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TRC Reference Number: 223832

November 27, 2015

Raymond R. Holberger
City of New Bedford
Department of Environmental Stewardship
133 William Street
New Bedford, Massachusetts 02740

**Subject: Groundwater Monitoring Results – October 2015
Keith Middle School, New Bedford, Massachusetts**

Dear Mr. Holberger:

In accordance with the August 2012 Revised Long-Term Monitoring and Maintenance Implementation Plan, Revision 5.5 (LTMMIP) for Keith Middle School (KMS), TRC Environmental Corporation (TRC) collected groundwater samples from three on-property monitoring wells on October 27, 2015 (Figure 1).

Review of the polychlorinated biphenyl (PCB) and dissolved metals data has been completed by TRC's Quality Assurance (QA) Chemist. The attached table and laboratory data reports provide the results from this sampling effort. All four (4) samples, including the duplicate sample, were non-detect for PCB Aroclors (Table 1). In accordance with the LTMMIP, chromatograms for samples yielding non-detect results were qualitatively evaluated for the presence of PCB peaks by TRC's QA Chemist. Review of the chromatograms indicated that no further analysis (e.g., PCB Aroclor analysis using EPA Method 680) was warranted.

Low levels of dissolved metals including arsenic, chromium, selenium and/or barium were detected in each of the groundwater samples, including the duplicate sample, below applicable Massachusetts Department of Environmental Protection (MassDEP) standards (Table 1). Pursuant to the EPA approved LTMMIP, further assessment is not required. Laboratory analytical data packages are included as Attachment 1.

Please note that the data are compared to Massachusetts Contingency Plan (MCP; 310 CMR 40.0000) Method 1 GW-2 and GW-3 groundwater cleanup criteria per the LTMMIP, but also to the GW-1 criteria because one of the groundwater monitoring wells (MW-3) is within 500 feet of a suspected potable private groundwater supply well at 249 Summit Street.

Mr. Raymond Holberger
November, 2015
Page 2

TRC appreciates the opportunity to support your project. If you have any questions or comments, please do not hesitate to contact me at 978-656-3565.

Sincerely,

TRC



David M. Sullivan, LSP
Senior Project Manager

Enclosure

cc with enclosure: K. Tisa, United States Environmental Protection Agency

TABLE

Table 1
Summary of Analytical Results for Groundwater Samples
October 2015
Keith Middle School
New Bedford, Massachusetts

Analysis	Analyte	Sample ID:			MW-1	MW-2	MW-3	
		Sample Date:			10/27/2015	10/27/2015	10/27/2015	10/27/2015
		GW-1	GW-2	GW-3				Field Dup
PCBs								
(ug/L)	Aroclor 1016	0.5	5	10	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	0.5	5	10	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	0.5	5	10	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	0.5	5	10	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	0.5	5	10	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	0.5	5	10	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1260	0.5	5	10	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	0.5	5	10	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Metals, dissolved								
(ug/L)	Arsenic	10	NS	900	0.40 U	1.4	1.1	0.85
	Barium	2,000	NS	50,000	78	1200	230	230
	Cadmium	5	NS	4	0.50 U	0.50 U	0.50 U	0.50 U
	Chromium	100	NS	300	1.0 U	1.2	1.0	1.1
	Lead	15	NS	10	1.0 U	1.0 U	1.0 U	1.0 U
	Mercury	2	NS	20	0.10 U	0.10 U	0.10 U	0.10 U
	Selenium	50	NS	100	5.2 U	5.0 U	5.0 U	5.0 U
	Silver	100	NS	7	0.50 U	0.50 U	0.50 U	0.50 U

Notes:

ug/L - micrograms per liter.

J - Estimated value.

U - Compound was not detected at specified quantitation limit.

NA - Sample not analyzed for the listed analyte.

NS - No MassDEP standards exist for this compound.

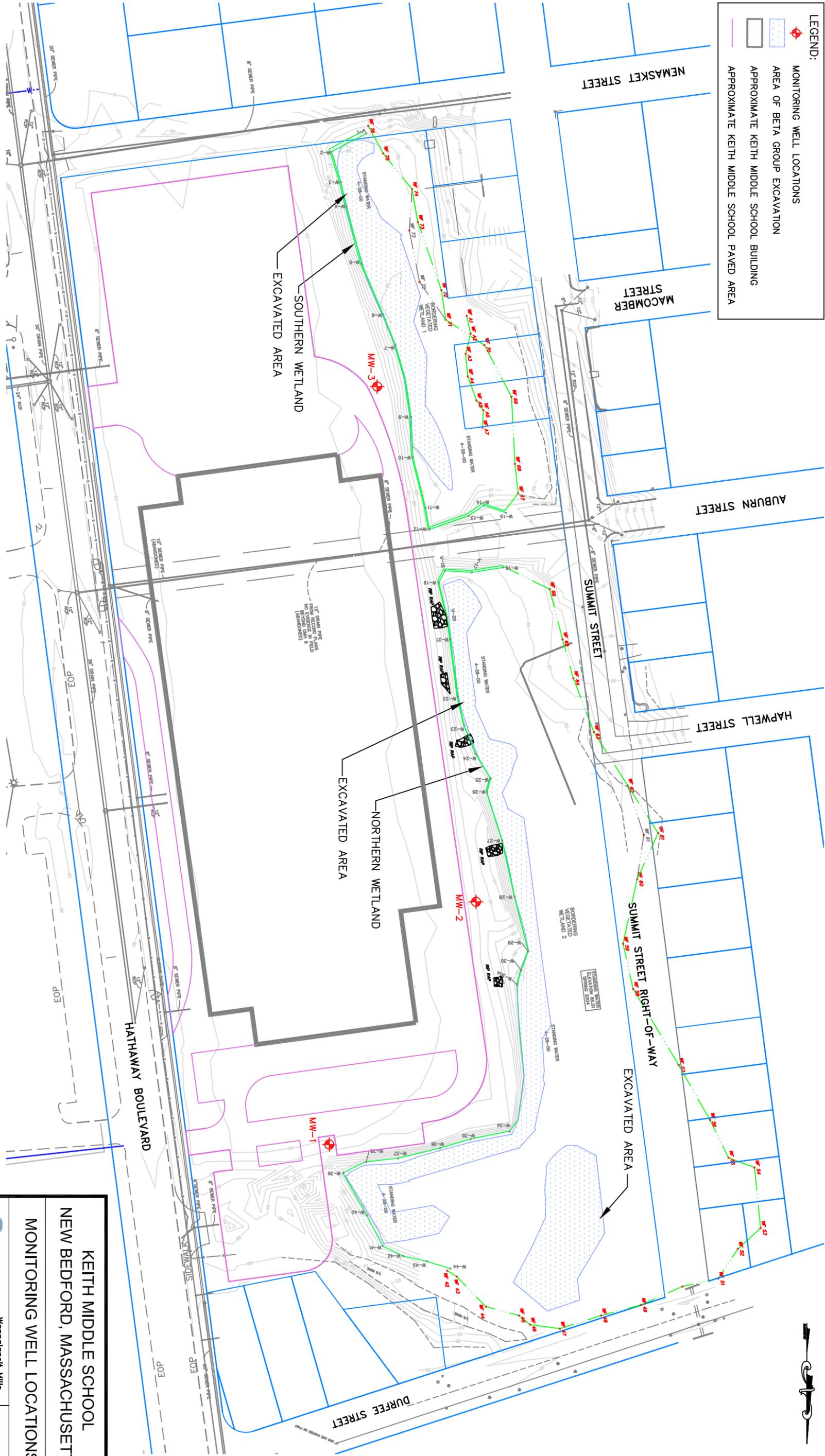
Values in **Bold** indicate the compound was detected.

PCBs - Polychlorinated Biphenyls.

FIGURE

LEGEND:

-  MONITORING WELL LOCATIONS
-  AREA OF BETA GROUP EXCAVATION
-  APPROXIMATE KEITH MIDDLE SCHOOL BUILDING
-  APPROXIMATE KEITH MIDDLE SCHOOL PAVED AREA



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.



**KEITH MIDDLE SCHOOL
NEW BEDFORD, MASSACHUSETTS**

MONITORING WELL LOCATIONS



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

DRAWN BY: HWB DATE: FIGURE
CHECKED BY: JBS JUNE 2011 1



Attachment 1

Laboratory Data Package

Pace Analytical e-Report

***Issuance of this report is prior to full data package.**

Report prepared for:

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

Project ID: KMS-NB 223832

Sampling Date(s): October 27, 2015

Lab Report ID: 15100767

Client Service Contact: Chelsea Farmer (518) 346-4592 ext. 3843

Analysis Included:

PCB Analysis (Water)

Test results meet all National Environmental Laboratory Accreditation Conference (NELAC) requirements unless noted in the case narrative. The results contained within the document relate only to the samples included in this report. Pace Analytical is responsible only for the certified testing and is not directly responsible for the integrity of the sample before laboratory receipt. This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.



Roy Smith
Technical Director



Certifications: New York (EPA: NY00906, ELAP: 11078), New Jersey (NY026), Connecticut (PH-0337),
Massachusetts (M-NY906), Virginia (1884)

Pace Analytical Services, Inc. | 2190 Technology Drive | Schenectady, NY 12308
Phone: 518.346.4592 | internet: www.pacelabs.com

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QUALIFIERS

Definitions

B - Denotes analyte observed in associated method blank or extraction blank. Analyte concentration should be considered as estimated.

D - Surrogate was diluted. The analysis of the sample required a dilution such that the surrogate concentration was diluted outside the laboratory acceptance criteria.

E - Denotes analyte concentration exceeded calibration range of instrument. Sample could not be reanalyzed at secondary dilution due to insufficient sample amount, quick turn-around request, sample matrix interference or hold time excursion. Concentration result should be considered as estimated.

J - Denotes an estimated concentration. The concentration result is greater than or equal to the Method Detection Limit (MDL) but less than the Practical Quantitation Limit (PQL).

MDL – Adjusted Method Detection Limit.

P - Indicates relative percent difference (RPD) between primary and secondary gas chromatograph (GC) column analysis exceeds 40 % or indicates percent difference (PD) between primary and secondary gas chromatograph (GC) column analysis exceeds 25 %.

PQL – Practical Quantitation Limit. PQLs are adjusted for sample weight/volume and dilution factors.

RL - Reporting Limit Denotes lowest analyte concentration reportable for the sample based on regulatory or project specific limits.

U - Denotes analyte not detected at concentration greater than the Practical Quantitation Limit (PQL) or the Reporting Limit (RL) or the Method Detection Limit (MDL) as applicable.

Z - Chromatographic interference due to polychlorinated biphenyl (PCB) co-elution.

* - Value not within control limits.

SAMPLE CHAIN OF CUSTODY



Sample Condition Upon Receipt

CLIENT NAME: TRC-DS
PROJECT: 223 832-2015

COURIER: FedEx UPS Client Pace Other
 TRACKING # 6044 9266 4056 BUBBLE BAGS: None Other
 PACKING MATERIAL: Bubble Wrap IR Gun 03 #122087967 N/A
 THERMOMETER USED: #164 No N/A
 BIOLOGICAL TISSUE IS FROZEN: Yes No N/A
 INTACT: Yes No N/A
 ICE USED: Wet Blue None
 COOLER TEMPERATURE (°C): 8.7 (Temp blank) / 7.5 (IR Gun)
 Temp should be above freezing to 6°C
 Temperature is Acceptable? Yes No

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Missing Tat
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name / Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Missing Tat
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
- Pace Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	10.
Containers Intact:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Filtered volume received for Dissolved tests:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12. TWO bottles arrived with broken lids. Sample "MW-2" arrived completely shattered.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Upon receipt at the lab, sample temperature was greater than 6C. Insufficient ice present to adequately chill samples.
- Includes date/time/ID/Analysis	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Initial when completed: <u>NA</u> Lot # of added preservative: <u>NA</u>
All containers needing preservation have been checked:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	14.
All containers needing preservation are in compliance with EPA recommendation:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
- Exceptions that are not checked: TOC, VOA, Subcontract Analyses	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Trip Blank Custody Seals Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

Pace Trip Blank Lot #: NA
 Sample Receipt form filled in: MW-10 mjn 11/2/15
 Line-Out (Includes Copying Shipping Documents and verifying sample pH): MW 11/2/15
 Log In (Includes notifying PM of any discrepancies and documenting in LIMS): KAC 10/30/15
 Labeling (Includes Scanning Bottles and entering LAB IDs into pH logbook): MW 11/2/15

SAMPLE RECEIPT



SAMPLE RECEIPT REPORT

15100767

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

CLIENT: TRC ENVIRONMENTAL
PROJECT: KMS-NB 223832
LRF: 15100767
REPORT: CLP-LIKE FORMS
EDD: YES
LRF TAT: 1 WEEK

RECEIVED DATE: 10/29/2015 09:30
SHIPPED VIA: FEDEX
SHIPPING ID: 6044 9266 4056
NUMBER OF COOLERS: 1
CUSTODY SEAL INTACT: YES
COOLER STATUS: CHILLED
TEMPERATURE(S): 5.75(IR) °C

SAMPLE SEALS INTACT: NA
SAMPLES PRESERVED PER METHOD GUIDANCE: NO
SAMPLES REC'D IN HOLDTIME: YES
DISPOSAL: BY LAB (45 DAYS)
COC DISCREPANCY: NO

COMMENTS:
UPON RECEIPT AT THE LAB, SAMPLE TEMPERATURE WAS GREATER THAN 6C. INSUFFICIENT ICE PRESENT TO ADEQUATELY CHILL SAMPLES.
MISSING TAT
TWO BOTTLES WERE RECEIVED WITH BROKEN LIDS. SAMPLE ID" MW-2" BOTTLE WAS RECEIVED COMPLETELY BROKEN.

CLIENT ID (LAB ID)	TAT-DUE Date ⁴	DATE-TIME SAMPLED	MATRIX	METHOD	TEST DESCRIPTION	QC REQUEST
MW-1 (AS34371)	1 WEEK 11-05-15	10/27/2015 10:10	Water	EPA 8082A	PCB Analysis (Water)	MS, MSD
MW-2 (AS34372)	1 WEEK 11-05-15	10/27/2015 11:45	Water	EPA 8082A	PCB Analysis (Water)	
MW-3 (AS34373)	1 WEEK 11-05-15	10/27/2015 13:50	Water	EPA 8082A	PCB Analysis (Water)	
DUP (AS34374)	1 WEEK 11-05-15	10/27/2015	Water	EPA 8082A	PCB Analysis (Water)	

¹The pH preservation check of Oil and Grease (Method 1664) and Total Organic Carbon (Method 5310B) are performed as soon as possible after sample receipt and may not be included in this report.
²The pH preservation check of aqueous volatile samples is not performed until after the analysis of the sample to maintain zero headspace and is not included in this report.
³Samples received for pH analysis are not marked as a hold time exceedance here. SW-846 methods suggests analysis to be done within 15 minutes of sample collection. Because of transportation time it is not possible for the laboratory to perform the test in that time. Sample Certificates of Analysis reports are noted as such.
⁴Samples arriving at the laboratory after 4:00 pm are assigned a due date as if they arrived the following business day unless other arrangements have been made.
The due date represents the date the lab report is expected to be completed on or before 5:00 pm (EST) for the date specified.
⁵All samples which require thermal preservation shall be considered acceptable when received greater than 6 degrees Celsius if they are collected on the same day as received and there is evidence that the chilling process has begun, such as arrival on ice. Control limits are between 0-6 Degrees Celsius. Control limits do not apply for metals analysis.
⁶Samples requesting analysis for Orthophosphate (SM 4500-P E-99,-11) require the samples to be filtered in the field within 15 minutes of the sampling event. Samples that are received unfiltered will be noted as not method compliant on the Certificates of Analysis.

Reporting Parameters and Lists

EPA 8082A - PCB Analysis (Water) - (ug/L)

- Aroclor 1016
- Aroclor 1221
- Aroclor 1232
- Aroclor 1242
- Aroclor 1248
- Aroclor 1254
- Aroclor 1260
- Total PCB Amount

GC - PCB



Analytical Sample Results

Job Number: 15100767

Pace Analytical Services, Inc.
 2190 Technology Drive
 Schenectady, NY 12308
 Phone: 518.346.4592
 Fax: 518.381.6055

Client: TRC ENVIRONMENTAL	Collection Date: 10/27/2015 10:10
Project: KMS-NB 223832	Sample Matrix: WATER
Client Sample ID: MW-1	Received Date: 10/29/2015 09:30
Lab Sample ID: 15100767-01 (AS34371)	Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC28F-1786-20	SW-846 Method 8082A	11/04/2015 19:57	AMT	NA	NA	Phenomenex, Zebtron ZB-1MS, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	32720	EPA 3535A	11/03/2015 14:23	ER	1000 mL	10.0 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0500	1.00	U	GC28F-1786-20
Aroclor 1221	11104-28-2	ND	0.0500	1.00	U	GC28F-1786-20
Aroclor 1232	11141-16-5	ND	0.0500	1.00	U	GC28F-1786-20
Aroclor 1242	53469-21-9	ND	0.0500	1.00	U	GC28F-1786-20
Aroclor 1248	12672-29-6	ND	0.0500	1.00	U	GC28F-1786-20
Aroclor 1254	11097-69-1	ND	0.0500	1.00	U	GC28F-1786-20
Aroclor 1260	11096-82-5	ND	0.0500	1.00	U	GC28F-1786-20
Total PCB Amount	1336-36-3	ND		1.00	U	GC28F-1786-20

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	89.2	47.0-123		GC28F-1786-20
Decachlorobiphenyl	2051-24-3	98.7	35.0-153		GC28F-1786-20
Tetrachloro-meta-xylene	877-09-8	91.1	47.0-123		GC28B-1783-20
Decachlorobiphenyl	2051-24-3	102	35.0-153		GC28B-1783-20

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Sample temperature was outside of method acceptance limits at the time of receipt.



Analytical Sample Results

Job Number: 15100767

Pace Analytical Services, Inc.
 2190 Technology Drive
 Schenectady, NY 12308
 Phone: 518.346.4592
 Fax: 518.381.6055

Client: TRC ENVIRONMENTAL	Collection Date: 10/27/2015 11:45
Project: KMS-NB 223832	Sample Matrix: WATER
Client Sample ID: MW-2	Received Date: 10/29/2015 09:30
Lab Sample ID: 15100767-02 (AS34372)	Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC28F-1786-21	SW-846 Method 8082A	11/04/2015 20:11	AMT	NA	NA	Phenomenex, Zebron ZB-1MS, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	32720	EPA 3535A	11/03/2015 14:23	ER	880 mL	10.0 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0568	1.00	U	GC28F-1786-21
Aroclor 1221	11104-28-2	ND	0.0568	1.00	U	GC28F-1786-21
Aroclor 1232	11141-16-5	ND	0.0568	1.00	U	GC28F-1786-21
Aroclor 1242	53469-21-9	ND	0.0568	1.00	U	GC28F-1786-21
Aroclor 1248	12672-29-6	ND	0.0568	1.00	U	GC28F-1786-21
Aroclor 1254	11097-69-1	ND	0.0568	1.00	U	GC28F-1786-21
Aroclor 1260	11096-82-5	ND	0.0568	1.00	U	GC28F-1786-21
Total PCB Amount	1336-36-3	ND		1.00	U	GC28F-1786-21

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	89.1	47.0-123		GC28F-1786-21
Decachlorobiphenyl	2051-24-3	102	35.0-153		GC28F-1786-21
Tetrachloro-meta-xylene	877-09-8	90.5	47.0-123		GC28B-1783-21
Decachlorobiphenyl	2051-24-3	105	35.0-153		GC28B-1783-21

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Sample temperature was outside of method acceptance limits at the time of receipt.



Analytical Sample Results

Job Number: 15100767

Pace Analytical Services, Inc.
 2190 Technology Drive
 Schenectady, NY 12308
 Phone: 518.346.4592
 Fax: 518.381.6055

Client: TRC ENVIRONMENTAL	Collection Date: 10/27/2015 13:50
Project: KMS-NB 223832	Sample Matrix: WATER
Client Sample ID: MW-3	Received Date: 10/29/2015 09:30
Lab Sample ID: 15100767-03 (AS34373)	Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: GC28F-1786-22	SW-846 Method 8082A	11/04/2015 20:25	AMT	NA	NA	Phenomenex, Zebtron ZB-1MS, 20 m, 0.18 mm ID, 0.18 µm
Prep 1: 32720	EPA 3535A	11/03/2015 14:23	ER	1000 mL	10.0 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0500	1.00	U	GC28F-1786-22
Aroclor 1221	11104-28-2	ND	0.0500	1.00	U	GC28F-1786-22
Aroclor 1232	11141-16-5	ND	0.0500	1.00	U	GC28F-1786-22
Aroclor 1242	53469-21-9	ND	0.0500	1.00	U	GC28F-1786-22
Aroclor 1248	12672-29-6	ND	0.0500	1.00	U	GC28F-1786-22
Aroclor 1254	11097-69-1	ND	0.0500	1.00	U	GC28F-1786-22
Aroclor 1260	11096-82-5	ND	0.0500	1.00	U	GC28F-1786-22
Total PCB Amount	1336-36-3	ND		1.00	U	GC28F-1786-22

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	86.5	47.0-123		GC28F-1786-22
Decachlorobiphenyl	2051-24-3	97.8	35.0-153		GC28F-1786-22
Tetrachloro-meta-xylene	877-09-8	88.6	47.0-123		GC28B-1783-22
Decachlorobiphenyl	2051-24-3	104	35.0-153		GC28B-1783-22

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.
 PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.
 Sample temperature was outside of method acceptance limits at the time of receipt.



Analytical Sample Results

Job Number: 15100767

Pace Analytical Services, Inc.
 2190 Technology Drive
 Schenectady, NY 12308
 Phone: 518.346.4592
 Fax: 518.381.6055

Client: TRC ENVIRONMENTAL	Collection Date: 10/27/2015
Project: KMS-NB 223832	Sample Matrix: WATER
Client Sample ID: DUP	Received Date: 10/29/2015 09:30
Lab Sample ID: 15100767-04 (AS34374)	Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC28F-1786-23	SW-846 Method 8082A	11/04/2015 20:39	AMT	NA	NA	Phenomenex, Zebtron ZB-1MS, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	32720	EPA 3535A	11/03/2015 14:23	ER	1000 mL	10.0 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0500	1.00	U	GC28F-1786-23
Aroclor 1221	11104-28-2	ND	0.0500	1.00	U	GC28F-1786-23
Aroclor 1232	11141-16-5	ND	0.0500	1.00	U	GC28F-1786-23
Aroclor 1242	53469-21-9	ND	0.0500	1.00	U	GC28F-1786-23
Aroclor 1248	12672-29-6	ND	0.0500	1.00	U	GC28F-1786-23
Aroclor 1254	11097-69-1	ND	0.0500	1.00	U	GC28F-1786-23
Aroclor 1260	11096-82-5	ND	0.0500	1.00	U	GC28F-1786-23
Total PCB Amount	1336-36-3	ND		1.00	U	GC28F-1786-23

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	90.1	47.0-123		GC28F-1786-23
Decachlorobiphenyl	2051-24-3	103	35.0-153		GC28F-1786-23
Tetrachloro-meta-xylene	877-09-8	88.6	47.0-123		GC28B-1783-23
Decachlorobiphenyl	2051-24-3	104	35.0-153		GC28B-1783-23

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Sample temperature was outside of method acceptance limits at the time of receipt.

Quality Control Samples (Field)



**Quality Control Results
Matrix Spike Sample (MS)**

Job Number: 15100767

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: TRC ENVIRONMENTAL

Project: KMS-NB 223832

Client Sample ID: MW-1 MS

Lab Sample ID: 15100767-01M (AS34371M)-Confirm

Collection Date: N/A

Sample Matrix: WATER

Received Date: N/A

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC28B-1783-18	SW-846 Method 8082A	11/04/2015 19:30	AMT	NA	NA	Phenomenex, Zebron ZB-5, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	32720	EPA 3535A	11/03/2015 14:23	ER	980 mL	10.0 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0510	1.00	U	GC28B-1783-18
Aroclor 1221	11104-28-2	ND	0.0510	1.00	U	GC28B-1783-18
Aroclor 1232	11141-16-5	ND	0.0510	1.00	U	GC28B-1783-18
Aroclor 1242	53469-21-9	0.515	0.0510	1.00		GC28B-1783-18
Aroclor 1248	12672-29-6	ND	0.0510	1.00	U	GC28B-1783-18
Aroclor 1254	11097-69-1	ND	0.0510	1.00	U	GC28B-1783-18
Aroclor 1260	11096-82-5	ND	0.0510	1.00	U	GC28B-1783-18
Total PCB Amount	1336-36-3	0.515		1.00		GC28B-1783-18

Analyte Spiked	CAS No.	Sample (ug/L)	Added (ug/L)	MS (ug/L)	MS % Rec.	Q ¹	Limits (%)
Aroclor 1242	53469-21-9		0.510	0.515	101		70.0-130

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	84.7	47.0-123		GC28B-1783-18
Decachlorobiphenyl	2051-24-3	100	35.0-153		GC28B-1783-18

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Sample temperature was outside of method acceptance limits at the time of receipt.



Quality Control Results
Matrix Spike Sample (MS)
Job Number: 15100767

Pace Analytical Services, Inc.
 2190 Technology Drive
 Schenectady, NY 12308
 Phone: 518.346.4592
 Fax: 518.381.6055

Client: TRC ENVIRONMENTAL
Project: KMS-NB 223832
Client Sample ID: MW-1 MS
Lab Sample ID: 15100767-01M (AS34371M)-Primary

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC28F-1786-18	SW-846 Method 8082A	11/04/2015 19:30	AMT	NA	NA	Phenomenex, Zebron ZB-1MS, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	32720	EPA 3535A	11/03/2015 14:23	ER	980 mL	10.0 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0510	1.00	U	GC28F-1786-18
Aroclor 1221	11104-28-2	ND	0.0510	1.00	U	GC28F-1786-18
Aroclor 1232	11141-16-5	ND	0.0510	1.00	U	GC28F-1786-18
Aroclor 1242	53469-21-9	0.491	0.0510	1.00		GC28F-1786-18
Aroclor 1248	12672-29-6	ND	0.0510	1.00	U	GC28F-1786-18
Aroclor 1254	11097-69-1	ND	0.0510	1.00	U	GC28F-1786-18
Aroclor 1260	11096-82-5	ND	0.0510	1.00	U	GC28F-1786-18
Total PCB Amount	1336-36-3	0.491		1.00		GC28F-1786-18

Analyte Spiked	CAS No.	Sample (ug/L)	Added (ug/L)	MS (ug/L)	MS % Rec.	Q ¹	Limits (%)
Aroclor 1242	53469-21-9		0.510	0.491	96.1		70.0-130

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	83.5	47.0-123		GC28F-1786-18
Decachlorobiphenyl	2051-24-3	97.8	35.0-153		GC28F-1786-18

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Sample temperature was outside of method acceptance limits at the time of receipt.



**Quality Control Results
Matrix Spike Duplicate (MSD)**

Job Number: 15100767

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: TRC ENVIRONMENTAL

Project: KMS-NB 223832

Client Sample ID: MW-1 MSD

Lab Sample ID: 15100767-01K (AS34371K)-Primary

Collection Date: N/A

Sample Matrix: WATER

Received Date: N/A

Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC28F-1786-19	SW-846 Method 8082A	11/04/2015 19:43	AMT	NA	NA	Phenomenex, Zebron ZB-1MS, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	32720	EPA 3535A	11/03/2015 14:23	ER	1000 mL	10.0 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0500	1.00	U	GC28F-1786-19
Aroclor 1221	11104-28-2	ND	0.0500	1.00	U	GC28F-1786-19
Aroclor 1232	11141-16-5	ND	0.0500	1.00	U	GC28F-1786-19
Aroclor 1242	53469-21-9	0.482	0.0500	1.00		GC28F-1786-19
Aroclor 1248	12672-29-6	ND	0.0500	1.00	U	GC28F-1786-19
Aroclor 1254	11097-69-1	ND	0.0500	1.00	U	GC28F-1786-19
Aroclor 1260	11096-82-5	ND	0.0500	1.00	U	GC28F-1786-19
Total PCB Amount	1336-36-3	0.482		1.00		GC28F-1786-19

Analyte Spiked	CAS No.	Sample (ug/L)	Added (ug/L)	MSD (ug/L)	MSD % Rec.	Q ¹	Limits (%)	Precision		
								MS % Rec.	RPD	Q ¹
Aroclor 1242	53469-21-9	0.500	0.482	0.482	96.4		70.0-130	96.1	0.312	20

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	88.9	47.0-123		GC28F-1786-19
Decachlorobiphenyl	2051-24-3	100	35.0-153		GC28F-1786-19

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Sample temperature was outside of method acceptance limits at the time of receipt.



Quality Control Results
Matrix Spike Duplicate (MSD)
Job Number: 15100767

Pace Analytical Services, Inc.
 2190 Technology Drive
 Schenectady, NY 12308
 Phone: 518.346.4592
 Fax: 518.381.6055

Client: TRC ENVIRONMENTAL
Project: KMS-NB 223832
Client Sample ID: MW-1 MSD
Lab Sample ID: 15100767-01K (AS34371K)-Confirm

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC28B-1783-19	SW-846 Method 8082A	11/04/2015 19:44	AMT	NA	NA	Phenomenex, Zebron ZB-5, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	32720	EPA 3535A	11/03/2015 14:23	ER	1000 mL	10.0 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0500	1.00	U	GC28B-1783-19
Aroclor 1221	11104-28-2	ND	0.0500	1.00	U	GC28B-1783-19
Aroclor 1232	11141-16-5	ND	0.0500	1.00	U	GC28B-1783-19
Aroclor 1242	53469-21-9	0.532	0.0500	1.00		GC28B-1783-19
Aroclor 1248	12672-29-6	ND	0.0500	1.00	U	GC28B-1783-19
Aroclor 1254	11097-69-1	ND	0.0500	1.00	U	GC28B-1783-19
Aroclor 1260	11096-82-5	ND	0.0500	1.00	U	GC28B-1783-19
Total PCB Amount	1336-36-3	0.532		1.00		GC28B-1783-19

Analyte Spiked	CAS No.	Sample (ug/L)	Added (ug/L)	MSD (ug/L)	MSD % Rec.	Q ¹	Limits (%)	Precision		
								MS % Rec.	RPD	Q ¹
Aroclor 1242	53469-21-9	0.500	0.532	106	70.0-130	101	4.83	20		

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	91.4	47.0-123		GC28B-1783-19
Decachlorobiphenyl	2051-24-3	104	35.0-153		GC28B-1783-19

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.
 PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.
 Sample temperature was outside of method acceptance limits at the time of receipt.

Quality Control Samples (Lab)



**Quality Control Results
Method Blank**

Job Number: 15100767

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: TRC ENVIRONMENTAL
Project: KMS-NB 223832
Client Sample ID: Method Blank (AS34371B)
Lab Sample ID: PBLK-18

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC28B-1783-16	SW-846 Method 8082A	11/04/2015 19:02	AMT	NA	NA	Phenomenex, Zebron ZB-5, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	32720	EPA 3535A	11/03/2015 14:23	ER	1000 mL	10.0 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0500	1.00	U	GC28B-1783-16
Aroclor 1221	11104-28-2	ND	0.0500	1.00	U	GC28B-1783-16
Aroclor 1232	11141-16-5	ND	0.0500	1.00	U	GC28B-1783-16
Aroclor 1242	53469-21-9	ND	0.0500	1.00	U	GC28B-1783-16
Aroclor 1248	12672-29-6	ND	0.0500	1.00	U	GC28B-1783-16
Aroclor 1254	11097-69-1	ND	0.0500	1.00	U	GC28B-1783-16
Aroclor 1260	11096-82-5	ND	0.0500	1.00	U	GC28B-1783-16
Total PCB Amount	1336-36-3	ND		1.00	U	GC28B-1783-16

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	82.7	47.0-123		GC28B-1783-16
Decachlorobiphenyl	2051-24-3	103	35.0-153		GC28B-1783-16

¹Qualifier column where * denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

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**Quality Control Results
Method Blank**

Job Number: 15100767

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: TRC ENVIRONMENTAL
Project: KMS-NB 223832
Client Sample ID: Method Blank (AS34371B)
Lab Sample ID: PBLK-18

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC28F-1786-16	SW-846 Method 8082A	11/04/2015 19:02	AMT	NA	NA	Phenomenex, Zebron ZB-1MS, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	32720	EPA 3535A	11/03/2015 14:23	ER	1000 mL	10.0 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0500	1.00	U	GC28F-1786-16
Aroclor 1221	11104-28-2	ND	0.0500	1.00	U	GC28F-1786-16
Aroclor 1232	11141-16-5	ND	0.0500	1.00	U	GC28F-1786-16
Aroclor 1242	53469-21-9	ND	0.0500	1.00	U	GC28F-1786-16
Aroclor 1248	12672-29-6	ND	0.0500	1.00	U	GC28F-1786-16
Aroclor 1254	11097-69-1	ND	0.0500	1.00	U	GC28F-1786-16
Aroclor 1260	11096-82-5	ND	0.0500	1.00	U	GC28F-1786-16
Total PCB Amount	1336-36-3	ND		1.00	U	GC28F-1786-16

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	81.0	47.0-123		GC28F-1786-16
Decachlorobiphenyl	2051-24-3	99.1	35.0-153		GC28F-1786-16

¹Qualifier column where ^{*} denotes value outside the control limits or ^D denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

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**Quality Control Results
Lab Control Sample (LCS)**

Job Number: 15100767

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: TRC ENVIRONMENTAL
Project: KMS-NB 223832
Client Sample ID: Lab Control Sample (AS34371L)
Lab Sample ID: LCS-18

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC28B-1783-17	SW-846 Method 8082A	11/04/2015 19:16	AMT	NA	NA	Phenomenex, Zebron ZB-5, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	32720	EPA 3535A	11/03/2015 14:23	ER	1000 mL	10.0 mL	NA

Analyte Spiked	CAS No.	Added (ug/L)	LCS (ug/L)	LCS % Rec.	Q ¹	Limits (%)
Aroclor 1242	53469-21-9	0.500	0.488	97.6		70.0-130

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	80.8	47.0-123		GC28B-1783-17
Decachlorobiphenyl	2051-24-3	103	35.0-153		GC28B-1783-17

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



**Quality Control Results
Lab Control Sample (LCS)**
Job Number: 15100767

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: TRC ENVIRONMENTAL
Project: KMS-NB 223832
Client Sample ID: Lab Control Sample (AS34371L)
Lab Sample ID: LCS-18

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC28F-1786-17	SW-846 Method 8082A	11/04/2015 19:16	AMT	NA	NA	Phenomenex, Zebtron ZB-1MS, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	32720	EPA 3535A	11/03/2015 14:23	ER	1000 mL	10.0 mL	NA

Analyte Spiked	CAS No.	Added (ug/L)	LCS (ug/L)	LCS % Rec.	Q ¹	Limits (%)
Aroclor 1242	53469-21-9	0.500	0.456	91.3		70.0-130

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	76.8	47.0-123		GC28F-1786-17
Decachlorobiphenyl	2051-24-3	98.5	35.0-153		GC28F-1786-17

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

November 3, 2015

Dave Gill
TRC Environmental Corporation - Lowell
650 Suffolk Street
Lowell, MA 01852

Project Location: New Bedford
Client Job Number:
Project Number: 223832.2015
Laboratory Work Order Number: 15J1365

Enclosed are results of analyses for samples received by the laboratory on October 28, 2015. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, reading "Meghan E. Kelley". The signature is written in a cursive style with a large, flowing "y" at the end.

Meghan E. Kelley
Project Manager

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

TRC Environmental Corporation - Lowell
650 Suffolk Street
Lowell, MA 01852
ATTN: Dave Gill

REPORT DATE: 11/3/2015

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 223832.2015

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 15J1365

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: New Bedford

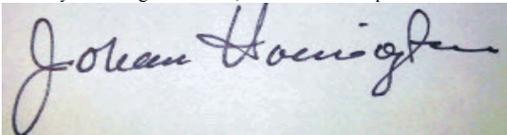
FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MW-1	15J1365-01	Ground Water		SW-846 6020A SW-846 7470A	
MW-2	15J1365-02	Ground Water		SW-846 6020A SW-846 7470A	
MW-3	15J1365-03	Ground Water		SW-846 6020A SW-846 7470A	
DUP	15J1365-04	Ground Water		SW-846 6020A SW-846 7470A	

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A photograph of a handwritten signature in black ink on a light-colored background. The signature is written in a cursive style and reads "Johanna K. Harrington".

Johanna K. Harrington
Manager, Laboratory Reporting

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: New Bedford

Sample Description:

Work Order: 15J1365

Date Received: 10/28/2015

Sampled: 10/27/2015 10:10

Field Sample #: MW-1

Sample ID: 15J1365-01

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	0.40	µg/L	1		SW-846 6020A	10/30/15	11/2/15 10:45	MJH
Barium	78	10	µg/L	1		SW-846 6020A	10/30/15	11/2/15 10:45	MJH
Cadmium	ND	0.50	µg/L	1		SW-846 6020A	10/30/15	11/2/15 10:45	MJH
Chromium	ND	1.0	µg/L	1		SW-846 6020A	10/30/15	11/2/15 10:45	MJH
Lead	ND	1.0	µg/L	1		SW-846 6020A	10/30/15	11/2/15 10:45	MJH
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	10/29/15	11/2/15 9:42	SCB
Selenium	5.2	5.0	µg/L	1		SW-846 6020A	10/30/15	11/2/15 10:45	MJH
Silver	ND	0.50	µg/L	1		SW-846 6020A	10/30/15	11/2/15 10:45	MJH

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: New Bedford

Sample Description:

Work Order: 15J1365

Date Received: 10/28/2015

Field Sample #: MW-2

Sampled: 10/27/2015 11:45

Sample ID: 15J1365-02

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	1.4	0.40	µg/L	1		SW-846 6020A	10/30/15	11/2/15 10:58	MJH
Barium	1200	10	µg/L	1		SW-846 6020A	10/30/15	11/2/15 10:58	MJH
Cadmium	ND	0.50	µg/L	1		SW-846 6020A	10/30/15	11/2/15 10:58	MJH
Chromium	1.2	1.0	µg/L	1		SW-846 6020A	10/30/15	11/2/15 10:58	MJH
Lead	ND	1.0	µg/L	1		SW-846 6020A	10/30/15	11/2/15 10:58	MJH
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	10/29/15	11/2/15 9:44	SCB
Selenium	ND	5.0	µg/L	1		SW-846 6020A	10/30/15	11/2/15 10:58	MJH
Silver	ND	0.50	µg/L	1		SW-846 6020A	10/30/15	11/2/15 10:58	MJH

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: New Bedford

Sample Description:

Work Order: 15J1365

Date Received: 10/28/2015

Field Sample #: MW-3

Sampled: 10/27/2015 13:50

Sample ID: 15J1365-03

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	1.1	0.40	µg/L	1		SW-846 6020A	10/30/15	11/2/15 11:02	MJH
Barium	230	10	µg/L	1		SW-846 6020A	10/30/15	11/2/15 11:02	MJH
Cadmium	ND	0.50	µg/L	1		SW-846 6020A	10/30/15	11/2/15 11:02	MJH
Chromium	1.0	1.0	µg/L	1		SW-846 6020A	10/30/15	11/2/15 11:02	MJH
Lead	ND	1.0	µg/L	1		SW-846 6020A	10/30/15	11/2/15 11:02	MJH
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	10/29/15	11/2/15 9:45	SCB
Selenium	ND	5.0	µg/L	1		SW-846 6020A	10/30/15	11/2/15 11:02	MJH
Silver	ND	0.50	µg/L	1		SW-846 6020A	10/30/15	11/2/15 11:02	MJH

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Project Location: New Bedford

Sample Description:

Work Order: 15J1365

Date Received: 10/28/2015

Field Sample #: DUP

Sampled: 10/27/2015 00:00

Sample ID: 15J1365-04

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	0.85	0.40	µg/L	1		SW-846 6020A	10/30/15	11/2/15 11:05	MJH
Barium	230	10	µg/L	1		SW-846 6020A	10/30/15	11/2/15 11:05	MJH
Cadmium	ND	0.50	µg/L	1		SW-846 6020A	10/30/15	11/2/15 11:05	MJH
Chromium	1.1	1.0	µg/L	1		SW-846 6020A	10/30/15	11/2/15 11:05	MJH
Lead	ND	1.0	µg/L	1		SW-846 6020A	10/30/15	11/2/15 11:05	MJH
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	10/29/15	11/2/15 9:47	SCB
Selenium	ND	5.0	µg/L	1		SW-846 6020A	10/30/15	11/2/15 11:05	MJH
Silver	ND	0.50	µg/L	1		SW-846 6020A	10/30/15	11/2/15 11:05	MJH

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Sample Extraction Data**Prep Method: SW-846 3005A Dissolved-SW-846 6020A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
15J1365-01 [MW-1]	B134262	50.0	50.0	10/30/15
15J1365-02 [MW-2]	B134262	50.0	50.0	10/30/15
15J1365-03 [MW-3]	B134262	50.0	50.0	10/30/15
15J1365-04 [DUP]	B134262	50.0	50.0	10/30/15

Prep Method: SW-846 7470A Prep-SW-846 7470A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
15J1365-01 [MW-1]	B134118	6.00	6.00	10/29/15
15J1365-02 [MW-2]	B134118	6.00	6.00	10/29/15
15J1365-03 [MW-3]	B134118	6.00	6.00	10/29/15
15J1365-04 [DUP]	B134118	6.00	6.00	10/29/15

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QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B134118 - SW-846 7470A Prep										
Blank (B134118-BLK1)				Prepared: 10/29/15 Analyzed: 11/02/15						
Mercury	ND	0.00010	mg/L							
LCS (B134118-BS1)				Prepared: 10/29/15 Analyzed: 11/02/15						
Mercury	0.00192	0.00010	mg/L	0.00200		95.9	80-120			
LCS Dup (B134118-BSD1)				Prepared: 10/29/15 Analyzed: 11/02/15						
Mercury	0.00192	0.00010	mg/L	0.00200		96.1	80-120	0.216	20	
Duplicate (B134118-DUP1)				Source: 15J1365-01			Prepared: 10/29/15 Analyzed: 11/02/15			
Mercury	ND	0.00010	mg/L		ND			NC	20	
Matrix Spike (B134118-MS1)				Source: 15J1365-01			Prepared: 10/29/15 Analyzed: 11/02/15			
Mercury	0.00192	0.00010	mg/L	0.00200	0.0000448	93.9	75-125			
Matrix Spike Dup (B134118-MSD1)				Source: 15J1365-01			Prepared: 10/29/15 Analyzed: 11/02/15			
Mercury	0.00192	0.00010	mg/L	0.00200	0.0000448	93.6	75-125	0.285	20	
Batch B134262 - SW-846 3005A Dissolved										
Blank (B134262-BLK1)				Prepared: 10/30/15 Analyzed: 11/02/15						
Arsenic	ND	0.40	µg/L							
Barium	ND	10	µg/L							
Cadmium	ND	0.50	µg/L							
Chromium	ND	1.0	µg/L							
Lead	ND	1.0	µg/L							
Selenium	ND	5.0	µg/L							
Silver	ND	0.50	µg/L							
LCS (B134262-BS1)				Prepared: 10/30/15 Analyzed: 11/02/15						
Arsenic	271	2.0	µg/L	250		109	80-120			
Barium	267	50	µg/L	250		107	80-120			
Cadmium	283	2.5	µg/L	250		113	80-120			
Chromium	249	5.0	µg/L	250		99.6	80-120			
Lead	265	5.0	µg/L	250		106	80-120			
Selenium	293	25	µg/L	250		117	80-120			
Silver	284	2.5	µg/L	250		114	80-120			
LCS Dup (B134262-BSD1)				Prepared: 10/30/15 Analyzed: 11/02/15						
Arsenic	273	2.0	µg/L	250		109	80-120	0.687	20	
Barium	258	50	µg/L	250		103	80-120	3.49	20	
Cadmium	280	2.5	µg/L	250		112	80-120	1.13	20	
Chromium	250	5.0	µg/L	250		100	80-120	0.427	20	
Lead	263	5.0	µg/L	250		105	80-120	0.672	20	
Selenium	296	25	µg/L	250		118	80-120	1.04	20	
Silver	282	2.5	µg/L	250		113	80-120	0.493	20	

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QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B134262 - SW-846 3005A Dissolved

Duplicate (B134262-DUP1)

Source: 15J1365-01

Prepared: 10/30/15 Analyzed: 11/02/15

Arsenic	ND	0.40	µg/L		ND			NC	20	
Barium	77.6	10	µg/L		78.4			1.11	20	
Cadmium	ND	0.50	µg/L		ND			NC	20	
Chromium	ND	1.0	µg/L		ND			NC	20	
Lead	ND	1.0	µg/L		ND			NC	20	
Selenium	5.27	5.0	µg/L		5.25			0.466	20	
Silver	ND	0.50	µg/L		ND			NC	20	

Matrix Spike (B134262-MS1)

Source: 15J1365-01

Prepared: 10/30/15 Analyzed: 11/02/15

Arsenic	279	2.0	µg/L	250	ND	111	75-125			
Barium	338	50	µg/L	250	78.4	104	75-125			
Cadmium	274	2.5	µg/L	250	0.0559	110	75-125			
Chromium	256	5.0	µg/L	250	0.994	102	75-125			
Lead	271	5.0	µg/L	250	0.114	109	75-125			
Selenium	297	25	µg/L	250	5.25	117	75-125			
Silver	259	2.5	µg/L	250	ND	104	75-125			

Matrix Spike Dup (B134262-MSD1)

Source: 15J1365-01

Prepared: 10/30/15 Analyzed: 11/02/15

Arsenic	278	2.0	µg/L	250	ND	111	75-125	0.0108	20	
Barium	340	50	µg/L	250	78.4	104	75-125	0.432	20	
Cadmium	274	2.5	µg/L	250	0.0559	110	75-125	0.0180	20	
Chromium	259	5.0	µg/L	250	0.994	104	75-125	1.28	20	
Lead	269	5.0	µg/L	250	0.114	108	75-125	0.882	20	
Selenium	300	25	µg/L	250	5.25	118	75-125	1.04	20	
Silver	266	2.5	µg/L	250	ND	106	75-125	2.52	20	

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FLAG/QUALIFIER SUMMARY

- * QC result is outside of established limits.
- † Wide recovery limits established for difficult compound.
- ‡ Wide RPD limits established for difficult compound.
- # Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 6020A in Water</i>	
Arsenic	CT,NH,NY,NC,ME,VA
Barium	MA,NY,CT,NC,NH,ME,VA
Cadmium	CT,NH,NY,NC,ME,VA
Chromium	CT,NH,NY,NC,ME,VA
Lead	CT,NH,NY,NC,ME,VA
Selenium	CT,NH,NY,NC,ME,VA
Silver	CT,NC,NH,NY,ME,VA

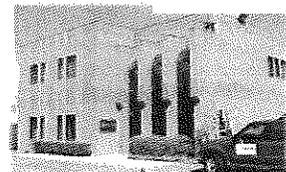
SW-846 7470A in Water

Mercury	CT,NH,NY,NC,ME,VA
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The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2016
CT	Connecticut Department of Public Health	PH-0567	09/30/2017
NY	New York State Department of Health	10899 NELAP	04/1/2016
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2016
RI	Rhode Island Department of Health	LAO00112	12/30/2015
NC	North Carolina Div. of Water Quality	652	12/31/2015
NJ	New Jersey DEP	MA007 NELAP	06/30/2016
FL	Florida Department of Health	E871027 NELAP	06/30/2016
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2016
WA	State of Washington Department of Ecology	C2065	02/23/2016
ME	State of Maine	2011028	06/9/2017
VA	Commonwealth of Virginia	460217	12/14/2015
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2016

39 Spruce St.
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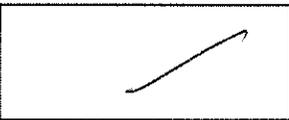
Sample Receipt Checklist

CLIENT NAME: TRC RECEIVED BY: KB DATE: 10/28/15

- 1) Was the chain(s) of custody relinquished and signed? Yes No No CoC Included
- 2) Does the chain agree with the samples? Yes No
 If not, explain: _____
- 3) Are all the samples in good condition? Yes No
 If not, explain: _____

4) How were the samples received:
 On Ice Direct from Sampling Ambient In Cooler(s)
 Were the samples received in Temperature Compliance of (2-6°C)? Yes No N/A
 Temperature °C by Temp blank _____ Temperature °C by Temp gun 5.8°

- 5) Are there Dissolved samples for the lab to filter? Yes No
 Who was notified _____ Date _____ Time _____
- 6) Are there any RUSH or SHORT HOLDING TIME samples? Yes No
 Who was notified _____ Date _____ Time _____

7) Location where samples are stored:  Permission to subcontract samples? Yes No
 (Walk-in clients only) if not already approved
 Client Signature: _____

- 8) Do all samples have the proper Acid pH: Yes No N/A _____
- 9) Do all samples have the proper Base pH: Yes No N/A _____
- 10) Was the PC notified of any discrepancies with the CoC vs the samples: Yes No N/A _____

Containers received at Con-Test

	# of containers			# of containers
1 Liter Amber			8 oz amber/clear jar	
500 mL Amber			4 oz amber/clear jar	
250 mL Amber (8oz amber)			2 oz amber/clear jar	
1 Liter Plastic			Plastic Bag / Ziploc	
500 mL Plastic			SOC Kit	
250 mL plastic	<u>6</u>		Non-ConTest Container	
40 mL Vial - type listed below			Perchlorate Kit	
Colisure / bacteria bottle			Flashpoint bottle	
Dissolved Oxygen bottle			Other glass jar	
Encore			Other	

Laboratory Comments: _____

40 mL vials: # HCl _____ # Methanol _____
 # Bisulfate _____ # DI Water _____
 # Thiosulfate _____ Unpreserved _____
 Time and Date Frozen: _____

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Login Sample Receipt Checklist
 (Rejection Criteria Listing - Using Sample Acceptance Policy)
 Any False statement will be brought to the attention of Client

Question	Answer (True/False)	Comment
	T/F/NA	
1) The cooler's custody seal, if present, is intact.	NA	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	T	
4) Cooler Temperature is acceptable.	T	
5) Cooler Temperature is recorded.	T	
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) There are no discrepancies between the sample IDs on the container and the COC.	T	
10) Samples are received within Holding Time.	T	
11) Sample containers have legible labels.	T	
12) Containers are not broken or leaking.	T	
13) Air Cassettes are not broken/open.	NA	
14) Sample collection date/times are provided.	T	
15) Appropriate sample containers are used.	T	
16) Proper collection media used.	T	
17) No headspace sample bottles are completely filled.	T	
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T	
19) Trip blanks provided if applicable.	NA	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	NA	
21) Samples do not require splitting or compositing.	T	

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Who notified of False statements?

Log-In Technician Initials: KB

Date/Time: 10/28/15
 Date/Time: 16:55

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 15J1365
Project Location: New Bedford	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]
15J1365-01 thru 15J1365-04

Matrices: Water

CAM Protocol (check all that below)

8260 VOC CAM II A ()	7470/7471 Hg CAM IIIB (X)	MassDEP VPH CAM IV A ()	8081 Pesticides CAM V B ()	7196 Hex Cr CAM VI B ()	MassDEP APH CAM IX A ()
8270 SVOC CAM II B ()	7010 Metals CAM III C ()	MassDEP EPH CAM IV A ()	8151 Herbicides CAM V C ()	8330 Explosives CAM VIII A ()	TO-15 VOC CAM IX B ()
6010 Metals CAM III A ()	6020 Metals CAM III D (X)	8082 PCB CAM V A ()	9014 Total Cyanide/PAC CAM VI A ()	6860 Perchlorate CAM VIII B ()	

Affirmative response to Questions A through F is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	<input type="checkbox"/> Yes <input type="checkbox"/> No ¹
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	<input type="checkbox"/> Yes <input type="checkbox"/> No ¹
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Questions A through E)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹

A response to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
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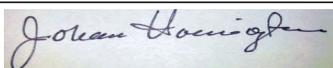
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ¹

¹ All Negative responses must be addressed in an attached Environmental Laboratory case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____



Position: _____ Manager, Laboratory Reporting

Printed Name: _____ Johanna K. Harrington

Date: _____ 11/03/15