Wannalancit Mills
650 Suffolk Street
Lowell, MA 01854

978.970.5600 PHONE
978.453.1995 FAX

www.TRCsolutions.com

June 14, 2011

Ms. Cheryl Henlin
City of New Bedford
Department of Environmental Stewardship
133 William Street
New Bedford, Massachusetts 02740

Subject: LTMMIP Wetland Sediment Monitoring – Spring 2011
Keith Middle School
New Bedford, Massachusetts

Dear Ms. Henlin:

This letter provides the results of annual wetland sediment monitoring for the Keith Middle School (KMS) located at 225 Hathaway Boulevard in New Bedford, Massachusetts (see Figure 1). TRC conducted the sediment sampling per the Long-Term Monitoring and Maintenance Implementation Plan (LTMMIP; dated October 20, 2006) prepared by BETA Group, Incorporated (BETA), with modifications as described herein.

A TRC field scientist conducted the LTMMIP wetland sediment sampling on May 19, 2011. For the annual sediment monitoring, the LTMMIP calls for the collection of four randomly selected wetland sediment samples from locations abutting the cap slope per the sediment sampling protocol in Appendix G of the LTMMIP. Following LTMMIP sediment monitoring in May 2008, the City began Immediate Response Action (IRA) assessment and mitigation activities to address the detection of polychlorinated biphenyl (PCB) impacts in shallow wetland sediments located north of the land bridge that separates the northern and southern portions of the wetland to the rear (west) of KMS. The Massachusetts Department of Environmental Protection (MassDEP) tracks the IRA under Release Tracking Number (RTN) 4-21300.

As described in the IRA Completion Report submitted to MassDEP by TRC on behalf of the City on October 10, 2010, the City, in coordination with the MassDEP and United States Environmental Protection Agency (EPA), implemented extensive environmental sampling to evaluate potential PCB sediment impacts. TRC also initiated an Ecological Risk Assessment (ERA) for the KMS wetland. Response actions performed include the City's installation of a perimeter fence to mitigate exposure to potential PCB impacted sediments within the northern portion of the wetland (i.e., north of the utility easement between the KMS campus and Summit Street). In light of the comprehensive assessment

activities conducted by the City within the entire wetland throughout 2009, the EPA did not require the City to conduct the additional annual monitoring necessitated by the LTMMIP for that year.

For the May 2010 monitoring event, TRC randomly selected three of the four locations for sampling within the southern portion of the wetland. EPA approved modifying the 2010 annual LTMMIP sediment monitoring approach to only the portion of the wetland south of the utility easement between the KMS campus and Summit Street, outside the limits of the IRA mitigation fence. The EPA once again approved this approach concerning implementation of the May 2011 monitoring event.

For the May 2011 monitoring event, TRC used a random number generator to select three of the four sample locations within the southern portion of the wetland. A grid, with a width extending out approximately 10 feet perpendicular to the toe of the cap slope, was placed parallel to the wetland/embankment edge as documented on the December 11, 2006 As-Built Plan of Land prepared on behalf of BETA by Land Planning, Incorporated (Land Planning), of Hanson Massachusetts from the BETA-prepared December 2006 *Final Completion and Inspection Report* as approximate sampling station location identifiers for the random sample selection process (BETA, 2006b). The sample locations corresponded to randomly generated lengths (measured from south to north beginning at the southern wetland limit) parallel to the cap slope and widths (measured out perpendicular to the cap slope) as depicted in Figure 2 and listed in the following table:

Table

Sample Location	Length (feet)	Width (feet)
Location #1 (SED-KMS-11)	215	2
Location #2 (SED-KMS-12)	260	4
Location #3 (SED-KMS-13)	370	6

The fourth sample was collected from a biased location at the bottom of the slope in the vicinity of the repaired KMS Site cap slope failure along the southern portion of the wetland, also with the concurrence of EPA. The biased sample was collected to check on the potential for impacts to sediment associated with the 2007 slope failure[1].

All samples were collected using hand tools and were collected from a depth of 0 to 6 inches below the top of the sediment surface. Samples were analyzed for PCB Aroclors via SW-846 Method 8082 by Pace/Northeast Analytical, Incorporated (NEA) of

[1] In the spring of 2007, a slope failure occurred on the steep slope above the wetland near the southwestern corner of the Site. The area measured approximately 7 feet by 8 feet where the topsoil has slumped to the bottom of the slope. The black separation fabric that demarcates the underlying impacted fill from the clean imported fill was not exposed; however, a small (approximately 3 to 4 inch) piece of the orange warning layer was visible in the top left quadrant of the damaged area (when viewed from the wetland). TRC oversaw final repair of the failed slope on October 30, 2008. The repair consisted of lining the damaged area with an 8-ounce non-woven geotextile fabric and covering the fabric with stone (rip-rap) up to local grade to restore the protective cap thickness and allow flow of storm water through the slope in this area without pressure buildup. The rip-rap is intended to allow free drainage of water and be more resistant to the erosive force of storm water overland run off.

Schenectady, New York. The sampling locations, surveyed by Land Planning on June 6, 2011, are illustrated on Figure 2 and in the photograph log presented in Attachment 1. The samples were designated as follows

- SED-KMS-10 (Biased sample collected in vicinity of repaired slope failure)
- SED-KMS-11 (Duplicate collected)
- SED-KMS-12
- SED-KMS-13

TRC received the preliminary results of analysis on May 27, 2010. The full data package was received on June 8, 2011 and subsequently underwent a data usability assessment by TRC's project chemist. A copy of the data package is included as Attachment 2. All four (4) samples were non-detect (see Table 1) for PCB Aroclors. Pursuant to the EPA approved LTMMIP, further assessment is not required.

If you have any questions concerning this report, please do not hesitate to contact me at 978-656-3565 or via e-mail at dsullivan@trcsolutions.com.

Sincerely,

David M. Sullivan, LSP, CHMM
Senior Project Manager

Attachments

TABLE

Table 1
Summary of Analytical Results for Sediment Samples -- May 2011
Keith Middle School
New Bedford, Massachusetts

Analysis	Analyte						Sample ID:	SED-KMS-10	SED-KMS-11		SED-KMS-12	SED-KMS-13
							Sample Depth (ft.):	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
							Sample Date:	5/19/2011	5/19/2011	5/19/2011	5/19/2011	5/19/2011
		S-1/GW-2	S-1/GW-3	S-2/GW-2	S-2/GW-3	RC S-1*	TSCA			Field Dup		
PCBs (mg/kg)	Aroclor 1016	2	2	3	3	2	1	0.509 U	0.246 U	0.257 U	0.248 U	0.217 U
	Aroclor 1221	2	2	3	3	2	1	0.509 U	0.246 U	0.257 U	0.248 U	0.217 U
	Aroclor 1232	2	2	3	3	2	1	0.509 U	0.246 U	0.257 U	0.248 U	0.217 U
	Aroclor 1242	2	2	3	3	2	1	0.509 U	0.246 U	0.257 U	0.248 U	0.217 U
	Aroclor 1248	2	2	3	3	2	1	0.509 U	0.246 U	0.257 U	0.248 U	0.217 U
	Aroclor 1254	2	2	3	3	2	1	0.509 U	0.246 U	0.257 U	0.248 U	0.217 U
	Aroclor 1260	2	2	3	3	2	1	0.509 U	0.246 U	0.257 U	0.248 U	0.217 U
	Total PCBs	2	2	3	3	2	1	0.509 U	0.246 U	0.257 U	0.248 U	0.217 U

Notes:

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

U - Compound was not detected at specified quantitation limit.

Values in **Bold** indicate the compound was detected.

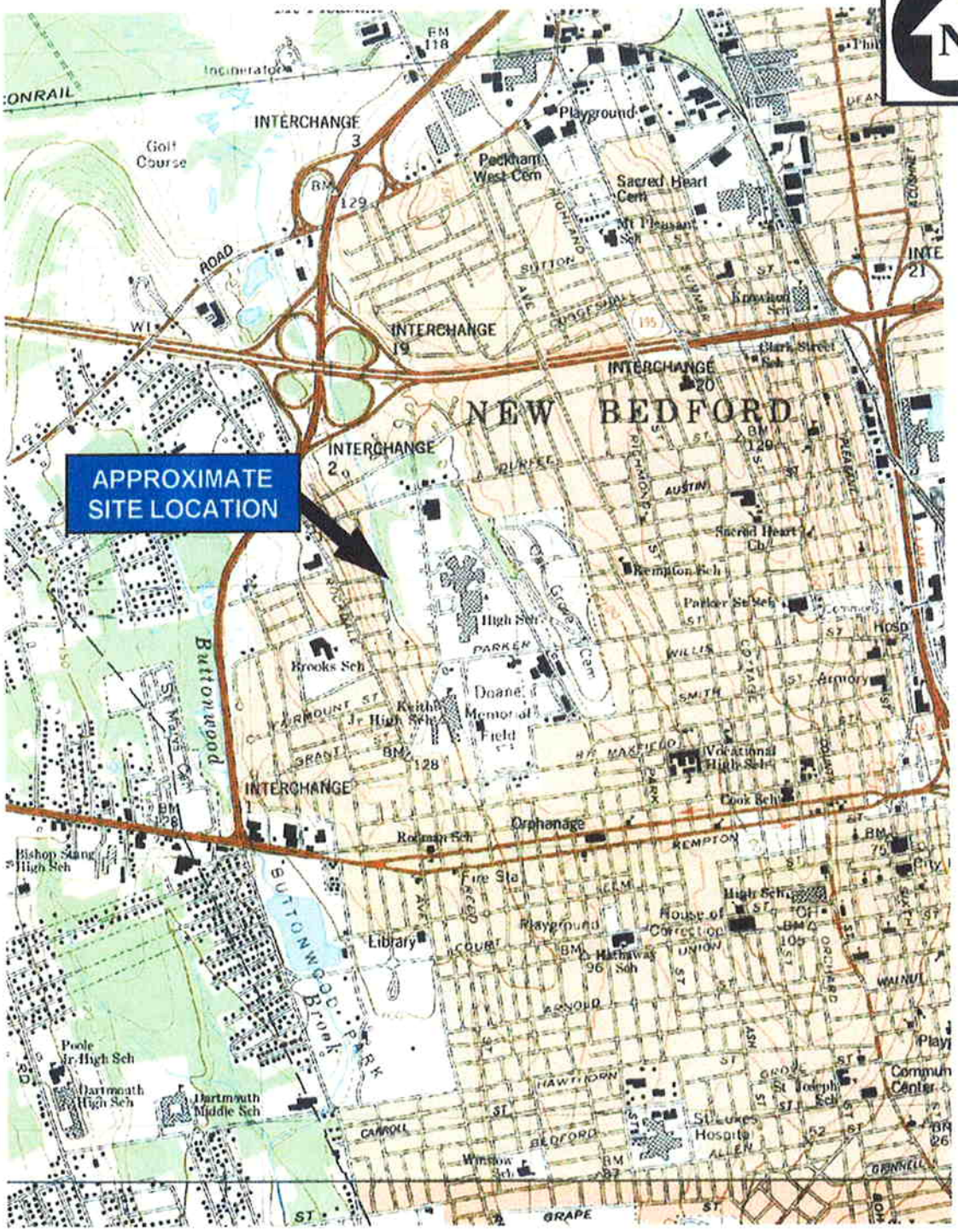
PCBs - Polychlorinated Biphenyls.

RC - Reportable Concentration.

TSCA - Toxic Substances Control Act criteria.

* - For reference purposes only.

FIGURES



BASE MAP IS A PORTION OF THE FOLLOWING 7.5' X 15' USGS TOPOGRAPHIC QUADRANGLES: NEW BEDFORD NORTH, MA, 1979; NEW BEDFORD SOUTH, MA 1977

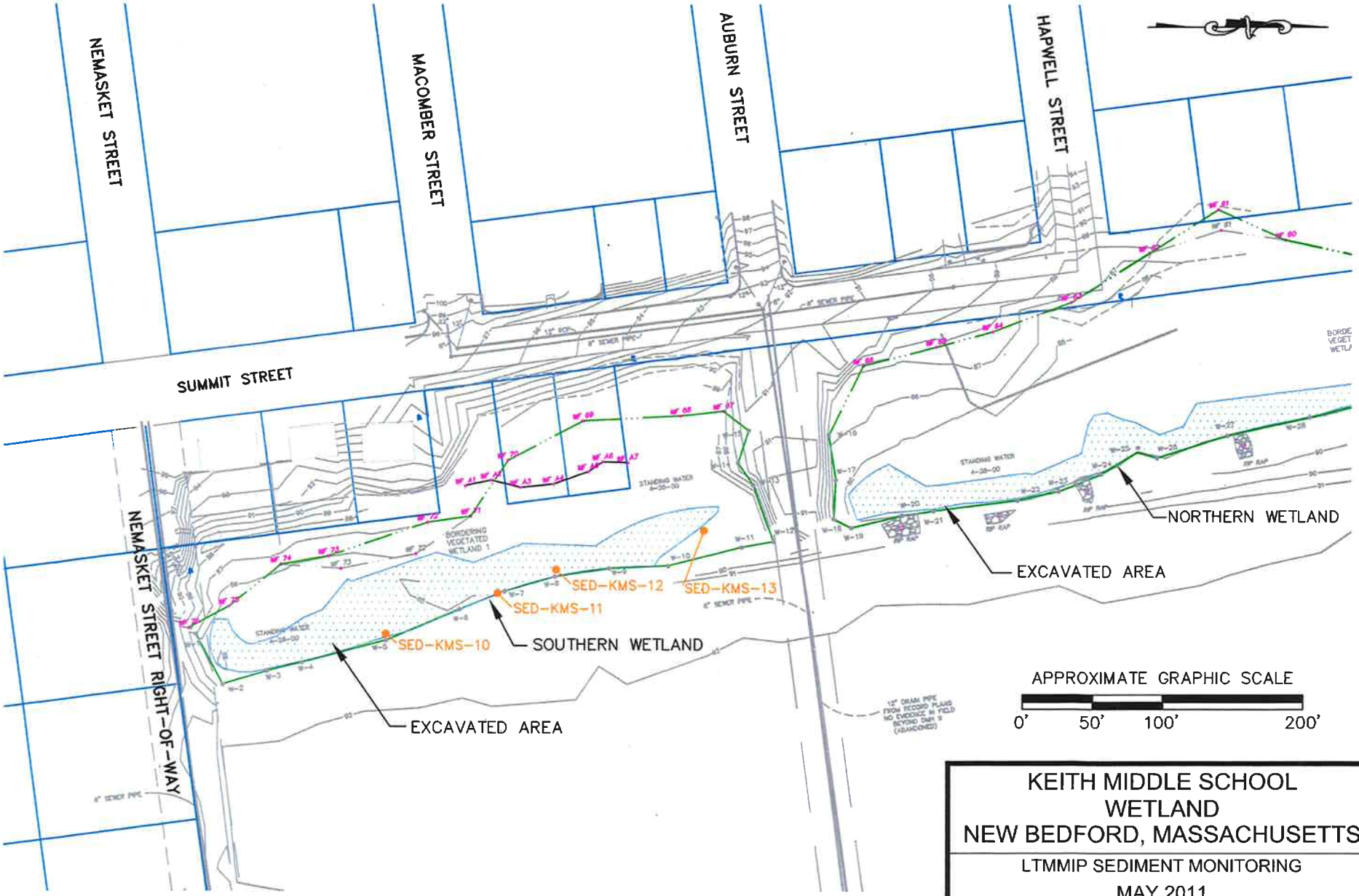
0 1000 2000 3000

scale in feet

QUADRANGLE LOCATION

T:\E_CAD\115058\TOPO KEITH MIDDLE SCHOOL.ppt

KEITH MIDDLE SCHOOL WETLAND PCB CONTAMINATED SEDIMENTS NEW BEDFORD, MASSACHUSETTS		
SITE LOCATION MAP		
TRC Wannalancit Mills 650 Suffolk Street Lowell, MA 01854 978-970-5600		FIGURE 1
Drawn: HWB	SCALE: AS SHOWN	
Checked: DS	Date: JULY 2008	



NOTE: DRAWING BASED ON "McCOY FIELD SITE PLAN" FROM BETA GROUP, NORWOOD, MA DATED 6-04 AND "NEW BEDFORD PROGRESS DRAWING" FROM BETA GROUP, NORWOOD, MA DATED 8-06.

LEGEND:

SED-KMS-11 ● SEDIMENT SAMPLE

W-8 BETA WETLINE EDGE, SAMPLE

PROPERTY BOUNDARY

KEITH MIDDLE SCHOOL WETLAND NEW BEDFORD, MASSACHUSETTS

LTMMIP SEDIMENT MONITORING

MAY 2011

TRC

Wannalancit Mills
650 Suffolk Street
Lowell, MA 01854
(978) 970-5600

FIGURE 2

DRAWN BY: HWB

CHECKED BY: JBS

DATE: JUNE 2011

FILE: T:\E_CAD\115058\KMS LTMMIP SED MON- 6-2011.dwg

Attachment 1

Site Photographs

SITE PHOTOGRAPHS
LTMMIP Wetland Sediment Monitoring – May 19, 2011
Keith Middle School
New Bedford, Massachusetts

1) Location SED-KMS-10 (viewed to the south-southeast).

2) Location SED-KMS-11 (viewed to the southwest from the cap slope).

SITE PHOTOGRAPHS
LTMMIP Wetland Sediment Monitoring – May 19, 2011
Keith Middle School
New Bedford, Massachusetts

3) Location SED-KMS-12 (viewed to the south along cap slope).

4) Location SED-KMS-13 (viewed to the northeast with KMS in the background).

Attachment 2

Laboratory Data Package

Date: May 27, 2011-B

NEA PACE Analytical e-Report

Report prepared for:
TRC ENVIRONMENTAL
WANNALANCIT MILLS
650 SUFFOLK ST
LOWELL, MA 01854
CONTACT: DAVID SULLIVAN

Project ID: 115058 KEITH MIDDLE SCHOOL
Sampling Date(s): May 19, 2011
NEA Report ID: 11050175
Client Service Contact: William Kotas (518) 346-4592 ext. 17

Analysis Included:
PCB Analysis

Test results meet all National Environmental Laboratory Accreditation Conference (NELAC) requirements unless noted in the case narrative. This report shall not be reproduced, except in full, without the written consent of NEA - A Division of Pace Analytical Services, Inc.

Robert E. Wagner
Laboratory Director

Certifications: NY (EPA: NY00906, ELAP: 11078), NJ (NY026), CT (PH-0337), MA(M-NY906), NC (668)

NEA - A Division of Pace Analytical Services| 2190 Technology Drive | Schenectady, NY 12308
Phone: 518.346.4592 | internet: www.nealab.com | Email: information@nealab.com

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CASE NARRATIVE

May 27, 2011

CASE NARRATIVE

This data package (NEA SDG ID: 11050175) consists of 5 soil samples received on 05/20/2011. The samples are from Project Name: 115058 KEITH MIDDLE SCHOOL.

This sample delivery group consists of the following samples:

Lab Sample ID	Client ID	Collection Date
AO06002	SED-KMS-10 (0-6")	05/19/2011 09:55
AO06003	SED-KMS-11 (0-6")	05/19/2011 10:10
AO06004	SED-KMS-11D (0-6")	05/19/2011 10:15
AO06005	SED-KMS-12 (0-6")	05/19/2011 10:25
AO06006	SED-KMS-13 (0-6")	05/19/2011 10:40

Sample Delivery and Receipt Conditions

(1.) All samples were delivered to the laboratory via FEDEX delivery service on 05/20/2011.

(2.) All samples were received at the laboratory intact and within holding times.

(3.) The following cooler temperature was recorded at sample receipt: 3.6 degrees Celsius. Please see Chain of Custody for details.

PCB Aroclor Analysis

Analysis for PCB Aroclors was performed by method SW-846 8082A using a dual column GC system. Samples were extracted by Soxhlet Extraction Method (EPA - Method 3540C). The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for the analysis.

Qualifier Summary

(1.) B-Denotes analyte observed in associated method blank or extraction blank at a concentration exceeding the MDL.

(2.) J-Denotes concentration result greater than the MDL but less than the RL.

(3.) U-Denotes analyte not observed at a concentration greater than the MDL.

Respectfully submitted,

William A. Kotas
Client Services Manager

S:\Lims Data\1105\11050175\Package\CN_11050175_Rev00.doc

SAMPLE CHAIN OF CUSTODY

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

<11050175P1>

110501751

Page: of

1445506

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: TRC	Report To: David Sullivan	Attention: David Sullivan
Address: 650 Suffolk St. Lowell MA 01854	Copy To: Jeff Saunders	Company Name: Same as Section A
		Address:
Email To: dsullivan@trcsolutions.com	Purchase Order No.: TBD	Pace Quote Reference: TBD
Phone: 978-656-3565 Fax: —	Project Name: City of NB - KMS LTMMIP	Pace Project Manager:
Requested Due Date/TAT: TRC Stnd. (5-day)	Project Number: 115058-000810-000002	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ OTHER MCP

Site Location STATE: MA

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): Y/N NA

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START (JS) Grab DATE	TIME	COMPOSITE END/GRAB DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved (Ice)	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: PCBs (8082) Soxhlet Extractor	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	SED-KMS-10 (0-6")	SL	G	5/19/11	0955				1	X								X		A006002
2	SED-KMS-11 (0-6")	SL	G	↓	1010				1	X								X		A006003
3	SED-KMS-11D (0-6")	SL	G	↓	1015				1	X								X		A006004
4	SED-KMS-12 (0-6")	SL	G	↓	1025				1	X								X		A006005
5	SED-KMS-13 (0-6")	SL	G	5/19/11	1040				1	X								X		A006006
6																				
7																				
8																				
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Fedex #: 8461-9325-8758	[signature] / TRC	5/19/11	1400	Via Fedex	5/19/11	
				K. Haughtlen	5/20/11	09:08

SAMPLE CONDITIONS

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
3.6	Y	Y	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jeff Saunders

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 5/19/11

F-ALL-Q-020rev.07, 15-May-2007

3

INTERNAL SAMPLE TRACKING RECORD

PCB EXTRACTION LOG

Pace Analytical®

Prep Date: 05/20/11 **Batch ID: 13845**

	Prep ID	NEA Sample ID	Alt Sample ID	Matrix	pH	Analysis Required	Extract Type / Unit	Percent Total Solids	Sample Amount (g or mL)	Extract Time On - 1	Extract Time Off - 1	Extract Time On - 2	Extract Time Off - 2	Date Acid Cleaned (MM/DD)	Date TBA Cleaned (MM/DD)	Date Florisil Shake (MM/DD)	Date Hg Shake (MM/DD)	Final Ext. Vol (mL)	Date Conc (MM/DD)	Comments
														Initial for required Clean Up Steps						
														CAP	CAP	CAP				
1	133444	PBLK-87	AO06002B	Soil		E PCB S	SOX	N/A	10.398	13:35	08:00	NA	NA	05/21	05/21	05/21	NA	25	05/21	
2	133443	LCS-87	AO06002L	Soil		E PCB S	SOX	N/A	10.196	13:35	08:00	NA	NA	05/21	05/21	05/21	NA	25	05/21	
3	133438	11050175-01	AO06002	Soil		E PCB S	SOX	9.50	10.331	13:35	08:00	NA	NA	05/21	05/21	05/21	NA	25	05/21	
4	133439	11050175-02	AO06003	Soil		E PCB S	SOX	19.8	10.273	13:35	08:00	NA	NA	05/21	05/21	05/21	NA	25	05/21	
5	133440	11050175-03	AO06004	Soil		E PCB S	SOX	19.0	10.259	13:35	08:00	NA	NA	05/21	05/21	05/21	NA	25	05/21	
6	133441	11050175-04	AO06005	Soil		E PCB S	SOX	19.5	10.334	13:35	08:00	NA	NA	05/21	05/21	05/21	NA	25	05/21	
7	133442	11050175-05	AO06006	Soil		E PCB S	SOX	22.8	10.120	13:35	08:00	NA	NA	05/21	05/21	05/21	NA	25	05/21	

Solvent, Surrogate, Spike, and Acid Information

Item	Lot Number	Amount (uL)	Conc (ug/mL)	B	L	LD	S	D	M	K
Sulfuric Acid (Main Lab)	E49039	NA	NA	☑	☑	☐	☑	☐	☐	☐
Sodium Sulfate	J24624	NA		☑	☑	☐	☑	☐	☐	☐
Acetone (Dewar) CURRENT	DD070	NA		☑	☑	☐	☑	☐	☐	☐
0.5ppm TCMX/5.0ppm DCBP in hexane	011111B029P174B1-10	500	0.5/5.0	☑	☑	☐	☑	☐	☐	☐
Aroclor 1242 @ 12.5PPM SPIKE	021011B030P012B	1000	12.5	☐	☑	☐	☐	☐	☐	☐
10% Florisil MAIN LAB CURRENT	032411MLB2P55D	NA		☑	☑	☐	☑	☐	☐	☐
Hexane (Dewar)	DD292	NA		☑	☑	☐	☑	☐	☐	☐
TBA Solution	041511MLB2P56A	NA		☑	☑	☐	☑	☐	☐	☐
Thimbles (Cellulose)	N08433x80MM	NA		☑	☑	☐	☑	☐	☐	☐

3

Analyst Review: Craig Petrask
Craig Petrask

Peer Review: Tim Holton
Timothy Holton

Print Date: 5/27/2011
Lims Version : 5.0.5.8
_EXT - LOGBOOK_GC-SV; Rev 02: 1.18.2010; EXTRACTION

PCB SCREEN SHEET

LRF: 11050175 **Batch ID:13845**

NEA Sample ID	File ID	Matrix	Prep Date	Wet Weight (g or	Percent Solids	Dry Weight (g or mL)	Set Volume (mL)	Screen Dilution	Screen Result	Bench Dilution	Dilution Sequence	Final Multiplier	Dilution Analyst
AO06002B	GC18B-1290-4	Soil	**05/20/11**	10.398	N/A	10.398	25	25	0.00080234	1	NA	25x	Jared Acker
	GC18F-1317-4	Soil	**05/20/11**	10.398	N/A	10.398	25	25	0.00080234	1	NA	25x	Jared Acker
AO06002L	GC18B-1290-5	Soil	**05/20/11**	10.196	N/A	10.196	25	25	0.67960	1	NA	25x	Jared Acker
	GC18F-1317-5	Soil	**05/20/11**	10.196	N/A	10.196	25	25	0.67960	1	NA	25x	Jared Acker
AO06002	GC18B-1290-6	Soil	**05/20/11**	10.331	9.50	0.98144	25	250	0.0025883	1	NA	25x	Jared Acker
	GC18F-1317-6	Soil	**05/20/11**	10.331	9.50	0.98144	25	250	0.0025883	1	NA	25x	Jared Acker
AO06003	GC18B-1290-7	Soil	**05/20/11**	10.273	19.8	2.0341	25	250	0.0052643	1	NA	25x	Jared Acker
	GC18F-1317-7	Soil	**05/20/11**	10.273	19.8	2.0341	25	250	0.0052643	1	NA	25x	Jared Acker
AO06004	GC18B-1290-8	Soil	**05/20/11**	10.259	19.0	1.9492	25	250	0.0024586	1	NA	25x	Jared Acker
	GC18F-1317-8	Soil	**05/20/11**	10.259	19.0	1.9492	25	250	0.0024586	1	NA	25x	Jared Acker
AO06005	GC18B-1290-9	Soil	**05/20/11**	10.334	19.5	2.0151	25	250	0.0058478	1	NA	25x	Jared Acker
	GC18F-1317-9	Soil	**05/20/11**	10.334	19.5	2.0151	25	250	0.0058478	1	NA	25x	Jared Acker
AO06006	GC18B-1290-10	Soil	**05/20/11**	10.120	22.8	2.3074	25	250	0.0020134	1	NA	25x	Jared Acker
	GC18F-1317-10	Soil	**05/20/11**	10.120	22.8	2.3074	25	250	0.0020134	1	NA	25x	Jared Acker

3

COMMENTS: _____

Page 1 of 1

Print Date: 5/27/2011
Lims Version : 5.0.5.8
_EXT-INJSHEET_NL; Rev 00; 09.29.2010; EXTRACTION

SURROGATE % RECOVERY SUMMARY

4

2F-1
PCB SURROGATE RECOVERY

Laboratory Name: NEA - A Division of PACE SDG: 11050175

ELAP ID No: 11078

GC Column (1): Phenomenex, Zebron ZB-1, 30 m, 0.25 mm ID, 0.25 µm

GC Column (2): Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm

LRF ID	LAB SAMPLE ID	LAB FILE ID	SURR 1 (Col 1) % REC #	SURR 2 (Col 1) % REC #	SURR 1 (Col 2) % REC #	SURR 2 (Col 2) % REC #	OTHER (1)	OTHER (2)	TOTAL OUT
PBLK-87	AO06002B	GC18F-1317-4	96.5	99.2					0
PBLK-87	AO06002B	GC18B-1290-4			101	110			0
LCS-87	AO06002L	GC18F-1317-5	100	99.6					0
LCS-87	AO06002L	GC18B-1290-5			109	111			0
11050175-01	AO06002	GC18F-1317-6	88.6	92.3					0
11050175-01	AO06002	GC18B-1290-6			91.2	104			0
11050175-02	AO06003	GC18F-1317-7	85.9	87.0					0
11050175-02	AO06003	GC18B-1290-7			88.7	87.4			0
11050175-03	AO06004	GC18F-1317-8	82.2	93.3					0
11050175-03	AO06004	GC18B-1290-8			85.8	95.5			0
11050175-04	AO06005	GC18F-1317-9	83.1	90.5					0
11050175-04	AO06005	GC18B-1290-9			87.1	94.4			0
11050175-05	AO06006	GC18F-1317-10	87.9	83.4					0
11050175-05	AO06006	GC18B-1290-10			90.1	93.3			0

4

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

	Advisory QC Limits.
SURR1 = TETRACHLORO-META-XYLENE	(60.0-140)
SURR2 = DECACHLOROBIPHENYL	(60.0-140)

LABORATORY CONTROL SPIKE SUMMARY

5

3F-2
LABORATORY CONTROL SPIKE (LCS) RECOVERY

Laboratory Name: NEA - A Division of PACE

ELAP ID No: 11078

SDG No: 11050175

LCS Lab ID: LCS-87

Blank Sample ID: PBLK-87

LCS File ID: GC18F-1317-5

Method Blank File ID: GC18F-1317-4

LCS Inj Date: 05/21/2011 18:37:30

Method Blank Inj Date: 05/21/2011 18:04:44

LCS ID: AO06002L

Method Blank ID: AO06002B

LCS Matrix: SODIUM SULFATE

Method Blank Matrix: SODIUM SULFATE

COMPOUND	SPIKE ADDED (ug/g)	LCS CONCENTRATION (ug/g)	LCS PERCENT RECOVERY #	QC LIMITS[1] PERCENT RECOVERY
Aroclor 1242	1.23	1.18	96.3	70.0-130

Column to be used to flag recovery values

* Values outside of QC limits

[1]QC Limits based upon laboratory defaults.

Spike Recovery: 0 out of 1 outside limits.

5

COMMENTS:

Form III-CLP-PCB (NEA-PAC

Lims Version : 5.0.5.8

3F-2
LABORATORY CONTROL SPIKE (LCS) RECOVERY

Laboratory Name: NEA - A Division of PACE

ELAP ID No: 11078

SDG No: 11050175

LCS Lab ID: LCS-87

Blank Sample ID: PBLK-87

LCS File ID: GC18B-1290-5

Method Blank File ID: GC18B-1290-4

LCS Inj Date: 05/21/2011 18:37:33

Method Blank Inj Date: 05/21/2011 18:04:47

LCS ID: AO06002L

Method Blank ID: AO06002B

LCS Matrix: SODIUM SULFATE

Method Blank Matrix: SODIUM SULFATE

COMPOUND	SPIKE ADDED (ug/g)	LCS CONCENTRATION (ug/g)	LCS PERCENT RECOVERY #	QC LIMITS[1] PERCENT RECOVERY
Aroclor 1242	1.23	1.21	98.7	70.0-130

Column to be used to flag recovery values

* Values outside of QC limits

[1]QC Limits based upon laboratory defaults.

Spike Recovery: 0 out of 1 outside limits.

5

COMMENTS:

Form III-CLP-PCB (NEA-PAC

Lims Version : 5.0.5.8

METHOD BLANK SUMMARY

6

4C-1
PCB METHOD BLANK SUMMARY

Laboratory Name:	NEA - A Division of PACE	SDG No:	11050175
ELAP ID No:	11078	Blank Sample ID:	PBLK-87
Matrix:	SODIUM SULFATE	Method Blank Nea ID No:	AO06002B
Instrument ID:	GC18F	Lab File ID:	GC18F-1317-4
Extraction Type:	Soxhlet Method (3540C)	Date Extracted:	05/20/2011
GC Column (1):	Phenomenex, Zebron ZB-1, 30 m, 0.25 mm ID, 0.25 µm	Date Analyzed:	05/21/2011
		Time Analyzed:	18:04:44

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE / TIME ANALYZED
LCS-87(LAB CONTROL SPIKE)	AO06002L	GC18F-1317-5	05/21/2011 18:37:30
SED-KMS-10 (0-6")	AO06002	GC18F-1317-6	05/21/2011 19:10:16
SED-KMS-11 (0-6")	AO06003	GC18F-1317-7	05/21/2011 19:43:03
SED-KMS-11D (0-6")	AO06004	GC18F-1317-8	05/21/2011 20:15:50
SED-KMS-12 (0-6")	AO06005	GC18F-1317-9	05/21/2011 20:48:36
SED-KMS-13 (0-6")	AO06006	GC18F-1317-10	05/21/2011 21:21:22

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FORM IV-CLP-PCB(NEA-PACE

Print date: 5/27/2011
Lims Version : 5.0.5.8

4C-1
PCB METHOD BLANK SUMMARY

Laboratory Name:	NEA - A Division of PACE	SDG No:	11050175
ELAP ID No:	11078	Blank Sample ID:	PBLK-87
Matrix:	SODIUM SULFATE	Method Blank Nea ID No:	AO06002B
Instrument ID:	GC18B	Lab File ID:	GC18B-1290-4
Extraction Type:	Soxhlet Method (3540C)	Date Extracted:	05/20/2011
GC Column (1):	Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm	Date Analyzed:	05/21/2011
		Time Analyzed:	18:04:47

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE / TIME ANALYZED
LCS-87(LAB CONTROL SPIKE)	AO06002L	GC18B-1290-5	05/21/2011 18:37:33
SED-KMS-10 (0-6")	AO06002	GC18B-1290-6	05/21/2011 19:10:19
SED-KMS-11 (0-6")	AO06003	GC18B-1290-7	05/21/2011 19:43:06
SED-KMS-11D (0-6")	AO06004	GC18B-1290-8	05/21/2011 20:15:54
SED-KMS-12 (0-6")	AO06005	GC18B-1290-9	05/21/2011 20:48:39
SED-KMS-13 (0-6")	AO06006	GC18B-1290-10	05/21/2011 21:21:26

6

SAMPLE ANALYSIS DATA

7

1D-1
PCB ANALYSIS DATA SHEET

Laboratory Name:	NEA - A Division of PACE	SDG No:	11050175
ELAP ID No:	11078	LRF ID:	11050175-01
Matrix:	Soil	Client ID:	SED-KMS-10 (0-6")
Sample wt(Dry)/vol:	0.9814 g	Lab Sample ID:	AO06002
Percent Moisture:	90.5	Date Received:	05/20/2011
Extraction:	Soxhlet Method (3540C)	Date Extracted:	05/20/2011
Conc. Extract Volume:	25000 uL	Date Analyzed:	05/21/2011
Method:	SW-846 8082 (PCB)	Dilution Factor:	1
		Sulfur Cleanup:	YES

Column 1 Information:

GC Column: Phenomenex, Zebron ZB-1, 30 m, 0.25 mm ID, 0.25 µm

Injection Volume: 1.0 uL

Lab File ID: GC18F-1317-6

Column 2 Information:

GC Column: Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm

Injection Volume: 1.0 uL

Lab File ID: GC18B-1290-6

Column Number	CAS NO	COMPOUND NAME	CONCENTRATION UG/G	Q
1	12674-11-2	Aroclor 1016	0.509	U
1	11104-28-2	Aroclor 1221	0.509	U
1	11141-16-5	Aroclor 1232	0.509	U
1	53469-21-9	Aroclor 1242	0.509	U
1	12672-29-6	Aroclor 1248	0.509	U
1	11097-69-1	Aroclor 1254	0.509	U
1	11096-82-5	Aroclor 1260	0.509	U

Laboratory Qualifiers:
U - Denotes analyte not detected at concentration greater than or equal to the Practical Quantitation Limit (PQL). PQLs are adjusted for sample weight/volume and dilution factors.

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FORM I-CLP-PCB (NEA)

1D-1
PCB ANALYSIS DATA SHEET

Laboratory Name:	NEA - A Division of PACE	SDG No:	11050175
ELAP ID No:	11078	LRF ID:	11050175-02
Matrix:	Soil	Client ID:	SED-KMS-11 (0-6")
Sample wt(Dry)/vol:	2.0341 g	Lab Sample ID:	AO06003
Percent Moisture:	80.2	Date Received:	05/20/2011
Extraction:	Soxhlet Method (3540C)	Date Extracted:	05/20/2011
Conc. Extract Volume:	25000 uL	Date Analyzed:	05/21/2011
Method:	SW-846 8082 (PCB)	Dilution Factor:	1
		Sulfur Cleanup:	YES

Column 1 Information:

GC Column: Phenomenex, Zebron ZB-1, 30 m, 0.25 mm ID, 0.25 µm

Injection Volume: 1.0 uL

Lab File ID: GC18F-1317-7

Column 2 Information:

GC Column: Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm

Injection Volume: 1.0 uL

Lab File ID: GC18B-1290-7

Column Number	CAS NO	COMPOUND NAME	CONCENTRATION UG/G	Q
1	12674-11-2	Aroclor 1016	0.246	U
1	11104-28-2	Aroclor 1221	0.246	U
1	11141-16-5	Aroclor 1232	0.246	U
1	53469-21-9	Aroclor 1242	0.246	U
1	12672-29-6	Aroclor 1248	0.246	U
1	11097-69-1	Aroclor 1254	0.246	U
1	11096-82-5	Aroclor 1260	0.246	U

Laboratory Qualifiers:
U - Denotes analyte not detected at concentration greater than or equal to the Practical Quantitation Limit (PQL). PQLs are adjusted for sample weight/volume and dilution factors.

7

FORM I-CLP-PCB (NEA)

Print Date: 5/27/2011
Lims Version : 5.0.5.6

1D-1
PCB ANALYSIS DATA SHEET

Laboratory Name:	NEA - A Division of PACE	SDG No:	11050175
ELAP ID No:	11078	LRF ID:	11050175-03
Matrix:	Soil	Client ID:	SED-KMS-11D (0-6")
Sample wt(Dry)/vol:	1.9492 g	Lab Sample ID:	AO06004
Percent Moisture:	81.0	Date Received:	05/20/2011
Extraction:	Soxhlet Method (3540C)	Date Extracted:	05/20/2011
Conc. Extract Volume:	25000 uL	Date Analyzed:	05/21/2011
Method:	SW-846 8082 (PCB)	Dilution Factor:	1
		Sulfur Cleanup:	YES

Column 1 Information:

GC Column: Phenomenex, Zebron ZB-1, 30 m, 0.25 mm ID, 0.25 µm

Injection Volume: 1.0 uL

Lab File ID: GC18F-1317-8

Column 2 Information:

GC Column: Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm

Injection Volume: 1.0 uL

Lab File ID: GC18B-1290-8

Column Number	CAS NO	COMPOUND NAME	CONCENTRATION UG/G	Q
1	12674-11-2	Aroclor 1016	0.257	U
1	11104-28-2	Aroclor 1221	0.257	U
1	11141-16-5	Aroclor 1232	0.257	U
1	53469-21-9	Aroclor 1242	0.257	U
1	12672-29-6	Aroclor 1248	0.257	U
1	11097-69-1	Aroclor 1254	0.257	U
1	11096-82-5	Aroclor 1260	0.257	U

Laboratory Qualifiers:
U - Denotes analyte not detected at concentration greater than or equal to the Practical Quantitation Limit (PQL). PQLs are adjusted for sample weight/volume and dilution factors.

7

FORM I-CLP-PCB (NEA)

1D-1
PCB ANALYSIS DATA SHEET

Laboratory Name:	NEA - A Division of PACE	SDG No:	11050175
ELAP ID No:	11078	LRF ID:	11050175-04
Matrix:	Soil	Client ID:	SED-KMS-12 (0-6")
Sample wt(Dry)/vol:	2.0151 g	Lab Sample ID:	AO06005
Percent Moisture:	80.5	Date Received:	05/20/2011
Extraction:	Soxhlet Method (3540C)	Date Extracted:	05/20/2011
Conc. Extract Volume:	25000 uL	Date Analyzed:	05/21/2011
Method:	SW-846 8082 (PCB)	Dilution Factor:	1
		Sulfur Cleanup:	YES

Column 1 Information:

GC Column: Phenomenex, Zebron ZB-1, 30 m, 0.25 mm ID, 0.25 µm

Injection Volume: 1.0 uL

Lab File ID: GC18F-1317-9

Column 2 Information:

GC Column: Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm

Injection Volume: 1.0 uL

Lab File ID: GC18B-1290-9

Column Number	CAS NO	COMPOUND NAME	CONCENTRATION UG/G	Q
1	12674-11-2	Aroclor 1016	0.248	U
1	11104-28-2	Aroclor 1221	0.248	U
1	11141-16-5	Aroclor 1232	0.248	U
1	53469-21-9	Aroclor 1242	0.248	U
1	12672-29-6	Aroclor 1248	0.248	U
1	11097-69-1	Aroclor 1254	0.248	U
1	11096-82-5	Aroclor 1260	0.248	U

Laboratory Qualifiers:
U - Denotes analyte not detected at concentration greater than or equal to the Practical Quantitation Limit (PQL). PQLs are adjusted for sample weight/volume and dilution factors.

7

FORM I-CLP-PCB (NEA)

1D-1
PCB ANALYSIS DATA SHEET

Laboratory Name:	NEA - A Division of PACE	SDG No:	11050175
ELAP ID No:	11078	LRF ID:	11050175-05
Matrix:	Soil	Client ID:	SED-KMS-13 (0-6")
Sample wt(Dry)/vol:	2.3074 g	Lab Sample ID:	AO06006
Percent Moisture:	77.2	Date Received:	05/20/2011
Extraction:	Soxhlet Method (3540C)	Date Extracted:	05/20/2011
Conc. Extract Volume:	25000 uL	Date Analyzed:	05/21/2011
Method:	SW-846 8082 (PCB)	Dilution Factor:	1
		Sulfur Cleanup:	YES

Column 1 Information:

GC Column: Phenomenex, Zebron ZB-1, 30 m, 0.25 mm ID, 0.25 µm

Injection Volume: 1.0 uL

Lab File ID: GC18F-1317-10

Column 2 Information:

GC Column: Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm

Injection Volume: 1.0 uL

Lab File ID: GC18B-1290-10

Column Number	CAS NO	COMPOUND NAME	CONCENTRATION UG/G	Q
1	12674-11-2	Aroclor 1016	0.217	U
1	11104-28-2	Aroclor 1221	0.217	U
1	11141-16-5	Aroclor 1232	0.217	U
1	53469-21-9	Aroclor 1242	0.217	U
1	12672-29-6	Aroclor 1248	0.217	U
1	11097-69-1	Aroclor 1254	0.217	U
1	11096-82-5	Aroclor 1260	0.217	U

Laboratory Qualifiers:
U - Denotes analyte not detected at concentration greater than or equal to the Practical Quantitation Limit (PQL). PQLs are adjusted for sample weight/volume and dilution factors.

7

FORM I-CLP-PCB (NEA)

ANALYTICAL SEQUENCE (GC18F)

8

8-D-1
PCB ANALYTICAL SEQUENCE

Laboratory Name: NEA - A Division of PACE SDG No: 11050175

ELAP ID No: 11078

Instrument ID: GC18F Init. Calib. Date(s): 04/22/11,04/23/11

GC Column (1): Phenomenex, Zebron ZB-1, 30 m, 0.25 mm ID, 0.25 µm

THE ANALYTICAL SEQUENCE OF SAMPLES, QC, AND STANDARDS IS GIVEN BELOW:

SURROGATE RETENTION TIME (RT) FROM INITIAL OR CONTINUING CALIBRATION
TCMX RT: 5.55 DCBP RT: 23.52

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE / TIME ANALYZED	TCMX RT # (+/-0.05 min)	DCBP RT # (+/-0.10 min)
01	A1016 20 PPB	042216A	GC18F-1296-3	04/22/2011 14:54:37		
02	A1016 100 PPB	042216B	GC18F-1296-4	04/22/2011 15:27:26		
03	A1016 250 PPB	042216C	GC18F-1296-5	04/22/2011 16:00:12		
04	A1016 500 PPB	042216D	GC18F-1296-6	04/22/2011 16:33:00		
05	A1016 1000 PPB	042216E	GC18F-1296-7	04/22/2011 17:05:47		
06	A1221 20 PPB	042221A	GC18F-1296-8	04/22/2011 17:38:34		
07	A1221 100 PPB	042221B	GC18F-1296-9	04/22/2011 18:11:22		
08	A1221 250 PPB	042221C	GC18F-1296-10	04/22/2011 18:44:08		
09	A1221 500 PPB	042221D	GC18F-1296-11	04/22/2011 19:16:55		
10	A1221 1000 PPB	042221E	GC18F-1296-12	04/22/2011 19:49:42		
11	A1232 20 PPB	042232A	GC18F-1296-13	04/22/2011 20:22:31		
12	A1232 100 PPB	042232B	GC18F-1296-14	04/22/2011 20:55:19		
13	A1232 250 PPB	042232C	GC18F-1296-15	04/22/2011 21:28:06		
14	A1232 500 PPB	042232D	GC18F-1296-16	04/22/2011 22:00:53		
15	A1232 1000 PPB	042232E	GC18F-1296-17	04/22/2011 22:33:40		
16	A1242 20 PPB	042242A	GC18F-1296-18	04/22/2011 23:06:27		
17	A1242 100 PPB	042242B	GC18F-1296-19	04/22/2011 23:39:13		
18	A1242 250 PPB	042242C	GC18F-1296-20	04/23/2011 00:12:00		
19	A1242 500 PPB	042242D	GC18F-1296-21	04/23/2011 00:44:47		
20	A1242 1000 PPB	042242E	GC18F-1296-22	04/23/2011 01:17:36		
21	A1248 20 PPB	042248A	GC18F-1296-23	04/23/2011 01:50:23		
22	A1248 100 PPB	042248B	GC18F-1296-24	04/23/2011 02:23:11		
23	A1248 250 PPB	042248C	GC18F-1296-25	04/23/2011 02:55:58		
24	A1248 500 PPB	042248D	GC18F-1296-26	04/23/2011 03:28:45		
25	A1248 1000 PPB	042248E	GC18F-1296-27	04/23/2011 04:01:33		
26	A1254 20 PPB	042254A	GC18F-1296-28	04/23/2011 04:34:19	5.55	23.52
27	A1254 100 PPB	042254B	GC18F-1296-29	04/23/2011 05:07:05	5.54	23.51
28	A1254 250 PPB	042254C	GC18F-1296-30	04/23/2011 05:39:51	5.55	23.52
29	A1254 500 PPB	042254D	GC18F-1296-31	04/23/2011 06:12:38	5.55	23.52
30	A1254 1000 PPB	042254E	GC18F-1296-32	04/23/2011 06:45:26	5.55	23.51
31	A1260 20 PPB	042260A	GC18F-1296-33	04/23/2011 07:18:13		
32	A1260 100 PPB	042260B	GC18F-1296-34	04/23/2011 07:51:01		
33	A1260 250 PPB	042260C	GC18F-1296-35	04/23/2011 08:23:49		
34	A1260 500 PPB	042260D	GC18F-1296-36	04/23/2011 08:56:37		
35	A1260 1000 PPB	042260E	GC18F-1296-37	04/23/2011 09:29:23		
36	A1262 20 PPB	042262A	GC18F-1296-38	04/23/2011 10:02:10		
37	A1262 100 PPB	042262B	GC18F-1296-39	04/23/2011 10:34:56		
38	A1262 250 PPB	042262C	GC18F-1296-40	04/23/2011 11:07:44		

Column used to flag surrogate retention times outside expected range.

FORM VIII-CLP-PCB(NEA-PA

Print Date: 5/27/2011
Lims Version : 5.0.5.8

8

8-D-1
PCB ANALYTICAL SEQUENCE

Laboratory Name: NEA - A Division of PACE SDG No: 11050175

ELAP ID No: 11078

Instrument ID: GC18F Init. Calib. Date(s): 04/22/11,04/23/11

GC Column (1): Phenomenex, Zebron ZB-1, 30 m, 0.25 mm ID, 0.25 µm

THE ANALYTICAL SEQUENCE OF SAMPLES, QC, AND STANDARDS IS GIVEN BELOW:

SURROGATE RETENTION TIME (RT) FROM INITIAL OR CONTINUING CALIBRATION
TCMX RT: 5.55 DCBP RT: 23.52

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE / TIME ANALYZED	TCMX RT # (+/-0.05 min)	DCBP RT # (+/-0.10 min)
39	A1262 500 PPB	042262D	GC18F-1296-41	04/23/2011 11:40:31		
40	A1262 1000 PPB	042262E	GC18F-1296-42	04/23/2011 12:13:18		
41	A1268 20 PPB	042268A	GC18F-1296-43	04/23/2011 12:46:05		
42	A1268 100 PPB	042268B	GC18F-1296-44	04/23/2011 13:18:52		
43	A1268 250 PPB	042268C	GC18F-1296-45	04/23/2011 13:51:39		
44	A1268 500 PPB	042268D	GC18F-1296-46	04/23/2011 14:24:26		
45	A1268 1000 PPB	042268E	GC18F-1296-47	04/23/2011 14:57:12		
46	IUPAC 15 20 PPB	0422FSA	GC18F-1296-48	04/23/2011 15:29:59		
47	IUPAC 15 50 PPB	0422FSB	GC18F-1296-49	04/23/2011 16:02:47		
48	IUPAC 15 80 PPB	0422FSC	GC18F-1296-50	04/23/2011 16:35:35		
49	IUPAC 15 100 PPB	0422FSD	GC18F-1296-51	04/23/2011 17:08:22		
50	IUPAC 15 200 PPB	0422FSE	GC18F-1296-52	04/23/2011 17:41:10		
51	A1016 500 PPB	CS160422A	GC18F-1296-54	04/23/2011 18:46:47	5.55	23.52
52	A1221 500 PPB	CS210422A	GC18F-1296-55	04/23/2011 19:19:35	5.54	23.52
53	A1232 500 PPB	CS320422A	GC18F-1296-56	04/23/2011 19:52:22	5.55	23.51
54	A1242 500 PPB	CS420422A	GC18F-1296-57	04/23/2011 20:25:10	5.54	23.51
55	A1248 500 PPB	CS480422A	GC18F-1296-58	04/23/2011 20:57:57	5.55	23.51
56	A1254 500 PPB	CS540422A	GC18F-1296-59	04/23/2011 21:30:45	5.55	23.51
57	A1260 500 PPB	CS600422A	GC18F-1296-60	04/23/2011 22:03:33	5.55	23.51
58	A1262 500 PPB	CS620422A	GC18F-1296-61	04/23/2011 22:36:21	5.55	23.51
59	A1268 500 PPB	CS680422A	GC18F-1296-62	04/23/2011 23:09:09	5.55	23.52
60	SURR IUPAC 15	110422FS01	GC18F-1296-63	04/23/2011 23:41:57	5.55	23.51
61	A1242 500 PPB	CS420521A	GC18F-1317-3	05/21/2011 17:23:39	5.54	23.50
62	PBLK-87(METHOD BLANK)	AO06002B	GC18F-1317-4	05/21/2011 18:04:44	5.55	23.50
63	LCS-87(LAB CONTROL SPIKE)	AO06002L	GC18F-1317-5	05/21/2011 18:37:30	5.54	23.50
64	SED-KMS-10 (0-6")	AO06002	GC18F-1317-6	05/21/2011 19:10:16	5.54	23.50
65	SED-KMS-11 (0-6")	AO06003	GC18F-1317-7	05/21/2011 19:43:03	5.54	23.51
66	SED-KMS-11D (0-6")	AO06004	GC18F-1317-8	05/21/2011 20:15:50	5.54	23.50
67	SED-KMS-12 (0-6")	AO06005	GC18F-1317-9	05/21/2011 20:48:36	5.54	23.50
68	SED-KMS-13 (0-6")	AO06006	GC18F-1317-10	05/21/2011 21:21:22	5.54	23.50
69	A1248 500 PPB	CS480521A	GC18F-1317-11	05/21/2011 21:54:08	5.54	23.49

8

Column used to flag surrogate retention times outside expected range.

INITIAL CALIBRATION DATA (GC18F)

9

6F-1
PCB INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Laboratory Name: NEA - A Division of PACE
SDG NO: 11050175
ELAP ID No: 11078
Date(s) Analyzed: 04/22/11,04/23/11
Instrument ID: GC18F
GC Column: Phenomenex, Zebron ZB-1, 30 m, 0.25 mm ID, 0.25 µm

COMPOUND	LAB FILE ID	NEA SAMPLE ID	AMOUNT (ppb)	TOTAL[1] RF	MEAN RF	% RSD
Aroclor 1016	GC18F-1296-3	042216A	20.0	106.997		
	GC18F-1296-4	042216B	100	100.964		
	GC18F-1296-5	042216C	250	93.635		
	GC18F-1296-6	042216D	500	90.807		
	GC18F-1296-7	042216E	1000	88.818	96.244	7.9
Aroclor 1221	GC18F-1296-8	042221A	20.0	25.256		
	GC18F-1296-9	042221B	100	25.122		
	GC18F-1296-10	042221C	250	25.881		
	GC18F-1296-11	042221D	500	24.127		
	GC18F-1296-12	042221E	1000	23.381	24.754	4.0
Aroclor 1232	GC18F-1296-13	042232A	20.0	46.288		
	GC18F-1296-14	042232B	100	47.212		
	GC18F-1296-15	042232C	250	46.109		
	GC18F-1296-16	042232D	500	44.727		
	GC18F-1296-17	042232E	1000	43.702	45.608	3.0
Aroclor 1242	GC18F-1296-18	042242A	20.0	93.258		
	GC18F-1296-19	042242B	100	85.303		
	GC18F-1296-20	042242C	250	81.781		
	GC18F-1296-21	042242D	500	84.639		
	GC18F-1296-22	042242E	1000	76.188	84.234	7.4
Aroclor 1248	GC18F-1296-23	042248A	20.0	73.228		
	GC18F-1296-24	042248B	100	86.556		
	GC18F-1296-25	042248C	250	82.774		
	GC18F-1296-26	042248D	500	78.166		
	GC18F-1296-27	042248E	1000	76.080	79.361	6.7
Aroclor 1254	GC18F-1296-28	042254A	20.0	138.290		
	GC18F-1296-29	042254B	100	140.226		
	GC18F-1296-30	042254C	250	129.138		
	GC18F-1296-31	042254D	500	126.238		
	GC18F-1296-32	042254E	1000	128.641	132.506	4.8
Aroclor 1260	GC18F-1296-33	042260A	20.0	158.323		
	GC18F-1296-34	042260B	100	174.109		
	GC18F-1296-35	042260C	250	169.932		
	GC18F-1296-36	042260D	500	162.767		
	GC18F-1296-37	042260E	1000	162.018	165.430	3.9
Aroclor 1262	GC18F-1296-38	042262A	20.0	196.243		
	GC18F-1296-39	042262B	100	185.633		
	GC18F-1296-40	042262C	250	186.209		
	GC18F-1296-41	042262D	500	177.393		
	GC18F-1296-42	042262E	1000	168.279	182.751	5.7

FORM VI-CLP-PCB(NEA-PACE)

9

6F-1
PCB INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Laboratory Name: NEA - A Division of PACE
SDG NO: 11050175
ELAP ID No: 11078
Date(s) Analyzed: 04/22/11,04/23/11
Instrument ID: GC18F
GC Column: Phenomenex, Zebron ZB-1, 30 m, 0.25 mm ID, 0.25 µm

COMPOUND	LAB FILE ID	NEA SAMPLE ID	AMOUNT (ppb)	TOTAL[1] RF	MEAN RF	% RSD
Aroclor 1268	GC18F-1296-43	042268A	20.0	320.299		
	GC18F-1296-44	042268B	100	333.525		
	GC18F-1296-45	042268C	250	315.726		
	GC18F-1296-46	042268D	500	311.535		
	GC18F-1296-47	042268E	1000	303.380	316.893	3.5
TCMX	GC18F-1296-28	042254A	2.00	559.211		
	GC18F-1296-29	042254B	5.00	532.502		
	GC18F-1296-30	042254C	8.00	518.335		
	GC18F-1296-31	042254D	10.0	493.166		
	GC18F-1296-32	042254E	20.0	528.693	526.381	4.5
4,4'-Dibromobiphenyl	GC18F-1296-48	0422FSA	20.0	333.294		
	GC18F-1296-49	0422FSB	50.0	316.345		
	GC18F-1296-50	0422FSC	80.0	295.669		
	GC18F-1296-51	0422FSD	100	290.885		
	GC18F-1296-52	0422FSE	200	271.305	301.500	7.9
DCBP	GC18F-1296-28	042254A	20.0	598.080		
	GC18F-1296-29	042254B	50.0	567.552		
	GC18F-1296-30	042254C	80.0	522.776		
	GC18F-1296-31	042254D	100	505.172		
	GC18F-1296-32	042254E	200	517.797	542.276	7.2

% RSD Limit <= 20%
TCMX=TETRACHLOROMETAXYLENE
DCBP=DECACHLOROBIPHENYL

[1] Response factor calculated using total area of 5 peaks used to quantitate each Aroclor. Mean response factor not used in Aroclor quantitation, calibration curve by linear regression used for quantitation. Concentrations are nominal values, please see Calibration Curve Report Point Table for actual values.

9

INITIAL/CONTINUING CALIBRATION DATA (GC18F)

10

7E-1
PCB CALIBRATION VERIFICATION SUMMARY

Laboratory Name: NEA - A Division of PACE

SDG NO: 11050175

ELAP ID No: 11078

Instrument ID: GC18F

GC Column: Phenomenex, Zebron ZB-1, 30 m, 0.25 mm ID, 0.25 µm

COMPOUND	LAB FILE ID	NEA SAMPLE ID	CALIB TYPE	CALC AMOUNT (ng/mL)	NOM AMOUNT (ng/mL)	PERCENT DIFFERENCE	DATE / TIME ANALYZED
Aroclor 1016	GC18F-1296-54	CS160422A	ICV	512	500	2.38	04/23/2011 18:46:47
Aroclor 1221	GC18F-1296-55	CS210422A	ICV	512	500	2.37	04/23/2011 19:19:35
Aroclor 1232	GC18F-1296-56	CS320422A	ICV	500	500	0.0108	04/23/2011 19:52:22
Aroclor 1242	GC18F-1296-57	CS420422A	ICV	457	500	-8.57	04/23/2011 20:25:10
Aroclor 1248	GC18F-1296-58	CS480422A	ICV	522	500	4.41	04/23/2011 20:57:57
Aroclor 1254	GC18F-1296-59	CS540422A	ICV	496	500	-0.819	04/23/2011 21:30:45
Aroclor 1260	GC18F-1296-60	CS600422A	ICV	505	500	0.915	04/23/2011 22:03:33
Aroclor 1262	GC18F-1296-61	CS620422A	ICV	523	500	4.60	04/23/2011 22:36:21
Aroclor 1268	GC18F-1296-62	CS680422A	ICV	517	500	3.41	04/23/2011 23:09:09
Aroclor 1242	GC18F-1317-3	CS420521A	CCV	438	500	-12.3	05/21/2011 17:23:39
Aroclor 1248	GC18F-1317-11	CS480521A	CCV	472	500	-5.58	05/21/2011 21:54:08

% Difference must be less than or equal to +/- 15 percent

ICV = Initial Calibration Verification

CCV = Continuing Calibration Verification

10

7E-2
PCB CALIBRATION VERIFICATION SUMMARY

Laboratory Name: NEA - A Division of PACE
SGD NO: 11050175
ELAP ID No: 11078
Instrument ID: GC18F
GC Column: Phenomenex, Zebron ZB-1, 30 m, 0.25 mm ID, 0.25 µm

COMPOUND	Lab File ID	NEA Sample ID	CALIB TYPE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO
Aroclor 1016	GC18F-1296-54	CS160422A	ICV	1	7.14	7.06	7.22
		CS160422A	ICV	2	7.51	7.43	7.59
		CS160422A	ICV	3	8.10	8.02	8.18
		CS160422A	ICV	4	8.30	8.22	8.38
		CS160422A	ICV	5	8.43	8.35	8.51
Aroclor 1221	GC18F-1296-55	CS210422A	ICV	1	4.19	4.11	4.27
		CS210422A	ICV	2	5.39	5.31	5.47
		CS210422A	ICV	3	5.94	5.86	6.02
		CS210422A	ICV	4	6.13	6.05	6.21
		CS210422A	ICV	5	6.25	6.17	6.33
Aroclor 1232	GC18F-1296-56	CS320422A	ICV	1	6.25	6.17	6.33
		CS320422A	ICV	2	7.51	7.43	7.59
		CS320422A	ICV	3	8.10	8.02	8.18
		CS320422A	ICV	4	8.30	8.22	8.38
		CS320422A	ICV	5	8.43	8.35	8.51
Aroclor 1242	GC18F-1296-57	CS420422A	ICV	1	7.13	7.05	7.21
		CS420422A	ICV	2	7.50	7.42	7.58
		CS420422A	ICV	3	8.09	8.01	8.17
		CS420422A	ICV	4	8.29	8.21	8.37
		CS420422A	ICV	5	8.43	8.35	8.51
Aroclor 1248	GC18F-1296-58	CS480422A	ICV	1	8.97	8.89	9.05
		CS480422A	ICV	2	9.59	9.51	9.67
		CS480422A	ICV	3	10.20	10.12	10.28
		CS480422A	ICV	4	10.35	10.27	10.43
		CS480422A	ICV	5	10.73	10.65	10.81
Aroclor 1254	GC18F-1296-59	CS540422A	ICV	1	11.04	10.96	11.12
		CS540422A	ICV	2	11.66	11.58	11.74
		CS540422A	ICV	3	11.93	11.85	12.01
		CS540422A	ICV	4	13.35	13.27	13.43
		CS540422A	ICV	5	14.14	14.06	14.22
Aroclor 1260	GC18F-1296-60	CS600422A	ICV	1	14.15	14.07	14.23
		CS600422A	ICV	2	16.32	16.24	16.40
		CS600422A	ICV	3	17.11	17.03	17.19
		CS600422A	ICV	4	17.78	17.70	17.86
		CS600422A	ICV	5	19.69	19.61	19.77
Aroclor 1262	GC18F-1296-61	CS620422A	ICV	1	14.15	14.07	14.23
		CS620422A	ICV	2	16.32	16.24	16.40
		CS620422A	ICV	3	17.11	17.03	17.19

FORM VII-CLP-PCB(NEA-PACE

Print Date: 5/27/2011
Lims Version : 5.0.5.8

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7E-2
PCB CALIBRATION VERIFICATION SUMMARY

Laboratory Name: NEA - A Division of PACE

SGD NO: 11050175

ELAP ID No: 11078

Instrument ID: GC18F

GC Column: Phenomenex, Zebron ZB-1, 30 m, 0.25 mm ID, 0.25 µm

COMPOUND	Lab File ID	NEA Sample ID	CALIB* TYPE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO
Aroclor 1262		CS620422A	ICV	4	17.79	17.71	17.87
		CS620422A	ICV	5	19.69	19.61	19.77
Aroclor 1268	GC18F-1296-62	CS680422A	ICV	1	17.79	17.71	17.87
		CS680422A	ICV	2	19.69	19.61	19.77
		CS680422A	ICV	3	17.59	17.51	17.67
		CS680422A	ICV	4	18.91	18.83	18.99
		CS680422A	ICV	5	19.23	19.15	19.31

* ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification

10

7E-2
PCB CALIBRATION VERIFICATION SUMMARY

Laboratory Name: NEA - A Division of PACE

SGD NO: 11050175

ELAP ID No: 11078

Instrument ID: GC18F

GC Column: Phenomenex, Zebron ZB-1, 30 m, 0.25 mm ID, 0.25 µm

COMPOUND	Lab File ID	NEA Sample ID	CALIB TYPE*	PEAK	RT	RT WINDOW FROM	RT WINDOW TO
Aroclor 1242	GC18F-1317-3	CS420521A	CCV	1	7.13	7.05	7.21
		CS420521A	CCV	2	7.50	7.42	7.58
		CS420521A	CCV	3	8.09	8.01	8.17
		CS420521A	CCV	4	8.29	8.21	8.37
		CS420521A	CCV	5	8.42	8.35	8.51
Aroclor 1248	GC18F-1317-11	CS480521A	CCV	1	8.96	8.89	9.05
		CS480521A	CCV	2	9.58	9.51	9.67
		CS480521A	CCV	3	10.19	10.12	10.28
		CS480521A	CCV	4	10.34	10.27	10.43
		CS480521A	CCV	5	10.73	10.65	10.81

* ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification

10

ANALYTICAL SEQUENCE (GC18B)

11

8-D-1
PCB ANALYTICAL SEQUENCE

Laboratory Name: NEA - A Division of PACE SDG No: 11050175

ELAP ID No: 11078

Instrument ID: GC18B Init. Calib. Date(s): 04/22/11,04/23/11

GC Column (1): Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm

THE ANALYTICAL SEQUENCE OF SAMPLES, QC, AND STANDARDS IS GIVEN BELOW:

SURROGATE RETENTION TIME (RT) FROM INITIAL OR CONTINUING CALIBRATION
TCMX RT: 6.35 DCBP RT: 26.61

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE / TIME ANALYZED	TCMX RT # (+/-0.05 min)	DCBP RT # (+/-0.10 min)
01	A1016 20 PPB	042216A	GC18B-1269-3	04/22/2011 14:54:41		
02	A1016 100 PPB	042216B	GC18B-1269-4	04/22/2011 15:27:29		
03	A1016 250 PPB	042216C	GC18B-1269-5	04/22/2011 16:00:16		
04	A1016 500 PPB	042216D	GC18B-1269-6	04/22/2011 16:33:04		
05	A1016 1000 PPB	042216E	GC18B-1269-7	04/22/2011 17:05:51		
06	A1221 20 PPB	042221A	GC18B-1269-8	04/22/2011 17:38:38		
07	A1221 100 PPB	042221B	GC18B-1269-9	04/22/2011 18:11:26		
08	A1221 250 PPB	042221C	GC18B-1269-10	04/22/2011 18:44:13		
09	A1221 500 PPB	042221D	GC18B-1269-11	04/22/2011 19:17:00		
10	A1221 1000 PPB	042221E	GC18B-1269-12	04/22/2011 19:49:47		
11	A1232 20 PPB	042232A	GC18B-1269-13	04/22/2011 20:22:35		
12	A1232 100 PPB	042232B	GC18B-1269-14	04/22/2011 20:55:22		
13	A1232 250 PPB	042232C	GC18B-1269-15	04/22/2011 21:28:09		
14	A1232 500 PPB	042232D	GC18B-1269-16	04/22/2011 22:00:56		
15	A1232 1000 PPB	042232E	GC18B-1269-17	04/22/2011 22:33:43		
16	A1242 20 PPB	042242A	GC18B-1269-18	04/22/2011 23:06:30		
17	A1242 100 PPB	042242B	GC18B-1269-19	04/22/2011 23:39:17		
18	A1242 250 PPB	042242C	GC18B-1269-20	04/23/2011 00:12:04		
19	A1242 500 PPB	042242D	GC18B-1269-21	04/23/2011 00:44:51		
20	A1242 1000 PPB	042242E	GC18B-1269-22	04/23/2011 01:17:39		
21	A1248 20 PPB	042248A	GC18B-1269-23	04/23/2011 01:50:26		
22	A1248 100 PPB	042248B	GC18B-1269-24	04/23/2011 02:23:14		
23	A1248 250 PPB	042248C	GC18B-1269-25	04/23/2011 02:56:02		
24	A1248 500 PPB	042248D	GC18B-1269-26	04/23/2011 03:28:49		
25	A1248 1000 PPB	042248E	GC18B-1269-27	04/23/2011 04:01:37		
26	A1254 20 PPB	042254A	GC18B-1269-28	04/23/2011 04:34:24	6.35	26.61
27	A1254 100 PPB	042254B	GC18B-1269-29	04/23/2011 05:07:10	6.35	26.61
28	A1254 250 PPB	042254C	GC18B-1269-30	04/23/2011 05:39:56	6.35	26.62
29	A1254 500 PPB	042254D	GC18B-1269-31	04/23/2011 06:12:43	6.35	26.62
30	A1254 1000 PPB	042254E	GC18B-1269-32	04/23/2011 06:45:30	6.35	26.61
31	A1260 20 PPB	042260A	GC18B-1269-33	04/23/2011 07:18:17		
32	A1260 100 PPB	042260B	GC18B-1269-34	04/23/2011 07:51:04		
33	A1260 250 PPB	042260C	GC18B-1269-35	04/23/2011 08:23:52		
34	A1260 500 PPB	042260D	GC18B-1269-36	04/23/2011 08:56:40		
35	A1260 1000 PPB	042260E	GC18B-1269-37	04/23/2011 09:29:27		
36	A1262 20 PPB	042262A	GC18B-1269-38	04/23/2011 10:02:14		
37	A1262 100 PPB	042262B	GC18B-1269-39	04/23/2011 10:35:00		
38	A1262 250 PPB	042262C	GC18B-1269-40	04/23/2011 11:07:47		

Column used to flag surrogate retention times outside expected range.

FORM VIII-CLP-PCB(NEA-PA

Print Date: 5/27/2011
Lims Version : 5.0.5.8

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8-D-1
PCB ANALYTICAL SEQUENCE

Laboratory Name: NEA - A Division of PACE SDG No: 11050175

ELAP ID No: 11078

Instrument ID: GC18B Init. Calib. Date(s): 04/22/11,04/23/11

GC Column (1): Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm

THE ANALYTICAL SEQUENCE OF SAMPLES, QC, AND STANDARDS IS GIVEN BELOW:

SURROGATE RETENTION TIME (RT) FROM INITIAL OR CONTINUING CALIBRATION
TCMX RT: 6.35 DCBP RT: 26.61

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE / TIME ANALYZED	TCMX RT # (+/-0.05 min)	DCBP RT # (+/-0.10 min)
39	A1262 500 PPB	042262D	GC18B-1269-41	04/23/2011 11:40:34		
40	A1262 1000 PPB	042262E	GC18B-1269-42	04/23/2011 12:13:21		
41	A1268 20 PPB	042268A	GC18B-1269-43	04/23/2011 12:46:08		
42	A1268 100 PPB	042268B	GC18B-1269-44	04/23/2011 13:18:56		
43	A1268 250 PPB	042268C	GC18B-1269-45	04/23/2011 13:51:43		
44	A1268 500 PPB	042268D	GC18B-1269-46	04/23/2011 14:24:30		
45	A1268 1000 PPB	042268E	GC18B-1269-47	04/23/2011 14:57:17		
46	IUPAC 15 20 PPB	0422FSA	GC18B-1269-48	04/23/2011 15:30:04		
47	IUPAC 15 50 PPB	0422FSB	GC18B-1269-49	04/23/2011 16:02:51		
48	IUPAC 15 80 PPB	0422FSC	GC18B-1269-50	04/23/2011 16:35:39		
49	IUPAC 15 100 PPB	0422FSD	GC18B-1269-51	04/23/2011 17:08:26		
50	IUPAC 15 200 PPB	0422FSE	GC18B-1269-52	04/23/2011 17:41:14		
51	A1016 500 PPB	CS160422A	GC18B-1269-54	04/23/2011 18:46:50	6.36	26.62
52	A1221 500 PPB	CS210422A	GC18B-1269-55	04/23/2011 19:19:38	6.35	26.61
53	A1232 500 PPB	CS320422A	GC18B-1269-56	04/23/2011 19:52:25	6.35	26.62
54	A1242 500 PPB	CS420422A	GC18B-1269-57	04/23/2011 20:25:13	6.35	26.62
55	A1248 500 PPB	CS480422A	GC18B-1269-58	04/23/2011 20:58:00	6.35	26.62
56	A1254 500 PPB	CS540422A	GC18B-1269-59	04/23/2011 21:30:49	6.35	26.62
57	A1260 500 PPB	CS600422A	GC18B-1269-60	04/23/2011 22:03:37	6.35	26.61
58	A1262 500 PPB	CS620422A	GC18B-1269-61	04/23/2011 22:36:24	6.35	26.62
59	A1268 500 PPB	CS680422A	GC18B-1269-62	04/23/2011 23:09:13	6.35	26.62
60	SURR IUPAC 15	110422FS01	GC18B-1269-63	04/23/2011 23:42:01	6.35	26.62
61	A1242 500 PPB	CS420521A	GC18B-1290-3	05/21/2011 17:23:42	6.35	26.59
62	PBLK-87(METHOD BLANK)	AO06002B	GC18B-1290-4	05/21/2011 18:04:47	6.35	26.59
63	LCS-87(LAB CONTROL SPIKE)	AO06002L	GC18B-1290-5	05/21/2011 18:37:33	6.35	26.59
64	SED-KMS-10 (0-6")	AO06002	GC18B-1290-6	05/21/2011 19:10:19	6.35	26.59
65	SED-KMS-11 (0-6")	AO06003	GC18B-1290-7	05/21/2011 19:43:06	6.35	26.59
66	SED-KMS-11D (0-6")	AO06004	GC18B-1290-8	05/21/2011 20:15:54	6.35	26.59
67	SED-KMS-12 (0-6")	AO06005	GC18B-1290-9	05/21/2011 20:48:39	6.35	26.59
68	SED-KMS-13 (0-6")	AO06006	GC18B-1290-10	05/21/2011 21:21:26	6.34	26.58
69	A1248 500 PPB	CS480521A	GC18B-1290-11	05/21/2011 21:54:13	6.34	26.58

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Column used to flag surrogate retention times outside expected range.

INITIAL CALIBRATION DATA (GC18B)

12

6F-1
PCB INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Laboratory Name: NEA - A Division of PACE
SDG NO: 11050175
ELAP ID No: 11078
Date(s) Analyzed: 04/22/11,04/23/11
Instrument ID: GC18B
GC Column: Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm

COMPOUND	LAB FILE ID	NEA SAMPLE ID	AMOUNT (ppb)	TOTAL[1] RF	MEAN RF	% RSD
Aroclor 1016	GC18B-1269-3	042216A	20.0	42.958		
	GC18B-1269-4	042216B	100	48.038		
	GC18B-1269-5	042216C	250	44.040		
	GC18B-1269-6	042216D	500	42.373		
	GC18B-1269-7	042216E	1000	40.629	43.608	6.3
Aroclor 1221	GC18B-1269-8	042221A	20.0	11.726		
	GC18B-1269-9	042221B	100	13.588		
	GC18B-1269-10	042221C	250	12.511		
	GC18B-1269-11	042221D	500	11.887		
	GC18B-1269-12	042221E	1000	11.983	12.339	6.1
Aroclor 1232	GC18B-1269-13	042232A	20.0	20.360		
	GC18B-1269-14	042232B	100	22.830		
	GC18B-1269-15	042232C	250	21.866		
	GC18B-1269-16	042232D	500	19.800		
	GC18B-1269-17	042232E	1000	19.652	20.902	6.6
Aroclor 1242	GC18B-1269-18	042242A	20.0	38.333		
	GC18B-1269-19	042242B	100	37.423		
	GC18B-1269-20	042242C	250	39.291		
	GC18B-1269-21	042242D	500	40.201		
	GC18B-1269-22	042242E	1000	35.921	38.234	4.3
Aroclor 1248	GC18B-1269-23	042248A	20.0	36.325		
	GC18B-1269-24	042248B	100	40.571		
	GC18B-1269-25	042248C	250	38.448		
	GC18B-1269-26	042248D	500	36.789		
	GC18B-1269-27	042248E	1000	35.343	37.495	5.5
Aroclor 1254	GC18B-1269-28	042254A	20.0	51.862		
	GC18B-1269-29	042254B	100	63.675		
	GC18B-1269-30	042254C	250	57.591		
	GC18B-1269-31	042254D	500	56.829		
	GC18B-1269-32	042254E	1000	55.597	57.111	7.5
Aroclor 1260	GC18B-1269-33	042260A	20.0	61.586		
	GC18B-1269-34	042260B	100	67.686		
	GC18B-1269-35	042260C	250	67.728		
	GC18B-1269-36	042260D	500	63.695		
	GC18B-1269-37	042260E	1000	65.711	65.281	4.1
Aroclor 1262	GC18B-1269-38	042262A	20.0	60.625		
	GC18B-1269-39	042262B	100	70.024		
	GC18B-1269-40	042262C	250	71.354		
	GC18B-1269-41	042262D	500	67.960		
	GC18B-1269-42	042262E	1000	65.556	67.104	6.3

FORM VI-CLP-PCB(NEA-PACE)

Print Date: 5/27/2011
Lims Version : 5.0.5.8

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6F-1
PCB INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Laboratory Name: NEA - A Division of PACE
SDG NO: 11050175
ELAP ID No: 11078
Date(s) Analyzed: 04/22/11,04/23/11
Instrument ID: GC18B
GC Column: Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm

COMPOUND	LAB FILE ID	NEA SAMPLE ID	AMOUNT (ppb)	TOTAL[1] RF	MEAN RF	% RSD
Aroclor 1268	GC18B-1269-43	042268A	20.0	110.992		
	GC18B-1269-44	042268B	100	118.719		
	GC18B-1269-45	042268C	250	113.526		
	GC18B-1269-46	042268D	500	108.251		
	GC18B-1269-47	042268E	1000	105.584	111.414	4.5
TCMX	GC18B-1269-28	042254A	2.00	271.134		
	GC18B-1269-29	042254B	5.00	260.738		
	GC18B-1269-30	042254C	8.00	240.415		
	GC18B-1269-31	042254D	10.0	238.492		
	GC18B-1269-32	042254E	20.0	240.818	250.319	5.9
4,4'-Dibromobiphenyl	GC18B-1269-48	0422FSA	20.0	166.601		
	GC18B-1269-49	0422FSB	50.0	154.324		
	GC18B-1269-50	0422FSC	80.0	147.172		
	GC18B-1269-51	0422FSD	100	144.003		
	GC18B-1269-52	0422FSE	200	136.078	149.636	7.7
DCBP	GC18B-1269-28	042254A	20.0	226.620		
	GC18B-1269-29	042254B	50.0	230.462		
	GC18B-1269-30	042254C	80.0	211.777		
	GC18B-1269-31	042254D	100	210.239		
	GC18B-1269-32	042254E	200	211.462	218.112	4.4

% RSD Limit <= 20%
TCMX=TETRACHLOROMETAXYLENE
DCBP=DECACHLOROBIPHENYL

[1] Response factor calculated using total area of 5 peaks used to quantitate each Aroclor. Mean response factor not used in Aroclor quantitation, calibration curve by linear regression used for quantitation. Concentrations are nominal values, please see Calibration Curve Report Point Table for actual values.

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INITIAL/CONTINUING CALIBRATION DATA (GC18B)

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7E-1
PCB CALIBRATION VERIFICATION SUMMARY

Laboratory Name: NEA - A Division of PACE

SDG NO: 11050175

ELAP ID No: 11078

Instrument ID: GC18B

GC Column: Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm

COMPOUND	LAB FILE ID	NEA SAMPLE ID	CALIB TYPE	CALC AMOUNT (ng/mL)	NOM AMOUNT (ng/mL)	PERCENT DIFFERENCE	DATE / TIME ANALYZED
Aroclor 1016	GC18B-1269-54	CS160422A	ICV	529	500	5.85	04/23/2011 18:46:50
Aroclor 1221	GC18B-1269-55	CS210422A	ICV	518	500	3.53	04/23/2011 19:19:38
Aroclor 1232	GC18B-1269-56	CS320422A	ICV	517	500	3.30	04/23/2011 19:52:25
Aroclor 1242	GC18B-1269-57	CS420422A	ICV	455	500	-8.95	04/23/2011 20:25:13
Aroclor 1248	GC18B-1269-58	CS480422A	ICV	497	500	-0.521	04/23/2011 20:58:00
Aroclor 1254	GC18B-1269-59	CS540422A	ICV	480	500	-4.01	04/23/2011 21:30:49
Aroclor 1260	GC18B-1269-60	CS600422A	ICV	471	500	-5.87	04/23/2011 22:03:37
Aroclor 1262	GC18B-1269-61	CS620422A	ICV	508	500	1.57	04/23/2011 22:36:24
Aroclor 1268	GC18B-1269-62	CS680422A	ICV	504	500	0.868	04/23/2011 23:09:13
Aroclor 1242	GC18B-1290-3	CS420521A	CCV	454	500	-9.26	05/21/2011 17:23:42
Aroclor 1248	GC18B-1290-11	CS480521A	CCV	510	500	1.94	05/21/2011 21:54:13

% Difference must be less than or equal to +/- 15 percent
ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification

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7E-2
PCB CALIBRATION VERIFICATION SUMMARY

Laboratory Name: NEA - A Division of PACE
SGD NO: 11050175
ELAP ID No: 11078
Instrument ID: GC18B
GC Column: Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm

COMPOUND	Lab File ID	NEA Sample ID	CALIB* TYPE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO
Aroclor 1016	GC18B-1269-54	CS160422A	ICV	1	7.96	7.88	8.04
		CS160422A	ICV	2	8.36	8.28	8.44
		CS160422A	ICV	3	8.96	8.88	9.04
		CS160422A	ICV	4	9.18	9.10	9.26
		CS160422A	ICV	5	9.36	9.28	9.44
Aroclor 1221	GC18B-1269-55	CS210422A	ICV	1	5.17	5.09	5.25
		CS210422A	ICV	2	6.31	6.23	6.39
		CS210422A	ICV	3	6.79	6.71	6.87
		CS210422A	ICV	4	6.99	6.91	7.07
		CS210422A	ICV	5	7.11	7.03	7.19
Aroclor 1232	GC18B-1269-56	CS320422A	ICV	1	7.11	7.03	7.19
		CS320422A	ICV	2	8.36	8.28	8.44
		CS320422A	ICV	3	8.96	8.88	9.04
		CS320422A	ICV	4	9.18	9.10	9.26
		CS320422A	ICV	5	9.36	9.28	9.44
Aroclor 1242	GC18B-1269-57	CS420422A	ICV	1	7.96	7.88	8.04
		CS420422A	ICV	2	8.36	8.28	8.44
		CS420422A	ICV	3	8.95	8.87	9.03
		CS420422A	ICV	4	9.18	9.10	9.26
		CS420422A	ICV	5	9.35	9.27	9.43
Aroclor 1248	GC18B-1269-58	CS480422A	ICV	1	9.87	9.79	9.95
		CS480422A	ICV	2	10.59	10.51	10.67
		CS480422A	ICV	3	11.19	11.11	11.27
		CS480422A	ICV	4	11.39	11.31	11.47
		CS480422A	ICV	5	11.85	11.77	11.93
Aroclor 1254	GC18B-1269-59	CS540422A	ICV	1	12.04	11.96	12.12
		CS540422A	ICV	2	12.80	12.72	12.88
		CS540422A	ICV	3	13.09	13.01	13.17
		CS540422A	ICV	4	14.55	14.47	14.63
		CS540422A	ICV	5	15.41	15.33	15.49
Aroclor 1260	GC18B-1269-60	CS600422A	ICV	1	15.41	15.33	15.49
		CS600422A	ICV	2	17.63	17.55	17.71
		CS600422A	ICV	3	18.76	18.68	18.84
		CS600422A	ICV	4	19.38	19.30	19.46
		CS600422A	ICV	5	21.90	21.82	21.98
Aroclor 1262	GC18B-1269-61	CS620422A	ICV	1	15.41	15.33	15.49
		CS620422A	ICV	2	17.64	17.56	17.72
		CS620422A	ICV	3	18.77	18.69	18.85

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FORM VII-CLP-PCB(NEA-PACE

Print Date: 5/27/2011
Lims Version : 5.0.5.8

7E-2
PCB CALIBRATION VERIFICATION SUMMARY

Laboratory Name: NEA - A Division of PACE

SGD NO: 11050175

ELAP ID No: 11078

Instrument ID: GC18B

GC Column: Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm

COMPOUND	Lab File ID	NEA Sample ID	CALIB TYPE*	PEAK	RT	RT WINDOW FROM	RT WINDOW TO
Aroclor 1262		CS620422A	ICV	4	19.38	19.30	19.46
		CS620422A	ICV	5	21.90	21.82	21.98
Aroclor 1268	GC18B-1269-62	CS680422A	ICV	1	19.37	19.29	19.45
		CS680422A	ICV	2	21.90	21.82	21.98
		CS680422A	ICV	3	19.14	19.06	19.22
		CS680422A	ICV	4	20.74	20.66	20.82
		CS680422A	ICV	5	21.16	21.08	21.24

* ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification

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7E-2
PCB CALIBRATION VERIFICATION SUMMARY

Laboratory Name: NEA - A Division of PACE

SGD NO: 11050175

ELAP ID No: 11078

Instrument ID: GC18B

GC Column: Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm

COMPOUND	Lab File ID	NEA Sample ID	CALIB TYPE*	PEAK	RT	RT WINDOW FROM	RT WINDOW TO
Aroclor 1242	GC18B-1290-3	CS420521A	CCV	1	7.96	7.88	8.04
		CS420521A	CCV	2	8.36	8.28	8.44
		CS420521A	CCV	3	8.95	8.87	9.03
		CS420521A	CCV	4	9.17	9.10	9.26
		CS420521A	CCV	5	9.35	9.27	9.43
Aroclor 1248	GC18B-1290-11	CS480521A	CCV	1	9.86	9.79	9.95
		CS480521A	CCV	2	10.58	10.51	10.67
		CS480521A	CCV	3	11.18	11.11	11.27
		CS480521A	CCV	4	11.38	11.31	11.47
		CS480521A	CCV	5	11.84	11.77	11.93

* ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification

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QC SAMPLE RAW DATA

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1D-1
PCB ANALYSIS DATA SHEET

Laboratory Name:	NEA - A Division of PACE	SDG No:	11050175
ELAP ID No:	11078	LRF ID:	PBLK-87
Matrix:	SODIUM SULFATE	Client ID:	METHOD BLANK
Sample wt(Dry)/vol:	10.398 g	Lab Sample ID:	AO06002B
Percent Moisture:	0.0	Lab File ID:	GC18F-1317-4
Extraction:	Soxhlet Method (3540C)	Date Received:	
Conc. Extract Volume:	25000 uL	Date Extracted:	05/20/2011
Injection Volume:	1.0 uL	Date Analyzed:	05/21/2011
Method:	SW-846 8082 (PCB)	Dilution Factor:	1
GC Column:	Phenomenex, Zebron ZB-1, 30 m, 0.25 mm ID, 0.25 µm	Sulfur Cleanup:	YES

CAS NO	COMPOUND NAME	CONCENTRATION UG/G	Q
12674-11-2	Aroclor 1016	0.0500	U
11104-28-2	Aroclor 1221	0.0500	U
11141-16-5	Aroclor 1232	0.0500	U
53469-21-9	Aroclor 1242	0.0500	U
12672-29-6	Aroclor 1248	0.0500	U
11097-69-1	Aroclor 1254	0.0500	U
11096-82-5	Aroclor 1260	0.0500	U

Laboratory Qualifiers:
U - Denotes analyte not detected at concentration greater than or equal to the Practical Quantitation Limit (PQL). PQLs are adjusted for sample weight/volume and dilution factors.

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FORM I-CLP-PCB (NEA)

1D-1
PCB ANALYSIS DATA SHEET

Laboratory Name:	NEA - A Division of PACE	SDG No:	11050175
ELAP ID No:	11078	LRF ID:	PBLK-87
Matrix:	SODIUM SULFATE	Client ID:	METHOD BLANK
Sample wt(Dry)/vol:	10.398 g	Lab Sample ID:	AO06002B
Percent Moisture:	0.0	Lab File ID:	GC18B-1290-4
Extraction:	Soxhlet Method (3540C)	Date Received:	
Conc. Extract Volume:	25000 uL	Date Extracted:	05/20/2011
Injection Volume:	1.0 uL	Date Analyzed:	05/21/2011
Method:	SW-846 8082 (PCB)	Dilution Factor:	1
GC Column:	Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm	Sulfur Cleanup:	YES

CAS NO	COMPOUND NAME	CONCENTRATION UG/G	Q
12674-11-2	Aroclor 1016	0.0500	U
11104-28-2	Aroclor 1221	0.0500	U
11141-16-5	Aroclor 1232	0.0500	U
53469-21-9	Aroclor 1242	0.0500	U
12672-29-6	Aroclor 1248	0.0500	U
11097-69-1	Aroclor 1254	0.0500	U
11096-82-5	Aroclor 1260	0.0500	U

Laboratory Qualifiers:
U - Denotes analyte not detected at concentration greater than or equal to the Practical Quantitation Limit (PQL). PQLs are adjusted for sample weight/volume and dilution factors.

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FORM I-CLP-PCB (NEA)

1D-1
PCB ANALYSIS DATA SHEET

Laboratory Name:	NEA - A Division of PACE	SDG No:	11050175
ELAP ID No:	11078	LRF ID:	LCS-87
Matrix:	SODIUM SULFATE	Client ID:	LAB CONTROL SPIKE
Sample wt(Dry)/vol:	10.196 g	Lab Sample ID:	AO06002L
Percent Moisture:	0.0	Lab File ID:	GC18F-1317-5
Extraction:	Soxhlet Method (3540C)	Date Received:	
Conc. Extract Volume:	25000 uL	Date Extracted:	05/20/2011
Injection Volume:	1.0 uL	Date Analyzed:	05/21/2011
Method:	SW-846 8082 (PCB)	Dilution Factor:	1
GC Column:	Phenomenex, Zebron ZB-1, 30 m, 0.25 mm ID, 0.25 µm	Sulfur Cleanup:	YES

CAS NO	COMPOUND NAME	CONCENTRATION UG/G	Q
12674-11-2	Aroclor 1016	0.0500	U
11104-28-2	Aroclor 1221	0.0500	U
11141-16-5	Aroclor 1232	0.0500	U
53469-21-9	Aroclor 1242	1.18	
12672-29-6	Aroclor 1248	0.0500	U
11097-69-1	Aroclor 1254	0.0500	U
11096-82-5	Aroclor 1260	0.0500	U

Laboratory Qualifiers:
U - Denotes analyte not detected at concentration greater than or equal to the Practical Quantitation Limit (PQL). PQLs are adjusted for sample weight/volume and dilution factors.

14

FORM I-CLP-PCB (NEA)

1D-1
PCB ANALYSIS DATA SHEET

Laboratory Name:	NEA - A Division of PACE	SDG No:	11050175
ELAP ID No:	11078	LRF ID:	LCS-87
Matrix:	SODIUM SULFATE	Client ID:	LAB CONTROL SPIKE
Sample wt(Dry)/vol:	10.196 g	Lab Sample ID:	AO06002L
Percent Moisture:	0.0	Lab File ID:	GC18B-1290-5
Extraction:	Soxhlet Method (3540C)	Date Received:	
Conc. Extract Volume:	25000 uL	Date Extracted:	05/20/2011
Injection Volume:	1.0 uL	Date Analyzed:	05/21/2011
Method:	SW-846 8082 (PCB)	Dilution Factor:	1
GC Column:	Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm	Sulfur Cleanup:	YES

CAS NO	COMPOUND NAME	CONCENTRATION UG/G	Q
12674-11-2	Aroclor 1016	0.0500	U
11104-28-2	Aroclor 1221	0.0500	U
11141-16-5	Aroclor 1232	0.0500	U
53469-21-9	Aroclor 1242	1.21	
12672-29-6	Aroclor 1248	0.0500	U
11097-69-1	Aroclor 1254	0.0500	U
11096-82-5	Aroclor 1260	0.0500	U

Laboratory Qualifiers:
U - Denotes analyte not detected at concentration greater than or equal to the Practical Quantitation Limit (PQL). PQLs are adjusted for sample weight/volume and dilution factors.

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FORM I-CLP-PCB (NEA)

10-B
PCB Identification Summary

Laboratory Name:	NEA - A Division of PACE	SDG No:	11050175
ELAP ID No:	11078	Client ID:	LCS-87(LAB CONTROL SPIKE)
LRF Sample ID:	LCS-87	Lab Sample ID:	AO06002L
Instrument 1 ID:	GC18B	Instrument 2 ID:	GC18F
Date Analyzed:	05/21/2011 6:37:33 PM	Date Analyzed:	05/21/2011 6:37:30 PM
GC Column 1:	Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm	GC Column 2:	Phenomenex, Zebron ZB-1, 30 m, 0.25 mm ID, 0.25 µm
Lab File ID 1:	GC18B-1290-5	Lab File ID 2:	GC18F-1317-5
Matrix:	Soil		

Analyte	Column	Peak	RT (min)	RT Window From	RT Window To	Concentration (ug/g)	RPD (%)	*
Aroclor 1016	1	1	7.95	7.88	8.04			
		2	8.35	8.28	8.44			
		3	8.95	8.88	9.04			
		4	9.17	9.10	9.26			
		5	9.35	9.28	9.44			
	2	1	7.13	7.06	7.22			
		2	7.50	7.43	7.59			
		3	8.09	8.02	8.18			
		4	8.29	8.22	8.38			
		5	8.42	8.35	8.51			
Aroclor 1221	1	1	NA	5.09	5.25			
		2	NA	6.23	6.39			
		3	NA	6.71	6.87			
		4	NA	6.91	7.07			
		5	NA	7.03	7.19			
	2	1	NA	4.11	4.27			
		2	NA	5.31	5.47			
		3	NA	5.86	6.02			
		4	NA	6.05	6.21			
		5	NA	6.17	6.33			
Aroclor 1232	1	1	NA	7.03	7.19			
		2	8.35	8.28	8.44			
		3	8.95	8.88	9.04			
		4	9.17	9.10	9.26			
		5	9.35	9.28	9.44			
	2	1	NA	6.17	6.33			
		2	7.50	7.43	7.59			
		3	8.09	8.02	8.18			
		4	8.29	8.22	8.38			
		5	8.42	8.35	8.51			
Aroclor 1242	1	1	7.95	7.88	8.04			
		2	8.35	8.28	8.44			
		3	8.95	8.87	9.03			
		4	9.17	9.10	9.26			
		5	9.35	9.27	9.43	1.21		
	2	1	7.13	7.05	7.21			
		2	7.50	7.42	7.58			
		3	8.09	8.01	8.17			
		4	8.29	8.21	8.37			
		5	8.42	8.35	8.51	1.18	2.51	

Relative Percent Difference Limit = 40.0%

FORM 10-CLP-PCB(NEA-PACE)

Print Date: 5/27/2011
Lims Version : 5.0.5.8

10-B
PCB Identification Summary

Laboratory Name:	NEA - A Division of PACE	SDG No:	11050175
ELAP ID No:	11078	Client ID:	LCS-87(LAB CONTROL SPIKE)
LRF Sample ID:	LCS-87	Lab Sample ID:	AO06002L
Instrument 1 ID:	GC18B	Instrument 2 ID:	GC18F
Date Analyzed:	05/21/2011 6:37:33 PM	Date Analyzed:	05/21/2011 6:37:30 PM
GC Column 1:	Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm	GC Column 2:	Phenomenex, Zebron ZB-1, 30 m, 0.25 mm ID, 0.25 µm
Lab File ID 1:	GC18B-1290-5	Lab File ID 2:	GC18F-1317-5
Matrix:	Soil		

Analyte	Column	Peak	RT (min)	RT Window		Concentration (ug/g)	RPD (%)	*
				From	To			
Aroclor 1248	1	1	NA	9.79	9.95			
		2	NA	10.51	10.67			
		3	NA	11.11	11.27			
		4	NA	11.31	11.47			
		5	NA	11.77	11.93			
	2	1	NA	8.89	9.05			
		2	NA	9.51	9.67			
		3	NA	10.12	10.28			
		4	NA	10.27	10.43			
		5	NA	10.65	10.81			
Aroclor 1254	1	1	NA	11.96	12.12			
		2	NA	12.72	12.88			
		3	NA	13.01	13.17			
		4	NA	14.47	14.63			
		5	NA	15.33	15.49			
	2	1	NA	10.96	11.12			
		2	NA	11.58	11.74			
		3	NA	11.85	12.01			
		4	NA	13.27	13.43			
		5	NA	14.06	14.22			
Aroclor 1260	1	1	NA	15.33	15.49			
		2	NA	17.55	17.71			
		3	NA	18.68	18.84			
		4	NA	19.30	19.46			
		5	NA	21.82	21.98			
	2	1	NA	14.07	14.23			
		2	NA	16.24	16.40			
		3	NA	17.03	17.19			
		4	NA	17.70	17.86			
		5	NA	19.61	19.77			

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Relative Percent Difference Limit = 40.0%

FORM 10-CLP-PCB(NEA-PACE)

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