMSL Order #011704812. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (856) 303-2500.

Approved By:

Phillip Worby, Environmental Chemistry
Laboratory Director

The test results contained within this report meet the requirements of NELAP and/or the specific certification program that is applicable, unless otherwise noted.
NELAP Certifications: NJ 03036, NY 10872, PA 68-00367, CA ELAP 1877

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856) 303-2500 / (856) 858-4571
http://www.EMSL.com EnvChemistry2@emsl.com

EMSL Order: 011704812
CustomerID: EHII50
CustomerPO:
ProjectID:

Attn: **Jean-Paul Von Doehren**
Environmental Health Investigations,Inc.
655 West Shore Trail
Sparta, NJ 07871

Phone: (973) 729-5649
Fax: (973) 729-5649
Received: 06/16/17 9:00 AM

Project: **Russo Development #0558-6897**

Analytical Results

Client Sample Description RDV-061517-1A
Area 2 - On Beam Connection Plate
Collected: 6/15/2017 ***Lab ID:*** *011704812-0001*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1221	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1232	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1242	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1248	0.90	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1254	1.2	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1260	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1262	1.0	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1268	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH

Client Sample Description RDV-061517-2A
Area 3 - On Beam Facing Center of Area
Collected: 6/15/2017 ***Lab ID:*** *011704812-0002*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1221	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1232	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1242	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1248	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1254	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1260	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1262	0.83	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1268	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH

Client Sample Description RDV-061517-3A
Area 2 - On Beam Face Along Ceiling - Center North Section
Collected: 6/15/2017 ***Lab ID:*** *011704812-0003*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1221	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1232	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1242	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1248	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1254	3.2	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1260	3.1	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1262	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1268	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856) 303-2500 / (856) 858-4571
http://www.EMSL.com EnvChemistry2@emsl.com

EMSL Order: 011704812
CustomerID: EHII50
CustomerPO:
ProjectID:

Attn: **Jean-Paul Von Doehren**
Environmental Health Investigations,Inc.
655 West Shore Trail
Sparta, NJ 07871

Phone: (973) 729-5649
Fax: (973) 729-5649
Received: 06/16/17 9:00 AM

Project: **Russo Development #0558-6897**

Analytical Results

Client Sample Description RDV-061517-4A
Area 3 - On Steel Column - NE Section
Collected: 6/15/2017 ***Lab ID:*** *011704812-0004*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1221	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1232	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1242	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1248	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1254	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1260	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1262	0.77	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1268	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH

Client Sample Description RDV-061517-5A
Area 2 - On Steel Column - NE Section
Collected: 6/15/2017 ***Lab ID:*** *011704812-0005*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1221	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1232	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1242	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1248	1.7	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1254	2.6	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1260	2.6	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1262	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1268	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH

Client Sample Description RDV-061517-6A
Area 2 - On Steel Column - Center South Section
Collected: 6/15/2017 ***Lab ID:*** *011704812-0006*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	10	µg/100 cm²	6/22/2017	SD	6/23/2017	EH
3550C/8082A	Aroclor-1221	ND	10	µg/100 cm²	6/22/2017	SD	6/23/2017	EH
3550C/8082A	Aroclor-1232	ND	10	µg/100 cm²	6/22/2017	SD	6/23/2017	EH
3550C/8082A	Aroclor-1242	ND	10	µg/100 cm²	6/22/2017	SD	6/23/2017	EH
3550C/8082A	Aroclor-1248	ND	10	µg/100 cm²	6/22/2017	SD	6/23/2017	EH
3550C/8082A	Aroclor-1254	58	10	µg/100 cm²	6/22/2017	SD	6/23/2017	EH
3550C/8082A	Aroclor-1260	47	10	µg/100 cm²	6/22/2017	SD	6/23/2017	EH
3550C/8082A	Aroclor-1262	ND	10	µg/100 cm²	6/22/2017	SD	6/23/2017	EH
3550C/8082A	Aroclor-1268	ND	10	µg/100 cm²	6/22/2017	SD	6/23/2017	EH

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856) 303-2500 / (856) 858-4571
http://www.EMSL.com EnvChemistry2@emsl.com

EMSL Order: 011704812
CustomerID: EHII50
CustomerPO:
ProjectID:

Attn: **Jean-Paul Von Doehren**
Environmental Health Investigations,Inc.
655 West Shore Trail
Sparta, NJ 07871

Phone: (973) 729-5649
Fax: (973) 729-5649
Received: 06/16/17 9:00 AM

Project: **Russo Development #0558-6897**

Analytical Results

Client Sample Description RDV-061517-7A
Area 2 - Duplicate of Sample 6A
Collected: 6/15/2017 ***Lab ID:*** *011704812-0007*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	5.0	µg/100 cm²	6/22/2017	SD	6/23/2017	EH
3550C/8082A	Aroclor-1221	ND	5.0	µg/100 cm²	6/22/2017	SD	6/23/2017	EH
3550C/8082A	Aroclor-1232	ND	5.0	µg/100 cm²	6/22/2017	SD	6/23/2017	EH
3550C/8082A	Aroclor-1242	ND	5.0	µg/100 cm²	6/22/2017	SD	6/23/2017	EH
3550C/8082A	Aroclor-1248	ND	5.0	µg/100 cm²	6/22/2017	SD	6/23/2017	EH
3550C/8082A	Aroclor-1254	58	5.0	µg/100 cm²	6/22/2017	SD	6/23/2017	EH
3550C/8082A	Aroclor-1260	33	5.0	µg/100 cm²	6/22/2017	SD	6/23/2017	EH
3550C/8082A	Aroclor-1262	ND	5.0	µg/100 cm²	6/22/2017	SD	6/23/2017	EH
3550C/8082A	Aroclor-1268	ND	5.0	µg/100 cm²	6/22/2017	SD	6/23/2017	EH

Client Sample Description RDV-061517-8A
Area 2 - On Steel Column Center North Section
Collected: 6/15/2017 ***Lab ID:*** *011704812-0008*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1221	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1232	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1242	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1248	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1254	0.59	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1260	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1262	0.69	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1268	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH

Client Sample Description RDV-061517-9A
Area 2 - On Steel Column NW Section
Collected: 6/15/2017 ***Lab ID:*** *011704812-0009*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1221	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1232	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1242	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1248	1.2	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1254	3.0	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1260	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1262	6.3	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1268	2.6	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856) 303-2500 / (856) 858-4571
http://www.EMSL.com EnvChemistry2@emsl.com

EMSL Order: 011704812
CustomerID: EHII50
CustomerPO:
ProjectID:

Attn: **Jean-Paul Von Doehren**
Environmental Health Investigations,Inc.
655 West Shore Trail
Sparta, NJ 07871

Phone: (973) 729-5649
Fax: (973) 729-5649
Received: 06/16/17 9:00 AM

Project: **Russo Development #0558-6897**

Analytical Results

Client Sample Description RDV-061517-10A
Area 1 - On Steel Column NW Section
Collected: 6/15/2017 ***Lab ID:*** *011704812-0010*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1221	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1232	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1242	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1248	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1254	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1260	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1262	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1268	10	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH

Client Sample Description RDV-061517-11A
Area 1 - On Steel Column - NE End
Collected: 6/15/2017 ***Lab ID:*** *011704812-0011*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1221	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1232	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1242	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1248	ND	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1254	0.93	0.50	µg/100 cm²	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1260	ND	1.0	µg/100 cm²	6/22/2017	SD	6/23/2017	EH
3550C/8082A	Aroclor-1262	ND	1.0	µg/100 cm²	6/22/2017	SD	6/23/2017	EH
3550C/8082A	Aroclor-1268	16	1.0	µg/100 cm²	6/22/2017	SD	6/23/2017	EH

Client Sample Description RDV-061517-12A
Blank
Collected: 6/15/2017 ***Lab ID:*** *011704812-0012*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	0.50	µg/wipe	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1221	ND	0.50	µg/wipe	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1232	ND	0.50	µg/wipe	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1242	ND	0.50	µg/wipe	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1248	ND	0.50	µg/wipe	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1254	ND	0.50	µg/wipe	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1260	ND	0.50	µg/wipe	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1262	ND	0.50	µg/wipe	6/22/2017	SD	6/22/2017	EH
3550C/8082A	Aroclor-1268	ND	0.50	µg/wipe	6/22/2017	SD	6/22/2017	EH

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856) 303-2500 / (856) 858-4571
http://www.EMSL.com EnvChemistry2@emsl.com

EMSL Order:	011704812
CustomerID:	EHII50
CustomerPO:	
ProjectID:	

Definitions:

ND - indicates that the analyte was not detected at the reporting limit
RL - Reporting Limit (Analytical)

Environmental Chemistry
Chain of Custody

EMSL Order Number (*Lab Use Only*): 011704812

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 786-5974

OrderID: 011704812

Report To Contact Name: Jean Paul VanDoehren	**Bill To Company:** EHI Inc.
Company Name: EHI Inc.	**Attention To:** Jean Paul VanDoehren
Street: 655 W. Shore Trail	**Street:** 655 W. Shore Trail
City: Sparta **State/Province:** NJ. **Zip/Postal Code:** 07871	**City:** Sparta **State/Province:** NJ. **Zip/Postal Code:** 07871
Phone: 973-729-5649 **Fax:** —	**Phone:** 973-729-5649 **Fax:** —
Project Name: Russo Development # 0558-6897	**Email Results To:** JPVondoehren@ehi-inc.com **U.S. State where Samples Collected:** NJ
Number of Samples in Shipment: (12) **Date of Shipment:** 6/15/17	**Purchase Order:** — **Sampled By (Signature):**
Standard Turnaround Time: ☐ 2 Weeks	**The following TAT's are subject to lab approval:** ☒ 1 Week ☐ 4 Days ☐ 3 Days ☐ 2 Days ☐ 1 Day

Failure to complete will hinder processing of samples

	Client Sample ID	Comp	Grab	Collect Date/Time	Matrix (W=Water S=Soil A=Air SL=Sludge O= Other)	Preservative (1=HCL 2=HNO3 3=H2SO4 4=ICE 5=Other)	List Test(s) Needed: Extraction via Method 3550B (SW) Analysis via Method 8082 (846)	Comments
(1)	RDV-061517-1A	☐	☐	6/15/17/0914	Other		X	PCB Wipe Samples
(2)	-2A	☐	☐	6/15/17/0928			X	
(3)	-3A	☐	☐	6/15/17/0939			X	
(4)	-4A	☐	☐	6/15/17/1002			X	
(5)	-5A	☐	☐	6/15/17/1010			X	
(6)	-6A	☐	☐	6/15/17/1024			X	

Released By (Signature)	Date & Time	Received By	Date & Time
	6/15/17 - 12:30	Chris Lavabe	6/15/17 @ 1245pm
		CR Courier	6-15-17 8:50P

Please indicate reporting requirements: ☐ Results Only ☒ Results and QC ☐ Reduced Deliverables ☐ Disk Deliverable ☐ Other _____

Instructions or Comments:.

*wipe area = 10cm x 10cm per lean. (AFS)

Rcvd Imp Rec 4°C 6/16/17 09.00

Environmental Chemistry
Chain of Custody

EMSL Order Number (Lab Use Only): 011704812

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 786-5974

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Failure to complete will hinder processing of samples				Matrix	Preservative	List Test(s) Needed									Comments
Client Sample ID	Comp	Grab	Collect Date/Time	W=Water S=Soil A=Air SL=Sludge O= Other	1=HCL 2=HNO3 3=H2SO4 4=ICE 5=Other	Extraction via Method 3550B (SW 846) Analysis via Method 8082									
(7) RD-061517-7A			6/15/17/1046	other		X									
(8) -8A			6/15/17/1102			X									
(9) -9A			6/15/17/1113			X									
(10) -10A			6/15/17/1128			X									
(11) -11A			6/15/17/N41			X									
(12) -12A			6/15/17/1143												

OrderID: 011704812

011704812

BULK SAMPLE DATA FORM

ENVIRONMENTAL HEALTH INVESTIGATIONS, INC.
655 WEST SHORE TRAIL
SPARTA, NJ 07871
PHONE: (973) 729-5649 FAX: (973) 729-5649

Client: Russo Development **Project #:** 0558-6897

Location: 450-490 Sand Avenue - Garwood NJ.

Date Collected: 6/15/17

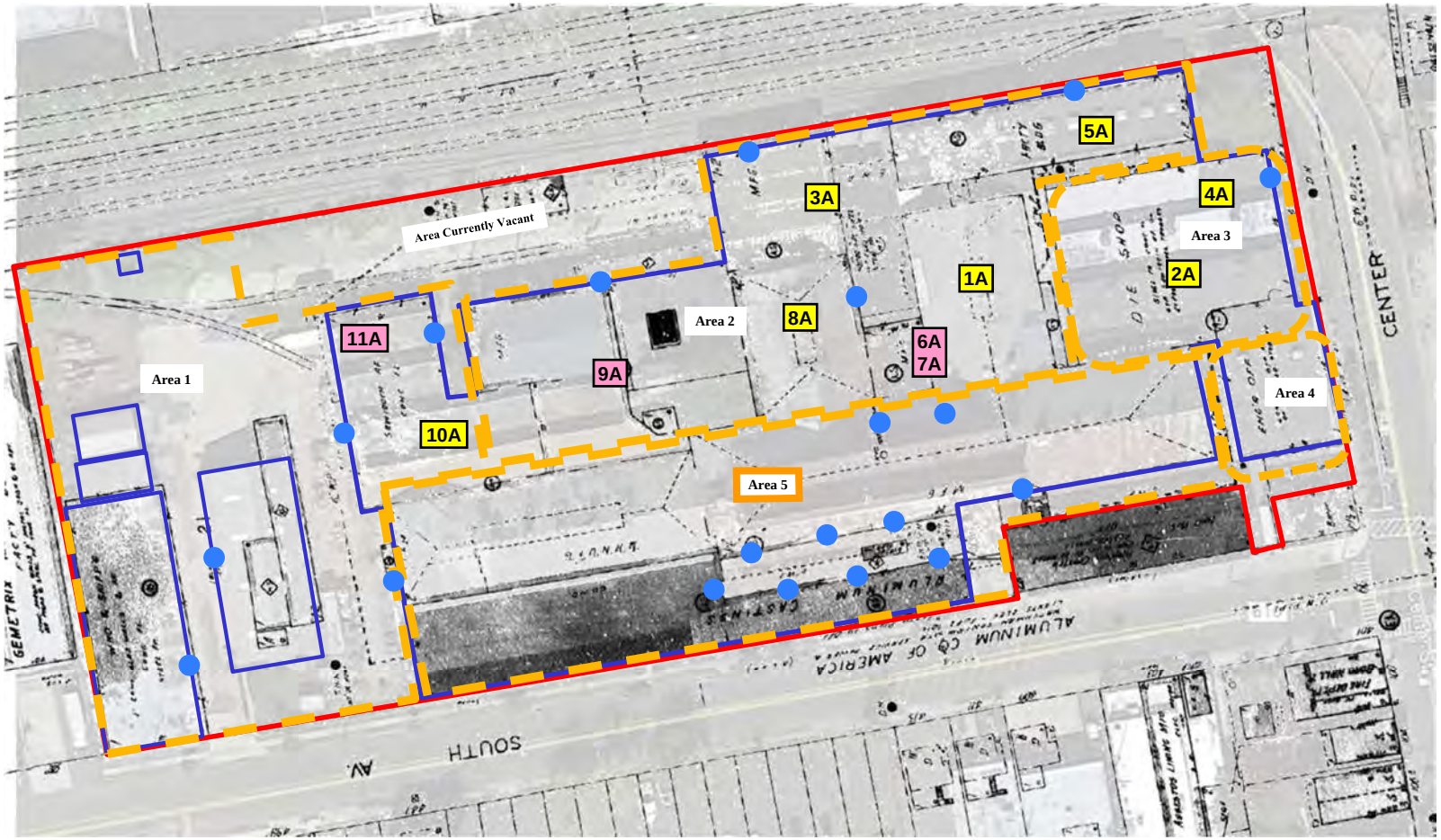
Collected By: JPV, JKW

	Sample #	Type of Material	Location	[redacted]	[redacted]
(1)	RW-061517 -1A	Wipe Sample	Area 2 - on Beam Connection Plate	PCB Wipe	
(2)	-2A	Wipe Sample	Area 3 - on Beam Face Center of area.		
(3)	-3A	Wipe Sample	Area 2 - on Beam Face along Ceiling - Center North Section.		
(4)	-4A	wipe sample	Area 3 - on Steel Column - NE Section		
(5)	-5A	wipe sample	Area 2 - on Steel Column - NE Section		
(6)	-6A	wipe Sample	Area 2 - on Steel Column - Center South Section		
(7)	-7A	Wipe Sample	Area 2 - Duplicate of Sample 6A		
(8)	-8A	wipe Sample	Area 2 - on Steel Column Center North Section		
(9)	-9A	Wipe sample	Area 2 - on steel column NW section		
(10)	-10A	Wipe Sample	Area 1 - on steel column East end		
(11)	-11A	wipe sample	Area 1 - on steel column - NE End		
(12)	-12A	wipe sample	BLANK		

A P P E N D I X

B

Sample Location Drawing



Legend

Site Boundary

Extent of Current Structures

Area Boundaries

XX - Wipe Sample Location with PCB Concentration <10ug/100cm^2

XX - Wipe Sample Location with PCB Concentration >10ug/100cm^2

PCB DUST WIPE SAMPLING AREA 1, 2 & 3 - STEEL STRUCTURE EHI Project #: 0558-6897 Date: JUNE 28, 2017	DRAWING NO. AREAS 1, 2 & 3
PREPARED BY: Environmental Health Investigations, Inc. 655 West Shore Trail Sparta, NJ 07871 Tel. 973.729.5649 www.ehi-inc.com	SITE LOCATION: 450 - 490 SOUTH AVE. GARWOOD, NJ