Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

July 10, 2019

Joe Guarino
Town of Babylon
281 Phelps Lane
North Babylon, NY 11703

RE: Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Dear Joe Guarino:
Enclosed are the analytical results for sample(s) received by the laboratory on June 11, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jennifer Aracri
jennifer.aracri@pacelabs.com
(631)694-3040
Project Manager

Enclosures

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

CERTIFICATIONS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Minnesota Certification IDs

1700 Elm Street SE, Minneapolis, MN 55414-2485
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #: MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Certifcation #: via MN 027-053-137
Minnesota Petrofund Certification #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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CERTIFICATIONS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Pennsylvania Certification IDs

New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747
New York Certification #: 10478 Primary Accrediting Body
New Jersey Certification #: NY158
Pennsylvania Certification #: 68-00350
Connecticut Certification #: PH-0435
Maryland Certification #: 208
Rhode Island Certification #: LAO00340
Massachusetts Certification #: M-NY026
New Hampshire Certification #: 2987

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SAMPLE ANALYTE COUNT

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
7093111001	**CELL 7 PLCRS**	EPA 8081B	JMD	20	PACE-MV
		EPA 8082A	JMD	9	PACE-MV
		EPA 8151A	MJM	5	PACE-MV
		EPA 6010C	JMW	24	PACE-MV
		EPA 7470A	JLN	1	PACE-MV
		EPA 8270D	MLM	117	PACE-MV
		EPA 8270D by SIM	STB	2	PASI-M
		EPA 8260C/5030C	KGG	67	PACE-MV
		EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA
		ASTM D5174-97	RMK	1	PASI-PA
		SM22 2120B	KM1	2	PACE-MV
		SM22 2320B	AK1	1	PACE-MV
		SM22 2340C	AK1	1	PACE-MV
		SM22 2540C	KS1	1	PACE-MV
		SM22 3500-Cr B	KM1	1	PACE-MV
		EPA 410.4	JCA	1	PACE-MV
		SM22 5210B	VNS	1	PACE-MV
		EPA 9034	JM3	1	PACE-MV
		EPA 300.0	BNK	3	PACE-MV
		EPA 351.2	SDO	1	PACE-MV
		EPA 353.2	SDO	2	PACE-MV
		EPA 353.2	SDO	1	PACE-MV
		SM22 4500 NH3 H	BNK	1	PACE-MV
		EPA 9014 Total Cyanide	JM3	1	PACE-MV
		EPA 9060A	KM1	5	PACE-MV

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 8081B**
Description: 8081 GCS Pesticides
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for EPA 8081B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 8082A**
Description: 8082 GCS PCB
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for EPA 8082A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 8151A**
Description: 8151A Chlorinated Herbicides
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for EPA 8151A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 8151A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 117394

S0: Surrogate recovery outside laboratory control limits.

- CELL 7 PLCRS (Lab ID: 7093111001)
  - 2,4-DCAA (S)
- MS (Lab ID: 557995)
  - 2,4-DCAA (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 117394

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7093111001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 557995)
  - 2,4,5-T
  - Dinoseb

Additional Comments:

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 8151A**
Description: 8151A Chlorinated Herbicides
Client: Town of Babylon
Date: July 10, 2019

Analyte Comments:

QC Batch: 117394

1j: Low surrogate recovery confirmed by matrix spike.
- CELL 7 PLCRS (Lab ID: 7093111001)
  - 2,4-DCAA (S)

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 6010C**
Description: 6010 MET ICP
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for EPA 6010C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3005A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 117890

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7093441002,7093605007

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 558466)
  - Calcium
  - Iron

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 7470A**
Description: 7470 Mercury
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for EPA 7470A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 8270D**
Description: 8270 MSSV
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for EPA 8270D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

QC Batch: 118169

IC: The initial calibration for this compound was outside of method control limits. The result is estimated.

- BLANK (Lab ID: 560810)
  - Famphur
  - Hexachlorocyclopentadiene
  - Kepone
- CELL 7 PLCRS (Lab ID: 7093111001)
  - Famphur
  - Hexachlorocyclopentadiene
- LCS (Lab ID: 560811)
  - Famphur
  - Hexachlorocyclopentadiene

IH: This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.

- LCS (Lab ID: 560811)
  - Hexachlorocyclopentadiene

IL: This analyte exceeded secondary source verification criteria low for the initial calibration. The reported results should be considered an estimated value.

- BLANK (Lab ID: 560810)
  - Famphur
- CELL 7 PLCRS (Lab ID: 7093111001)
  - Famphur
  - p-Phenylenediamine
- LCS (Lab ID: 560811)
  - Famphur
  - p-Phenylenediamine

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 8270D**
Description: 8270 MSSV
Client: Town of Babylon
Date: July 10, 2019

QC Batch: 118169

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

- LCS (Lab ID: 560811)
  - 1,3,5-Trinitrobenzene
  - 1,3-Dinitrobenzene
  - 4,6-Dinitro-2-methylphenol
  - Methyl parathion

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- BLANK (Lab ID: 560810)
  - Famphur
  - Hexachlorocyclopentadiene
  - Kepone
  - Pentachlorophenol
  - p-Phenylenediamine
- CELL 7 PLCRS (Lab ID: 7093111001)
  - Famphur
  - Hexachlorocyclopentadiene
  - Kepone
  - Pentachlorophenol
  - p-Phenylenediamine
- LCS (Lab ID: 560811)
  - Famphur
  - Hexachlorocyclopentadiene
  - Kepone
  - Pentachlorophenol
  - p-Phenylenediamine
- LCS (Lab ID: 562856)
  - Methapyrilene
  - N-Nitrosomethylethylamine

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 8270D**
Description: 8270 MSSV
Client: Town of Babylon
Date: July 10, 2019

QC Batch: 118169

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

- LCS (Lab ID: 560811)
  - Famphur

L2: Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.

- LCS (Lab ID: 560811)
  - 2,4-Dimethylphenol
  - Kepone
  - N-Nitrosodimethylamine
- LCS (Lab ID: 562856)
  - 2-Acetylaminofluorene
  - 2-Naphthylamine
  - 4-Aminobiphenyl
  - 5-Nitro-o-toluidine
  - N-Nitroso-di-n-butylamine
  - p-Phenylenediamine

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 118169

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7093111001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 561264)
  - Kepone
  - N-Nitrosodimethylamine

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 561264)
  - 1,3,5-Trinitrobenzene
  - 1,4-Naphthoquinone
  - 4-Nitroaniline
  - Hexachlorocyclopentadiene
  - Hexachloropropene
  - Isodrin

Additional Comments:

Analyte Comments:

QC Batch: 118169

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 561264)
  - 3&4-Methylphenol(m&p Cresol)
  - N-Nitrosodimethylamine

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 8270D**
Description: 8270 MSSV
Client: Town of Babylon
Date: July 10, 2019

Analyte Comments:

QC Batch: 118169

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 561264)
  - Phenol

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 8270D by SIM**
Description: 8270D MSSV 14 Dioxane By SIM
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for EPA 8270D by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 613318

L2: Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.

- LCS (Lab ID: 3314706)
  - 1,4-Dioxane (SIM)
- LCS (Lab ID: 3314707)
  - 1,4-Dioxane (SIM)

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for EPA 8260C/5030C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

QC Batch: 117914

IH: This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.

- LCS (Lab ID: 558632)
  - Acrolein
- MS (Lab ID: 558747)
  - Acrolein

IL: This analyte exceeded secondary source verification criteria low for the initial calibration. The reported results should be considered an estimated value.

- BLANK (Lab ID: 558631)
  - 2-Butanone (MEK)
- CELL 7 PLCRS (Lab ID: 7093111001)
  - 2-Butanone (MEK)
- DUP (Lab ID: 558746)
  - 2-Butanone (MEK)
- LCS (Lab ID: 558632)
  - 2-Butanone (MEK)
- MS (Lab ID: 558747)
  - 2-Butanone (MEK)

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 117914

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

- LCS (Lab ID: 558632)
  - 1,4-Dioxane (p-Dioxane)
- MS (Lab ID: 558747)
  - 1,4-Dioxane (p-Dioxane)

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- BLANK (Lab ID: 558631)
  - Acrolein
  - Chloromethane
  - Dichlorodifluoromethane
- CELL 7 PLCRS (Lab ID: 7093111001)
  - Acrolein

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: Town of Babylon
Date: July 10, 2019

QC Batch: 117914

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- Chloromethane
- Dichlorodifluoromethane

- DUP (Lab ID: 558746)
  - Acrolein
  - Chloromethane
  - Dichlorodifluoromethane
- LCS (Lab ID: 558632)
  - Acrolein
  - Chloromethane
  - Dichlorodifluoromethane
- MS (Lab ID: 558747)
  - Acrolein
  - Chloromethane
  - Dichlorodifluoromethane

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 903.1**
Description: 903.1 Radium 226
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for EPA 903.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 904.0**
Description: 904.0 Radium 228
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for EPA 904.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **ASTM D5174-97**
Description: D517497 Total Uranium KPA
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for ASTM D5174-97. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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Melville, NY 11747
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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **SM22 2120B**
Description: 2120B W Apparent Color
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for SM22 2120B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **SM22 2320B**
Description: 2320B Alkalinity
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for SM22 2320B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **SM22 2340C**
Description: 2340C Hardness, Total
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for SM22 2340C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **SM22 2540C**
Description: 2540C Total Dissolved Solids
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for SM22 2540C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: 118004

D6: The precision between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 559709)
  - Total Dissolved Solids
- DUP (Lab ID: 559711)
  - Total Dissolved Solids

Additional Comments:

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(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **SM22 3500-Cr B**
Description: Chromium, Hexavalent
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for SM22 3500-Cr B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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Melville, NY 11747
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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 410.4**
Description: 410.4 COD
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for EPA 410.4. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 410.4 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **SM22 5210B**
Description: 5210B BOD, 5 day
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for SM22 5210B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with SM22 5210B with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
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Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 9034**
Description: 9034 Sulfide, Titration
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for EPA 9034. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 9030B with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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Melville, NY 11747
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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 351.2**
Description: 351.2 Total Kjeldahl Nitrogen
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for EPA 351.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 351.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 119268

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7092926001,7093723002

M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

- MS (Lab ID: 566777)
  - Nitrogen, Kjeldahl, Total

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: 119268

D6: The precision between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 566780)
  - Nitrogen, Kjeldahl, Total

Additional Comments:

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Melville, NY 11747
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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2/NO3 pres.
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 117323

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7093101001,7093107001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 555564)
  - Nitrite as N

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **SM22 4500 NH3 H**
Description: 4500 Ammonia Water
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for SM22 4500 NH3 H. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 119281

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7093468001

M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

- MS (Lab ID: 566891)
  - Nitrogen, Ammonia

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: 119281

D6: The precision between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 566892)
  - Nitrogen, Ammonia

Additional Comments:

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Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 9014 Total Cyanide**
Description: 9014 Cyanide, Total
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for EPA 9014 Total Cyanide. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 9010C with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Method: **EPA 9060A**
Description: 9060A TOC as NPOC
Client: Town of Babylon
Date: July 10, 2019

General Information:
1 sample was analyzed for EPA 9060A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 118775

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7092926001

M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

- MS (Lab ID: 564529)
  - Mean Total Organic Carbon
  - Total Organic Carbon

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Sample: CELL 7 PLCRS **Lab ID: 7093111001** Collected: 06/11/19 09:15 Received: 06/11/19 15:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081B Preparation Method: EPA 3510C							
Aldrin	**<0.050**	ug/L	0.050	1	06/18/19 19:30	06/19/19 10:30	309-00-2	
alpha-BHC	**<0.050**	ug/L	0.050	1	06/18/19 19:30	06/19/19 10:30	319-84-6	
beta-BHC	**<0.050**	ug/L	0.050	1	06/18/19 19:30	06/19/19 10:30	319-85-7	
delta-BHC	**<0.050**	ug/L	0.050	1	06/18/19 19:30	06/19/19 10:30	319-86-8	
gamma-BHC (Lindane)	**<0.050**	ug/L	0.050	1	06/18/19 19:30	06/19/19 10:30	58-89-9	
4,4'-DDD	**<0.10**	ug/L	0.10	1	06/18/19 19:30	06/19/19 10:30	72-54-8	
4,4'-DDE	**<0.10**	ug/L	0.10	1	06/18/19 19:30	06/19/19 10:30	72-55-9	
4,4'-DDT	**<0.10**	ug/L	0.10	1	06/18/19 19:30	06/19/19 10:30	50-29-3	
Dieldrin	**<0.10**	ug/L	0.10	1	06/18/19 19:30	06/19/19 10:30	60-57-1	
Endosulfan I	**<0.050**	ug/L	0.050	1	06/18/19 19:30	06/19/19 10:30	959-98-8	
Endosulfan II	**<0.10**	ug/L	0.10	1	06/18/19 19:30	06/19/19 10:30	33213-65-9	
Endosulfan sulfate	**<0.10**	ug/L	0.10	1	06/18/19 19:30	06/19/19 10:30	1031-07-8	
Endrin	**<0.10**	ug/L	0.10	1	06/18/19 19:30	06/19/19 10:30	72-20-8	
Endrin aldehyde	**<0.10**	ug/L	0.10	1	06/18/19 19:30	06/19/19 10:30	7421-93-4	
Heptachlor	**<0.050**	ug/L	0.050	1	06/18/19 19:30	06/19/19 10:30	76-44-8	
Heptachlor epoxide	**<0.050**	ug/L	0.050	1	06/18/19 19:30	06/19/19 10:30	1024-57-3	
Methoxychlor	**<0.50**	ug/L	0.50	1	06/18/19 19:30	06/19/19 10:30	72-43-5	
Toxaphene	**<5.0**	ug/L	5.0	1	06/18/19 19:30	06/19/19 10:30	8001-35-2	
Surrogates								
Decachlorobiphenyl (S)	116	%	30-150	1	06/18/19 19:30	06/19/19 10:30	2051-24-3	
Tetrachloro-m-xylene (S)	95	%	30-150	1	06/18/19 19:30	06/19/19 10:30	877-09-8	
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3510C							
PCB-1016 (Aroclor 1016)	**<1.0**	ug/L	1.0	1	06/24/19 16:24	06/25/19 17:09	12674-11-2	
PCB-1221 (Aroclor 1221)	**<2.0**	ug/L	2.0	1	06/24/19 16:24	06/25/19 17:09	11104-28-2	
PCB-1232 (Aroclor 1232)	**<1.0**	ug/L	1.0	1	06/24/19 16:24	06/25/19 17:09	11141-16-5	
PCB-1242 (Aroclor 1242)	**<1.0**	ug/L	1.0	1	06/24/19 16:24	06/25/19 17:09	53469-21-9	
PCB-1248 (Aroclor 1248)	**<1.0**	ug/L	1.0	1	06/24/19 16:24	06/25/19 17:09	12672-29-6	
PCB-1254 (Aroclor 1254)	**<1.0**	ug/L	1.0	1	06/24/19 16:24	06/25/19 17:09	11097-69-1	
PCB-1260 (Aroclor 1260)	**<1.0**	ug/L	1.0	1	06/24/19 16:24	06/25/19 17:09	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	62	%	30-150	1	06/24/19 16:24	06/25/19 17:09	877-09-8	
Decachlorobiphenyl (S)	75	%	30-150	1	06/24/19 16:24	06/25/19 17:09	2051-24-3	
8151A Chlorinated Herbicides	Analytical Method: EPA 8151A Preparation Method: EPA 8151A							
2,4-D	**1.7**	ug/L	0.50	1	06/12/19 10:00	06/14/19 04:06	94-75-7	
Dinoseb	**0.30**	ug/L	0.20	1	06/12/19 10:00	06/14/19 04:06	88-85-7	M1
2,4,5-T	**<0.25**	ug/L	0.25	1	06/12/19 10:00	06/14/19 04:06	93-76-5	M1
2,4,5-TP (Silvex)	**<0.25**	ug/L	0.25	1	06/12/19 10:00	06/14/19 04:06	93-72-1	
Surrogates								
2,4-DCAA (S)	23	%	36-121	1	06/12/19 10:00	06/14/19 04:06	19719-28-9	1j,S0
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A							
Aluminum	**<1000**	ug/L	1000	5	06/14/19 17:12	06/25/19 15:13	7429-90-5	
Antimony	**<300**	ug/L	300	5	06/14/19 17:12	06/25/19 15:13	7440-36-0	
Arsenic	**<50.0**	ug/L	50.0	5	06/14/19 17:12	06/25/19 15:13	7440-38-2	
Barium	**6450**	ug/L	1000	5	06/14/19 17:12	06/25/19 15:13	7440-39-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Sample: CELL 7 PLCRS **Lab ID: 7093111001** Collected: 06/11/19 09:15 Received: 06/11/19 15:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A							
Beryllium	**1.7J**	ug/L	25.0	5	06/14/19 17:12	06/25/19 15:13	7440-41-7	
Boron	**334**	ug/L	250	5	06/14/19 17:12	06/25/19 15:13	7440-42-8	
Cadmium	**<12.5**	ug/L	12.5	5	06/14/19 17:12	06/25/19 15:13	7440-43-9	
Calcium	**9750000**	ug/L	2000	10	06/14/19 17:12	06/25/19 15:16	7440-70-2	
Chromium	**46.1J**	ug/L	50.0	5	06/14/19 17:12	06/25/19 15:13	7440-47-3	
Cobalt	**<250**	ug/L	250	5	06/14/19 17:12	06/25/19 15:13	7440-48-4	
Copper	**59.0J**	ug/L	125	5	06/14/19 17:12	06/25/19 15:13	7440-50-8	
Iron	**150**	ug/L	100	5	06/14/19 17:12	06/25/19 15:13	7439-89-6	
Lead	**<25.0**	ug/L	25.0	5	06/14/19 17:12	06/25/19 15:13	7439-92-1	
Magnesium	**4420**	ug/L	1000	5	06/14/19 17:12	06/25/19 15:13	7439-95-4	
Manganese	**1440**	ug/L	50.0	5	06/14/19 17:12	06/25/19 15:13	7439-96-5	
Nickel	**<200**	ug/L	200	5	06/14/19 17:12	06/25/19 15:13	7440-02-0	
Potassium	**6390000**	ug/L	500000	100	06/14/19 17:12	06/25/19 16:40	7440-09-7	
Selenium	**125**	ug/L	50.0	5	06/14/19 17:12	06/25/19 15:13	7782-49-2	
Silver	**<50.0**	ug/L	50.0	5	06/14/19 17:12	06/25/19 15:13	7440-22-4	
Sodium	**9900000**	ug/L	50000	10	06/14/19 17:12	06/25/19 15:16	7440-23-5	
Thallium	**<50.0**	ug/L	50.0	5	06/14/19 17:12	06/25/19 15:13	7440-28-0	
Tin	**<250**	ug/L	250	5	06/14/19 17:12	06/25/19 15:13	7440-31-5	
Vanadium	**<250**	ug/L	250	5	06/14/19 17:12	06/25/19 15:13	7440-62-2	
Zinc	**132**	ug/L	100	5	06/14/19 17:12	06/25/19 15:13	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	**0.15J**	ug/L	0.20	1	06/21/19 10:50	06/21/19 18:52	7439-97-6	
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
1,2,4,5-Tetrachlorobenzene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	95-94-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	120-82-1	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	95-50-1	
1,3,5-Trinitrobenzene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	99-35-4	M1
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	541-73-1	
1,3-Dinitrobenzene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	99-65-0	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	106-46-7	
1,4-Naphthoquinone	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	130-15-4	M1
1-Naphthylamine	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	134-32-7	
2,2'-Oxybis(1-chloropropane)	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	108-60-1	
2,3,4,6-Tetrachlorophenol	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	58-90-2	
2,4,5-Trichlorophenol	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	95-95-4	
2,4,6-Trichlorophenol	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	88-06-2	
2,4-Dichlorophenol	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	120-83-2	
2,4-Dimethylphenol	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	105-67-9	L2
2,4-Dinitrophenol	**<10.0**	ug/L	10.0	1	06/18/19 09:19	06/19/19 12:50	51-28-5	
2,4-Dinitrotoluene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	121-14-2	
2,6-Dichlorophenol	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	87-65-0	
2,6-Dinitrotoluene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	606-20-2	
2-Acetylaminofluorene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	53-96-3	L2
2-Chloronaphthalene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	91-58-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Sample: CELL 7 PLCRS **Lab ID: 7093111001** Collected: 06/11/19 09:15 Received: 06/11/19 15:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
2-Chlorophenol	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	95-57-8	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	91-57-6	
2-Methylphenol(o-Cresol)	**1.0J**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	95-48-7	
2-Naphthylamine	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	91-59-8	L2
2-Nitroaniline	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	88-74-4	
2-Nitrophenol	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	88-75-5	
3&4-Methylphenol(m&p Cresol)	**110**	ug/L	25.0	5	06/18/19 09:19	06/19/19 16:50		
3,3'-Dichlorobenzidine	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	91-94-1	
3,3'-Dimethylbenzidine	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	119-93-7	
3-Methylcholanthrene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	56-49-5	
3-Nitroaniline	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	99-09-2	
4,6-Dinitro-2-methylphenol	**<10.0**	ug/L	10.0	1	06/18/19 09:19	06/19/19 12:50	534-52-1	
4-Aminobiphenyl	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	92-67-1	L2
4-Bromophenylphenyl ether	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	101-55-3	
4-Chloro-3-methylphenol	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	59-50-7	
4-Chloroaniline	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	106-47-8	
4-Chlorophenylphenyl ether	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	7005-72-3	
4-Nitroaniline	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	100-01-6	M1
4-Nitrophenol	**<10.0**	ug/L	10.0	1	06/18/19 09:19	06/19/19 12:50	100-02-7	
5-Nitro-o-toluidine	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	99-55-8	L2
7,12-Dimethylbenz(a)anthracene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	57-97-6	
Acenaphthene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	208-96-8	
Acetophenone	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	98-86-2	
Anthracene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	207-08-9	
Benzyl alcohol	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	100-51-6	
Butylbenzylphthalate	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	85-68-7	
Chlorobenzilate	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	510-15-6	
Chrysene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	218-01-9	
Di-n-butylphthalate	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	84-74-2	
Di-n-octylphthalate	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	117-84-0	
Diallate	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	2303-16-4	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	53-70-3	
Dibenzofuran	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	132-64-9	
Diethylphthalate	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	84-66-2	
Dimethoate	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	60-51-5	
Dimethylphthalate	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	131-11-3	
Disulfoton	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	298-04-4	
Ethyl methanesulfonate	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	62-50-0	
Famphur	**<10.0**	ug/L	10.0	1	06/18/19 09:19	06/19/19 12:50	52-85-7	CL,IC,IL, L1
Fluoranthene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	206-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Sample: CELL 7 PLCRS **Lab ID: 7093111001** Collected: 06/11/19 09:15 Received: 06/11/19 15:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Fluorene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	86-73-7	
Hexachloro-1,3-butadiene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	87-68-3	
Hexachlorobenzene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	118-74-1	
Hexachlorocyclopentadiene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	77-47-4	CL,IC, M1
Hexachloroethane	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	67-72-1	
Hexachloropropene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	1888-71-7	M1
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	193-39-5	
Isodrin	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	465-73-6	M1
Isophorone	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	78-59-1	
Isosafrole	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	120-58-1	
Kepone	**<10.0**	ug/L	10.0	1	06/18/19 09:19	06/19/19 12:50	143-50-0	CL,L2, M0
Methapyrilene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	91-80-5	
Methyl methanesulfonate	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	66-27-3	
Methyl parathion	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	298-00-0	
N-Nitroso-di-n-butylamine	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	924-16-3	L2
N-Nitroso-di-n-propylamine	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	621-64-7	
N-Nitrosodiethylamine	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	55-18-5	
N-Nitrosodimethylamine	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	62-75-9	L2,M0
N-Nitrosodiphenylamine	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	86-30-6	
N-Nitrosomethylethylamine	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	10595-95-6	
N-Nitrosopiperidine	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	100-75-4	
N-Nitrosopyrrolidine	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	930-55-2	
Naphthalene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	91-20-3	
Nitrobenzene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	98-95-3	
O,O,O-Triethylphosphorothioate	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	126-68-1	
O-Toluidine	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	95-53-4	
P-Dimethylaminoazobenzene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	60-11-7	
Parathion (Ethyl parathion)	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	56-38-2	
Pentachlorobenzene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	608-93-5	
Pentachloronitrobenzene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	82-68-8	
Pentachlorophenol	**<10.0**	ug/L	10.0	1	06/18/19 09:19	06/19/19 12:50	87-86-5	CL
Phenacetin	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	62-44-2	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	85-01-8	
Phenol	**115**	ug/L	25.0	5	06/18/19 09:19	06/19/19 16:50	108-95-2	
Pronamide	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	23950-58-5	
Pyrene	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	129-00-0	
Safrole	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	94-59-7	
Thionazin	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	297-97-2	
bis(2-Chloroethoxy)methane	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	111-91-1	
bis(2-Chloroethyl) ether	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	111-44-4	
bis(2-Ethylhexyl)phthalate	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	117-81-7	
p-Phenylenediamine	**<5.0**	ug/L	5.0	1	06/18/19 09:19	06/19/19 12:50	106-50-3	CL,IL,L2
Surrogates								
Nitrobenzene-d5 (S)	78	%	35-114	1	06/18/19 09:19	06/19/19 12:50	4165-60-0	
2-Fluorobiphenyl (S)	77	%	43-116	1	06/18/19 09:19	06/19/19 12:50	321-60-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Sample: CELL 7 PLCRS **Lab ID: 7093111001** Collected: 06/11/19 09:15 Received: 06/11/19 15:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Surrogates								
p-Terphenyl-d14 (S)	65	%	33-141	1	06/18/19 09:19	06/19/19 12:50	1718-51-0	
Phenol-d5 (S)	38	%	10-110	1	06/18/19 09:19	06/19/19 12:50	4165-62-2	
2-Fluorophenol (S)	52	%	21-110	1	06/18/19 09:19	06/19/19 12:50	367-12-4	
2,4,6-Tribromophenol (S)	87	%	10-123	1	06/18/19 09:19	06/19/19 12:50	118-79-6	
2-Chlorophenol-d4 (S)	73	%	33-110	1	06/18/19 09:19	06/19/19 12:50	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	67	%	16-110	1	06/18/19 09:19	06/19/19 12:50	2199-69-1	
8270D MSSV 14 Dioxane By SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510							
1,4-Dioxane (SIM)	**2.4**	ug/L	0.31	1	06/17/19 12:55	06/21/19 17:23	123-91-1	
Surrogates								
1,4-Dioxane-d8 (S)	53	%.	30-125	1	06/17/19 12:55	06/21/19 17:23		
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	630-20-6	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	79-00-5	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	75-34-3	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		06/15/19 00:37	75-35-4	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		06/15/19 00:37	563-58-6	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	96-18-4	
1,2-Dibromo-3-chloropropane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	96-12-8	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		06/15/19 00:37	106-93-4	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/15/19 00:37	95-50-1	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	107-06-2	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	78-87-5	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/15/19 00:37	541-73-1	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	142-28-9	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/15/19 00:37	106-46-7	
1,4-Dioxane (p-Dioxane)	**<100**	ug/L	100	1		06/15/19 00:37	123-91-1	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	594-20-7	
2-Butanone (MEK)	**10.8**	ug/L	5.0	1		06/15/19 00:37	78-93-3	IL
2-Hexanone	**<5.0**	ug/L	5.0	1		06/15/19 00:37	591-78-6	
4-Methyl-2-pentanone (MIBK)	**1.4J**	ug/L	5.0	1		06/15/19 00:37	108-10-1	
Acetone	**103**	ug/L	5.0	1		06/15/19 00:37	67-64-1	
Acetonitrile	**128**	ug/L	5.0	1		06/15/19 00:37	75-05-8	
Acrolein	**<1.0**	ug/L	1.0	1		06/15/19 00:37	107-02-8	CL
Acrylonitrile	**<1.0**	ug/L	1.0	1		06/15/19 00:37	107-13-1	
Allyl chloride	**<1.0**	ug/L	1.0	1		06/15/19 00:37	107-05-1	
Benzene	**<1.0**	ug/L	1.0	1		06/15/19 00:37	71-43-2	
Bromochloromethane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		06/15/19 00:37	75-25-2	
Bromomethane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	74-83-9	
Carbon disulfide	**<1.0**	ug/L	1.0	1		06/15/19 00:37	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		06/15/19 00:37	56-23-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Sample: CELL 7 PLCRS **Lab ID: 7093111001** Collected: 06/11/19 09:15 Received: 06/11/19 15:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Chlorobenzene	**<1.0**	ug/L	1.0	1		06/15/19 00:37	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		06/15/19 00:37	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	74-87-3	CL
Chloroprene	**<1.0**	ug/L	1.0	1		06/15/19 00:37	126-99-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	124-48-1	
Dibromomethane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	74-95-3	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	75-71-8	CL
Ethyl methacrylate	**<1.0**	ug/L	1.0	1		06/15/19 00:37	97-63-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/15/19 00:37	100-41-4	
Iodomethane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	74-88-4	
Isobutanol	**<20.0**	ug/L	20.0	1		06/15/19 00:37	78-83-1	
Methacrylonitrile	**<1.0**	ug/L	1.0	1		06/15/19 00:37	126-98-7	
Methyl methacrylate	**<1.0**	ug/L	1.0	1		06/15/19 00:37	80-62-6	
Methylene Chloride	**<1.0**	ug/L	1.0	1		06/15/19 00:37	75-09-2	
Propionitrile	**<4.0**	ug/L	4.0	1		06/15/19 00:37	107-12-0	
Styrene	**<1.0**	ug/L	1.0	1		06/15/19 00:37	100-42-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		06/15/19 00:37	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		06/15/19 00:37	108-88-3	
Trichloroethene	**<1.0**	ug/L	1.0	1		06/15/19 00:37	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		06/15/19 00:37	75-69-4	
Vinyl acetate	**<1.0**	ug/L	1.0	1		06/15/19 00:37	108-05-4	
Vinyl chloride	**<1.0**	ug/L	1.0	1		06/15/19 00:37	75-01-4	
Xylene (Total)	**<3.0**	ug/L	3.0	1		06/15/19 00:37	1330-20-7	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/15/19 00:37	156-59-2	
cis-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		06/15/19 00:37	10061-01-5	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/15/19 00:37	156-60-5	
trans-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		06/15/19 00:37	10061-02-6	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1		06/15/19 00:37	110-57-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%	68-153	1		06/15/19 00:37	17060-07-0	
4-Bromofluorobenzene (S)	95	%	79-124	1		06/15/19 00:37	460-00-4	
Toluene-d8 (S)	101	%	69-124	1		06/15/19 00:37	2037-26-5	
Tentatively Identified Compounds								
Unknown	**6.4J**	ug/L		1		06/15/19 00:37		
Unknown	**12.2J**	ug/L		1		06/15/19 00:37		
2120B W Apparent Color	Analytical Method: SM22 2120B							
Apparent Color	**50.0**	units	10.0	2		06/12/19 14:31		
pH	**7.0**	Std. Units	0.10	2		06/12/19 14:31		
2320B Alkalinity	Analytical Method: SM22 2320B							
Alkalinity, Total as CaCO3	**336**	mg/L	1.0	1		06/24/19 13:10		
2340C Hardness, Total	Analytical Method: SM22 2340C							
Tot Hardness asCaCO3 (SM 2340B	**28800**	mg/L	5.0	1		06/25/19 14:33		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Sample: CELL 7 PLCRS **Lab ID: 7093111001** Collected: 06/11/19 09:15 Received: 06/11/19 15:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM22 2540C							
Total Dissolved Solids	**74600**	mg/L	20.0	1		06/17/19 11:04		
Chromium, Hexavalent	Analytical Method: SM22 3500-Cr B							
Chromium, Hexavalent	**<0.020**	mg/L	0.020	1		06/12/19 07:39	18540-29-9	
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4							
Chemical Oxygen Demand	**3870**	mg/L	40.0	1	06/19/19 09:15	06/19/19 11:43		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B							
BOD, 5 day	**494**	mg/L	66.7	33.33	06/12/19 12:20	06/17/19 12:32		
9034 Sulfide, Titration	Analytical Method: EPA 9034 Preparation Method: EPA 9030B							
Sulfide	**8.0**	mg/L	2.0	1	06/17/19 07:56	06/17/19 14:28		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Bromide	**516**	mg/L	100	200		06/27/19 23:49	24959-67-9	
Chloride	**<2.0**	mg/L	2.0	1		06/27/19 23:32	16887-00-6	
Sulfate	**7.2**	mg/L	5.0	1		06/27/19 23:32	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**104**	mg/L	5.0	10	06/25/19 13:02	06/26/19 08:11	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2							
Nitrate as N	**0.090**	mg/L	0.050	1		06/11/19 23:14	14797-55-8	
Nitrate-Nitrite (as N)	**0.090**	mg/L	0.050	1		06/11/19 23:14	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2							
Nitrite as N	**<0.050**	mg/L	0.050	1		06/11/19 21:06	14797-65-0	
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H							
Nitrogen, Ammonia	**93.3**	mg/L	2.0	20		06/25/19 16:22	7664-41-7	
9014 Cyanide, Total	Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C							
Cyanide	**4.6J**	ug/L	10.0	1	06/18/19 07:57	06/18/19 15:26	57-12-5	
9060A TOC as NPOC	Analytical Method: EPA 9060A							
Total Organic Carbon	**267**	mg/L	6.0	6		06/21/19 17:59	7440-44-0	
Total Organic Carbon	**259**	mg/L	6.0	6		06/21/19 17:59	7440-44-0	
Total Organic Carbon	**256**	mg/L	6.0	6		06/21/19 17:59	7440-44-0	
Total Organic Carbon	**257**	mg/L	6.0	6		06/21/19 17:59	7440-44-0	
Mean Total Organic Carbon	**258**	mg/L	6.0	6		06/21/19 17:59	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 118862 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 7093111001

METHOD BLANK: 564845 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.20	0.20	06/21/19 18:28	

LABORATORY CONTROL SAMPLE: 564846

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	1	1.0	101	80-120	

MATRIX SPIKE SAMPLE: 564847

Parameter	Units	7093441002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	<0.20	1	0.81	78	75-125	

SAMPLE DUPLICATE: 564848

Parameter	Units	7093441002 Result	Dup Result	RPD	Qualifiers
Mercury	ug/L	<0.20	<0.20		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 117890
QC Batch Method: EPA 3005A
Associated Lab Samples: 7093111001

Analysis Method: EPA 6010C
Analysis Description: 6010 MET Water

METHOD BLANK: 558463 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	<200	200	06/25/19 13:39	
Antimony	ug/L	<60.0	60.0	06/25/19 13:39	
Arsenic	ug/L	<10.0	10.0	06/25/19 13:39	
Barium	ug/L	<200	200	06/25/19 13:39	
Beryllium	ug/L	<5.0	5.0	06/25/19 13:39	
Boron	ug/L	<50.0	50.0	06/25/19 13:39	
Cadmium	ug/L	<2.5	2.5	06/25/19 13:39	
Calcium	ug/L	<200	200	06/25/19 13:39	
Chromium	ug/L	<10.0	10.0	06/25/19 13:39	
Cobalt	ug/L	<50.0	50.0	06/25/19 13:39	
Copper	ug/L	<25.0	25.0	06/25/19 13:39	
Iron	ug/L	<20.0	20.0	06/25/19 13:39	
Lead	ug/L	<5.0	5.0	06/25/19 13:39	
Magnesium	ug/L	<200	200	06/25/19 13:39	
Manganese	ug/L	<10.0	10.0	06/25/19 13:39	
Nickel	ug/L	<40.0	40.0	06/25/19 13:39	
Potassium	ug/L	<5000	5000	06/25/19 13:39	
Selenium	ug/L	<10.0	10.0	06/25/19 13:39	
Silver	ug/L	<10.0	10.0	06/25/19 13:39	
Sodium	ug/L	<5000	5000	06/25/19 13:39	
Thallium	ug/L	<10.0	10.0	06/25/19 13:39	
Tin	ug/L	<50.0	50.0	06/25/19 13:39	
Vanadium	ug/L	<50.0	50.0	06/25/19 13:39	
Zinc	ug/L	<20.0	20.0	06/25/19 13:39	

LABORATORY CONTROL SAMPLE: 558464

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	5000	4840	97	80-120	
Antimony	ug/L	750	710	95	80-120	
Arsenic	ug/L	500	482	96	80-120	
Barium	ug/L	500	494	99	80-120	
Beryllium	ug/L	50	50.0	100	80-120	
Boron	ug/L	2500	2480	99	80-120	
Cadmium	ug/L	50	49.8	100	80-120	
Calcium	ug/L	25000	25200	101	80-120	
Chromium	ug/L	250	252	101	80-120	
Cobalt	ug/L	500	502	100	80-120	
Copper	ug/L	250	249	100	80-120	
Iron	ug/L	2000	2020	101	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

LABORATORY CONTROL SAMPLE: 558464

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	500	504	101	80-120	
Magnesium	ug/L	25000	24200	97	80-120	
Manganese	ug/L	250	249	100	80-120	
Nickel	ug/L	250	251	100	80-120	
Potassium	ug/L	50000	47300	95	80-120	
Selenium	ug/L	750	731	97	80-120	
Silver	ug/L	250	241	96	80-120	
Sodium	ug/L	50000	48200	96	80-120	
Thallium	ug/L	750	755	101	80-120	
Tin	ug/L	2500	2510	100	80-120	
Vanadium	ug/L	500	497	99	80-120	
Zinc	ug/L	1000	1000	100	80-120	

MATRIX SPIKE SAMPLE: 558466

Parameter	Units	7093441002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	211	5000	5580	107	75-125	
Antimony	ug/L	<60.0	750	779	104	75-125	
Arsenic	ug/L	40.0	500	544	101	75-125	
Barium	ug/L	<200	500	521	102	75-125	
Beryllium	ug/L	<5.0	50	51.0	102	75-125	
Boron	ug/L	3660	2500	6060	96	75-125	
Cadmium	ug/L	<2.5	50	49.6	99	75-125	
Calcium	ug/L	442000	25000	445000	12	75-125	M1
Chromium	ug/L	<10.0	250	261	103	75-125	
Cobalt	ug/L	<50.0	500	514	103	75-125	
Copper	ug/L	<25.0	250	264	99	75-125	
Iron	ug/L	10600	2000	11800	57	75-125	M1
Lead	ug/L	<5.0	500	507	101	75-125	
Magnesium	ug/L	20400	25000	43900	94	75-125	
Manganese	ug/L	110	250	359	100	75-125	
Nickel	ug/L	<40.0	250	262	102	75-125	
Potassium	ug/L	60000	50000	106000	92	75-125	
Selenium	ug/L	<10.0	750	767	101	75-125	
Silver	ug/L	<10.0	250	275	110	75-125	
Sodium	ug/L	69800	50000	117000	94	75-125	
Thallium	ug/L	<10.0	750	753	100	75-125	
Tin	ug/L	<50.0	2500	2530	101	75-125	
Vanadium	ug/L	<50.0	500	516	103	75-125	
Zinc	ug/L	22.3	1000	1020	100	75-125	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

MATRIX SPIKE SAMPLE: 558468

Parameter	Units	7093605007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	64.7J	5000	4940	98	75-125	
Antimony	ug/L	<60.0	750	753	99	75-125	
Arsenic	ug/L	<10.0	500	487	97	75-125	
Barium	ug/L	70.2J	500	565	99	75-125	
Beryllium	ug/L	<5.0	50	50.2	100	75-125	
Boron	ug/L	<50.0	2500	2480	99	75-125	
Cadmium	ug/L	<2.5	50	50.1	100	75-125	
Calcium	ug/L	30100	25000	55100	100	75-125	
Chromium	ug/L	5.1J	250	258	101	75-125	
Cobalt	ug/L	<50.0	500	506	101	75-125	
Copper	ug/L	<25.0	250	252	100	75-125	
Iron	ug/L	93.3	2000	2130	102	75-125	
Lead	ug/L	<5.0	500	505	101	75-125	
Magnesium	ug/L	817	25000	24800	96	75-125	
Manganese	ug/L	6.8J	250	253	98	75-125	
Nickel	ug/L	<40.0	250	254	100	75-125	
Potassium	ug/L	1490J	50000	48100	93	75-125	
Selenium	ug/L	<10.0	750	730	97	75-125	
Silver	ug/L	<10.0	250	254	101	75-125	
Sodium	ug/L	13200	50000	61800	97	75-125	
Thallium	ug/L	<10.0	750	756	101	75-125	
Tin	ug/L	<50.0	2500	2510	100	75-125	
Vanadium	ug/L	<50.0	500	501	100	75-125	
Zinc	ug/L	<20.0	1000	1010	101	75-125	

SAMPLE DUPLICATE: 558465

Parameter	Units	7093441002 Result	Dup Result	RPD	Qualifiers
Aluminum	ug/L	211	190J		
Antimony	ug/L	<60.0	<60.0		
Arsenic	ug/L	40.0	34.8	14	
Barium	ug/L	<200	10.2J		
Beryllium	ug/L	<5.0	0.10J		
Boron	ug/L	3660	3650	0	
Cadmium	ug/L	<2.5	<2.5		
Calcium	ug/L	442000	438000	1	
Chromium	ug/L	<10.0	3.7J		
Cobalt	ug/L	<50.0	<50.0		
Copper	ug/L	<25.0	17.1J		
Iron	ug/L	10600	10200	5	
Lead	ug/L	<5.0	<5.0		
Magnesium	ug/L	20400	20200	1	
Manganese	ug/L	110	109	1	
Nickel	ug/L	<40.0	6.0J		
Potassium	ug/L	60000	57600	4	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

SAMPLE DUPLICATE: 558465

Parameter	Units	7093441002 Result	Dup Result	RPD	Qualifiers
Selenium	ug/L	<10.0	<10.0		
Silver	ug/L	<10.0	<10.0		
Sodium	ug/L	69800	67900	3	
Thallium	ug/L	<10.0	<10.0		
Tin	ug/L	<50.0	<50.0		
Vanadium	ug/L	<50.0	<50.0		
Zinc	ug/L	22.3	22.3	0	

SAMPLE DUPLICATE: 558467

Parameter	Units	7093605007 Result	Dup Result	RPD	Qualifiers
Aluminum	ug/L	64.7J	73.2J		
Antimony	ug/L	<60.0	<60.0		
Arsenic	ug/L	<10.0	<10.0		
Barium	ug/L	70.2J	70.2J		
Beryllium	ug/L	<5.0	<5.0		
Boron	ug/L	<50.0	<50.0		
Cadmium	ug/L	<2.5	<2.5		
Calcium	ug/L	30100	30100	0	
Chromium	ug/L	5.1J	5.1J		
Cobalt	ug/L	<50.0	<50.0		
Copper	ug/L	<25.0	<25.0		
Iron	ug/L	93.3	97.5	4	
Lead	ug/L	<5.0	<5.0		
Magnesium	ug/L	817	818	0	
Manganese	ug/L	6.8J	2.7J		
Nickel	ug/L	<40.0	<40.0		
Potassium	ug/L	1490J	1650J		
Selenium	ug/L	<10.0	<10.0		
Silver	ug/L	<10.0	<10.0		
Sodium	ug/L	13200	13200	0	
Thallium	ug/L	<10.0	<10.0		
Tin	ug/L	<50.0	<50.0		
Vanadium	ug/L	<50.0	<50.0		
Zinc	ug/L	<20.0	<20.0		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 117914
QC Batch Method: EPA 8260C/5030C
Analysis Method: EPA 8260C/5030C
Analysis Description: 8260 MSV
Associated Lab Samples: 7093111001

METHOD BLANK: 558631
Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<1.0	1.0	06/14/19 18:44	
1,1,1-Trichloroethane	ug/L	<1.0	1.0	06/14/19 18:44	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	1.0	06/14/19 18:44	
1,1,2-Trichloroethane	ug/L	<1.0	1.0	06/14/19 18:44	
1,1-Dichloroethane	ug/L	<1.0	1.0	06/14/19 18:44	
1,1-Dichloroethene	ug/L	<1.0	1.0	06/14/19 18:44	
1,1-Dichloropropene	ug/L	<1.0	1.0	06/14/19 18:44	
1,2,3-Trichloropropane	ug/L	<1.0	1.0	06/14/19 18:44	
1,2-Dibromo-3-chloropropane	ug/L	<1.0	1.0	06/14/19 18:44	
1,2-Dibromoethane (EDB)	ug/L	<1.0	1.0	06/14/19 18:44	
1,2-Dichlorobenzene	ug/L	<1.0	1.0	06/14/19 18:44	
1,2-Dichloroethane	ug/L	<1.0	1.0	06/14/19 18:44	
1,2-Dichloropropane	ug/L	<1.0	1.0	06/14/19 18:44	
1,3-Dichlorobenzene	ug/L	<1.0	1.0	06/14/19 18:44	
1,3-Dichloropropane	ug/L	<1.0	1.0	06/14/19 18:44	
1,4-Dichlorobenzene	ug/L	<1.0	1.0	06/14/19 18:44	
1,4-Dioxane (p-Dioxane)	ug/L	<100	100	06/14/19 18:44	
2,2-Dichloropropane	ug/L	<1.0	1.0	06/14/19 18:44	
2-Butanone (MEK)	ug/L	<5.0	5.0	06/14/19 18:44	IL
2-Hexanone	ug/L	<5.0	5.0	06/14/19 18:44	
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	5.0	06/14/19 18:44	
Acetone	ug/L	<5.0	5.0	06/14/19 18:44	
Acetonitrile	ug/L	<5.0	5.0	06/14/19 18:44	
Acrolein	ug/L	<1.0	1.0	06/14/19 18:44	CL
Acrylonitrile	ug/L	<1.0	1.0	06/14/19 18:44	
Allyl chloride	ug/L	<1.0	1.0	06/14/19 18:44	
Benzene	ug/L	<1.0	1.0	06/14/19 18:44	
Bromochloromethane	ug/L	<1.0	1.0	06/14/19 18:44	
Bromodichloromethane	ug/L	<1.0	1.0	06/14/19 18:44	
Bromoform	ug/L	<1.0	1.0	06/14/19 18:44	
Bromomethane	ug/L	<1.0	1.0	06/14/19 18:44	
Carbon disulfide	ug/L	<1.0	1.0	06/14/19 18:44	
Carbon tetrachloride	ug/L	<1.0	1.0	06/14/19 18:44	
Chlorobenzene	ug/L	<1.0	1.0	06/14/19 18:44	
Chloroethane	ug/L	<1.0	1.0	06/14/19 18:44	
Chloroform	ug/L	<1.0	1.0	06/14/19 18:44	
Chloromethane	ug/L	<1.0	1.0	06/14/19 18:44	CL
Chloroprene	ug/L	<1.0	1.0	06/14/19 18:44	
cis-1,2-Dichloroethene	ug/L	<1.0	1.0	06/14/19 18:44	
cis-1,3-Dichloropropene	ug/L	<1.0	1.0	06/14/19 18:44	
Dibromochloromethane	ug/L	<1.0	1.0	06/14/19 18:44	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

METHOD BLANK: 558631 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromomethane	ug/L	<1.0	1.0	06/14/19 18:44	
Dichlorodifluoromethane	ug/L	<1.0	1.0	06/14/19 18:44	CL
Ethyl methacrylate	ug/L	<1.0	1.0	06/14/19 18:44	
Ethylbenzene	ug/L	<1.0	1.0	06/14/19 18:44	
Iodomethane	ug/L	<1.0	1.0	06/14/19 18:44	
Isobutanol	ug/L	<20.0	20.0	06/14/19 18:44	
Methacrylonitrile	ug/L	<1.0	1.0	06/14/19 18:44	
Methyl methacrylate	ug/L	<1.0	1.0	06/14/19 18:44	
Methylene Chloride	ug/L	<1.0	1.0	06/14/19 18:44	
Propionitrile	ug/L	<4.0	4.0	06/14/19 18:44	
Styrene	ug/L	<1.0	1.0	06/14/19 18:44	
Tetrachloroethene	ug/L	<1.0	1.0	06/14/19 18:44	
Toluene	ug/L	<1.0	1.0	06/14/19 18:44	
trans-1,2-Dichloroethene	ug/L	<1.0	1.0	06/14/19 18:44	
trans-1,3-Dichloropropene	ug/L	<1.0	1.0	06/14/19 18:44	
trans-1,4-Dichloro-2-butene	ug/L	<1.0	1.0	06/14/19 18:44	
Trichloroethene	ug/L	<1.0	1.0	06/14/19 18:44	
Trichlorofluoromethane	ug/L	<1.0	1.0	06/14/19 18:44	
Vinyl acetate	ug/L	<1.0	1.0	06/14/19 18:44	
Vinyl chloride	ug/L	<1.0	1.0	06/14/19 18:44	
Xylene (Total)	ug/L	<3.0	3.0	06/14/19 18:44	
1,2-Dichloroethane-d4 (S)	%	96	68-153	06/14/19 18:44	
4-Bromofluorobenzene (S)	%	94	79-124	06/14/19 18:44	
Toluene-d8 (S)	%	97	69-124	06/14/19 18:44	

LABORATORY CONTROL SAMPLE: 558632

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	47.8	96	74-113	
1,1,1-Trichloroethane	ug/L	50	43.1	86	65-118	
1,1,2,2-Tetrachloroethane	ug/L	50	46.4	93	74-121	
1,1,2-Trichloroethane	ug/L	50	44.9	90	80-117	
1,1-Dichloroethane	ug/L	50	44.5	89	83-151	
1,1-Dichloroethene	ug/L	50	41.3	83	45-146	
1,1-Dichloropropene	ug/L	50	44.3	89	59-127	
1,2,3-Trichloropropane	ug/L	50	45.3	91	71-123	
1,2-Dibromo-3-chloropropane	ug/L	50	44.6	89	74-119	
1,2-Dibromoethane (EDB)	ug/L	50	44.4	89	83-115	
1,2-Dichlorobenzene	ug/L	50	42.7	85	74-113	
1,2-Dichloroethane	ug/L	50	43.4	87	74-129	
1,2-Dichloropropane	ug/L	50	44.5	89	75-117	
1,3-Dichlorobenzene	ug/L	50	43.9	88	71-112	
1,3-Dichloropropane	ug/L	50	46.2	92	74-112	
1,4-Dichlorobenzene	ug/L	50	42.5	85	71-113	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

LABORATORY CONTROL SAMPLE: 558632

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	1250	1400	112	60-140	CH
2,2-Dichloropropane	ug/L	50	45.1	90	63-133	
2-Butanone (MEK)	ug/L	50	39.6	79	44-162	IL
2-Hexanone	ug/L	50	41.1	82	32-183	
4-Methyl-2-pentanone (MIBK)	ug/L	50	41.4	83	69-132	
Acetone	ug/L	50	37.0	74	23-188	
Acetonitrile	ug/L	250	241	96	30-150	
Acrolein	ug/L	50	6.7	13	40-174	CL,IH
Acrylonitrile	ug/L	50	43.1	86	59-148	
Allyl chloride	ug/L	50	44.1	88	46-141	
Benzene	ug/L	50	45.2	90	73-119	
Bromochloromethane	ug/L	50	45.5	91	81-116	
Bromodichloromethane	ug/L	50	46.5	93	78-117	
Bromoform	ug/L	50	44.1	88	65-122	
Bromomethane	ug/L	50	37.6	75	52-147	
Carbon disulfide	ug/L	50	41.9	84	41-144	
Carbon tetrachloride	ug/L	50	47.4	95	59-120	
Chlorobenzene	ug/L	50	44.8	90	75-113	
Chloroethane	ug/L	50	40.6	81	49-151	
Chloroform	ug/L	50	45.8	92	72-122	
Chloromethane	ug/L	50	33.9	68	46-144	CL
Chloroprene	ug/L	50	43.5	87	60-140	
cis-1,2-Dichloroethene	ug/L	50	44.9	90	72-121	
cis-1,3-Dichloropropene	ug/L	50	46.1	92	78-116	
Dibromochloromethane	ug/L	50	52.9	106	70-120	
Dibromomethane	ug/L	50	43.8	88	75-125	
Dichlorodifluoromethane	ug/L	50	24.4	49	22-154	CL
Ethyl methacrylate	ug/L	50	47.5	95	59-128	
Ethylbenzene	ug/L	50	42.8	86	70-113	
Iodomethane	ug/L	50	44.8	90	61-144	
Isobutanol	ug/L	250	227	91	60-140	
Methacrylonitrile	ug/L	50	45.5	91	60-140	
Methyl methacrylate	ug/L	50	45.6	91	54-131	
Methylene Chloride	ug/L	50	43.2	86	61-142	
Propionitrile	ug/L	50	50.1	100	60-140	
Styrene	ug/L	50	45.2	90	72-118	
Tetrachloroethene	ug/L	50	39.3	79	60-128	
Toluene	ug/L	50	44.8	90	72-119	
trans-1,2-Dichloroethene	ug/L	50	44.5	89	56-142	
trans-1,3-Dichloropropene	ug/L	50	45.5	91	79-116	
trans-1,4-Dichloro-2-butene	ug/L	50	44.8	90	71-121	
Trichloroethene	ug/L	50	44.1	88	69-117	
Trichlorofluoromethane	ug/L	50	41.2	82	27-173	
Vinyl acetate	ug/L	50	44.5	89	20-158	
Vinyl chloride	ug/L	50	37.4	75	43-143	
Xylene (Total)	ug/L	150	132	88	71-109	
1,2-Dichloroethane-d4 (S)	%			94	68-153	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

LABORATORY CONTROL SAMPLE: 558632

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Bromofluorobenzene (S)	%			100	79-124	
Toluene-d8 (S)	%			100	69-124	

MATRIX SPIKE SAMPLE: 558747

Parameter	Units	7093267002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<1.0	50	52.5	105	74-113	
1,1,1-Trichloroethane	ug/L	<1.0	50	46.7	93	65-118	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	50	51.2	102	74-121	
1,1,2-Trichloroethane	ug/L	<1.0	50	47.8	96	80-117	
1,1-Dichloroethane	ug/L	<1.0	50	49.7	99	83-151	
1,1-Dichloroethene	ug/L	<1.0	50	46.6	93	45-146	
1,1-Dichloropropene	ug/L	<1.0	50	50.1	100	59-127	
1,2,3-Trichloropropane	ug/L	<1.0	50	49.1	98	71-123	
1,2-Dibromo-3-chloropropane	ug/L	<1.0	50	44.2	88	74-119	
1,2-Dibromoethane (EDB)	ug/L	<1.0	50	48.1	96	83-115	
1,2-Dichlorobenzene	ug/L	<1.0	50	45.7	91	74-113	
1,2-Dichloroethane	ug/L	<1.0	50	48.7	97	74-129	
1,2-Dichloropropane	ug/L	<1.0	50	49.1	98	75-117	
1,3-Dichlorobenzene	ug/L	<1.0	50	49.2	98	71-112	
1,3-Dichloropropane	ug/L	<1.0	50	51.0	102	74-112	
1,4-Dichlorobenzene	ug/L	<1.0	50	46.5	93	71-113	
1,4-Dioxane (p-Dioxane)	ug/L	<100	1250	881	70	60-140	CH
2,2-Dichloropropane	ug/L	<1.0	50	44.9	90	63-133	
2-Butanone (MEK)	ug/L	<5.0	50	40.0	80	44-162	IL
2-Hexanone	ug/L	<5.0	50	41.7	83	32-183	
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	50	45.0	90	69-132	
Acetone	ug/L	<5.0	50	27.0	54	23-188	
Acetonitrile	ug/L	<5.0	250	203	81	30-150	
Acrolein	ug/L	<1.0	50	111	222	40-174	CL,IH
Acrylonitrile	ug/L	<1.0	50	46.9	94	59-148	
Allyl chloride	ug/L	<1.0	50	48.5	97	46-141	
Benzene	ug/L	<1.0	50	49.8	100	73-119	
Bromochloromethane	ug/L	<1.0	50	49.3	99	81-116	
Bromodichloromethane	ug/L	<1.0	50	50.7	101	78-117	
Bromoform	ug/L	<1.0	50	46.8	94	65-122	
Bromomethane	ug/L	<1.0	50	38.1	76	52-147	
Carbon disulfide	ug/L	<1.0	50	45.8	92	41-144	
Carbon tetrachloride	ug/L	<1.0	50	52.0	104	59-120	
Chlorobenzene	ug/L	<1.0	50	48.9	98	75-113	
Chloroethane	ug/L	<1.0	50	44.5	89	49-151	
Chloroform	ug/L	<1.0	50	51.4	103	72-122	
Chloromethane	ug/L	<1.0	50	36.8	74	46-144	CL
Chloroprene	ug/L	<1.0	50	48.7	97	60-140	
cis-1,2-Dichloroethene	ug/L	<1.0	50	48.5	97	72-121	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

MATRIX SPIKE SAMPLE: 558747

Parameter	Units	7093267002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
cis-1,3-Dichloropropene	ug/L	<1.0	50	48.7	97	78-116	
Dibromochloromethane	ug/L	<1.0	50	56.2	112	70-120	
Dibromomethane	ug/L	<1.0	50	47.4	95	75-125	
Dichlorodifluoromethane	ug/L	<1.0	50	26.1	52	22-154	CL
Ethyl methacrylate	ug/L	<1.0	50	52.4	105	59-128	
Ethylbenzene	ug/L	<1.0	50	48.9	98	70-113	
Iodomethane	ug/L	<1.0	50	46.3	93	61-144	
Isobutanol	ug/L	<20.0	250	171	68	60-140	
Methacrylonitrile	ug/L	<1.0	50	49.6	99	60-140	
Methyl methacrylate	ug/L	<1.0	50	50.1	100	54-131	
Methylene Chloride	ug/L	<1.0	50	46.5	93	61-142	
Propionitrile	ug/L	<4.0	50	49.6	99	60-140	
Styrene	ug/L	<1.0	50	49.4	99	72-118	
Tetrachloroethene	ug/L	<1.0	50	42.4	85	60-128	
Toluene	ug/L	<1.0	50	49.3	99	72-119	
trans-1,2-Dichloroethene	ug/L	<1.0	50	49.2	98	56-142	
trans-1,3-Dichloropropene	ug/L	<1.0	50	49.4	99	79-116	
trans-1,4-Dichloro-2-butene	ug/L	<1.0	50	46.2	92	71-121	
Trichloroethene	ug/L	<1.0	50	48.5	97	69-117	
Trichlorofluoromethane	ug/L	<1.0	50	45.3	91	27-173	
Vinyl acetate	ug/L	<1.0	50	46.1	92	20-158	
Vinyl chloride	ug/L	<1.0	50	41.2	82	43-143	
Xylene (Total)	ug/L	<3.0	150	148	98	71-109	
1,2-Dichloroethane-d4 (S)	%				97	68-153	
4-Bromofluorobenzene (S)	%				101	79-124	
Toluene-d8 (S)	%				103	69-124	

SAMPLE DUPLICATE: 558746

Parameter	Units	7093267001 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<1.0	<1.0		
1,1,1-Trichloroethane	ug/L	<1.0	<1.0		
1,1,2,2-Tetrachloroethane	ug/L	<1.0	<1.0		
1,1,2-Trichloroethane	ug/L	<1.0	<1.0		
1,1-Dichloroethane	ug/L	<1.0	<1.0		
1,1-Dichloroethene	ug/L	<1.0	<1.0		
1,1-Dichloropropene	ug/L	<1.0	<1.0		
1,2,3-Trichloropropane	ug/L	<1.0	<1.0		
1,2-Dibromo-3-chloropropane	ug/L	<1.0	<1.0		
1,2-Dibromoethane (EDB)	ug/L	<1.0	<1.0		
1,2-Dichlorobenzene	ug/L	<1.0	<1.0		
1,2-Dichloroethane	ug/L	<1.0	<1.0		
1,2-Dichloropropane	ug/L	<1.0	<1.0		
1,3-Dichlorobenzene	ug/L	<1.0	<1.0		
1,3-Dichloropropane	ug/L	<1.0	<1.0		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

SAMPLE DUPLICATE: 558746

Parameter	Units	7093267001 Result	Dup Result	RPD	Qualifiers
1,4-Dichlorobenzene	ug/L	<1.0	<1.0		
1,4-Dioxane (p-Dioxane)	ug/L	<100	<100		
2,2-Dichloropropane	ug/L	<1.0	<1.0		
2-Butanone (MEK)	ug/L	<5.0	<5.0		IL
2-Hexanone	ug/L	<5.0	<5.0		
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	<5.0		
Acetone	ug/L	<5.0	<5.0		
Acetonitrile	ug/L	<5.0	<5.0		
Acrolein	ug/L	<1.0	<1.0		CL
Acrylonitrile	ug/L	<1.0	<1.0		
Allyl chloride	ug/L	<1.0	<1.0		
Benzene	ug/L	<1.0	<1.0		
Bromochloromethane	ug/L	<1.0	<1.0		
Bromodichloromethane	ug/L	<1.0	<1.0		
Bromoform	ug/L	<1.0	<1.0		
Bromomethane	ug/L	<1.0	<1.0		
Carbon disulfide	ug/L	<1.0	<1.0		
Carbon tetrachloride	ug/L	<1.0	<1.0		
Chlorobenzene	ug/L	<1.0	<1.0		
Chloroethane	ug/L	<1.0	<1.0		
Chloroform	ug/L	<1.0	<1.0		
Chloromethane	ug/L	<1.0	<1.0		CL
Chloroprene	ug/L	<1.0	<1.0		
cis-1,2-Dichloroethene	ug/L	<1.0	<1.0		
cis-1,3-Dichloropropene	ug/L	<1.0	<1.0		
Dibromochloromethane	ug/L	<1.0	<1.0		
Dibromomethane	ug/L	<1.0	<1.0		
Dichlorodifluoromethane	ug/L	<1.0	<1.0		CL
Ethyl methacrylate	ug/L	<1.0	<1.0		
Ethylbenzene	ug/L	<1.0	<1.0		
Iodomethane	ug/L	<1.0	<1.0		
Isobutanol	ug/L	<20.0	<20.0		
Methacrylonitrile	ug/L	<1.0	<1.0		
Methyl methacrylate	ug/L	<1.0	<1.0		
Methylene Chloride	ug/L	<1.0	<1.0		
Propionitrile	ug/L	<4.0	<4.0		
Styrene	ug/L	<1.0	<1.0		
Tetrachloroethene	ug/L	<1.0	<1.0		
Toluene	ug/L	<1.0	<1.0		
trans-1,2-Dichloroethene	ug/L	<1.0	<1.0		
trans-1,3-Dichloropropene	ug/L	<1.0	<1.0		
trans-1,4-Dichloro-2-butene	ug/L	<1.0	<1.0		
Trichloroethene	ug/L	<1.0	<1.0		
Trichlorofluoromethane	ug/L	<1.0	<1.0		
Vinyl acetate	ug/L	<1.0	<1.0		
Vinyl chloride	ug/L	<1.0	<1.0		
Xylene (Total)	ug/L	<3.0	<3.0		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

SAMPLE DUPLICATE: 558746

Parameter	Units	7093267001 Result	Dup Result	RPD	Qualifiers
1,2-Dichloroethane-d4 (S)	%	92	98		
4-Bromofluorobenzene (S)	%	95	99		
Toluene-d8 (S)	%	101	102		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 118387
QC Batch Method: EPA 3510C
Analysis Method: EPA 8081B
Analysis Description: 8081 GCS Pesticides
Associated Lab Samples: 7093111001

METHOD BLANK: 562242
Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
4,4'-DDD	ug/L	<0.10	0.10	06/18/19 18:24	
4,4'-DDE	ug/L	<0.10	0.10	06/18/19 18:24	
4,4'-DDT	ug/L	<0.10	0.10	06/18/19 18:24	
Aldrin	ug/L	<0.050	0.050	06/18/19 18:24	
alpha-BHC	ug/L	<0.050	0.050	06/18/19 18:24	
beta-BHC	ug/L	<0.050	0.050	06/18/19 18:24	
delta-BHC	ug/L	<0.050	0.050	06/18/19 18:24	
Dieldrin	ug/L	<0.10	0.10	06/18/19 18:24	
Endosulfan I	ug/L	<0.050	0.050	06/18/19 18:24	
Endosulfan II	ug/L	<0.10	0.10	06/18/19 18:24	
Endosulfan sulfate	ug/L	<0.10	0.10	06/18/19 18:24	
Endrin	ug/L	<0.10	0.10	06/18/19 18:24	
Endrin aldehyde	ug/L	<0.10	0.10	06/18/19 18:24	
gamma-BHC (Lindane)	ug/L	<0.050	0.050	06/18/19 18:24	
Heptachlor	ug/L	<0.050	0.050	06/18/19 18:24	
Heptachlor epoxide	ug/L	<0.050	0.050	06/18/19 18:24	
Methoxychlor	ug/L	<0.50	0.50	06/18/19 18:24	
Toxaphene	ug/L	<5.0	5.0	06/18/19 18:24	
Decachlorobiphenyl (S)	%	82	30-150	06/18/19 18:24	
Tetrachloro-m-xylene (S)	%	71	30-150	06/18/19 18:24	

LABORATORY CONTROL SAMPLE: 562243

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4,4'-DDD	ug/L	0.4	0.29	72	59-136	
4,4'-DDE	ug/L	0.4	0.28	70	59-119	
4,4'-DDT	ug/L	0.4	0.30	75	57-134	
Aldrin	ug/L	0.4	0.23	57	23-118	
alpha-BHC	ug/L	0.4	0.26	64	62-116	
beta-BHC	ug/L	0.4	0.31	78	69-131	
delta-BHC	ug/L	0.4	0.28	71	52-142	
Dieldrin	ug/L	0.4	0.27	67	64-123	
Endosulfan I	ug/L	0.4	0.27	66	58-129	
Endosulfan II	ug/L	0.4	0.29	73	63-139	
Endosulfan sulfate	ug/L	0.4	0.29	72	62-137	
Endrin	ug/L	0.4	0.30	74	65-123	
Endrin aldehyde	ug/L	0.4	0.26	66	62-144	
gamma-BHC (Lindane)	ug/L	0.4	0.28	69	67-119	
Heptachlor	ug/L	0.4	0.24	61	18-129	
Heptachlor epoxide	ug/L	0.4	0.29	72	67-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

LABORATORY CONTROL SAMPLE: 562243

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Methoxychlor	ug/L	0.4	0.31J	76	57-151	
Decachlorobiphenyl (S)	%			82	30-150	
Tetrachloro-m-xylene (S)	%			71	30-150	

LABORATORY CONTROL SAMPLE: 562244

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toxaphene	ug/L	20	18.1	90	62-157	
Decachlorobiphenyl (S)	%			49	30-150	
Tetrachloro-m-xylene (S)	%			75	30-150	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 119051
QC Batch Method: EPA 3510C
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Associated Lab Samples: 7093111001

METHOD BLANK: 565925 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	<1.0	1.0	06/25/19 16:42	
PCB-1221 (Aroclor 1221)	ug/L	<2.0	2.0	06/25/19 16:42	
PCB-1232 (Aroclor 1232)	ug/L	<1.0	1.0	06/25/19 16:42	
PCB-1242 (Aroclor 1242)	ug/L	<1.0	1.0	06/25/19 16:42	
PCB-1248 (Aroclor 1248)	ug/L	<1.0	1.0	06/25/19 16:42	
PCB-1254 (Aroclor 1254)	ug/L	<1.0	1.0	06/25/19 16:42	
PCB-1260 (Aroclor 1260)	ug/L	<1.0	1.0	06/25/19 16:42	
Decachlorobiphenyl (S)	%	66	30-150	06/25/19 16:42	
Tetrachloro-m-xylene (S)	%	80	30-150	06/25/19 16:42	

LABORATORY CONTROL SAMPLE: 565926

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	5	3.0	61	42-134	
PCB-1260 (Aroclor 1260)	ug/L	5	4.3	87	34-146	
Decachlorobiphenyl (S)	%			48	30-150	
Tetrachloro-m-xylene (S)	%			53	30-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 565985 565986

Parameter	Units	7094017013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
PCB-1016 (Aroclor 1016)	ug/L	<1.0	5	5	3.4	3.4	69	67	53-116	2	
PCB-1221 (Aroclor 1221)	ug/L	<2.0			<2.0	<2.0					
PCB-1232 (Aroclor 1232)	ug/L	<1.0			<1.0	<1.0					
PCB-1242 (Aroclor 1242)	ug/L	<1.0			<1.0	<1.0					
PCB-1248 (Aroclor 1248)	ug/L	<1.0			<1.0	<1.0					
PCB-1254 (Aroclor 1254)	ug/L	<1.0			<1.0	<1.0					
PCB-1260 (Aroclor 1260)	ug/L	<1.0	5	5	4.7	3.7	95	75	46-126	24	
Decachlorobiphenyl (S)	%						59	41	30-150		
Tetrachloro-m-xylene (S)	%						78	60	30-150		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 117394 Analysis Method: EPA 8151A
QC Batch Method: EPA 8151A Analysis Description: 8151A GCS Herbicides
Associated Lab Samples: 7093111001

METHOD BLANK: 555876 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4,5-T	ug/L	<0.25	0.25	06/14/19 03:02	
2,4,5-TP (Silvex)	ug/L	<0.25	0.25	06/14/19 03:02	
2,4-D	ug/L	<0.50	0.50	06/14/19 03:02	
Dinoseb	ug/L	<0.20	0.20	06/14/19 03:02	
2,4-DCAA (S)	%	90	36-121	06/14/19 03:02	

LABORATORY CONTROL SAMPLE: 555877

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-T	ug/L	1	0.74	74	40-131	
2,4,5-TP (Silvex)	ug/L	1	0.86	86	37-140	
2,4-D	ug/L	3	2.5	82	53-115	
Dinoseb	ug/L	2	0.90	45	18-121	
2,4-DCAA (S)	%			80	36-121	

MATRIX SPIKE SAMPLE: 557995

Parameter	Units	7093111001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
2,4,5-T	ug/L	<0.25	1	0.32	32	40-115	M1
2,4,5-TP (Silvex)	ug/L	<0.25	1	0.60	53	48-113	
2,4-D	ug/L	1.7	3	3.0	45	39-111	
Dinoseb	ug/L	0.30	2	0.50	10	18-121	M1
2,4-DCAA (S)	%				24	36-121	S0

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 118169
QC Batch Method: EPA 3510C
Analysis Method: EPA 8270D
Analysis Description: 8270 Water MSSV
Associated Lab Samples: 7093111001

METHOD BLANK: 560810
Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/L	<5.0	5.0	06/19/19 09:51	
1,2,4-Trichlorobenzene	ug/L	<5.0	5.0	06/19/19 09:51	
1,2-Dichlorobenzene	ug/L	<5.0	5.0	06/19/19 09:51	
1,3,5-Trinitrobenzene	ug/L	<5.0	5.0	06/19/19 09:51	
1,3-Dichlorobenzene	ug/L	<5.0	5.0	06/19/19 09:51	
1,3-Dinitrobenzene	ug/L	<5.0	5.0	06/19/19 09:51	
1,4-Dichlorobenzene	ug/L	<5.0	5.0	06/19/19 09:51	
1,4-Naphthoquinone	ug/L	<5.0	5.0	06/19/19 09:51	
1-Naphthylamine	ug/L	<5.0	5.0	06/19/19 09:51	
2,2'-Oxybis(1-chloropropane)	ug/L	<5.0	5.0	06/19/19 09:51	
2,3,4,6-Tetrachlorophenol	ug/L	<5.0	5.0	06/19/19 09:51	
2,4,5-Trichlorophenol	ug/L	<5.0	5.0	06/19/19 09:51	
2,4,6-Trichlorophenol	ug/L	<5.0	5.0	06/19/19 09:51	
2,4-Dichlorophenol	ug/L	<5.0	5.0	06/19/19 09:51	
2,4-Dimethylphenol	ug/L	<5.0	5.0	06/19/19 09:51	
2,4-Dinitrophenol	ug/L	<10.0	10.0	06/19/19 09:51	
2,4-Dinitrotoluene	ug/L	<5.0	5.0	06/19/19 09:51	
2,6-Dichlorophenol	ug/L	<5.0	5.0	06/19/19 09:51	
2,6-Dinitrotoluene	ug/L	<5.0	5.0	06/19/19 09:51	
2-Acetylaminofluorene	ug/L	<5.0	5.0	06/19/19 09:51	
2-Chloronaphthalene	ug/L	<5.0	5.0	06/19/19 09:51	
2-Chlorophenol	ug/L	<5.0	5.0	06/19/19 09:51	
2-Methylnaphthalene	ug/L	<5.0	5.0	06/19/19 09:51	
2-Methylphenol(o-Cresol)	ug/L	<5.0	5.0	06/19/19 09:51	
2-Naphthylamine	ug/L	<5.0	5.0	06/19/19 09:51	
2-Nitroaniline	ug/L	<5.0	5.0	06/19/19 09:51	
2-Nitrophenol	ug/L	<5.0	5.0	06/19/19 09:51	
3&4-Methylphenol(m&p Cresol)	ug/L	<5.0	5.0	06/19/19 09:51	
3,3'-Dichlorobenzidine	ug/L	<5.0	5.0	06/19/19 09:51	
3,3'-Dimethylbenzidine	ug/L	<5.0	5.0	06/19/19 09:51	
3-Methylcholanthrene	ug/L	<5.0	5.0	06/19/19 09:51	
3-Nitroaniline	ug/L	<5.0	5.0	06/19/19 09:51	
4,6-Dinitro-2-methylphenol	ug/L	<10.0	10.0	06/19/19 09:51	
4-Aminobiphenyl	ug/L	<5.0	5.0	06/19/19 09:51	
4-Bromophenylphenyl ether	ug/L	<5.0	5.0	06/19/19 09:51	
4-Chloro-3-methylphenol	ug/L	<5.0	5.0	06/19/19 09:51	
4-Chloroaniline	ug/L	<5.0	5.0	06/19/19 09:51	
4-Chlorophenylphenyl ether	ug/L	<5.0	5.0	06/19/19 09:51	
4-Nitroaniline	ug/L	<5.0	5.0	06/19/19 09:51	
4-Nitrophenol	ug/L	<10.0	10.0	06/19/19 09:51	
5-Nitro-o-toluidine	ug/L	<5.0	5.0	06/19/19 09:51	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

METHOD BLANK: 560810 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
7,12-Dimethylbenz(a)anthracene	ug/L	<5.0	5.0	06/19/19 09:51	
Acenaphthene	ug/L	<5.0	5.0	06/19/19 09:51	
Acenaphthylene	ug/L	<5.0	5.0	06/19/19 09:51	
Acetophenone	ug/L	<5.0	5.0	06/19/19 09:51	
Anthracene	ug/L	<5.0	5.0	06/19/19 09:51	
Benzo(a)anthracene	ug/L	<5.0	5.0	06/19/19 09:51	
Benzo(a)pyrene	ug/L	<5.0	5.0	06/19/19 09:51	
Benzo(b)fluoranthene	ug/L	<5.0	5.0	06/19/19 09:51	
Benzo(g,h,i)perylene	ug/L	<5.0	5.0	06/19/19 09:51	
Benzo(k)fluoranthene	ug/L	<5.0	5.0	06/19/19 09:51	
Benzyl alcohol	ug/L	<5.0	5.0	06/19/19 09:51	
bis(2-Chloroethoxy)methane	ug/L	<5.0	5.0	06/19/19 09:51	
bis(2-Chloroethyl) ether	ug/L	<5.0	5.0	06/19/19 09:51	
bis(2-Ethylhexyl)phthalate	ug/L	<5.0	5.0	06/19/19 09:51	
Butylbenzylphthalate	ug/L	<5.0	5.0	06/19/19 09:51	
Chlorobenzilate	ug/L	<5.0	5.0	06/19/19 09:51	
Chrysene	ug/L	<5.0	5.0	06/19/19 09:51	
Di-n-butylphthalate	ug/L	<5.0	5.0	06/19/19 09:51	
Di-n-octylphthalate	ug/L	<5.0	5.0	06/19/19 09:51	
Diallate	ug/L	<5.0	5.0	06/19/19 09:51	
Dibenz(a,h)anthracene	ug/L	<5.0	5.0	06/19/19 09:51	
Dibenzofuran	ug/L	<5.0	5.0	06/19/19 09:51	
Diethylphthalate	ug/L	<5.0	5.0	06/19/19 09:51	
Dimethoate	ug/L	<5.0	5.0	06/19/19 09:51	
Dimethylphthalate	ug/L	<5.0	5.0	06/19/19 09:51	
Disulfoton	ug/L	<5.0	5.0	06/19/19 09:51	
Ethyl methanesulfonate	ug/L	<5.0	5.0	06/19/19 09:51	
Famphur	ug/L	<10.0	10.0	06/19/19 09:51	CL,IC,IL
Fluoranthene	ug/L	<5.0	5.0	06/19/19 09:51	
Fluorene	ug/L	<5.0	5.0	06/19/19 09:51	
Hexachloro-1,3-butadiene	ug/L	<5.0	5.0	06/19/19 09:51	
Hexachlorobenzene	ug/L	<5.0	5.0	06/19/19 09:51	
Hexachlorocyclopentadiene	ug/L	<5.0	5.0	06/19/19 09:51	CL,IC
Hexachloroethane	ug/L	<5.0	5.0	06/19/19 09:51	
Hexachloropropene	ug/L	<5.0	5.0	06/19/19 09:51	
Indeno(1,2,3-cd)pyrene	ug/L	<5.0	5.0	06/19/19 09:51	
Isodrin	ug/L	<5.0	5.0	06/19/19 09:51	
Isophorone	ug/L	<5.0	5.0	06/19/19 09:51	
Isosafrole	ug/L	<5.0	5.0	06/19/19 09:51	
Kepone	ug/L	<10.0	10.0	06/19/19 09:51	CL,IC
Methapyrilene	ug/L	<5.0	5.0	06/19/19 09:51	
Methyl methanesulfonate	ug/L	<5.0	5.0	06/19/19 09:51	
Methyl parathion	ug/L	<5.0	5.0	06/19/19 09:51	
N-Nitroso-di-n-butylamine	ug/L	<5.0	5.0	06/19/19 09:51	
N-Nitroso-di-n-propylamine	ug/L	<5.0	5.0	06/19/19 09:51	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

METHOD BLANK: 560810 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
N-Nitrosodiethylamine	ug/L	<5.0	5.0	06/19/19 09:51	
N-Nitrosodimethylamine	ug/L	<5.0	5.0	06/19/19 09:51	
N-Nitrosodiphenylamine	ug/L	<5.0	5.0	06/19/19 09:51	
N-Nitrosomethylethylamine	ug/L	<5.0	5.0	06/19/19 09:51	
N-Nitrosopiperidine	ug/L	<5.0	5.0	06/19/19 09:51	
N-Nitrosopyrrolidine	ug/L	<5.0	5.0	06/19/19 09:51	
Naphthalene	ug/L	<5.0	5.0	06/19/19 09:51	
Nitrobenzene	ug/L	<5.0	5.0	06/19/19 09:51	
O,O,O-Triethylphosphorothioate	ug/L	<5.0	5.0	06/19/19 09:51	
O-Toluidine	ug/L	<5.0	5.0	06/19/19 09:51	
P-Dimethylaminoazobenzene	ug/L	<5.0	5.0	06/19/19 09:51	
p-Phenylenediamine	ug/L	<5.0	5.0	06/19/19 09:51	CL
Parathion (Ethyl parathion)	ug/L	<5.0	5.0	06/19/19 09:51	
Pentachlorobenzene	ug/L	<5.0	5.0	06/19/19 09:51	
Pentachloronitrobenzene	ug/L	<5.0	5.0	06/19/19 09:51	
Pentachlorophenol	ug/L	<10.0	10.0	06/19/19 09:51	CL
Phenacetin	ug/L	<5.0	5.0	06/19/19 09:51	
Phenanthrene	ug/L	<5.0	5.0	06/19/19 09:51	
Phenol	ug/L	<5.0	5.0	06/19/19 09:51	
Pronamide	ug/L	<5.0	5.0	06/19/19 09:51	
Pyrene	ug/L	<5.0	5.0	06/19/19 09:51	
Safrole	ug/L	<5.0	5.0	06/19/19 09:51	
Thionazin	ug/L	<5.0	5.0	06/19/19 09:51	
1,2-Dichlorobenzene-d4 (S)	%	58	16-110	06/19/19 09:51	
2,4,6-Tribromophenol (S)	%	61	10-123	06/19/19 09:51	
2-Chlorophenol-d4 (S)	%	60	33-110	06/19/19 09:51	
2-Fluorobiphenyl (S)	%	62	43-116	06/19/19 09:51	
2-Fluorophenol (S)	%	36	21-110	06/19/19 09:51	
Nitrobenzene-d5 (S)	%	65	35-114	06/19/19 09:51	
p-Terphenyl-d14 (S)	%	82	33-141	06/19/19 09:51	
Phenol-d5 (S)	%	23	10-110	06/19/19 09:51	

LABORATORY CONTROL SAMPLE: 560811

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/L	25	17.8	71	60-140	
1,2,4-Trichlorobenzene	ug/L	25	18.1	72	25-129	
1,2-Dichlorobenzene	ug/L	25	17.2	69	28-116	
1,3,5-Trinitrobenzene	ug/L	25	24.1	97	60-140	CH
1,3-Dichlorobenzene	ug/L	25	17.0	68	18-122	
1,3-Dinitrobenzene	ug/L	25	23.0	92	60-140	CH
1,4-Dichlorobenzene	ug/L	25	17.3	69	25-123	
1,4-Naphthoquinone	ug/L	25	23.0	92	60-140	
1-Naphthylamine	ug/L		<5.0			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

LABORATORY CONTROL SAMPLE: 560811

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2'-Oxybis(1-chloropropane)	ug/L	25	14.8	59	44-100	
2,3,4,6-Tetrachlorophenol	ug/L	25	17.7	71	42-134	
2,4,5-Trichlorophenol	ug/L	25	18.6	75	55-125	
2,4,6-Trichlorophenol	ug/L	25	18.5	74	55-114	
2,4-Dichlorophenol	ug/L	25	18.4	74	44-127	
2,4-Dimethylphenol	ug/L	25	5.7	23	39-135	L2
2,4-Dinitrophenol	ug/L	25	17.6	71	11-101	
2,4-Dinitrotoluene	ug/L	25	22.7	91	55-122	
2,6-Dichlorophenol	ug/L	25	18.8	75	54-95	
2,6-Dinitrotoluene	ug/L	25	21.1	84	56-121	
2-Acetylaminofluorene	ug/L		<5.0			
2-Chloronaphthalene	ug/L	25	17.8	71	41-122	
2-Chlorophenol	ug/L	25	16.4	66	43-106	
2-Methylnaphthalene	ug/L	25	18.4	74	31-123	
2-Methylphenol(o-Cresol)	ug/L	25	12.5	50	41-131	
2-Naphthylamine	ug/L		<5.0			
2-Nitroaniline	ug/L	25	17.3	69	48-124	
2-Nitrophenol	ug/L	25	21.3	85	41-128	
3&4-Methylphenol(m&p Cresol)	ug/L	25	10.9	44	15-141	
3,3'-Dichlorobenzidine	ug/L	50	41.9	84	20-132	
3,3'-Dimethylbenzidine	ug/L		<5.0			
3-Methylcholanthrene	ug/L	25	16.2	65	60-140	
3-Nitroaniline	ug/L	25	18.8	75	46-112	
4,6-Dinitro-2-methylphenol	ug/L	25	24.3	97	28-150	CH
4-Aminobiphenyl	ug/L		<5.0			
4-Bromophenylphenyl ether	ug/L	25	18.9	76	53-121	
4-Chloro-3-methylphenol	ug/L	25	18.1	72	48-124	
4-Chloroaniline	ug/L	25	16.4	66	25-133	
4-Chlorophenylphenyl ether	ug/L	25	19.5	78	53-116	
4-Nitroaniline	ug/L	25	18.9	76	51-113	
4-Nitrophenol	ug/L	25	7.6J	30	10-102	
5-Nitro-o-toluidine	ug/L		<5.0			
7,12-Dimethylbenz(a)anthracene	ug/L	25	17.9	72	60-140	
Acenaphthene	ug/L	25	18.5	74	50-116	
Acenaphthylene	ug/L	25	18.8	75	50-109	
Acetophenone	ug/L	25	17.8	71	42-97	
Anthracene	ug/L	25	19.3	77	54-117	
Benzo(a)anthracene	ug/L	25	19.6	79	31-128	
Benzo(a)pyrene	ug/L	25	19.8	79	30-146	
Benzo(b)fluoranthene	ug/L	25	19.2	77	43-147	
Benzo(g,h,i)perylene	ug/L	25	19.9	80	25-153	
Benzo(k)fluoranthene	ug/L	25	19.5	78	28-148	
Benzyl alcohol	ug/L	25	14.2	57	32-143	
bis(2-Chloroethoxy)methane	ug/L	25	17.2	69	47-102	
bis(2-Chloroethyl) ether	ug/L	25	17.1	68	39-111	
bis(2-Ethylhexyl)phthalate	ug/L	25	18.0	72	37-138	
Butylbenzylphthalate	ug/L	25	19.4	77	38-135	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

LABORATORY CONTROL SAMPLE: 560811

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chlorobenzilate	ug/L	25	20.2	81	60-140	
Chrysene	ug/L	25	19.4	78	42-140	
Di-n-butylphthalate	ug/L	25	19.7	79	50-128	
Di-n-octylphthalate	ug/L	25	19.2	77	32-148	
Diallate	ug/L	25	17.8	71	60-140	
Dibenz(a,h)anthracene	ug/L	25	18.9	76	22-147	
Dibenzofuran	ug/L	25	18.9	76	53-117	
Diethylphthalate	ug/L	25	19.6	78	54-124	
Dimethoate	ug/L	25	20.8	83	60-140	
Dimethylphthalate	ug/L	25	19.5	78	56-121	
Disulfoton	ug/L	25	16.2	65	10-143	
Ethyl methanesulfonate	ug/L	25	16.2	65	41-116	
Famphur	ug/L	25	39.1	156	33-106	CL,IC,IL,L1
Fluoranthene	ug/L	25	19.9	80	50-123	
Fluorene	ug/L	25	19.2	77	51-118	
Hexachloro-1,3-butadiene	ug/L	25	17.6	70	18-90	
Hexachlorobenzene	ug/L	25	17.8	71	52-128	
Hexachlorocyclopentadiene	ug/L	25	16.3	65	13-119	CL,IC,IH
Hexachloroethane	ug/L	25	16.9	68	41-119	
Hexachloropropene	ug/L	25	17.3	69	40-140	
Indeno(1,2,3-cd)pyrene	ug/L	25	19.6	78	26-156	
Isodrin	ug/L	25	17.7	71	40-140	
Isophorone	ug/L	25	17.6	70	46-118	
Isosafrole	ug/L	25	17.4	70	40-140	
Kepone	ug/L	25	<10.0	0	10-150	CL,L2
Methapyrilene	ug/L		<5.0			
Methyl methanesulfonate	ug/L	25	11.6	46	41-143	
Methyl parathion	ug/L	25	25.2	101	60-140	CH
N-Nitroso-di-n-butylamine	ug/L		<5.0			
N-Nitroso-di-n-propylamine	ug/L	25	16.7	67	40-124	
N-Nitrosodiethylamine	ug/L		<5.0			
N-Nitrosodimethylamine	ug/L	25	8.8	35	36-104	L2
N-Nitrosodiphenylamine	ug/L	25	19.1	76	41-95	
N-Nitrosomethylethylamine	ug/L		<5.0			
N-Nitrosopiperidine	ug/L		<5.0			
N-Nitrosopyrrolidine	ug/L		<5.0			
Naphthalene	ug/L	25	18.1	72	39-107	
Nitrobenzene	ug/L	25	17.6	70	41-122	
O,O,O-Triethylphosphorothioate	ug/L	25	18.8	75	46-112	
O-Toluidine	ug/L		<5.0			
P-Dimethylaminoazobenzene	ug/L		<5.0			
p-Phenylenediamine	ug/L		<5.0			CL,IL
Parathion (Ethyl parathion)	ug/L	25	21.5	86	60-140	
Pentachlorobenzene	ug/L	25	18.2	73	46-113	
Pentachloronitrobenzene	ug/L	25	19.4	78	53-140	
Pentachlorophenol	ug/L	25	12.0	48	12-124	CL
Phenacetin	ug/L	25	18.8	75	30-143	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

LABORATORY CONTROL SAMPLE: 560811

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	ug/L	25	19.6	78	52-126	
Phenol	ug/L	25	6.4	26	10-99	
Pronamide	ug/L	25	19.7	79	60-140	
Pyrene	ug/L	25	21.0	84	41-137	
Safrole	ug/L	25	19.0	76	49-106	
Thionazin	ug/L	25	19.0	76	50-140	
1,2-Dichlorobenzene-d4 (S)	%			67	16-110	
2,4,6-Tribromophenol (S)	%			72	10-123	
2-Chlorophenol-d4 (S)	%			67	33-110	
2-Fluorobiphenyl (S)	%			73	43-116	
2-Fluorophenol (S)	%			37	21-110	
Nitrobenzene-d5 (S)	%			73	35-114	
p-Terphenyl-d14 (S)	%			80	33-141	
Phenol-d5 (S)	%			23	10-110	

LABORATORY CONTROL SAMPLE: 562856

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/L		<5.0			
1,2,4-Trichlorobenzene	ug/L		<5.0			
1,2-Dichlorobenzene	ug/L		<5.0			
1,3,5-Trinitrobenzene	ug/L		<5.0			
1,3-Dichlorobenzene	ug/L		<5.0			
1,3-Dinitrobenzene	ug/L		<5.0			
1,4-Dichlorobenzene	ug/L		<5.0			
1,4-Naphthoquinone	ug/L		<5.0			
1-Naphthylamine	ug/L	25	9.4	38	29-75	
2,2'-Oxybis(1-chloropropane)	ug/L		<5.0			
2,3,4,6-Tetrachlorophenol	ug/L		<5.0			
2,4,5-Trichlorophenol	ug/L		<5.0			
2,4,6-Trichlorophenol	ug/L		<5.0			
2,4-Dichlorophenol	ug/L		<5.0			
2,4-Dimethylphenol	ug/L		<5.0			
2,4-Dinitrophenol	ug/L		<10.0			
2,4-Dinitrotoluene	ug/L		<5.0			
2,6-Dichlorophenol	ug/L		<5.0			
2,6-Dinitrotoluene	ug/L		<5.0			
2-Acetylaminofluorene	ug/L	25	15.5	62	77-112	L2
2-Chloronaphthalene	ug/L		<5.0			
2-Chlorophenol	ug/L		<5.0			
2-Methylnaphthalene	ug/L		<5.0			
2-Methylphenol(o-Cresol)	ug/L		<5.0			
2-Naphthylamine	ug/L	25	13.4	54	60-140	L2
2-Nitroaniline	ug/L		<5.0			
2-Nitrophenol	ug/L		<5.0			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

LABORATORY CONTROL SAMPLE: 562856

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
3&4-Methylphenol(m&p Cresol)	ug/L		1.3J			
3,3'-Dichlorobenzidine	ug/L	25	15.9	64	20-132	
3,3'-Dimethylbenzidine	ug/L	25	22.1	89	40-130	
3-Methylcholanthrene	ug/L		<5.0			
3-Nitroaniline	ug/L		<5.0			
4,6-Dinitro-2-methylphenol	ug/L		<10.0			
4-Aminobiphenyl	ug/L	25	11.4	46	60-140	L2
4-Bromophenylphenyl ether	ug/L		<5.0			
4-Chloro-3-methylphenol	ug/L		<5.0			
4-Chloroaniline	ug/L		<5.0			
4-Chlorophenylphenyl ether	ug/L		<5.0			
4-Nitroaniline	ug/L		<5.0			
4-Nitrophenol	ug/L		<10.0			
5-Nitro-o-toluidine	ug/L	25	14.6	59	60-140	L2
7,12-Dimethylbenz(a)anthracene	ug/L		<5.0			
Acenaphthene	ug/L		<5.0			
Acenaphthylene	ug/L		<5.0			
Acetophenone	ug/L		<5.0			
Anthracene	ug/L		<5.0			
Benzo(a)anthracene	ug/L		<5.0			
Benzo(a)pyrene	ug/L		<5.0			
Benzo(b)fluoranthene	ug/L		<5.0			
Benzo(g,h,i)perylene	ug/L		<5.0			
Benzo(k)fluoranthene	ug/L		<5.0			
Benzyl alcohol	ug/L		<5.0			
bis(2-Chloroethoxy)methane	ug/L		<5.0			
bis(2-Chloroethyl) ether	ug/L		<5.0			
bis(2-Ethylhexyl)phthalate	ug/L		<5.0			
Butylbenzylphthalate	ug/L		<5.0			
Chlorobenzilate	ug/L		<5.0			
Chrysene	ug/L		<5.0			
Di-n-butylphthalate	ug/L		<5.0			
Di-n-octylphthalate	ug/L		<5.0			
Diallate	ug/L		<5.0			
Dibenz(a,h)anthracene	ug/L		<5.0			
Dibenzofuran	ug/L		<5.0			
Diethylphthalate	ug/L		<5.0			
Dimethoate	ug/L		<5.0			
Dimethylphthalate	ug/L		<5.0			
Disulfoton	ug/L		<5.0			
Ethyl methanesulfonate	ug/L		<5.0			
Famphur	ug/L		<10.0			
Fluoranthene	ug/L		<5.0			
Fluorene	ug/L		<5.0			
Hexachloro-1,3-butadiene	ug/L		<5.0			
Hexachlorobenzene	ug/L		<5.0			
Hexachlorocyclopentadiene	ug/L		<5.0			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

LABORATORY CONTROL SAMPLE: 562856

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Hexachloroethane	ug/L		<5.0			
Hexachloropropene	ug/L		<5.0			
Indeno(1,2,3-cd)pyrene	ug/L		<5.0			
Isodrin	ug/L		<5.0			
Isophorone	ug/L		<5.0			
Isosafrole	ug/L		<5.0			
Kepone	ug/L		<10.0			
Methapyrilene	ug/L	25	13.8	55	10-109	CL
Methyl methanesulfonate	ug/L		<5.0			
Methyl parathion	ug/L		<5.0			
N-Nitroso-di-n-butylamine	ug/L	25	12.7	51	57-100	L2
N-Nitroso-di-n-propylamine	ug/L		<5.0			
N-Nitrosodiethylamine	ug/L	25	13.3	53	21-155	
N-Nitrosodimethylamine	ug/L		<5.0			
N-Nitrosodiphenylamine	ug/L		<5.0			
N-Nitrosomethylethylamine	ug/L	25	12.1	48	33-152	CL
N-Nitrosopiperidine	ug/L	25	12.3	49	40-113	
N-Nitrosopyrrolidine	ug/L	25	12.4	50	27-98	
Naphthalene	ug/L		<5.0			
Nitrobenzene	ug/L		<5.0			
O,O,O-Triethylphosphorothioate	ug/L		<5.0			
O-Toluidine	ug/L	25	12.9	52	36-99	
P-Dimethylaminoazobenzene	ug/L	25	11.6	46	21-166	
p-Phenylenediamine	ug/L	25	<5.0	0	60-140	L2
Parathion (Ethyl parathion)	ug/L		<5.0			
Pentachlorobenzene	ug/L		<5.0			
Pentachloronitrobenzene	ug/L		<5.0			
Pentachlorophenol	ug/L		<10.0			
Phenacetin	ug/L		<5.0			
Phenanthrene	ug/L		<5.0			
Phenol	ug/L		<5.0			
Pronamide	ug/L		<5.0			
Pyrene	ug/L		<5.0			
Safrole	ug/L		<5.0			
Thionazin	ug/L		<5.0			
1,2-Dichlorobenzene-d4 (S)	%			41	16-110	
2,4,6-Tribromophenol (S)	%			47	10-123	
2-Chlorophenol-d4 (S)	%			52	33-110	
2-Fluorobiphenyl (S)	%			47	43-116	
2-Fluorophenol (S)	%			34	21-110	
Nitrobenzene-d5 (S)	%			55	35-114	
p-Terphenyl-d14 (S)	%			55	33-141	
Phenol-d5 (S)	%			22	10-110	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

MATRIX SPIKE SAMPLE: 561264

Parameter	Units	7093111001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/L	<5.0	25	18.5	74	60-140	
1,2,4-Trichlorobenzene	ug/L	<5.0	25	18.5	74	25-129	
1,2-Dichlorobenzene	ug/L	<5.0	25	16.7	67	28-116	
1,3,5-Trinitrobenzene	ug/L	<5.0	25	9.8	39	60-140	M1
1,3-Dichlorobenzene	ug/L	<5.0	25	16.4	66	18-122	
1,3-Dinitrobenzene	ug/L	<5.0	25	25.4	102	60-140	
1,4-Dichlorobenzene	ug/L	<5.0	25	16.4	66	25-123	
1,4-Naphthoquinone	ug/L	<5.0	25	<5.0	0	60-140	M1
1-Naphthylamine	ug/L	<5.0		<5.0			
2,2'-Oxybis(1-chloropropane)	ug/L	<5.0	25	17.7	71	44-100	
2,3,4,6-Tetrachlorophenol	ug/L	<5.0	25	22.5	90	42-134	
2,4,5-Trichlorophenol	ug/L	<5.0	25	22.2	89	55-125	
2,4,6-Trichlorophenol	ug/L	<5.0	25	22.7	91	55-114	
2,4-Dichlorophenol	ug/L	<5.0	25	22.2	89	44-127	
2,4-Dimethylphenol	ug/L	<5.0	25	20.5	82	39-135	
2,4-Dinitrophenol	ug/L	<10.0	25	24.8	99	11-101	
2,4-Dinitrotoluene	ug/L	<5.0	25	24.2	97	55-122	
2,6-Dichlorophenol	ug/L	<5.0	25	21.9	88	54-95	
2,6-Dinitrotoluene	ug/L	<5.0	25	22.8	91	56-121	
2-Acetylaminofluorene	ug/L	<5.0		<5.0			
2-Chloronaphthalene	ug/L	<5.0	25	18.7	75	41-122	
2-Chlorophenol	ug/L	<5.0	25	19.0	76	43-106	
2-Methylnaphthalene	ug/L	<5.0	25	19.9	80	31-123	
2-Methylphenol(o-Cresol)	ug/L	1.0J	25	18.6	70	41-131	
2-Naphthylamine	ug/L	<5.0		<5.0			
2-Nitroaniline	ug/L	<5.0	25	19.3	77	48-124	
2-Nitrophenol	ug/L	<5.0	25	24.2	97	41-128	
3&4-Methylphenol(m&p Cresol)	ug/L	110	25	131	84	15-141	E
3,3'-Dichlorobenzidine	ug/L	<5.0	50	24.2	48	20-132	
3,3'-Dimethylbenzidine	ug/L	<5.0		<5.0			
3-Methylcholanthrene	ug/L	<5.0	25	15.0	60	60-140	
3-Nitroaniline	ug/L	<5.0	25	19.0	76	46-112	
4,6-Dinitro-2-methylphenol	ug/L	<10.0	25	23.6	95	28-150	
4-Aminobiphenyl	ug/L	<5.0		<5.0			
4-Bromophenylphenyl ether	ug/L	<5.0	25	20.4	82	53-121	
4-Chloro-3-methylphenol	ug/L	<5.0	25	25.1	100	48-124	
4-Chloroaniline	ug/L	<5.0	25	11.6	47	25-133	
4-Chlorophenylphenyl ether	ug/L	<5.0	25	20.9	83	53-116	
4-Nitroaniline	ug/L	<5.0	25	29.5	118	51-113	M1
4-Nitrophenol	ug/L	<10.0	25	16.3	65	10-102	
5-Nitro-o-toluidine	ug/L	<5.0		<5.0			
7,12-Dimethylbenz(a)anthracene	ug/L	<5.0	25	19.2	77	60-140	
Acenaphthene	ug/L	<5.0	25	19.9	80	50-116	
Acenaphthylene	ug/L	<5.0	25	18.8	75	50-109	
Acetophenone	ug/L	<5.0	25	20.5	82	42-97	
Anthracene	ug/L	<5.0	25	21.0	84	54-117	
Benzo(a)anthracene	ug/L	<5.0	25	21.8	87	31-128	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

MATRIX SPIKE SAMPLE: 561264

Parameter	Units	7093111001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzo(a)pyrene	ug/L	<5.0	25	21.7	87	30-146	
Benzo(b)fluoranthene	ug/L	<5.0	25	21.3	85	43-147	
Benzo(g,h,i)perylene	ug/L	<5.0	25	24.5	98	25-153	
Benzo(k)fluoranthene	ug/L	<5.0	25	20.2	81	28-148	
Benzyl alcohol	ug/L	<5.0	25	17.8	71	32-143	
bis(2-Chloroethoxy)methane	ug/L	<5.0	25	19.1	76	47-102	
bis(2-Chloroethyl) ether	ug/L	<5.0	25	26.9	108	39-111	
bis(2-Ethylhexyl)phthalate	ug/L	<5.0	25	19.7	79	37-138	
Butylbenzylphthalate	ug/L	<5.0	25	20.9	83	38-135	
Chlorobenzilate	ug/L	<5.0	25	22.1	88	60-140	
Chrysene	ug/L	<5.0	25	21.3	85	42-140	
Di-n-butylphthalate	ug/L	<5.0	25	21.2	85	50-128	
Di-n-octylphthalate	ug/L	<5.0	25	18.7	75	32-148	
Diallate	ug/L	<5.0	25	19.4	77	60-140	
Dibenz(a,h)anthracene	ug/L	<5.0	25	22.3	89	22-147	
Dibenzofuran	ug/L	<5.0	25	20.3	81	53-117	
Diethylphthalate	ug/L	<5.0	25	21.4	86	54-124	
Dimethoate	ug/L	<5.0	25	20.5	82	60-140	
Dimethylphthalate	ug/L	<5.0	25	21.3	85	56-121	
Disulfoton	ug/L	<5.0	25	18.0	72	10-143	
Ethyl methanesulfonate	ug/L	<5.0	25	19.5	78	41-116	
Famphur	ug/L	<10.0	25	17.2	69	33-106	
Fluoranthene	ug/L	<5.0	25	21.4	86	50-123	
Fluorene	ug/L	<5.0	25	20.6	82	51-118	
Hexachloro-1,3-butadiene	ug/L	<5.0	25	17.6	70	18-90	
Hexachlorobenzene	ug/L	<5.0	25	19.2	77	52-128	
Hexachlorocyclopentadiene	ug/L	<5.0	25	<5.0	6	13-119	M1
Hexachloroethane	ug/L	<5.0	25	11.4	46	41-119	
Hexachloropropene	ug/L	<5.0	25	6.2	25	40-140	M1
Indeno(1,2,3-cd)pyrene	ug/L	<5.0	25	24.2	97	26-156	
Isodrin	ug/L	<5.0	25	<5.0	0	40-140	M1
Isophorone	ug/L	<5.0	25	20.0	80	46-118	
Isosafrole	ug/L	<5.0	25	18.0	72	40-140	
Kepone	ug/L	<10.0	25	<10.0	0	10-150	M0
Methapyrilene	ug/L	<5.0		<5.0			
Methyl methanesulfonate	ug/L	<5.0	25	14.3	57	41-143	
Methyl parathion	ug/L	<5.0	25	24.3	97	60-140	
N-Nitroso-di-n-butylamine	ug/L	<5.0		<5.0			
N-Nitroso-di-n-propylamine	ug/L	<5.0	25	19.1	76	40-124	
N-Nitrosodiethylamine	ug/L	<5.0		<5.0			
N-Nitrosodimethylamine	ug/L	<5.0	25	88.4	353	36-104	E,M0
N-Nitrosodiphenylamine	ug/L	<5.0	25	21.4	86	41-95	
N-Nitrosomethylethylamine	ug/L	<5.0		<5.0			
N-Nitrosopiperidine	ug/L	<5.0		<5.0			
N-Nitrosopyrrolidine	ug/L	<5.0		<5.0			
Naphthalene	ug/L	<5.0	25	19.1	76	39-107	
Nitrobenzene	ug/L	<5.0	25	19.6	78	41-122	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

MATRIX SPIKE SAMPLE: 561264

Parameter	Units	7093111001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
O,O,O-Triethylphosphorothioate	ug/L	<5.0	25	20.4	82	46-112	
O-Toluidine	ug/L	<5.0		<5.0			
P-Dimethylaminoazobenzene	ug/L	<5.0		<5.0			
p-Phenylenediamine	ug/L	<5.0		<5.0			
Parathion (Ethyl parathion)	ug/L	<5.0	25	23.5	94	60-140	
Pentachlorobenzene	ug/L	<5.0	25	19.7	79	46-113	
Pentachloronitrobenzene	ug/L	<5.0	25	21.5	86	53-140	
Pentachlorophenol	ug/L	<10.0	25	21.6	86	12-124	
Phenacetin	ug/L	<5.0	25	21.1	85	30-143	
Phenanthrene	ug/L	<5.0	25	21.3	85	52-126	
Phenol	ug/L	115	25	129	56	10-99	E
Pronamide	ug/L	<5.0	25	20.2	81	60-140	
Pyrene	ug/L	<5.0	25	22.5	90	41-137	
Safrole	ug/L	<5.0	25	20.7	83	49-106	
Thionazin	ug/L	<5.0	25	21.1	84	50-140	
1,2-Dichlorobenzene-d4 (S)	%				70	16-110	
2,4,6-Tribromophenol (S)	%				84	10-123	
2-Chlorophenol-d4 (S)	%				74	33-110	
2-Fluorobiphenyl (S)	%				78	43-116	
2-Fluorophenol (S)	%				52	21-110	
Nitrobenzene-d5 (S)	%				79	35-114	
p-Terphenyl-d14 (S)	%				52	33-141	
Phenol-d5 (S)	%				37	10-110	

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QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 613318
QC Batch Method: EPA 3510
Analysis Method: EPA 8270D by SIM
Analysis Description: 8270D Water 14 Dioxane by SIM
Associated Lab Samples: 7093111001

METHOD BLANK: 3314241 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (SIM)	ug/L	<0.25	0.25	06/21/19 11:31	
1,4-Dioxane-d8 (S)	%.	39	30-125	06/21/19 11:31	

LABORATORY CONTROL SAMPLE & LCSD: 3314242 3314243

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,4-Dioxane (SIM)	ug/L	10	7.8	7.3	78	73	40-125	6	20	
1,4-Dioxane-d8 (S)	%.				39	46	30-125			

LABORATORY CONTROL SAMPLE: 3314706

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (SIM)	ug/L	10	0.22J	2	40-125	L2
1,4-Dioxane-d8 (S)	%.			44	30-125	

LABORATORY CONTROL SAMPLE: 3314707

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (SIM)	ug/L	10	0.25	3	40-125	L2
1,4-Dioxane-d8 (S)	%.			47	30-125	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 117419 Analysis Method: SM22 2120B
QC Batch Method: SM22 2120B Analysis Description: 2120B Color
Associated Lab Samples: 7093111001

METHOD BLANK: 556066 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Apparent Color	units	<5.0	5.0	06/12/19 14:31	

LABORATORY CONTROL SAMPLE: 556067

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Apparent Color	units	40	40.0	100	90-110	

SAMPLE DUPLICATE: 556068

Parameter	Units	7092990004 Result	Dup Result	RPD	Qualifiers
Apparent Color	units	5.0	5.0	0	
pH	Std. Units	6.5	6.5	0	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 119110 Analysis Method: SM22 2320B
QC Batch Method: SM22 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 7093111001

METHOD BLANK: 566023 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<1.0	1.0	06/24/19 11:56	

LABORATORY CONTROL SAMPLE: 566024

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	25	26.1	104	85-115	

MATRIX SPIKE SAMPLE: 566025

Parameter	Units	7093107007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	44.6	25	71.3	107	75-125	

SAMPLE DUPLICATE: 566026

Parameter	Units	7093107007 Result	Dup Result	RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	44.6	45.7	2	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 119301 Analysis Method: SM22 2340C
QC Batch Method: SM22 2340C Analysis Description: 2340C Hardness, Total
Associated Lab Samples: 7093111001

METHOD BLANK: 567060 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	<5.0	5.0	06/25/19 14:32	

LABORATORY CONTROL SAMPLE: 567061

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	100	99.0	99	90-110	

MATRIX SPIKE SAMPLE: 567062

Parameter	Units	7093111001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	28800	20000	49000	101	75-125	

SAMPLE DUPLICATE: 567063

Parameter	Units	7093111001 Result	Dup Result	RPD	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	28800	29000	1	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 118004
QC Batch Method: SM22 2540C
Analysis Method: SM22 2540C
Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 7093111001

METHOD BLANK: 559707 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<10.0	10.0	06/17/19 10:51	

LABORATORY CONTROL SAMPLE: 559708

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	500	540	108	85-115	

MATRIX SPIKE SAMPLE: 559710

Parameter	Units	7093107009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	408	600	980	95	75-125	

MATRIX SPIKE SAMPLE: 559712

Parameter	Units	7093263004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	162	300	454	97	75-125	

SAMPLE DUPLICATE: 559709

Parameter	Units	7093107009 Result	Dup Result	RPD	Qualifiers
Total Dissolved Solids	mg/L	408	480	16	D6

SAMPLE DUPLICATE: 559711

Parameter	Units	7093263004 Result	Dup Result	RPD	Qualifiers
Total Dissolved Solids	mg/L	162	175	8	D6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 117343
QC Batch Method: SM22 3500-Cr B
Associated Lab Samples: 7093111001

Analysis Method: SM22 3500-Cr B
Analysis Description: Chromium, Hexavalent by 3500

METHOD BLANK: 555717 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	<0.020	0.020	06/12/19 07:38	

LABORATORY CONTROL SAMPLE: 555718

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	0.2	0.21	104	85-115	

MATRIX SPIKE SAMPLE: 555719

Parameter	Units	7093094001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	<0.020	0.2	0.19	93	75-125	

SAMPLE DUPLICATE: 555720

Parameter	Units	7093094001 Result	Dup Result	RPD	Qualifiers
Chromium, Hexavalent	mg/L	<0.020	<0.020		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 118376 Analysis Method: EPA 410.4
QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD
Associated Lab Samples: 7093111001

METHOD BLANK: 562201 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	10.0	06/19/19 11:37	

LABORATORY CONTROL SAMPLE: 562202

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	500	531	106	90-110	

MATRIX SPIKE SAMPLE: 562203

Parameter	Units	7093107001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	1000	1010	100	90-110	

MATRIX SPIKE SAMPLE: 562205

Parameter	Units	7093260004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	1000	1050	105	90-110	

SAMPLE DUPLICATE: 562204

Parameter	Units	7093107001 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	<10.0		

SAMPLE DUPLICATE: 562206

Parameter	Units	7093260004 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	<10.0		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 117484
QC Batch Method: SM22 5210B
Analysis Method: SM22 5210B
Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 7093111001

METHOD BLANK: 556243 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	<2.0	2.0	06/17/19 11:09	

LABORATORY CONTROL SAMPLE: 556244

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	202	102	84.5-115.4	

SAMPLE DUPLICATE: 556245

Parameter	Units	7093205001 Result	Dup Result	RPD	Qualifiers
BOD, 5 day	mg/L	162	160	2	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 118006
QC Batch Method: EPA 9030B
Analysis Method: EPA 9034
Analysis Description: 9034 Sulfide Waste Water
Associated Lab Samples: 7093111001

METHOD BLANK: 559717 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide	mg/L	<2.0	2.0	06/17/19 14:26	

LABORATORY CONTROL SAMPLE: 559718

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	56.1	48.0	86	80-120	

SAMPLE DUPLICATE: 559719

Parameter	Units	7092926001 Result	Dup Result	RPD	Qualifiers
Sulfide	mg/L	72.0	72.0	0	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 119378
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Associated Lab Samples: 7093111001

METHOD BLANK: 567505 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Bromide	mg/L	<0.50	0.50	06/26/19 23:22	
Chloride	mg/L	<2.0	2.0	06/26/19 23:22	
Sulfate	mg/L	<5.0	5.0	06/26/19 23:22	

LABORATORY CONTROL SAMPLE: 567506

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	1.1	108	90-110	
Chloride	mg/L	10	10.2	102	90-110	
Sulfate	mg/L	10	10.3	103	90-110	

MATRIX SPIKE SAMPLE: 567507

Parameter	Units	7094769001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	ND	1	1.1	105	80-120	
Chloride	mg/L	10.9	10	20.5	96	80-120	
Sulfate	mg/L	<5.0	10	15.1	102	80-120	

SAMPLE DUPLICATE: 567508

Parameter	Units	7094769001 Result	Dup Result	RPD	Qualifiers
Bromide	mg/L	ND	<0.50		
Chloride	mg/L	10.9	10.8	0	
Sulfate	mg/L	<5.0	4.7J		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 119268 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 7093111001

METHOD BLANK: 566775 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	<0.10	0.10	06/26/19 07:51	

LABORATORY CONTROL SAMPLE: 566776

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4	4.0	99	90-110	

MATRIX SPIKE SAMPLE: 566777

Parameter	Units	7092926001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	97.9	20	94.6	-16	90-110	M6

MATRIX SPIKE SAMPLE: 566779

Parameter	Units	7093723002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4.7	4	9.1	110	90-110	

SAMPLE DUPLICATE: 566778

Parameter	Units	7092926001 Result	Dup Result	RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	97.9	91.2	7	

SAMPLE DUPLICATE: 566780

Parameter	Units	7093723002 Result	Dup Result	RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4.7	3.8	22	D6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 117323
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrite, Unpres.
Associated Lab Samples: 7093111001

METHOD BLANK: 555560 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrite as N	mg/L	<0.050	0.050	06/11/19 20:34	

LABORATORY CONTROL SAMPLE: 555561

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	1	1.0	104	90-110	

MATRIX SPIKE SAMPLE: 555562

Parameter	Units	7093101001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	0.5	0.55	110	90-110	

MATRIX SPIKE SAMPLE: 555564

Parameter	Units	7093107001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	0.5	0.56	112	90-110	M1

SAMPLE DUPLICATE: 555563

Parameter	Units	7093101001 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

SAMPLE DUPLICATE: 555565

Parameter	Units	7093107001 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 117329
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 7093111001

METHOD BLANK: 555678 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	0.050	06/11/19 23:04	

LABORATORY CONTROL SAMPLE: 555679

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	1	1.1	106	90-110	

MATRIX SPIKE SAMPLE: 555680

Parameter	Units	7093094001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	0.14	0.5	0.61	94	90-110	

SAMPLE DUPLICATE: 555681

Parameter	Units	7093094001 Result	Dup Result	RPD	Qualifiers
Nitrate-Nitrite (as N)	mg/L	0.14	0.15	2	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 119281
QC Batch Method: SM22 4500 NH3 H
Analysis Method: SM22 4500 NH3 H
Analysis Description: 4500 Ammonia
Associated Lab Samples: 7093111001

METHOD BLANK: 566889 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	0.036J	0.10	06/25/19 14:09	

LABORATORY CONTROL SAMPLE: 566890

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1	1.0	101	90-110	

MATRIX SPIKE SAMPLE: 566891

Parameter	Units	7093468001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	22.4	10	29.0	67	75-125	M6

SAMPLE DUPLICATE: 566892

Parameter	Units	7093468001 Result	Dup Result	RPD	Qualifiers
Nitrogen, Ammonia	mg/L	22.4	17.7	23	D6

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 118162
QC Batch Method: EPA 9010C
Analysis Method: EPA 9014 Total Cyanide
Analysis Description: 9014 Cyanide, Total
Associated Lab Samples: 7093111001

METHOD BLANK: 560795 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	ug/L	<10.0	10.0	06/18/19 15:19	

LABORATORY CONTROL SAMPLE: 560796

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	ug/L	75	67.0	89	85-115	

MATRIX SPIKE SAMPLE: 560797

Parameter	Units	7092926001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	ug/L	3.4J	100	82.7	79	75-125	

SAMPLE DUPLICATE: 560798

Parameter	Units	7092926001 Result	Dup Result	RPD	Qualifiers
Cyanide	ug/L	3.4J	4.0J		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 118775
QC Batch Method: EPA 9060A
Analysis Method: EPA 9060A
Analysis Description: 9060 TOC
Associated Lab Samples: 7093111001

METHOD BLANK: 564526
Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mean Total Organic Carbon	mg/L	<1.0	1.0	06/21/19 14:06	
Total Organic Carbon	mg/L	<1.0	1.0	06/21/19 14:06	
Total Organic Carbon	mg/L	<1.0	1.0	06/21/19 14:06	
Total Organic Carbon	mg/L	<1.0	1.0	06/21/19 14:06	
Total Organic Carbon	mg/L	<1.0	1.0	06/21/19 14:06	

LABORATORY CONTROL SAMPLE: 564527

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mean Total Organic Carbon	mg/L	10	9.2	92	85-115	
Total Organic Carbon	mg/L	10	9.2	92	85-115	
Total Organic Carbon	mg/L	10	9.2	92	85-115	
Total Organic Carbon	mg/L	10	9.1	91	85-115	
Total Organic Carbon	mg/L	10	9.2	92	85-115	

MATRIX SPIKE SAMPLE: 564529

Parameter	Units	7092926001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mean Total Organic Carbon	mg/L	278	10	280	27	75-125	M6
Total Organic Carbon	mg/L	276	10	282	53	75-125	M6
Total Organic Carbon	mg/L	281	10	280	-10	75-125	M6
Total Organic Carbon	mg/L	291	10	291	-5	75-125	M6
Total Organic Carbon	mg/L	277	10	279	17	75-125	M6

SAMPLE DUPLICATE: 564528

Parameter	Units	7092926001 Result	Dup Result	RPD	Qualifiers
Mean Total Organic Carbon	mg/L	278	276	1	
Total Organic Carbon	mg/L	291	287	1	
Total Organic Carbon	mg/L	281	276	2	
Total Organic Carbon	mg/L	277	276	0	
Total Organic Carbon	mg/L	276	278	0	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Sample: CELL 7 PLCRS **Lab ID: 7093111001** Collected: 06/11/19 09:15 Received: 06/11/19 15:56 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	**9.05 ± 2.77 (0.511) C:NA T:85%**	pCi/L	07/08/19 12:18	13982-63-3	
Radium-228	EPA 904.0	**6.45 ± 1.59 (1.46) C:78% T:52%**	pCi/L	06/26/19 14:28	15262-20-1	
Total Uranium	ASTM D5174-97	**0.281 ± 0.014 (0.262) C:NA T:NA**	ug/L	07/03/19 17:37	7440-61-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL - RADIOCHEMISTRY

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 348120 Analysis Method: ASTM D5174-97
QC Batch Method: ASTM D5174-97 Analysis Description: D5174.97 Total Uranium KPA
Associated Lab Samples: 7093111001

METHOD BLANK: 1692751 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Total Uranium	0.253 ± 0.009 (0.262) C:NA T:NA	ug/L	07/03/19 14:30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL - RADIOCHEMISTRY

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 348072 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Associated Lab Samples: 7093111001

METHOD BLANK: 1692603 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.162 ± 0.326 (0.719) C:81% T:76%	pCi/L	06/26/19 14:26	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

Pace Analytical Services, LLC
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Melville, NY 11747
(631)694-3040

QUALITY CONTROL - RADIOCHEMISTRY

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

QC Batch: 349975 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Associated Lab Samples: 7093111001

METHOD BLANK: 1701355 Matrix: Water
Associated Lab Samples: 7093111001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0599 ± 0.311 (0.645) C:NA T:80%	pCi/L	07/08/19 12:18	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALIFIERS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PACE-MV	Pace Analytical Services - Melville
PASI-M	Pace Analytical Services - Minneapolis
PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

1j	Low surrogate recovery confirmed by matrix spike.
CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
CL	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
IC	The initial calibration for this compound was outside of method control limits. The result is estimated.
IH	This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALIFIERS

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

ANALYTE QUALIFIERS

IL	This analyte exceeded secondary source verification criteria low for the initial calibration. The reported results should be considered an estimated value.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
S0	Surrogate recovery outside laboratory control limits.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CELL 7 LEACHATE EXPANDED 360
Pace Project No.: 7093111

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7093111001	**CELL 7 PLCRS**	EPA 3510C	118387	EPA 8081B	118389
7093111001	**CELL 7 PLCRS**	EPA 3510C	119051	EPA 8082A	119179
7093111001	**CELL 7 PLCRS**	EPA 8151A	117394	EPA 8151A	117602
7093111001	**CELL 7 PLCRS**	EPA 3005A	117890	EPA 6010C	117898
7093111001	**CELL 7 PLCRS**	EPA 7470A	118862	EPA 7470A	118885
7093111001	**CELL 7 PLCRS**	EPA 3510C	118169	EPA 8270D	118310
7093111001	**CELL 7 PLCRS**	EPA 3510	613318	EPA 8270D by SIM	614673
7093111001	**CELL 7 PLCRS**	EPA 8260C/5030C	117914		
7093111001	**CELL 7 PLCRS**	EPA 903.1	349975		
7093111001	**CELL 7 PLCRS**	EPA 904.0	348072		
7093111001	**CELL 7 PLCRS**	ASTM D5174-97	348120		
7093111001	**CELL 7 PLCRS**	SM22 2120B	117419		
7093111001	**CELL 7 PLCRS**	SM22 2320B	119110		
7093111001	**CELL 7 PLCRS**	SM22 2340C	119301		
7093111001	**CELL 7 PLCRS**	SM22 2540C	118004		
7093111001	**CELL 7 PLCRS**	SM22 3500-Cr B	117343		
7093111001	**CELL 7 PLCRS**	EPA 410.4	118376	EPA 410.4	118422
7093111001	**CELL 7 PLCRS**	SM22 5210B	117484	SM22 5210B	118481
7093111001	**CELL 7 PLCRS**	EPA 9030B	118006	EPA 9034	118030
7093111001	**CELL 7 PLCRS**	EPA 300.0	119378		
7093111001	**CELL 7 PLCRS**	EPA 351.2	119268	EPA 351.2	119309
7093111001	**CELL 7 PLCRS**	EPA 353.2	117329		
7093111001	**CELL 7 PLCRS**	EPA 353.2	117323		
7093111001	**CELL 7 PLCRS**	SM22 4500 NH3 H	119281		
7093111001	**CELL 7 PLCRS**	EPA 9010C	118162	EPA 9014 Total Cyanide	118192
7093111001	**CELL 7 PLCRS**	EPA 9060A	118775		

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Doc

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must l

WO# : 7093111

7093111

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	
Company: Town of Babylon	Report To: Joe Guarino	Attention:	
Address: 281 Phelps Lane	Copy To:	Company Name:	Regulatory Agency
North Babylon, NY 11703		Address:	
Email: jguarino@townofbabylon.com	Purchase Order #:	Pace Quote:	
Phone: 631-422-7640 Fax	Project Name: Cell 7 Leachate Expanded 360	Pace Project Manager: jennifer.aracri@pacelabs.com,	State / Location
Requested Due Date:	Project #:	Pace Profile #: 5271 LINE 2 & 6	NY

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	8260	8270	8081	8082	8151	TAL Metals +B & Hardness	BOD,Br,Cl,SO4,Color,Cr+6	NO2, Alk, TDS	Cyanide	COD,NH3,NO3,TKN,Phenols	TOC	Sulfide	Residual Chlorine (Y/N)
																		Requested Analysis Filtered (Y/N)														
1	Cell 7 PLCRS	WT				6/11/19	915												X	X	X	X	X	X	X	X	X	X	X	X		
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Cell 7 Leachate Expanded 360	Brian Nichols/Zion	6/11/19	1600	[signature] - PACELI	6/11/19	15:56	2.9	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brian Nichols

SIGNATURE of SAMPLER: [signature] DATE Signed: 6-11-19

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields

WO#:7093111

PM: JSA Due Date: 06/25/19

CLIENT: BAB-ECO

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Town of Babylon	Report To:	Joe Guarino	Attention:	
Address:	281 Phelps Lane	Copy To:		Company Name:	
	North Babylon, NY 11703			Address:	
Email:	jguarino@townofbabylon.com	Purchase Order #:		Pace Quote:	
Phone:	631-422-7640 Fax	Project Name:	Cell 7 Leachate Expanded 360	Pace Project Manager:	jennifer.aracri@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #:	5271 LINE 2 & 6

Regulatory Agency
State / Location
NY

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Dioxin/Furan Scan	Radium 226	Radium 228	Uranium	1,4 Dioxane	Residual Chlorine (Y/N)
13	Cell 7 PLCRS	WT				6/11/19	915												X	X	X	X	X		
14																									
15																									
16																									
17																									
18																									
19																									
20																									
21																									
22																									
23																									
24																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Cell 7 Leachate Expanded 360	Brian Nichols / Zion	6/11/19	1600	[illegible]-PACELI	6/11/19	1556	2.6	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brian Nichols

SIGNATURE of SAMPLER: [signature] DATE Signed: 6/11/19

Sample Condition Upon Receipt

Pace Analytical

WO#:7093111
PM: JSA Due Date: 06/25/19
CLIENT: BAB-ECO

Client Name: Babylon

Proje

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace ☐ Other

Tracking #:

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No Seals intact: ☐ Yes ☐ No

Temperature Blank Present: ☐ Yes ☑ No

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ Ziploc ☑ None ☐ Other

Type of Ice: (Wet) Blue None

Thermometer Used: (TH091) Correction Factor: +0.2

☐ Samples on ice, cooling process has begun

Cooler Temperature (°C): 2.6 Cooler Temperature Corrected (°C): 2.8

Date/Time 5035A kits placed in freezer

Temp should be above freezing to 6.0°C

USDA Regulated Soil (☑ N/A, water sample)

Date and Initials of person examining contents: 6/11/19 JP

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ YES ☐ NO

Did samples orignate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	☑Yes	☐No		1.
Chain of Custody Filled Out:	☑Yes	☐No		2.
Chain of Custody Relinquished:	☑Yes	☐No		3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No		5.
Short Hold Time Analysis (<72hr):	☑Yes	☐No		6.
Rush Turn Around Time Requested:	☐Yes	☑No		7.
Sufficient Volume: (Triple volume provided for MS/MSD)	☑Yes	☐No		8.
Correct Containers Used:	☑Yes	☐No		9.
-Pace Containers Used:	☑Yes	☐No		
Containers Intact:	☑Yes	☐No		10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC:	☑Yes	☐No		12.
-Includes date/time/ID/Analysis Matrix SL (WT) OIL				
All containers needing preservation have been checked	☑Yes	☐No	☐N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
pH paper Lot # HC586346 3				Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis	☑Yes	☐No	☐N/A	Initial when completed: / Lot # of added preservative: / Date/Time preservative added
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	14.
KI starch test strips Lot #				Positive for Res. Chlorine? Y N
Residual chlorine strips Lot #				
Headspace in VOA Vials (>6mm):	☐Yes	☑No	☐N/A	15.
Trip Blank Present:	☐Yes	☑No	☐N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if applicable):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

* PM (Project Manager) review is documented electronically in LIMS.

F-LI-C-002-rev.02

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Report Prepared for:

Jennifer Aracri
PASI Long Island
575 Broad Hollow Road
Melville NY 11747

REPORT OF LABORATORY ANALYSIS FOR TCDD

Report Information:

Pace Project #: 10479467
Sample Receipt Date: 06/15/2019
Client Project #: 7093111
Client Sub PO #: N/A
State Cert #: 11647

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 4 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Joanne Richardson, your Pace Project Manager.

This report has been reviewed by:

Joanne Richardson

June 27, 2019

Joanne Richardson,
(612) 607-6453
(612) 607-6444 (fax)

Report Prepared Date:
June 27, 2019

Report of Laboratory Analysis

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analysis performed on one sample submitted by a representative of Pace Analytical Services, LLC. The sample was analyzed for the presence or absence of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) using USEPA Method 1613B. The reporting limits were set to correspond to the lowest calibration point and a nominal 1-Liter sample amount, and the sensitivity was verified by signal-to-noise measurements. The quantitation limits, adjusted for sample extraction amount, may be somewhat higher or lower than the reporting limits provided in this report.

The isotopically-labeled TCDD internal standard in the sample extract was recovered at 72%. All of the labeled standard recoveries obtained for this project were within the target ranges specified in Method 1613B. Also, since the quantification of the native TCDD was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show that 2,3,7,8-TCDD was not detected.

Laboratory spike samples were also prepared using clean reference matrix that had been fortified with native standard material. The results show that the spiked native TCDD was recovered at 113-114% with a relative percent difference of 0.9%. These results were within the target ranges for the method. Matrix spikes were not prepared with the sample batch.

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Minnesota - Pet	1240
Alabama	40770	Mississippi	MN00064
Alaska - DW	MN00064	Missouri - DW	10100
Alaska - UST	17-009	Montana	CERT0092
Arizona	AZ0014	Nebraska	NE-OS-18-06
Arkansas - DW	MN00064	Nevada	MN00064
Arkansas - WW	88-0680	New Hampshire	2081
CNMI Saipan	MP0003	New Jersey (NE	MN002
California	2929	New York	11647
Colorado	MN00064	North Carolina	27700
Connecticut	PH-0256	North Carolina -	27700
EPA Region 8+	via MN 027-053	North Carolina -	530
Florida (NELAP	E87605	North Dakota	R-036
Georgia	959	Ohio - DW	41244
Guam	17-001r	Ohio - VAP	CL101
Hawaii	MN00064	Oklahoma	9507
Idaho	MN00064	Oregon - Primar	MN300001
Illinois	200011	Oregon - Secon	MN200001
Indiana	C-MN-01	Pennsylvania	68-00563
Iowa	368	Puerto Rico	MN00064
Kansas	E-10167	South Carolina	74003
Kentucky - DW	90062	South Dakota	NA
Kentucky - WW	90062	Tennessee	TN02818
Louisiana - DE	03086	Texas	T104704192
Louisiana - DW	MN00064	Utah (NELAP)	MN00064
Maine	MN00064	Virginia	460163
Maryland	322	Washington	C486
Massachusetts	M-MN064	West Virginia -	382
Michigan	9909	West Virginia -	9952C
Minnesota	027-053-137	Wisconsin	999407970
Minnesota - De	via MN 027-053	Wyoming - UST	2926.01

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Reporting Flags

A = Reporting Limit based on signal to noise

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

I = Interferencepresent

J = Estimated value

L = Suppressive interference, analyte may be biased low

Nn = Value obtained from additional analysis

P = PCDEInterference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

* = SeeDiscussion

REPORT OF LABORATORY ANALYSIS

Appendix A

Sample Management

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Sample ID Cross Reference

Client Sample ID	Pace Sample ID	Date Received	Sample Type
CELL 7 PLCRS	7093111001	06/15/2019	Water

REPORT OF LABORATORY ANALYSIS

Chain of Custody

☐ Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: NY
Cert. Needed: [X] Yes ☐ No
Owner Received Date: 6/11/2019 **Results Requested By:** 6/25/2019

Pace Analytical® www.pacelabs.com

Workorder: 7093111 **Workorder Name:** CELL 7 LEACHATE EXPANDED 360

Report To	Subcontract To
Jennifer Aracri Pace Analytical Melville 575 Broad Hollow Road Melville, NY 11747 Phone (631)694-3040	Pace Analytical Minnesota 1700 Elm Street Suite 200 Minneapolis, MN 55414 Phone (612)607-1700

WO# : 10479467

10479467

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved						1,4 Dioxane	Dioxin	LAB USE ONLY
1	CELL 7 PLCRS	PS	6/11/2019 09:15	7093111001	Water	2	1					X	X	aq
2														
3														
4														
5														

Transfers	Released By	Date/Time	Received By	Date/Time
1	[signature]	6/14/19 8:00	Mike K Pace	6/15/19 9:30
2				
3				

Comments: Need a Catagory B Package w/NY EQuIS EDDs

Cooler Temperature on Receipt 3.1 °C | **Custody Seal** Y or (N) | **Received on Ice** (Y) or N | **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Doc

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

WO#: 7093111

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Town of Babylon	Report To:	Joe Guarino	Attention:	
Address:	281 Phelps Lane	Copy To:		Company Name:	
	North Babylon, NY 11703			Address:	
Email:	jguarino@townofbabylon.com	Purchase Order #:		Pace Quote:	
Phone:	631-422-7640 Fax	Project Name:	Cell 7 Leachate Expanded 360	Pace Project Manager:	jennifer.aracri@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #:	5271 LINE 2 & 6

Regulatory Agency: NY

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	8260	8270	8081	8082	8151	TAL Metals +B & Hardness	BOD,Br,Cl,SO4,Color,Cr+6	NO2, Alk, TDS	Cyanide	COD,NH3,NO3,TKN,Phenol	TOC	Sulfide	Residual Chlorine (Y/N)
1	Cell 7 PLCRS	WT				6/11/19	915												X	X	X	X	X	X	X	X	X	X	X	X	
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Cell 7 Leachate Expanded 360	Brian Nichol/Town	6/11/19	1600	[signature] - PACELI	6/11/19	1550	0.9	Y	N	N

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	Brian Nichol		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER:	[signature]	DATE Signed: 6-11-19				

Report No: 479467_1613TCDD_DER

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields

WO#: 7093111
PM: JSA Due Date: 06/25/19
CLIENT: BAB-ECO

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Town of Babylon	Report To:	Joe Guarino	Attention:	
Address:	281 Phelps Lane	Copy To:		Company Name:	
North Babylon, NY 11703				Address:	
Email:	jguarino@townofbabylon.com	Purchase Order #:		Pace Quote:	
Phone:	631-422-7640 Fax	Project Name:	Cell 7 Leachate Expanded 360	Pace Project Manager:	jennifer.aracri@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #:	5271 LINE 2 & 6

Regulatory Agency:

State / Location: NY

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Dioxin/Furan Scan	Radium 226	Radium 228	Uranium	1,4 Dioxane	Residual Chlorine (Y/N)
13	Cell 7 PLCRS	WT				6/11/19	915												X	X	X	X	X	
14																								
15																								
16																								
17																								
18																								
19																								
20																								
21																								
22																								
23																								
24																								

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Cell 7 Leachate Expanded 360	Brian Nicholl / Zion	6/11/19	1600	[illegible] - PACE LI	6/11/19	15.56	2.6	Y	N	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Brian Nichols
SIGNATURE of SAMPLER: [signature] DATE Signed: 6-11-19

During sample triage, this form is to be placed in each cooler that arrives above 6.0 degrees Celsius

SCUR Exceptions:

Workorder #:

Out of Temp Sample IDs	Container Type	# of Containers

PM Notified? ☐Yes ☒No

If yes, indicate who was contacted/date/time.
If no, indicate reason why.

Multiple Cooler Project? ☐Yes ☐No
If you answered yes, fill out information to the left.

No Temp Blank

Read Temp	Corrected Temp	Average Temp
2.9	3.0	3.1
3.3	3.4	
3.0	3.1	
2.9	3.0	

Tracking Number/Temperature	

Other Issues

Issue Type: Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preserv.	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance after addition?	Initials
								☐Yes ☐No	
								☐Yes ☐No	
								☐Yes ☐No	
								☐Yes ☐No	

Sample Condition Upon Receipt

Pace Analytical

WO#:7093111

PM: JSA Due Date: 06/25/19
CLIENT: BAB-ECO

Client Name: Babylow Proje

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace ☐ Other

Tracking #:

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No Seals intact: ☐ Yes ☐ No

Temperature Blank Present: ☐ Yes ☑ No

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ Ziploc ☑ None ☐ Other

Type of Ice: (Wet) Blue None

Thermometer Used: (TH09) Correction Factor: +0.2

☐ Samples on ice, cooling process has begun

Cooler Temperature (°C): 2.6 Cooler Temperature Corrected (°C): 2.8

Date/Time 5035A kits placed in freezer

Temp should be above freezing to 6.0°C

USDA Regulated Soil (☑ N/A, water sample)

Date and Initials of person examining contents: 6/11/19 JP

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ YES ☐ NO

Did samples orignate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	☑Yes	☐No		1.
Chain of Custody Filled Out:	☑Yes	☐No		2.
Chain of Custody Relinquished:	☑Yes	☐No		3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No		5.
Short Hold Time Analysis (<72hr):	☑Yes	☐No		6.
Rush Turn Around Time Requested:	☐Yes	☑No		7.
Sufficient Volume: (Triple volume provided for MS/MSD)	☑Yes	☐No		8.
Correct Containers Used:	☑Yes	☐No		9.
-Pace Containers Used:	☑Yes	☐No		
Containers Intact:	☑Yes	☐No		10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC:	☑Yes	☐No		12.
-Includes date/time/ID/Analysis Matrix SL (WT) OIL				
All containers needing preservation have been checked	☑Yes	☐No	☐N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
pH paper Lot # HC863463				
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NAOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis	☑Yes	☐No	☐N/A	Sample #
				Initial when completed: / Lot # of added preservative: / Date/Time preservative added
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	14.
KI starch test strips Lot #				
Residual chlorine strips Lot #				Positive for Res. Chlorine? Y N
Headspace in VOA Vials (>6mm):	☐Yes	☑No	☐N/A	15.
Trip Blank Present:	☐Yes	☑No	☐N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if applicable):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

* PM (Project Manager) review is documented electronically in LIMS.

F-LI-C-002-rev.02

Pace Analytical®	Document Name: Sample Condition Upon Receipt Form	Document Revised: 09May2019 Page 1 of 1
	Document No.: F-MN-L-213-rev.28	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt **Client Name:** Pace Melville **Project #:** WO#: 10479467

PM: JMR Due Date: 06/28/19
CLIENT: PASI-LINY

Courier: [X] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Pace [ ] SpeeDee [ ] Commercial See Exception [ ]

Tracking Number: 1068 0079 3878

Custody Seal on Cooler/Box Present? [ ] Yes [X] No **Seals Intact?** [ ] Yes [X] No **Biological Tissue Frozen?** [ ] Yes [ ] No [X] N/A

Packing Material: [X] Bubble Wrap [X] Bubble Bags [ ] None [ ] Other: _____ **Temp Blank?** [ ] Yes [X] No

Thermometer: [ ] T1(0461) [ ] T2(1336) [ ] T3(0459) [X] T4(0254) [ ] T5(0489) **Type of Ice:** [X] Wet [ ] Blue [ ] None [ ] Dry [ ] Melted

Note: Each West Virginia Sample must have temp taken (no temp blanks)

Temp should be above freezing to 6°C **Cooler Temp Read w/temp blank:** _____ °C **Average Corrected Temp (no temp blank only):** 3.1 °C See Exceptions [ ]

Correction Factor: +0.1 **Cooler Temp Corrected w/temp blank:** _____ °C

USDA Regulated Soil: ([X] N/A, water sample/Other: _____)
Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? [ ] Yes [ ] No
Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? [ ] Yes [ ] No
If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

Date/Initials of Person Examining Contents: MK 6-15-19

		COMMENTS:
Chain of Custody Present and Filled Out?	[X] Yes [ ] No	1.
Chain of Custody Relinquished?	[X] Yes [ ] No	2.
Sampler Name and/or Signature on COC?	[ ] Yes [ ] No [X] N/A	3.
Samples Arrived within Hold Time?	[X] Yes [ ] No	4.
Short Hold Time Analysis (<72 hr)?	[ ] Yes [X] No	5. [ ] Fecal Coliform [ ] HPC [ ] Total Coliform/E coli [ ] BOD/cBOD [ ] Hex Chrome [ ] Turbidity [ ] Nitrate [ ] Nitrite [ ] Orthophos [ ] Other
Rush Turn Around Time Requested?	[ ] Yes [X] No	6.
Sufficient Volume?	[X] Yes [ ] No	7.
Correct Containers Used? -Pace Containers Used?	[X] Yes [ ] No [X] Yes [ ] No	8.
Containers Intact?	[X] Yes [ ] No	9.
Field Filtered Volume Received for Dissolved Tests?	[X] Yes [ ] No [X] N/A	10. Is sediment visible in the dissolved container? [ ] Yes [ ] No
Is sufficient information available to reconcile the samples to the COC? MK 6-15-19	[X] Yes [ ] No	11. **If no, write ID/ Date/Time on Container Below:** See Exception [ ]
Matrix: [X] Water [ ] Soil [ ] Oil [ ] Other		
All containers needing acid/base preservation have been checked?	[ ] Yes [ ] No [X] N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide)	[ ] Yes [ ] No [X] N/A	[ ] NaOH [ ] HNO_3 [ ] H_2SO_4 [ ] Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	[X] Yes [ ] No [ ] N/A	Positive for Res. Chlorine? [ ] Yes [ ] No pH Paper Lot# See Exception [ ]
		Res. Chlorine / 0-6 Roll / 0-6 Strip / 0-14 Strip
Headspace in VOA Vials (greater than 6mm)?	[ ] Yes [ ] No [X] N/A	13. See Exception [ ]
Trip Blank Present?	[ ] Yes [ ] No [X] N/A	14.
Trip Blank Custody Seals Present?	[ ] Yes [ ] No [X] N/A	Pace Trip Blank Lot # (if purchased):

CLIENT NOTIFICATION/RESOLUTION
Person Contacted: _____ Date/Time: _____ **Field Data Required?** [ ] Yes [ ] No
Comments/Resolution: _____

Project Manager Review: Joanne Richardson **Date:** 6-18-19

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled by: _____

Dioxin ater (Non Potab Sep Funnel EB-24858

QC Matrix Lot #: DI_3 **Extract Solvents:** **Extraction On (Date/Time):**

Time of Spiking: 06/21/19 11:20 **Toluene Lot #** 06/21/19 13:30

Balance: 10BAL2 **Hexane Lot #** **Extraction Off (Date/Time):**

SPE Filter Lot: **MeCl Lot #** 187760 06/21/19 15:40

Standards	Name/ID	Amount	Initial	Witness	Expiration Date
Internal Std.	FL-I-12430-084	100	PED	CHS	06/12/20
Native	FL-N-12430-076	50	PED	CHS	03/04/20
Cl37 Std.	DWCL4-12430-066	62	MF		08/01/19
Recovery	FL-R-12430-081	10	MF		05/31/20
Tridecane	A0369806	10	MF		
Others					

#	Sample ID	Internal Standards	Native Standards	Full Bottle Weight	Empty Bottle Weight	pH/ResCl Check	pH Adjusted	Glassware Set	Location	Comments
1	BLANK-71351	x		1425.3	466.4					
2	LCS-71352	x	x	1407.3	467.1					
3	LCSD-71353	x	x	1422.0	466.9					
4	10479036001	x		1352.4	401.9				10-C11-122	8290,TD
5	10479037001	x		510.0					10-C11-121	8290,TD
6	10477019002-R	x		509.1					10-C11-047	1613 TD/F
7	50227279001	x		506.8					10-C10-099	1613 TCDD
8	7093111001	x		1611.3	510.0				10-C11-135	1613 TD
9	10478824001	x		1505.7	453.9				10-C11-112	1613 TD
10	10478826001	x		1462.5	451.0				10-C11-112	1613 TD
11	10478893001	x		1483.6	501.3				10-C11-118	1613 T-O; WHO05; L3
12	10479686001	x		1566.5	500.8				Rcving	TCDD/F
13	10479686002	x		1349.6	507.0				Rcving	TCDD/F
14	10479686003	x		1504.4	504.8				Rcving	TCDD/F
15	10479929001	x		1399.7	508.8				10-C10-152	1613 TCDD/F
16	10479929002	x		1550.6	509.6				10-C10-152	1613 TCDD/F

Relinquished By: M Felea Received By: Date:

Batch Notes:

Silica		Alumina		Carbon		Florisil	
Initials	MF	Initials	MF	Initials		Initials	
Date	6/24/2019	Date	6/24/2019	Date		Date	
Neutral Batch	634N	Alumina Lot #	87	Hexane Lot #		Florisil Lot #	
Basic Batch	585B	Hexane Lot #	190683	Dispenser		Hexane Lot #	
Acid Batch	679A	Dispenser	Q266	50% Batch		Dispenser	
Hexane Lot #	190683	60% Batch	1852	Dispenser		6% Batch	
Dispenser	Q266	Dispenser	Q266	75% Batch		Dispenser	
				Dispenser			
Acid Base				Toluene Lot #			
Sulphuric Acid Lot #	191965			Dispenser		Sulfate Batch	
Base Batch				Methanol Lot #			
				Dispenser			

Client names have been blacked out on notebook pages in order to preserve client confidentiality

Analysis Key Code List

- = Not used

✔ = Worked up

= See comment # below

Li = Liner, replace or clean

Ba = Baseplate, change

SyB = Syringe, replace – bent

SyP = Syringe, replace – plugged

SyO = Syringe, replace – other

IS = Injector Septum, replace

BS = Batch Septum, replace

Fi = Filament, replace

Co = Contacts, adjust

Ca = re-Calibrate

Tu = Tune

TC = Tune and Calibrate

CC () = Cut Column (length cut)

CO = Carry-Over possible

RRM = ReRun - Matrix

RRLM = ReRun – Lock Mass

RRBI = ReRun – Bad Injection

RRRT = ReRun – Retention Time shift

RR>S = Rerun – need better Sensitivity

Re = Re-extract

AS = Adjust Slits

LC = Leak Check

RB = Re-Boot system

CiS = Cleaned inner Source

CoS = Cleaned outer Source

AiS = Alternate inner Source

AoS = Alternate outer Source

<Y = Adjust Y focus down

>Y = Adjust Y focus up

Di () = Dilution needed (amount needed)

FE = Front End – liner, baseplate and septum

Sample List Report **MassLynx 4.1 SCN 881** 10MSHR05 6/20/19

Sample List: C:\MassLynx\Default.pro\Sampledb\F190620C.spl
Last Modified: Thursday, June 20, 2019 17:27:11 Central Daylight Time
Printed: Thursday, June 20, 2019 17:45:00 Central Daylight Time

Page Position (1, 1)

	File Name	File Text	stnd exp	Method	MS File	Inlet File	Vial	Vol	Control
1	F190620C_01	CAL CS3/CPM-11321-155 - SMT FE 6" TC	200509	8290/1613B	dioxfurF	dioxfur	Tray1:1	1.000000	---
2	F190620C_02	CAL CS2-11321-121 - SMT wrong vial	---	8290/1613B	dioxfurF	dioxfur	Tray1:4	1.000000	---
3	F190620C_03	CAL CS2-11321-121 - SMT wrong vial	---	8290/1613B	dioxfurF	dioxfur	Tray1:5	1.000000	---
4	F190620C_04	CAL CS2-11321-121 - SMT 629919-ZB-5MS	190907	8290/1613B	dioxfurF	dioxfur	Tray1:6	1.000000	---
5	F190620C_05	CAL CS1-11321-120 - SMT	190907	8290/1613B	dioxfurF	dioxfur	Tray1:7	1.000000	---
6	F190620C_06	CAL CS5-11321-123 - SMT	190907	8290/1613B	dioxfurF	dioxfur	Tray1:8	1.000000	---
7	F190620C_07	CAL CS4-11321-122 - SMT	190907	8290/1613B	dioxfurF	dioxfur	Tray1:9	1.000000	---
8	F190620C_08	CAL ICV-64152 - SMT	190814	8290/1613B	dioxfurF	dioxfur	Tray1:10	1.000000	---

ver 6/21/19 JDH

6/21/19

Sample List Report **MassLynx 4.1 SCN 881** 10 MS RECS 6/25/19

Sample List: C:\MassLynx\Default.pro\Sampledb\F190625B.spl
Last Modified: Tuesday, June 25, 2019 15:35:34 Central Daylight Time
Printed: Tuesday, June 25, 2019 15:59:46 Central Daylight Time

Page Position (1, 1)

	File Name	File Text	stnd exp	Method	MS File	Inlet File	Vial	Vol	Control
1	F190625B_01	CAL CS3/CPM-11321-155 - SMT TC	200509	8290-TD	dioxfurF	dioxfur	Tray1:1	1.000000	---
2	F190625B_02	CAL CS3/CPM-11321-155 - SMT FE 18" (LM G4)	200509	8290/1613B	dioxfurF	dioxfur	Tray1:1	1.000000	---
3	F190625B_03	CAL CS3/CPM-11321-155 - SMT	200509	8290/1613B	dioxfurF	dioxfur	Tray1:1	1.000000	---
4	F190625B_04	BLANK BLANK-64780-10X - SMT	---	HOUSE	dioxfurF	dioxfur	Tray1:3	1.000000	---
5	F190625B_05	SAMP 10479036001 - SMT [redacted]	---	8290-TD	dioxfurF	dioxfur	Tray1:6	1.000000	---
6	F190625B_06	SAMP 10479037001 - SMT [redacted]	---	8290-TD	dioxfurF	dioxfur	Tray1:7	1.000000	---
7	F190625B_07	SAMP 10477019002-R - SMT [redacted]	---	1613B-TDF	dioxfurF	dioxfur	Tray1:8	1.000000	---
8	F190625B_08	SAMP 50227279001 - SMT [redacted]	---	1613B-TD	dioxfurF	dioxfur	Tray1:9	1.000000	---
9	F190625B_09	SAMP 7093111001 - SMT LINY	---	1613B-TD	dioxfurF	dioxfur	Tray1:10	1.000000	---
10	F190625B_10	SAMP 10478824001 - SMT [redacted]	---	1613B-TD	dioxfurF	dioxfur	Tray1:11	1.000000	---
11	F190625B_11	SAMP 10478826001 - SMT [redacted]	---	1613B-TD	dioxfurF	dioxfur	Tray1:12	1.000000	---
12	F190625B_12	SAMP 10479686001 - SMT [redacted]	---	1613B-TDF	dioxfurF	dioxfur	Tray1:13	1.000000	---
13	F190625B_13	SAMP 10479686002 - SMT [redacted]	---	1613B-TDF	dioxfurF	dioxfur	Tray1:14	1.000000	---
14	F190625B_14	SAMP 10479686003 - SMT [redacted]	---	1613B-TDF	dioxfurF	dioxfur	Tray1:15	1.000000	---
15	F190625B_15	SAMP 10479929001 - SMT [redacted]	---	1613B-TDF	dioxfurF	dioxfur	Tray1:16	1.000000	---
16	F190625B_16	SAMP 10479929002 - SMT [redacted]	---	1613B-TDF	dioxfurF	dioxfur	Tray1:17	1.000000	---
17	F190625B_17	CAL CS3/CPM-11321-155 - SMT	200509	8290/1613B	dioxfurF	dioxfur	Tray1:1	1.000000	---

6/26/19

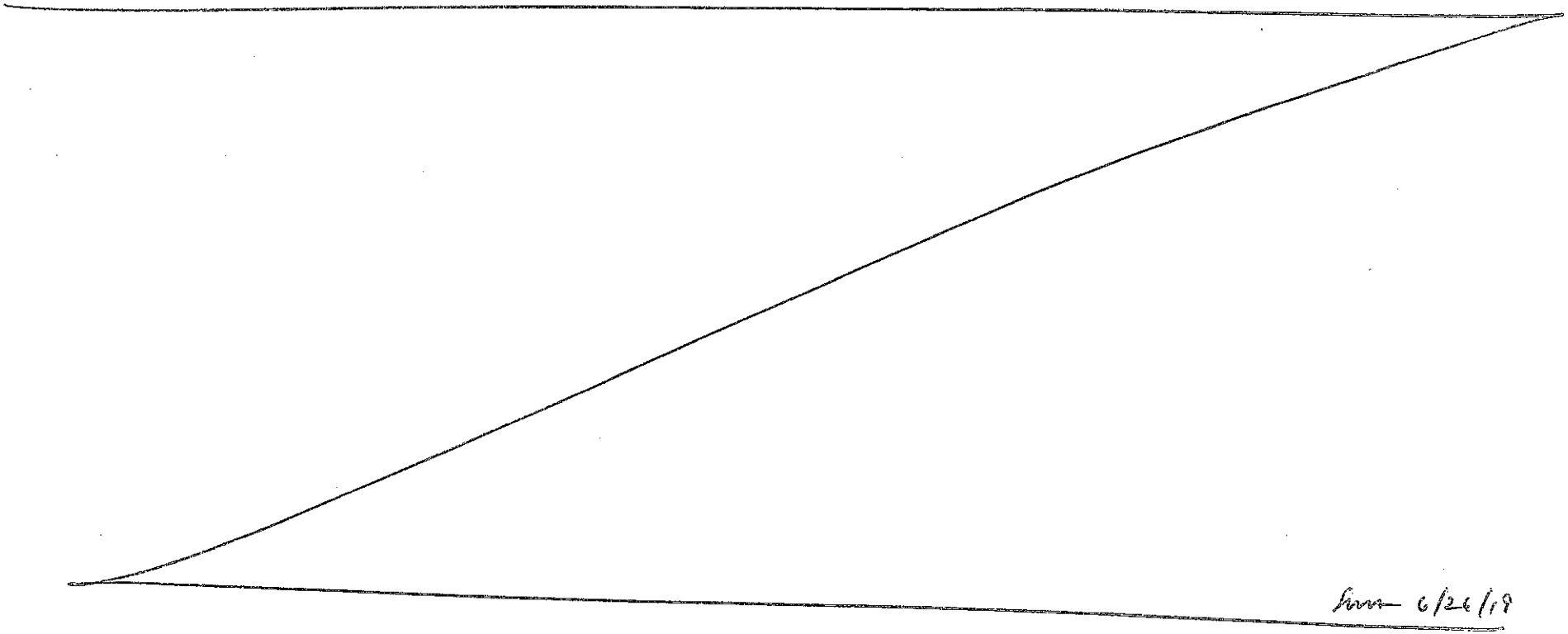
6/26/19

Sample List Report **MassLynx 4.1 SCN 881** 10MSHz06 6/25/19

Sample List: C:\MassLynx\Default.pro\Sampledb\U190625A.SPL
Last Modified: Tuesday, June 25, 2019 15:52:37 Central Daylight Time
Printed: Tuesday, June 25, 2019 15:52:47 Central Daylight Time

Page Position (1, 1)

	File Name	File Text	stnd exp	Method	MS File	Inlet File	Vial	Inj
1	U190625A_01	CAL CS3/CPM-11321-158 - SMT Ca	200618	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000
2	U190625A_02	CAL CS2-11321-121 - SMT	190907	8290/1613B	dioxfur	dioxfur	Tray1:5	1.000000
3	U190625A_03	CAL CS1-11321-120 - SMT LM G2	190907	8290/1613B	dioxfur	dioxfur	Tray1:6	1.000000
4	U190625A_04	CAL CS5-11321-123 - SMT	190907	8290/1613B	dioxfur	dioxfur	Tray1:7	1.000000
5	U190625A_05	CAL CS4-11321-122 - SMT	190907	8290/1613B	dioxfur	dioxfur	Tray1:8	1.000000
6	U190625A_06	CAL CS3/CPM-11321-158 - SMT TC 1010640-ZB5	200618	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000
7	U190625A_07	CAL CS2-11321-121 - SMT	190907	8290/1613B	dioxfur	dioxfur	Tray1:5	1.000000
8	U190625A_08	CAL CS1-11321-120 - SMT	190907	8290/1613B	dioxfur	dioxfur	Tray1:6	1.000000
9	U190625A_09	CAL CS5-11321-123 - SMT	190907	8290/1613B	dioxfur	dioxfur	Tray1:7	1.000000
10	U190625A_10	CAL CS4-11321-122 - SMT	190907	8290/1613B	dioxfur	dioxfur	Tray1:8	1.000000
11	U190625A_11	CAL ICV-64152 - SMT	190814	8290/1613B	dioxfur	dioxfur	Tray1:9	1.000000



6/26/19

Sample List Report **MassLynx 4.1 SCN 881** 10MSHR06 6/25/19

Sample List: C:\MassLynx\Default.pro\Sampledb\U190625B.SPL
Last Modified: Tuesday, June 25, 2019 15:53:59 Central Daylight Time
Printed: Tuesday, June 25, 2019 15:54:01 Central Daylight Time

Page Position (1, 1)

	File Name	File Text	stnd exp	Method	MS File	Inlet File	Vial	Inj
1	U190625B_01	CAL CS3/CPM-11321-158 - SMT	200618	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000
2	U190625B_02	LCS LCS-71311 - SMT	---	8290/1613B	dioxfur	dioxfur	Tray1:10	1.000000
3	U190625B_03	LCS LCS-71352 - SMT	---	1613B	dioxfur	dioxfur	Tray1:11	1.000000
4	U190625B_04	LCS LCSD-71353 - SMT	---	1613B	dioxfur	dioxfur	Tray1:12	1.000000
5	U190625B_05	BLANK BLANK-66942-10X - SMT	---	HOUSE	dioxfur	dioxfur	Tray1:3	1.000000
6	U190625B_06	BLANK BLANK-71310 - SMT	---	8290/1613B	dioxfur	dioxfur	Tray1:13	1.000000
7	U190625B_07	BLANK BLANK-71351 - SMT	---	1613B	dioxfur	dioxfur	Tray1:14	1.000000
8	U190625B_08	SAMP 10478893001 - SMT [redacted]	---	1613B	dioxfur	dioxfur	Tray1:15	1.000000
9	U190625B_09	SAMP 10478612001 - BAL [redacted]	---	1613B	dioxfur	dioxfur	Tray1:16	1.000000
10	U190625B_10	SAMP 40171804004 - BAL [redacted]	---	1613B	dioxfur	dioxfur	Tray1:17	1.000000
11	U190625B_11	SAMP 40171804005 - BAL [redacted]	---	1613B	dioxfur	dioxfur	Tray1:18	1.000000
12	U190625B_12	SAMP 40173582001 - BAL [redacted]	---	1613B	dioxfur	dioxfur	Tray1:19	1.000000
13	U190625B_13	SAMP 40173582002 - BAL [redacted]	---	1613B	dioxfur	dioxfur	Tray1:20	1.000000
14	U190625B_14	SAMP 40173583019 - BAL [redacted]	---	1613B	dioxfur	dioxfur	Tray1:21	1.000000
15	U190625B_15	SAMP 40173583020 - BAL [redacted]	---	1613B	dioxfur	dioxfur	Tray1:22	1.000000
16	U190625B_16	SAMP 60305852001 - BAL [redacted]	---	8290	dioxfur	dioxfur	Tray1:23	1.000000
17	U190625B_17	SAMP 10477786001 - BAL [redacted] 40X	---	8290	dioxfur	dioxfur	Tray1:24	1.000000
18	U190625B_18	BLANK NONANE - SMT high level samp	---	HOUSE	dioxfur	dioxfur	Tray1:2	1.000000
19	U190625B_19	CAL CS3/CPM-11321-158 - SMT	200618	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000

1725 Ven 06/26/19 Dmm

Dmm 6/26/19

Appendix B

Sample Analysis Summary

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - PASI Long Island

Client's Sample ID	CELL 7 PLCRS		
Lab Sample ID	7093111001		
Filename	F190625B_09		
Injected By	SMT		
Total Amount Extracted	1100 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	06/11/2019 09:15
ICAL ID	F190620	Received	06/15/2019 09:30
CCal Filename(s)	F190625B_03	Extracted	06/21/2019 13:30
Method Blank ID	BLANK-71351	Analyzed	06/25/2019 19:38

Native Isomers	**Conc** pg/L	**EMPC** pg/L	**RL** pg/L	**Internal Standards**	**ng's Added**	**Percent Recovery**
2,3,7,8-TCDD	ND	-----	10	2,3,7,8-TCDD-13C	2.00	72
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	93

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

R = Recovery outside target range
E = Exceeds calibration range

REPORT OF LABORATORY ANALYSIS

Appendix C

QC and Calibration Results Summary

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Blank Analysis Results

Lab Sample Name	DFBLKEY		
Lab Sample ID	BLANK-71351	Matrix	Water
Filename	U190625B_07	Dilution	NA
Total Amount Extracted	959 mL	Extracted	06/21/2019 13:30
ICAL ID	U190625	Analyzed	06/25/2019 21:19
CCal Filename(s)	U190625B_01	Injected By	SMT

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDD	ND	-----	10	2,3,7,8-TCDD-13C	2.00	74
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	102

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-71352		
Filename	U190625B_03	Matrix	Water
Total Amount Extracted	940 mL	Dilution	NA
ICAL ID	U190625	Extracted	06/21/2019 13:30
CCal Filename	U190625B_01	Analyzed	06/25/2019 18:26
Method Blank ID	BLANK-71351	Injected By	SMT

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	11	7.3	14.6	114
2,3,7,8-TCDD-37Cl4	10	11	3.7	15.8	112
2,3,7,8-TCDD-13C	100	92	25.0	141.0	92

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

Pace Analytical Services, LLC
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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCSD-71353		
Filename	U190625B_04	Matrix	Water
Total Amount Extracted	955 mL	Dilution	NA
ICAL ID	U190625	Extracted	06/21/2019 13:30
CCal Filename	U190625B_01	Analyzed	06/25/2019 19:10
Method Blank ID	BLANK-71351	Injected By	SMT

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	11	7.3	14.6	113
2,3,7,8-TCDD-37Cl4	10	9.3	3.7	15.8	93
2,3,7,8-TCDD-13C	100	77	25.0	141.0	77

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

Pace Analytical Services, LLC
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Method 1613B

Spike Recovery Relative Percent Difference (RPD) Results

Client	PASI Long Island		
Spike 1 ID	LCS-71352	Spike 2 ID	LCSD-71353
Spike 1 Filename	U190625B_03	Spike 2 Filename	U190625B_04

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDD	114	113	0.9

%REC = Percent Recovered
RPD = The difference between the two values divided by the mean value

REPORT OF LABORATORY ANALYSIS

Method 1613B
Initial Calibration (ICAL) - Response Factor Summary

ICAL ID	**F190620**	Data Files:		Time	Injected
Calibration Date	06/20/2019	CS-1	F190620C_05	17:57	SMT
Instrument	10MSHR05 (F)	CS-2	F190620C_04	17:17	SMT
Column Phase	ZB5-MS 0.25mm	CS-3	F190620C_01	14:33	SMT
Column ID No.	ZB5-MS-629919	CS-4	F190620C_07	19:16	SMT
		CS-5	F190620C_06	18:36	SMT

Isomer	CS-1	CS-2	CS-3	CS-4	CS-5	Ave RF	%RSD
Native Analyte 2,3,7,8-TCDD	0.9373	0.9455	1.1569	0.9977	1.0136	1.0102	8.74
Labeled Analyte 2,3,7,8-TCDD-13C	1.0013	1.0206	1.1268	0.9990	1.0306	1.0357	5.08
CleanupStandard 2,3,7,8-TCDD-37Cl4	1.0162	1.0207	1.0664	1.0241	1.0598	1.0374	2.28

Method 1613B
Initial Calibration (ICAL) - Isotope Ratio Summary

ICAL ID	**F190620**	Data Files:		Time	Injected
Calibration Date	06/20/2019	CS-1	F190620C_05	17:57	SMT
Instrument	10MSHR05 (F)	CS-2	F190620C_04	17:17	SMT
Column Phase	ZB5-MS 0.25mm	CS-3	F190620C_01	14:33	SMT
Column ID No.	ZB5-MS-629919	CS-4	F190620C_07	19:16	SMT
		CS-5	F190620C_06	18:36	SMT

Isomer	CS-1	CS-2	CS-3	CS-4	CS-5	Limits
Native Analyte 2,3,7,8-TCDD	0.85	0.82	0.77	0.78	0.80	0.65 - 0.89
Labeled Analyte 2,3,7,8-TCDD-13C	0.79	0.79	0.78	0.79	0.79	0.65 - 0.89
Recovery Standard 1,2,3,4-TCDD-13C	0.80	0.79	0.80	0.80	0.81	0.65 - 0.89

REPORT OF LABORATORY ANALYSIS

Method 1613B
Initial Calibration (ICAL) - Response Factor Summary

ICAL ID	**U190625**	Data Files:		Time	Injected
Calibration Date	06/25/2019	CS-1	U190625A_08	13:28	SMT
Instrument	10MSHR06 (U)	CS-2	U190625A_07	12:45	SMT
Column Phase	ZB-5MS 0.25mm	CS-3	U190625A_06	12:03	SMT
Column ID No.	1010640	CS-4	U190625A_10	14:57	SMT
		CS-5	U190625A_09	14:16	SMT

Isomer	CS-1	CS-2	CS-3	CS-4	CS-5	Ave RF	%RSD
Native Analyte 2,3,7,8-TCDD	0.8872	0.9537	1.0760	0.9331	0.9377	0.9575	7.38
Labeled Analyte 2,3,7,8-TCDD-13C	0.9612	0.9567	0.9756	0.9274	1.0240	0.9690	3.65
CleanupStandard 2,3,7,8-TCDD-37Cl4	1.0012	1.0255	0.9281	0.9412	1.0332	0.9858	4.91

Method 1613B
Initial Calibration (ICAL) - Isotope Ratio Summary

ICAL ID	**U190625**	Data Files:		Time	Injected
Calibration Date	06/25/2019	CS-1	U190625A_08	13:28	SMT
Instrument	10MSHR06 (U)	CS-2	U190625A_07	12:45	SMT
Column Phase	ZB-5MS 0.25mm	CS-3	U190625A_06	12:03	SMT
Column ID No.	1010640	CS-4	U190625A_10	14:57	SMT
		CS-5	U190625A_09	14:16	SMT

Isomer	CS-1	CS-2	CS-3	CS-4	CS-5	Limits
Native Analyte 2,3,7,8-TCDD	0.83	0.81	0.78	0.78	0.77	0.65 - 0.89
Labeled Analyte 2,3,7,8-TCDD-13C	0.76	0.79	0.79	0.77	0.79	0.65 - 0.89
Recovery Standard 1,2,3,4-TCDD-13C	0.79	0.80	0.79	0.79	0.80	0.65 - 0.89

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

2,3,7,8-TCDD Calibration Verification
Method 1613B

Lab Name	CS3/CPM-11321-155		
Filename	F190625B_03	Instrument ID	10MSHR05 (F)
Injected By	SMT	GC Column ID	ZB5-MS-629919
Analyzed	06/25/2019 14:43	ICAL ID	F190620

Native Isomers	m/z's Forming Ratio (1)	Ion Abund. Ratio	QC Limits (2)	Conc Found	Conc. Range (ng/ml) (3)
Native Analyte					
2,3,7,8-TCDD	M/M+2	0.83	0.65 - 0.89	11.7	7.8 - 12.9
Labeled Analytes					
1,2,3,4-TCDD-13C	M/M+2	0.79	0.65 - 0.89	-----	-----
2,3,7,8-TCDD-13C	M/M+2	0.80	0.65 - 0.89	98.2	82 - 121
Cleanup Standard					
2,3,7,8-TCDD-37Cl4		(4)		9.3	7.9 - 12.7

1. See Table 8, Method 1613, for m/z specifications.
2. Ion Abundance Ratio Control Limits from Table 9, Method 1613.
3. Contract-required concentration range as specified in Table 6, Method 1613, under VER (10/94 Revision).
4. No ion abundance ratio; report concentration found.

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

2,3,7,8-TCDD Calibration Verification
Method 1613B

Lab Name	CS3/CPM-11321-158		
Filename	U190625B_01	Instrument ID	10MSHR06 (U)
Injected By	SMT	GC Column ID	1010640
Analyzed	06/25/2019 17:02	ICAL ID	U190625

Native Isomers	m/z's Forming Ratio (1)	Ion Abund. Ratio	QC Limits (2)	Conc Found	Conc. Range (ng/ml) (3)
Native Analyte					
2,3,7,8-TCDD	M/M+2	0.75	0.65 - 0.89	11.0	7.8 - 12.9
Labeled Analytes					
1,2,3,4-TCDD-13C	M/M+2	0.80	0.65 - 0.89	-----	-----
2,3,7,8-TCDD-13C	M/M+2	0.78	0.65 - 0.89	105.1	82 - 121
Cleanup Standard					
2,3,7,8-TCDD-37Cl4		(4)		10.0	7.9 - 12.7

1. See Table 8, Method 1613, for m/z specifications.
2. Ion Abundance Ratio Control Limits from Table 9, Method 1613.
3. Contract-required concentration range as specified in Table 6, Method 1613, under VER (10/94 Revision).
4. No ion abundance ratio; report concentration found.

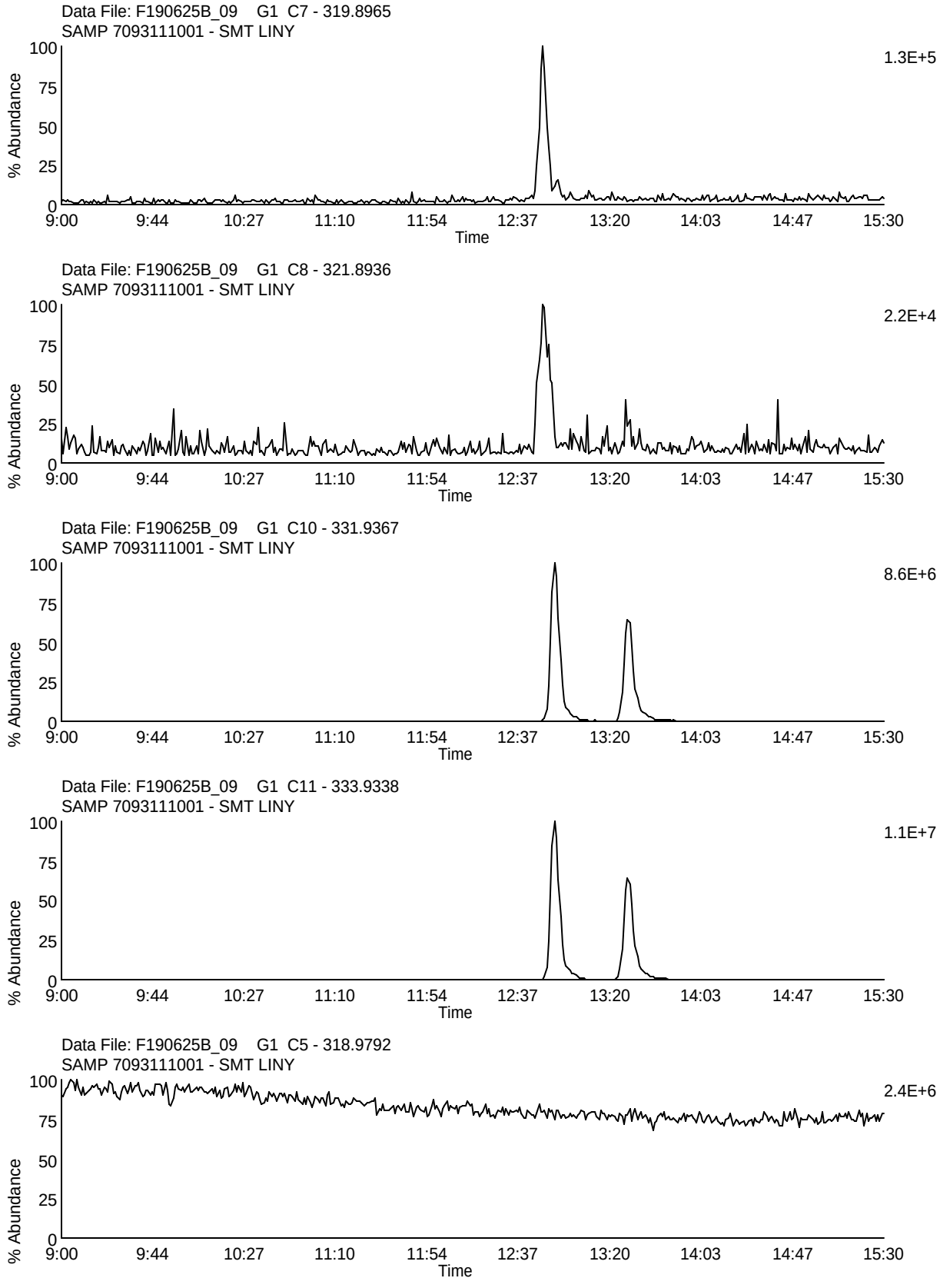
Appendix D

Sample Raw Data

Homologue Group: Tetra Dioxins

Data File Name: F190625B_09
Date Acquired: 6/25/2019
Sample Description: SAMP 7093111001 - SMT LINY

Lab Sample ID: 7093111001
Client Sample ID: CELL 7 PLCRS
Instrument: 10MSHR05 (F)



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Fax: 612- 607-6444

TCDD Detected Peak List

Client ID	CELL 7 PLCRS	Injected By	SMT
Lab ID	7093111001	Instrument ID	10MSHR05 (F)
Filename	F190625B_09	GC Column ID	ZB5-MS-629919
Analyzed	06/25/2019 19:38	ICAL ID	F190620

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	12:54	4.12e7	5.26e7	8.59e6	1.07e7	8.566e3	3.014e3	0.78	
2,3,7,8-TCDD-13C	13:29	3.13e7	3.90e7	5.49e6	6.88e6	8.083e3	7.082e3	0.80	
2,3,7,8-TCDD-37Cl4	13:31	9.02e6		1.65e6		4.873e3	-----		
2,3,7,8-TCDD	13:30	ND	ND	ND	ND	4.834e3	1.860e3		

REPORT OF LABORATORY ANALYSIS

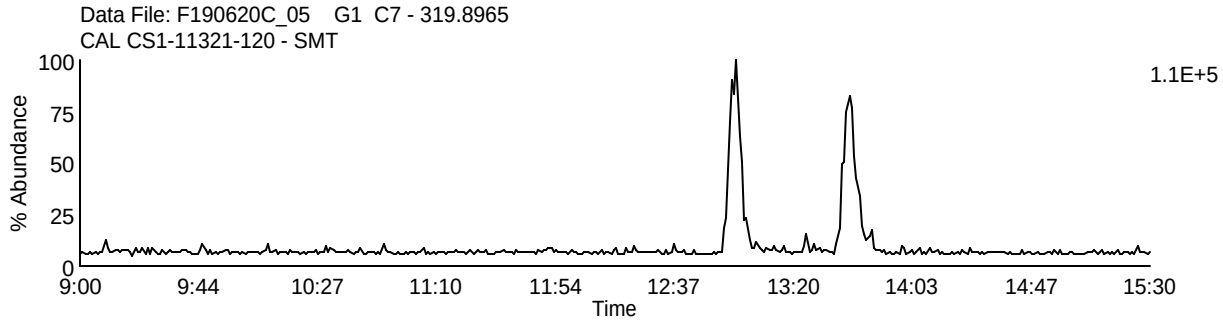
Appendix E

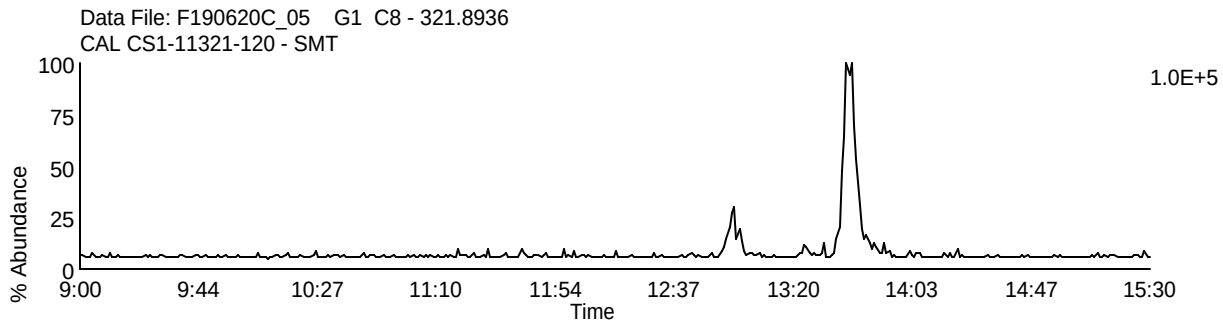
Calibration Raw Data

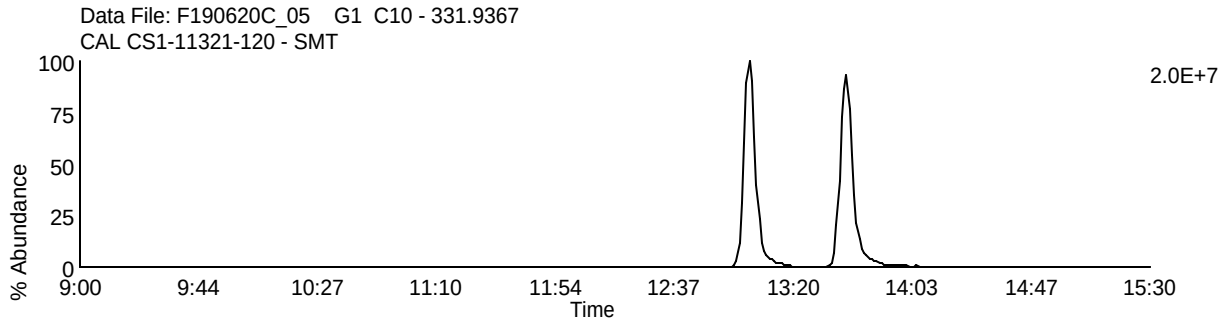
Homologue Group: Tetra Dioxins

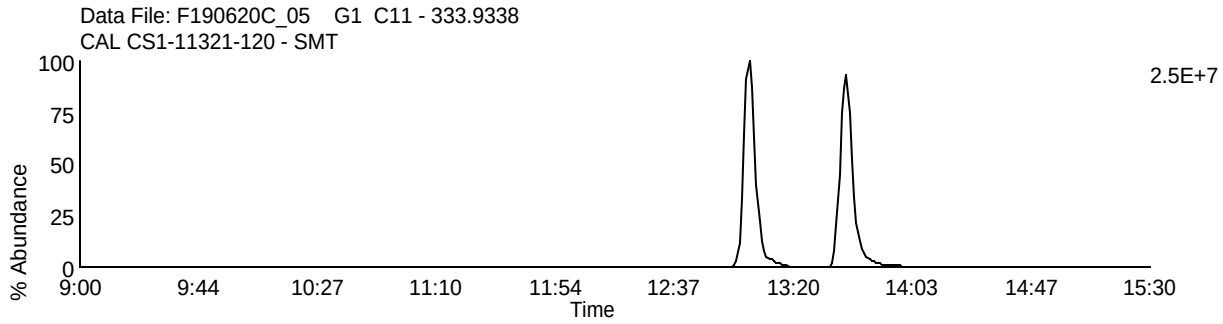
Data File Name: F190620C_05
Date Acquired: 6/20/2019
Sample Description: CAL CS1-11321-120 - SMT

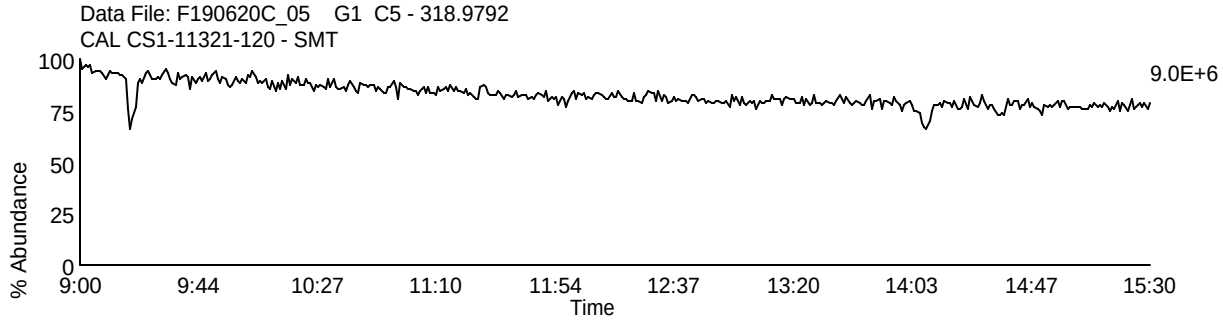
Lab Sample ID: CS1-11321-120
Client Sample ID:
Instrument: 10MSHR05 (F)







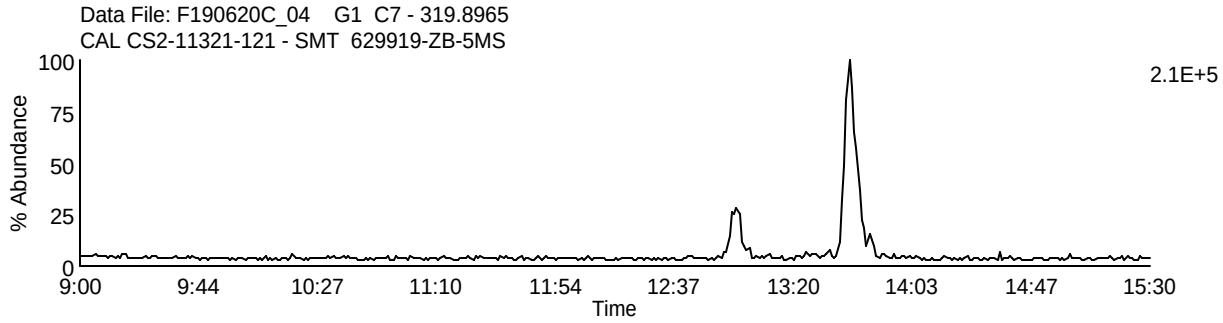


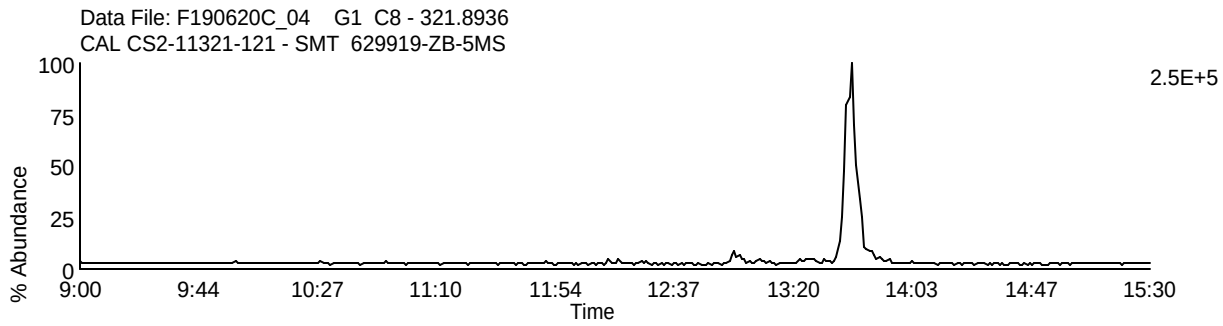


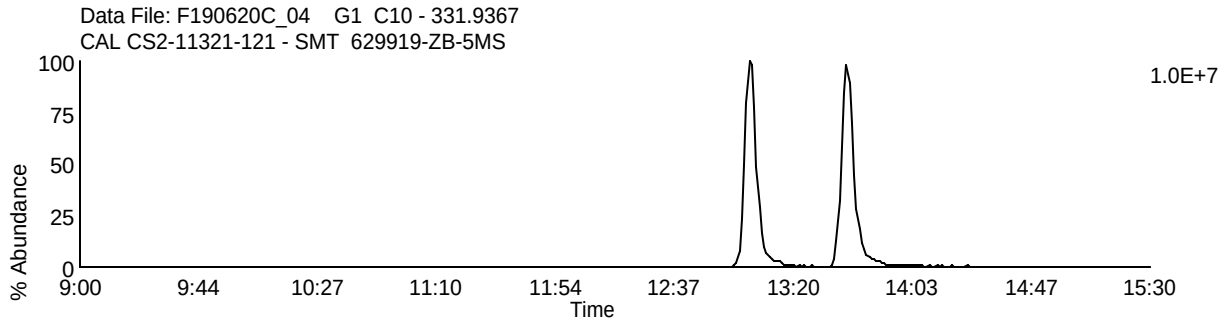
Homologue Group: Tetra Dioxins

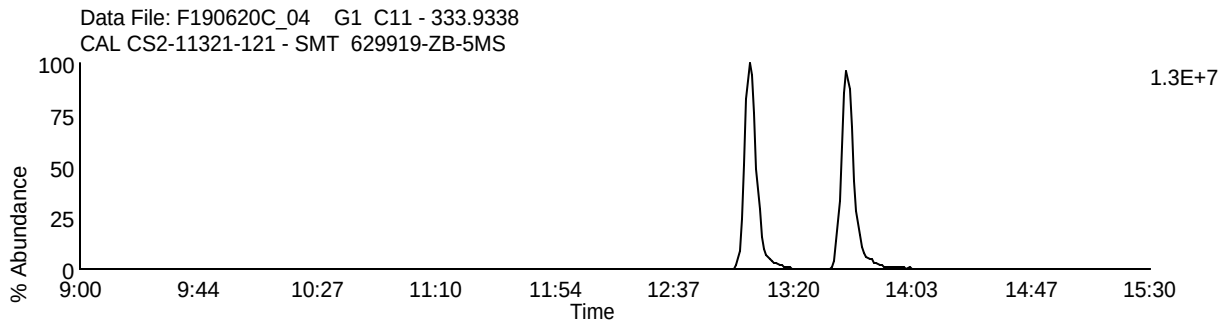
Data File Name: F190620C_04
Date Acquired: 6/20/2019
Sample Description: CAL CS2-11321-121 - SMT 629919-ZB-5MS

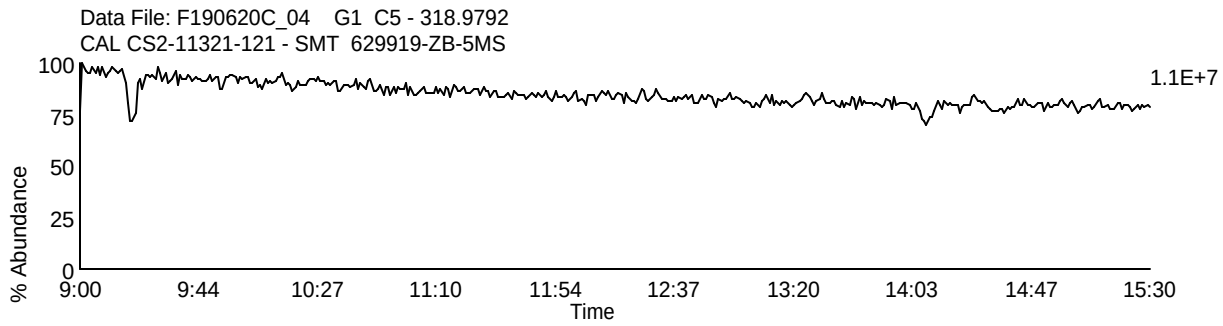
Lab Sample ID: CS2-11321-121
Client Sample ID:
Instrument: 10MSHR05 (F)







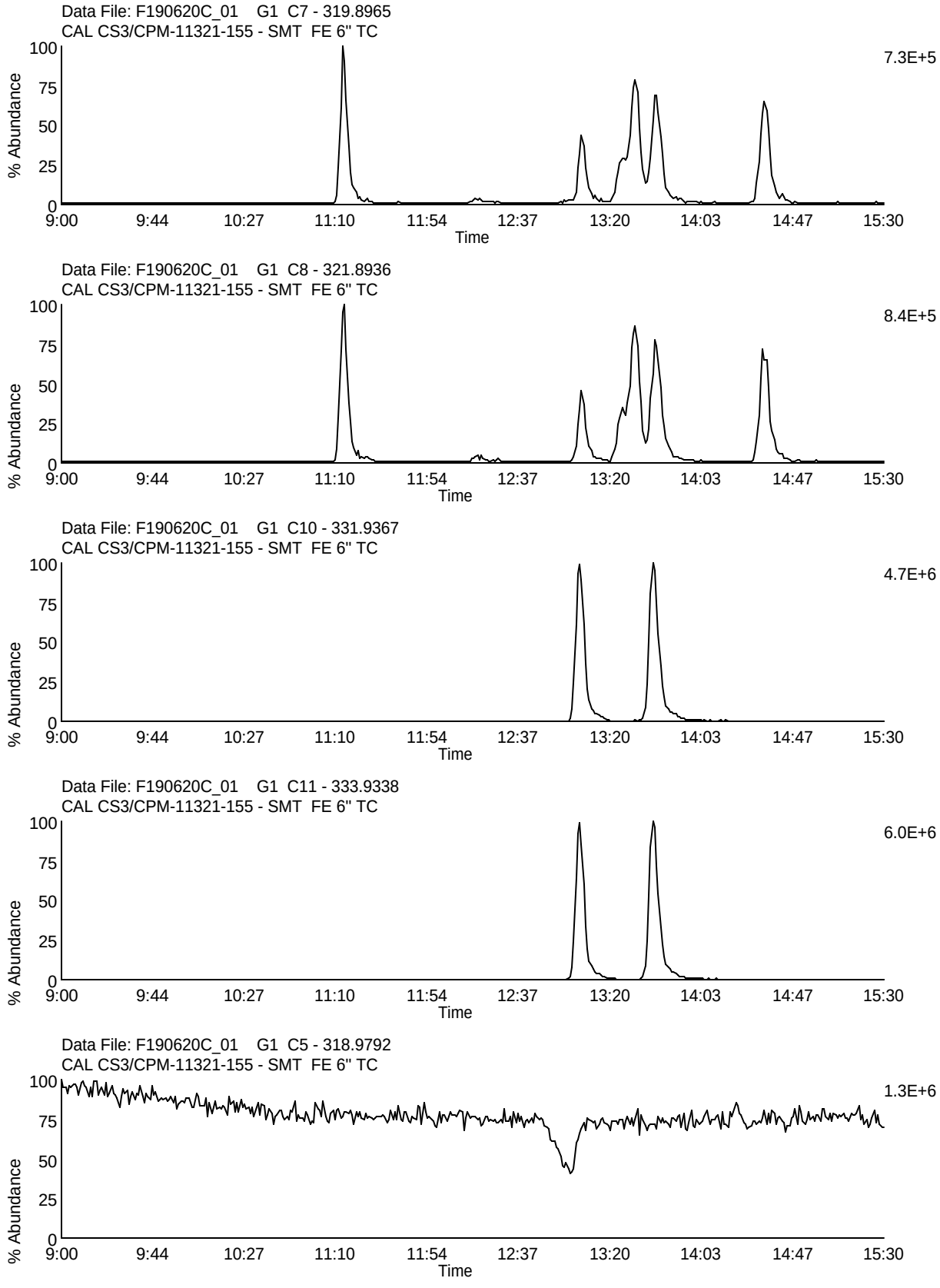




Homologue Group: Tetra Dioxins

Data File Name: F190620C_01
Date Acquired: 6/20/2019
Sample Description: CAL CS3/CPM-11321-155 - SMT FE 6" TC

Lab Sample ID: CS3/CPM-11321-155
Client Sample ID:
Instrument: 10MSHR05 (F)

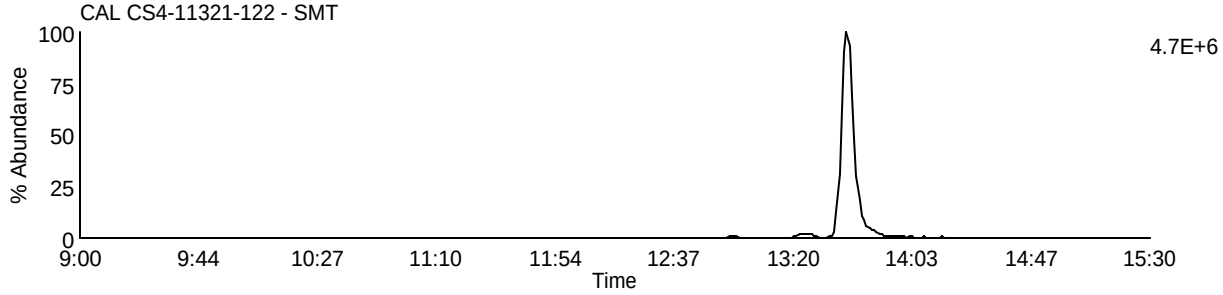


Homologue Group: Tetra Dioxins

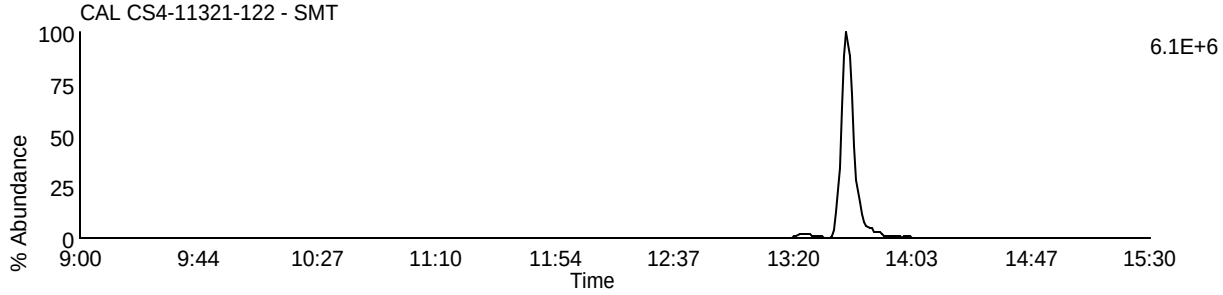
Data File Name: F190620C_07
Date Acquired: 6/20/2019
Sample Description: CAL CS4-11321-122 - SMT

Lab Sample ID: CS4-11321-122
Client Sample ID:
Instrument: 10MSHR05 (F)

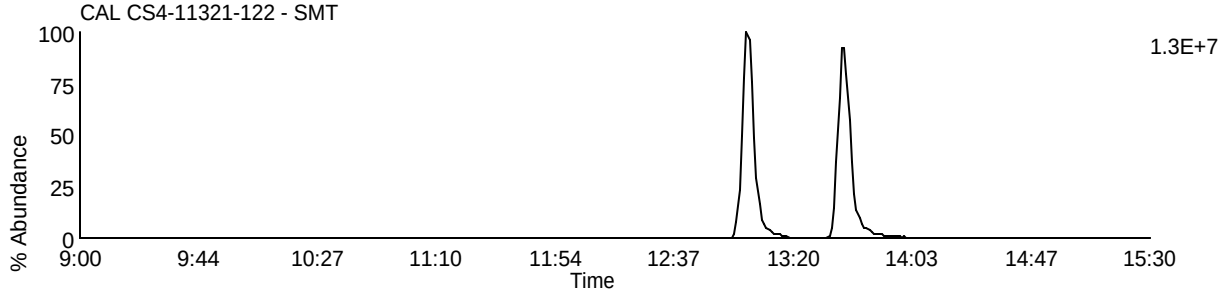
Data File: F190620C_07 G1 C7 - 319.8965
CAL CS4-11321-122 - SMT



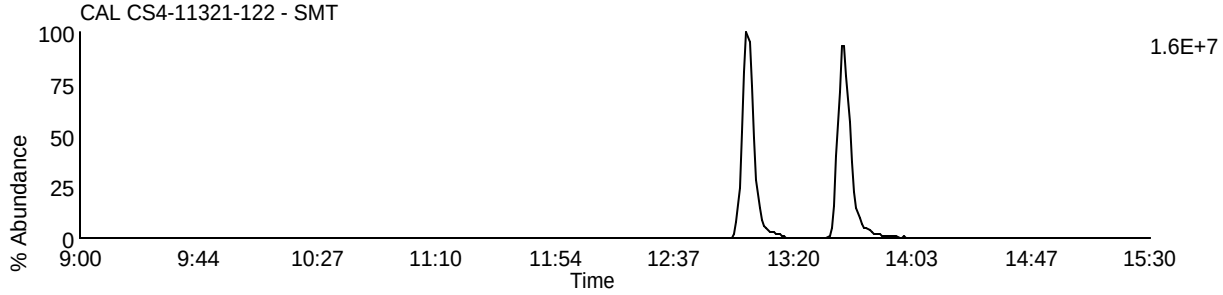
Data File: F190620C_07 G1 C8 - 321.8936
CAL CS4-11321-122 - SMT



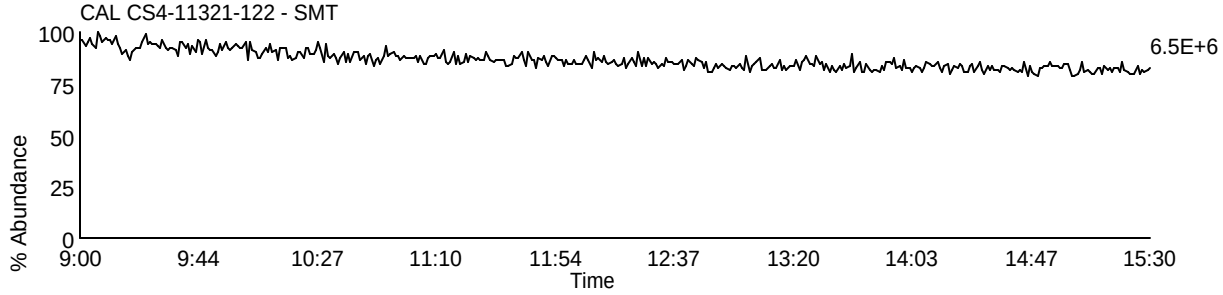
Data File: F190620C_07 G1 C10 - 331.9367
CAL CS4-11321-122 - SMT



Data File: F190620C_07 G1 C11 - 333.9338
CAL CS4-11321-122 - SMT



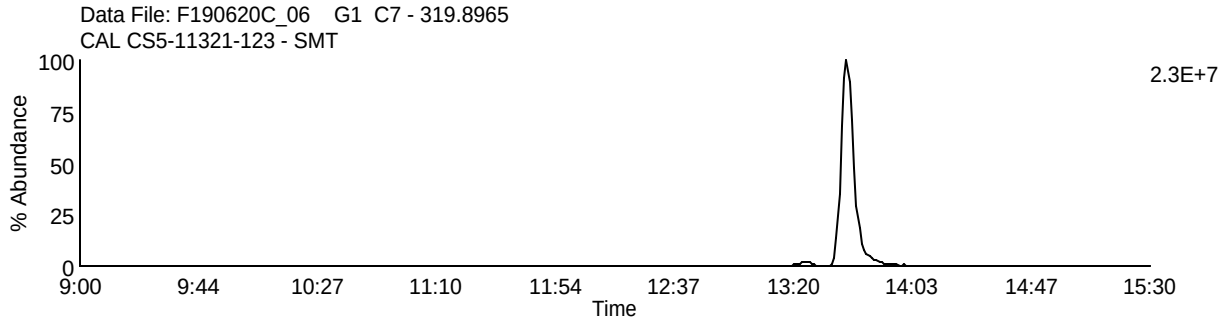
Data File: F190620C_07 G1 C5 - 318.9792
CAL CS4-11321-122 - SMT

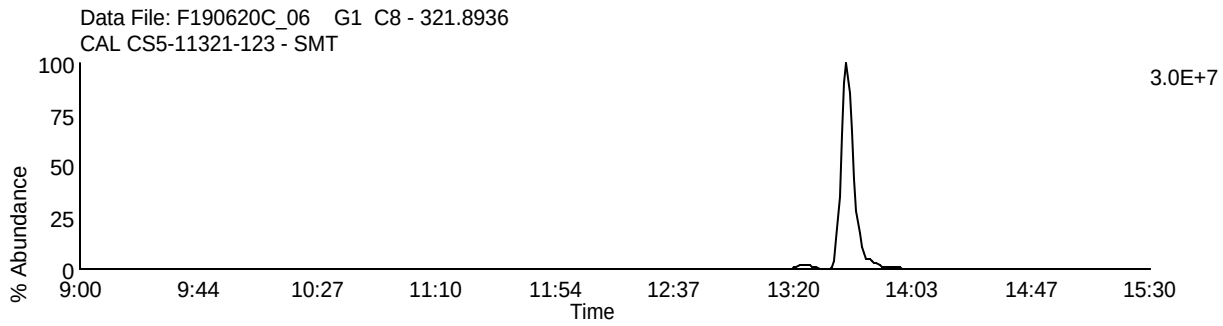


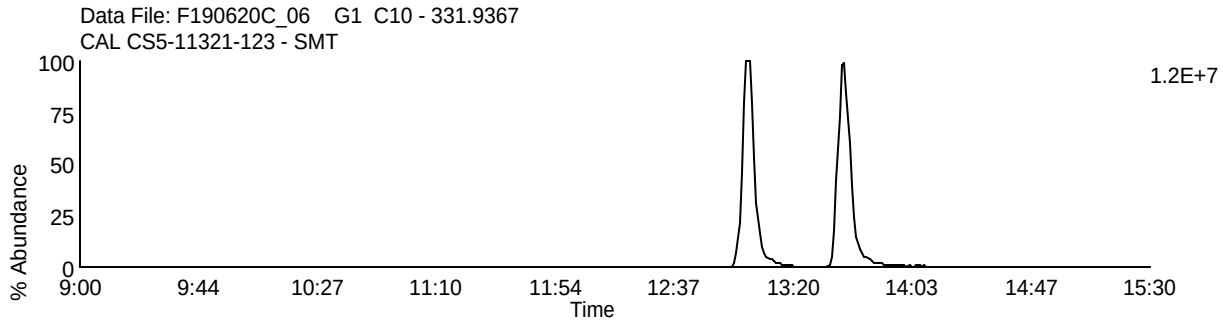
Homologue Group: Tetra Dioxins

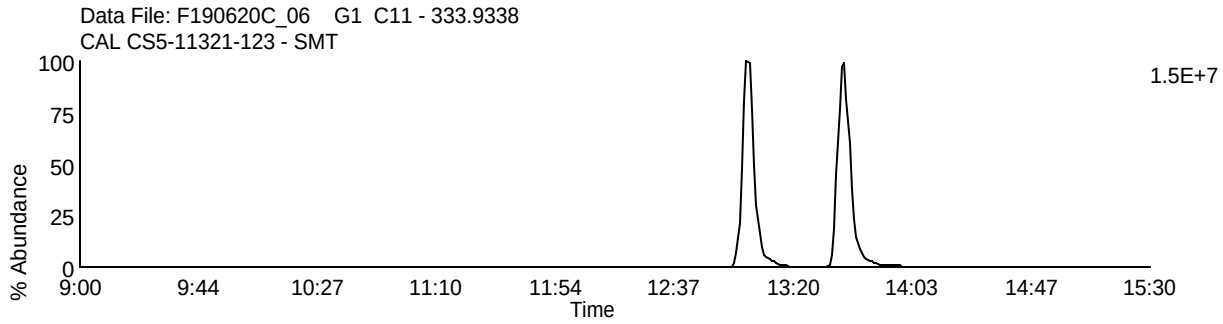
Data File Name: F190620C_06
Date Acquired: 6/20/2019
Sample Description: CAL CS5-11321-123 - SMT

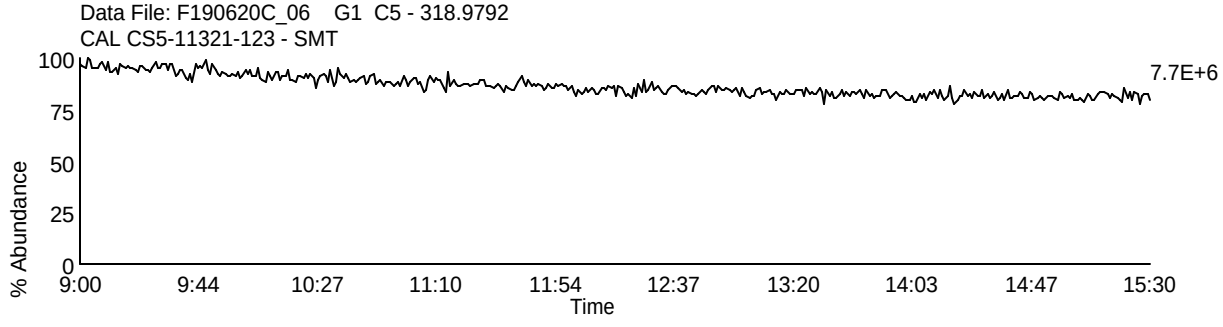
Lab Sample ID: CS5-11321-123
Client Sample ID:
Instrument: 10MSHR05 (F)







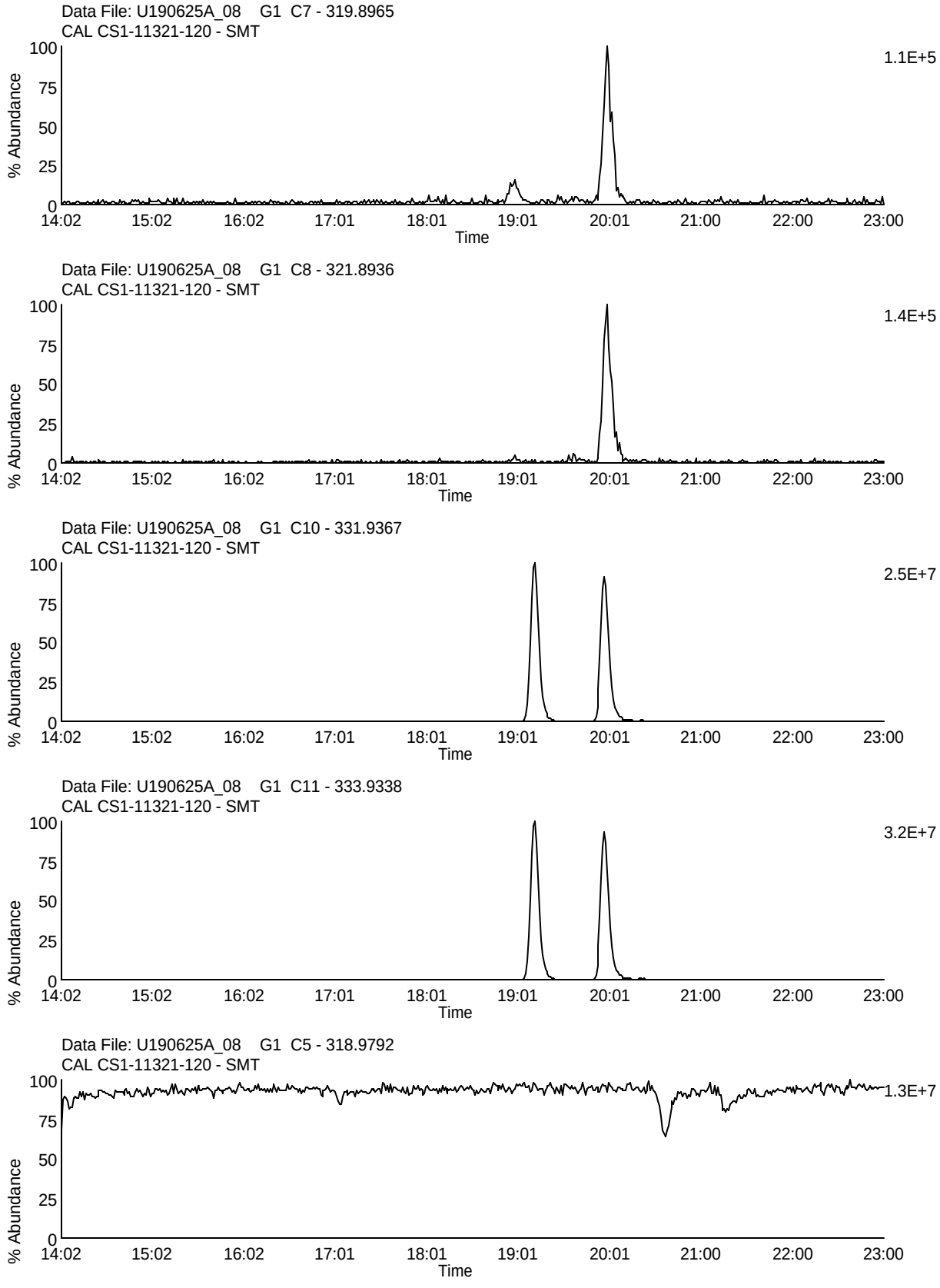




Homologue Group: Tetra Dioxins

Data File Name: U190625A_08
Date Acquired: 6/25/2019
Sample Description: CAL CS1-11321-120 - SMT

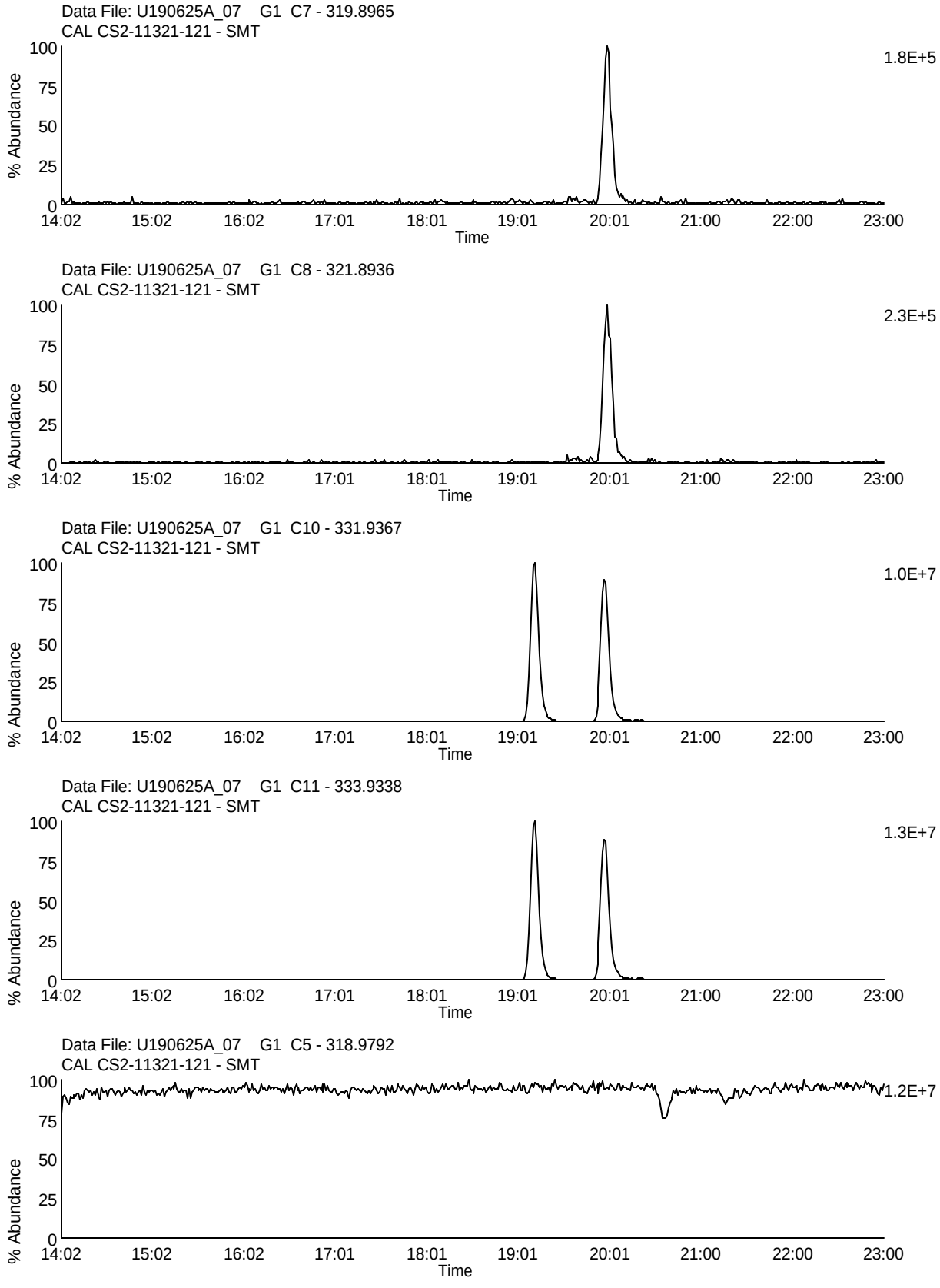
Lab Sample ID: CS1-11321-120
Client Sample ID:
Instrument: 10MSHR06 (U)



Homologue Group: Tetra Dioxins

Data File Name: U190625A_07
Date Acquired: 6/25/2019
Sample Description: CAL CS2-11321-121 - SMT

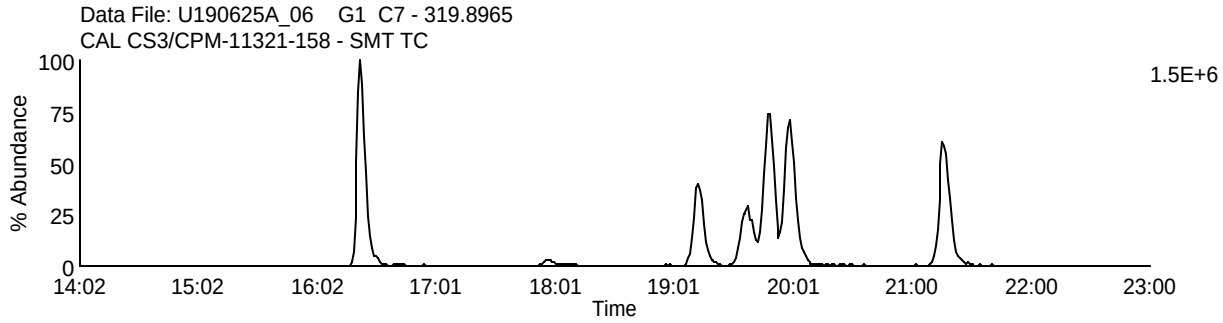
Lab Sample ID: CS2-11321-121
Client Sample ID:
Instrument: 10MSHR06 (U)

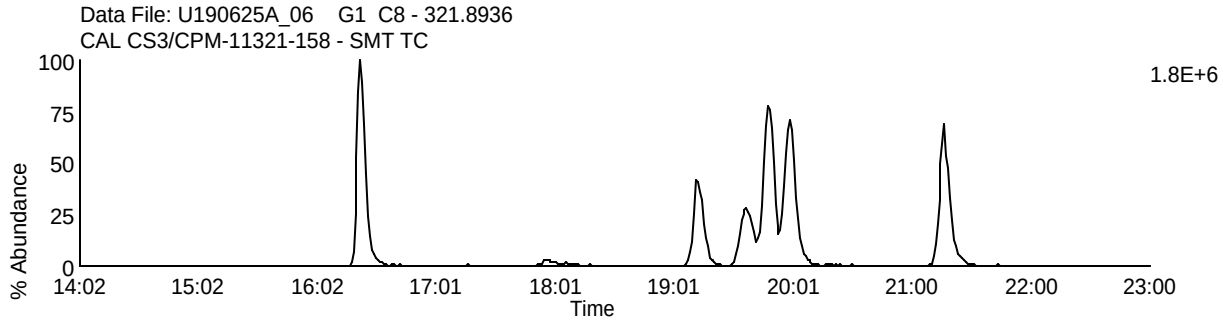


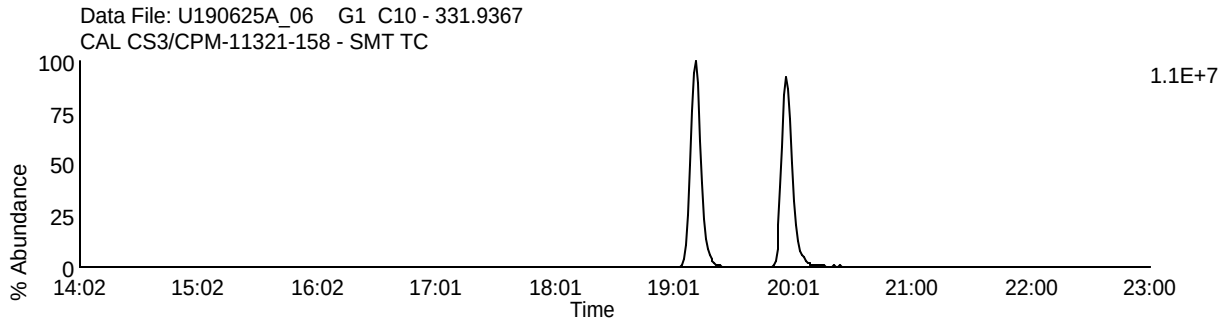
Homologue Group: Tetra Dioxins

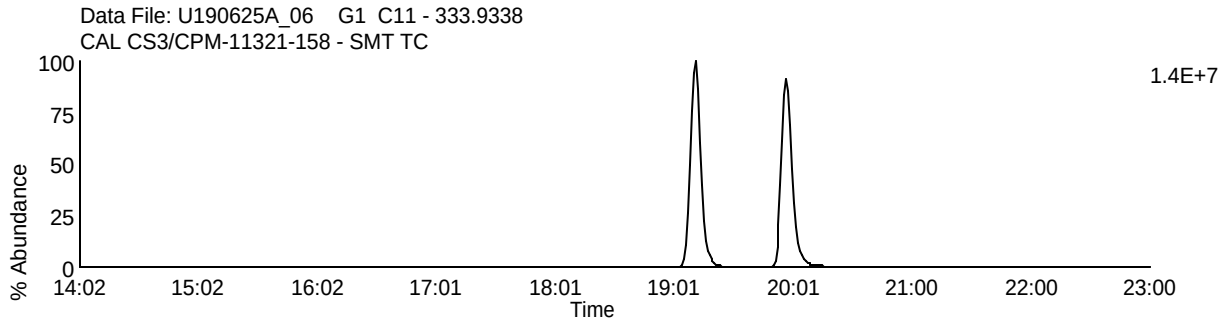
Data File Name: U190625A_06
Date Acquired: 6/25/2019
Sample Description: CAL CS3/CPM-11321-158 - SMT TC

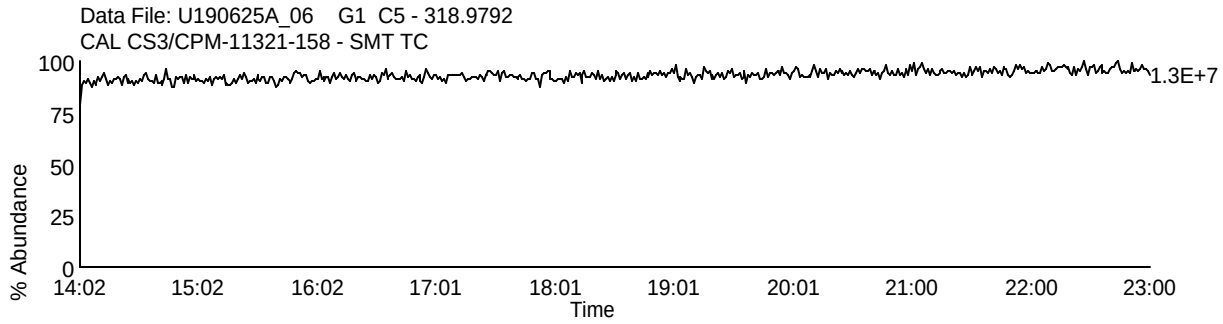
Lab Sample ID: CS3/CPM-11321-158
Client Sample ID:
Instrument: 10MSHR06 (U)







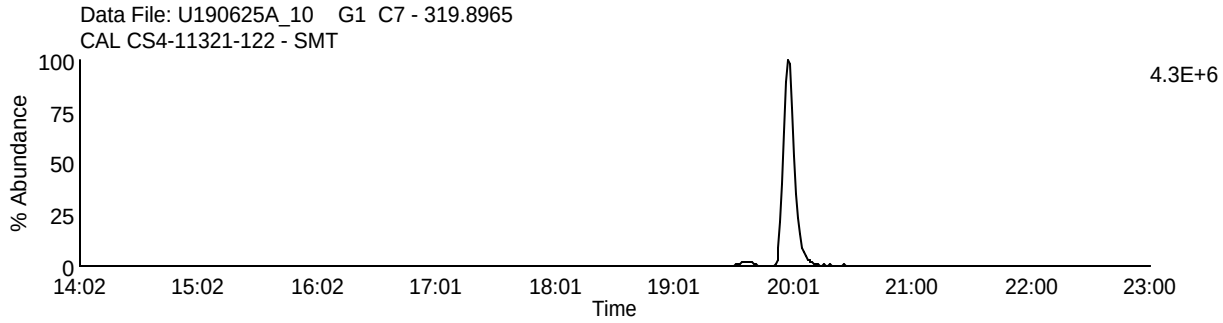


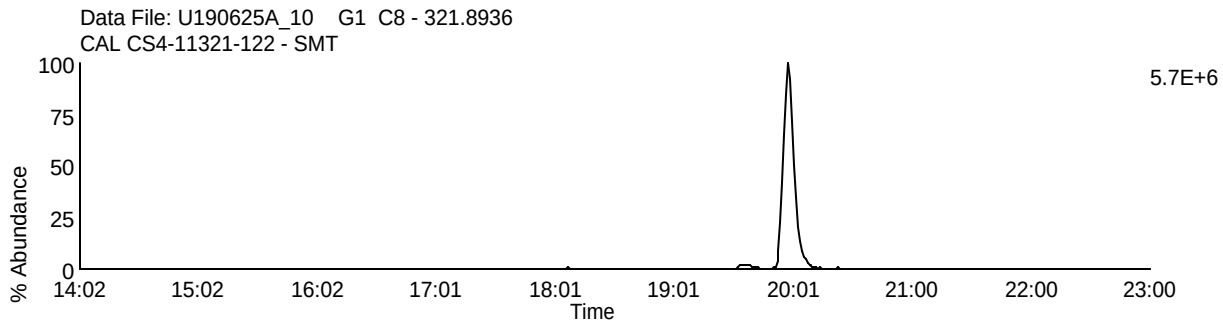


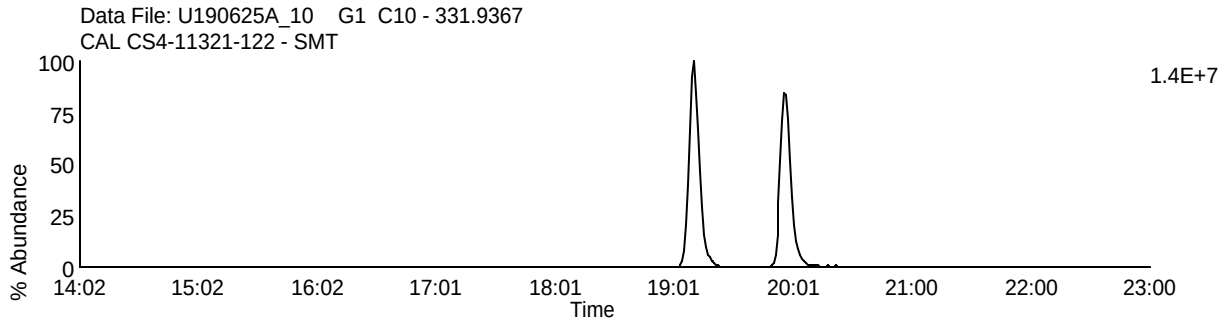
Homologue Group: Tetra Dioxins

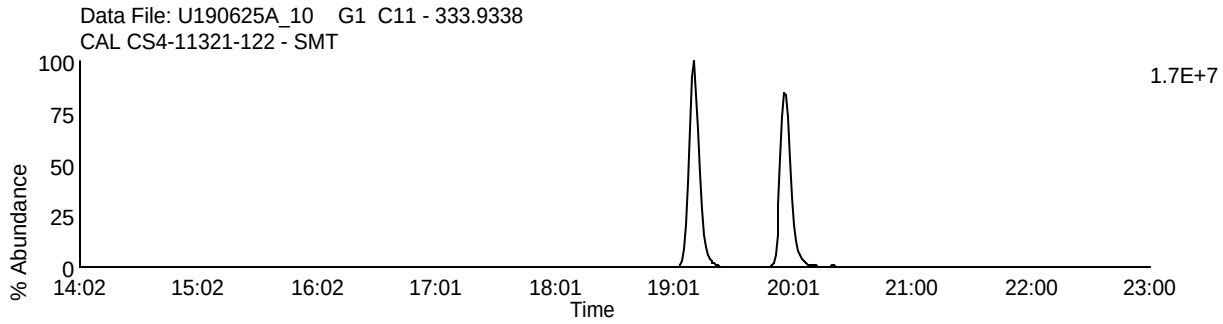
Data File Name: U190625A_10
Date Acquired: 6/25/2019
Sample Description: CAL CS4-11321-122 - SMT

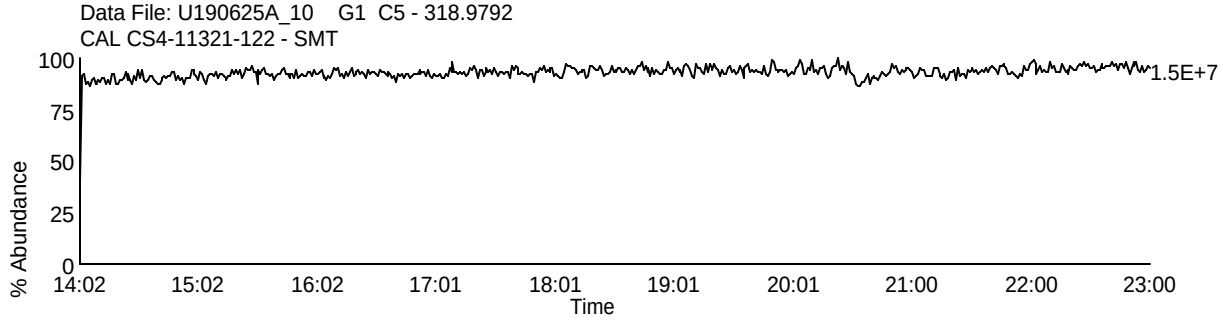
Lab Sample ID: CS4-11321-122
Client Sample ID:
Instrument: 10MSHR06 (U)







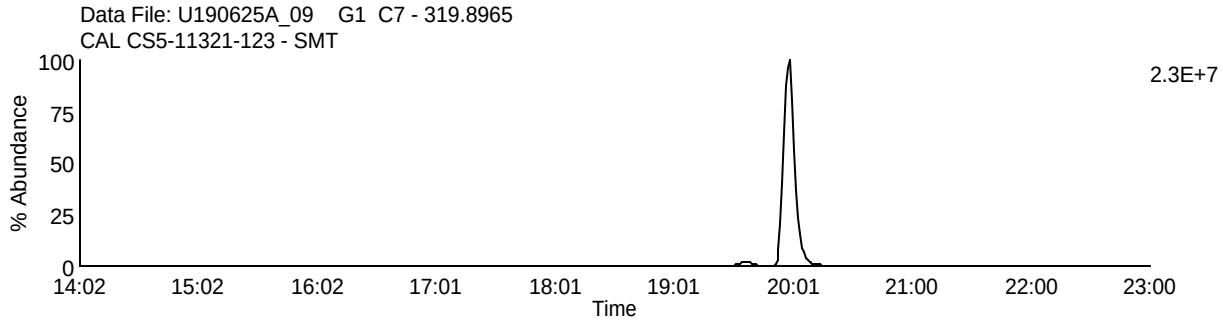


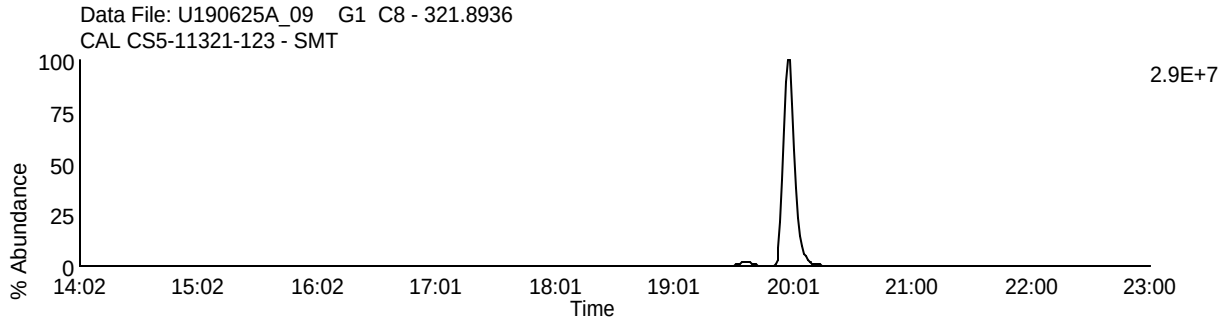


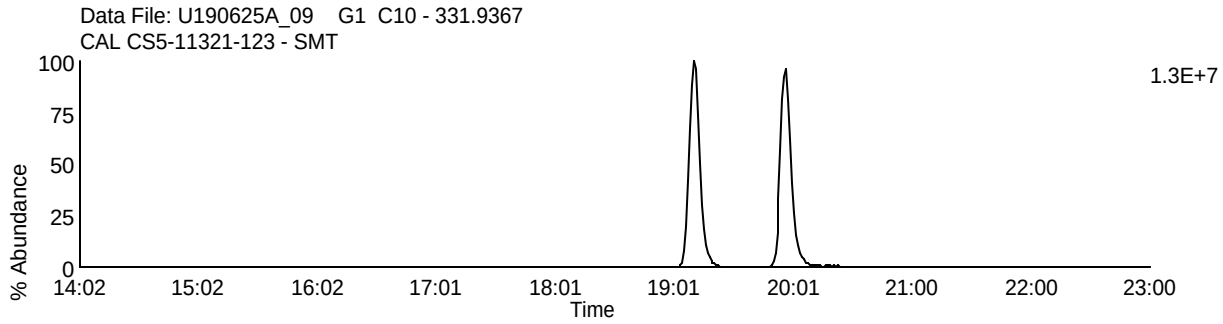
Homologue Group: Tetra Dioxins

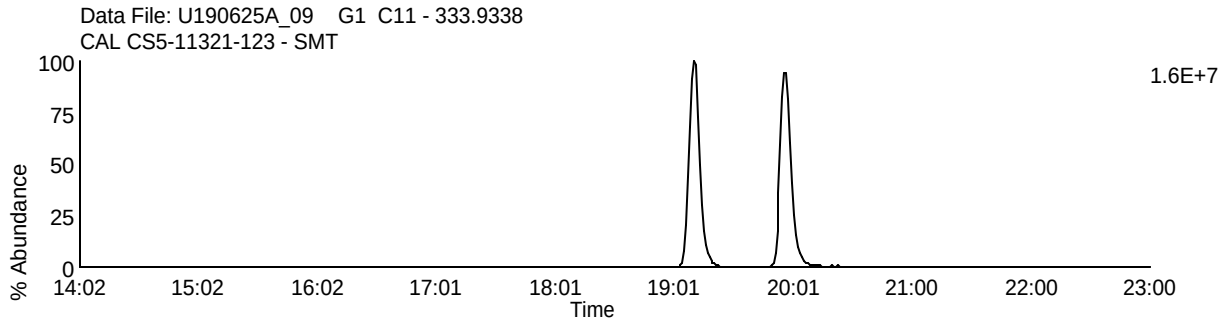
Data File Name: U190625A_09
Date Acquired: 6/25/2019
Sample Description: CAL CS5-11321-123 - SMT

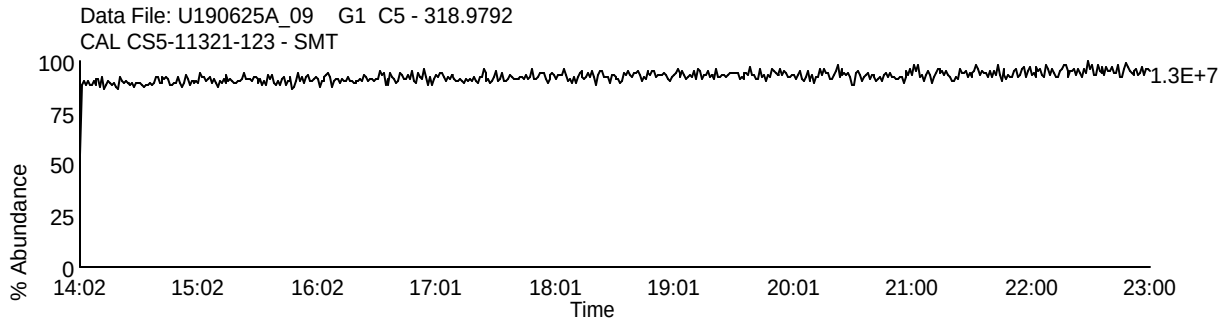
Lab Sample ID: CS5-11321-123
Client Sample ID:
Instrument: 10MSHR06 (U)







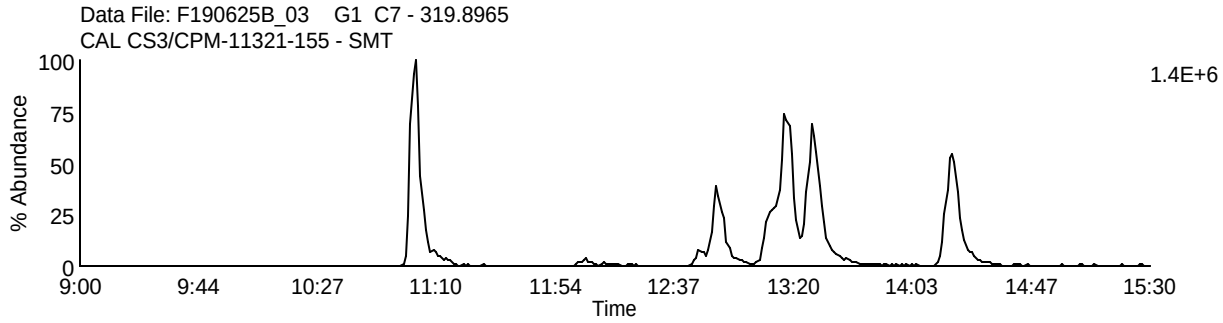


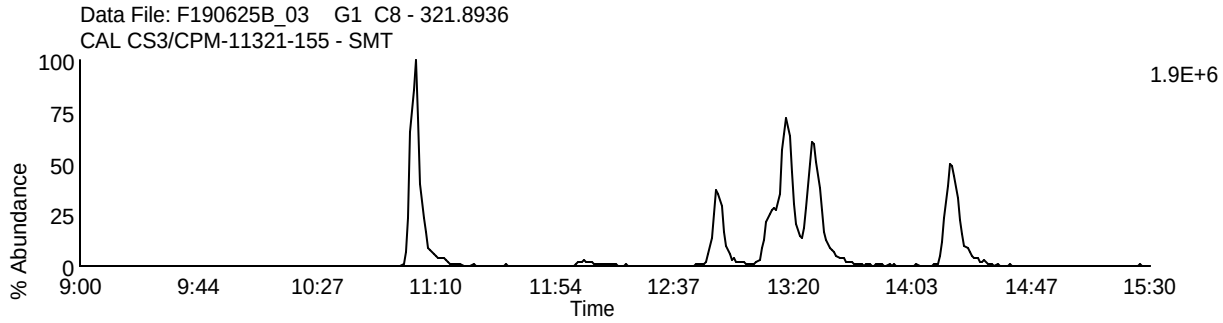


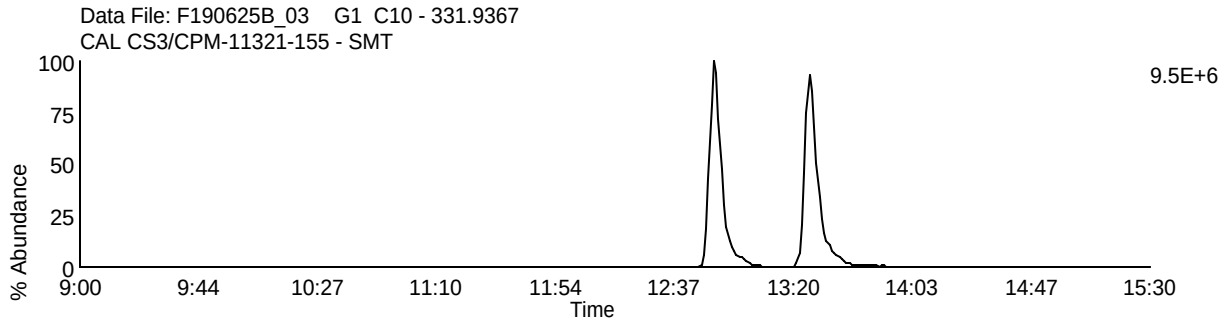
Homologue Group: Tetra Dioxins

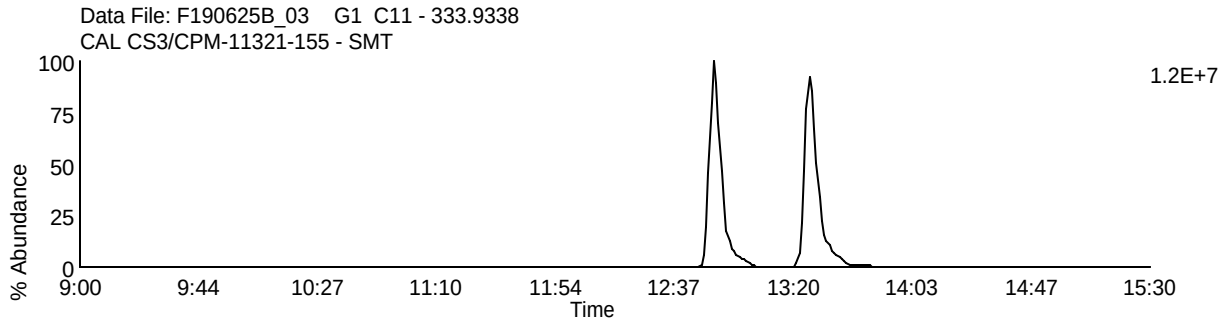
Data File Name: F190625B_03
Date Acquired: 6/25/2019
Sample Description: CAL CS3/CPM-11321-155 - SMT

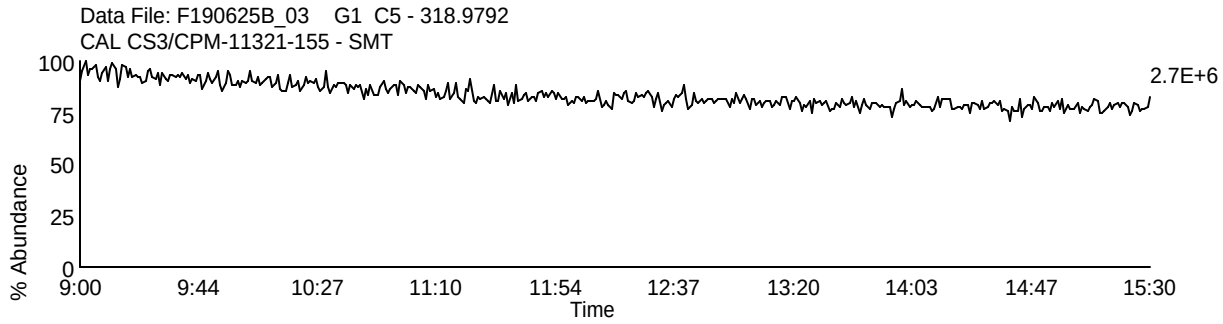
Lab Sample ID: CS3/CPM-11321-155
Client Sample ID:
Instrument: 10MSHR05 (F)







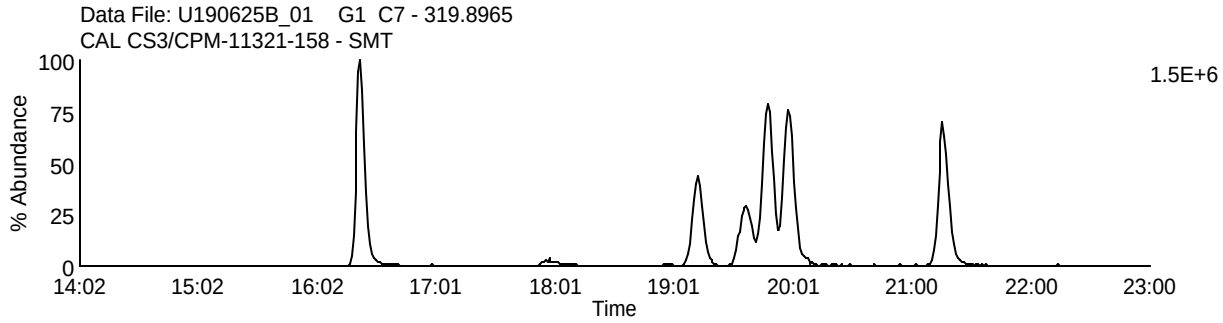


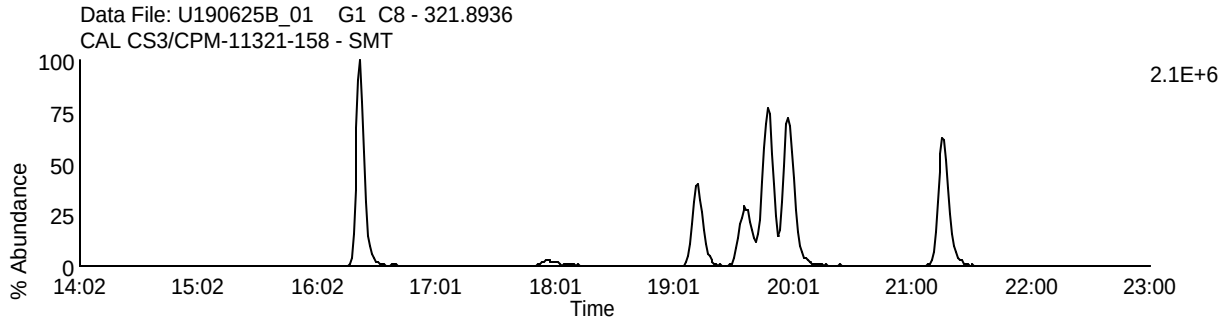


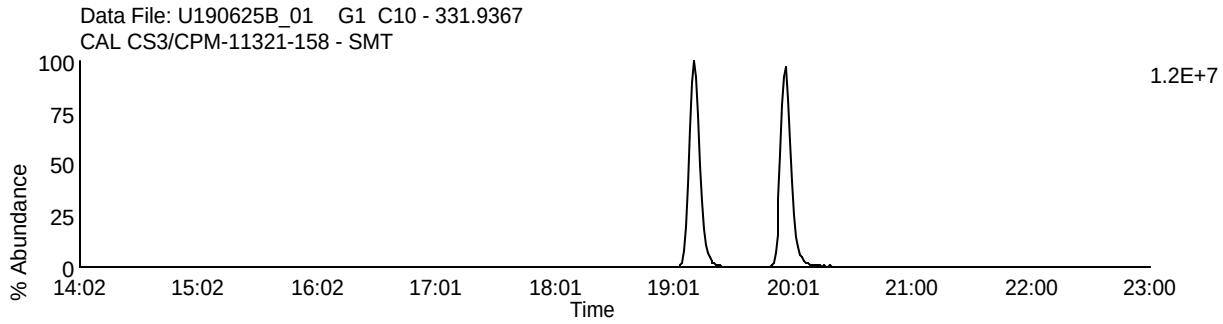
Homologue Group: Tetra Dioxins

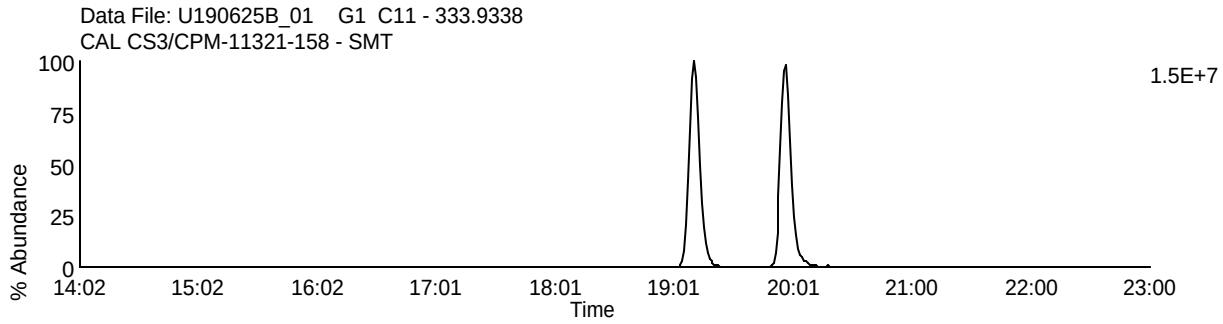
Data File Name: U190625B_01
Date Acquired: 6/25/2019
Sample Description: CAL CS3/CPM-11321-158 - SMT

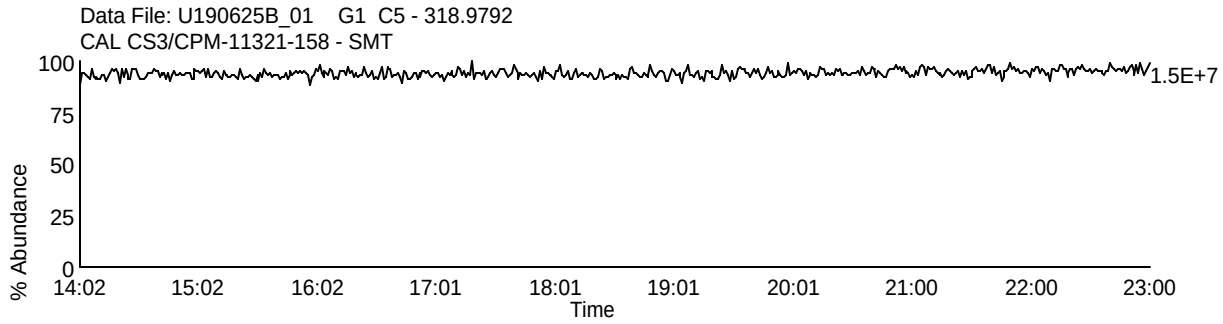
Lab Sample ID: CS3/CPM-11321-158
Client Sample ID:
Instrument: 10MSHR06 (U)











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Tel: 612-607-1700
Fax: 612- 607-6444

TCDD Detected Peak List

Client ID		Injected By	SMT
Lab ID	CS1-11321-120	Instrument ID	10MSHR05 (F)
Filename	F190620C_05	GC Column ID	ZB5-MS-629919
Analyzed	06/20/2019 17:57	ICAL ID	F190620

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	13:04	9.92e7	1.24e8	1.95e7	2.46e7	-----	-----	0.80	
2,3,7,8-TCDD-13C	13:40	9.89e7	1.25e8	1.81e7	2.29e7	-----	-----	0.79	
2,3,7,8-TCDD-37Cl4	13:41	1.13e6		2.03e5		-----	-----		
2,3,7,8-TCDD	13:41	(M)4.82e5	5.65e5	8.23e4	9.67e4	-----	-----	0.85	

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Fax: 612- 607-6444

TCDD Detected Peak List

Client ID		Injected By	SMT
Lab ID	CS2-11321-121	Instrument ID	10MSHR05 (F)
Filename	F190620C_04	GC Column ID	ZB5-MS-629919
Analyzed	06/20/2019 17:17	ICAL ID	F190620

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	13:04	5.27e7	6.68e7	1.03e7	1.30e7	-----	-----	0.79	
2,3,7,8-TCDD-13C	13:40	5.38e7	6.82e7	1.00e7	1.25e7	-----	-----	0.79	
2,3,7,8-TCDD-37Cl4	13:41	2.44e6		4.55e5		-----	-----		
2,3,7,8-TCDD	13:41	1.04e6	1.27e6	1.98e5	2.47e5	-----	-----	0.82	

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TCDD Detected Peak List

Client ID		Injected By	SMT
Lab ID	CS3/CPM-11321-155	Instrument ID	10MSHR05 (F)
Filename	F190620C_01	GC Column ID	ZB5-MS-629919
Analyzed	06/20/2019 14:33	ICAL ID	F190620

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	13:06	(M)2.32e7	2.89e7	4.64e6	5.90e6	-----	-----	0.80	
2,3,7,8-TCDD-13C	13:41	(M)2.57e7	3.30e7	4.69e6	5.98e6	-----	-----	0.78	
2,3,7,8-TCDD-37Cl4	13:42	5.55e6		9.87e5		-----	-----		
2,3,7,8-TCDD	13:43	2.96e6	(M)3.83e6	4.96e5	6.50e5	-----	-----	0.77	

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TCDD Detected Peak List

Client ID		Injected By	SMT
Lab ID	CS4-11321-122	Instrument ID	10MSHR05 (F)
Filename	F190620C_07	GC Column ID	ZB5-MS-629919
Analyzed	06/20/2019 19:16	ICAL ID	F190620

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	13:04	6.47e7	8.14e7	1.28e7	1.59e7	-----	-----	0.80	
2,3,7,8-TCDD-13C	13:39	6.42e7	8.17e7	1.18e7	1.48e7	-----	-----	0.79	
2,3,7,8-TCDD-37Cl4	13:40	5.98e7		1.09e7		-----	-----		
2,3,7,8-TCDD	13:40	2.55e7	3.27e7	4.68e6	6.03e6	-----	-----	0.78	

REPORT OF LABORATORY ANALYSIS

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TCDD Detected Peak List

Client ID		Injected By	SMT
Lab ID	CS5-11321-123	Instrument ID	10MSHR05 (F)
Filename	F190620C_06	GC Column ID	ZB5-MS-629919
Analyzed	06/20/2019 18:36	ICAL ID	F190620

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	13:04	6.07e7	7.52e7	1.16e7	1.47e7	-----	-----	0.81	
2,3,7,8-TCDD-13C	13:39	6.19e7	7.81e7	1.15e7	1.46e7	-----	-----	0.79	
2,3,7,8-TCDD-37Cl4	13:40	2.88e8		5.31e7		-----	-----		
2,3,7,8-TCDD	13:40	1.26e8	1.58e8	2.27e7	2.96e7	-----	-----	0.80	

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TCDD Detected Peak List

Client ID		Injected By	SMT
Lab ID	CS1-11321-120	Instrument ID	10MSHR06 (U)
Filename	U190625A_08	GC Column ID	1010640
Analyzed	06/25/2019 13:28	ICAL ID	U190625

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	19:12	1.53e8	1.93e8	2.52e7	3.20e7	-----	-----	0.79	
2,3,7,8-TCDD-13C	19:58	1.44e8	1.89e8	2.28e7	2.99e7	-----	-----	0.76	
2,3,7,8-TCDD-37Cl4	19:60	1.73e6		2.54e5		-----	-----		
2,3,7,8-TCDD	19:60	6.70e5	8.06e5	1.08e5	1.35e5	2.010e3	1.896e3	0.83	

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TCDD Detected Peak List

Client ID		Injected By	SMT
Lab ID	CS2-11321-121	Instrument ID	10MSHR06 (U)
Filename	U190625A_07	GC Column ID	1010640
Analyzed	06/25/2019 12:45	ICAL ID	U190625

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	19:12	6.25e7	7.84e7	1.03e7	1.32e7	-----	-----	0.80	
2,3,7,8-TCDD-13C	19:58	5.93e7	7.54e7	9.20e6	1.17e7	-----	-----	0.79	
2,3,7,8-TCDD-37Cl4	19:60	2.89e6		4.55e5		-----	-----		
2,3,7,8-TCDD	19:60	1.15e6	1.42e6	1.82e5	2.26e5	-----	-----	0.81	

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TCDD Detected Peak List

Client ID		Injected By	SMT
Lab ID	CS3/CPM-11321-158	Instrument ID	10MSHR06 (U)
Filename	U190625A_06	GC Column ID	1010640
Analyzed	06/25/2019 12:03	ICAL ID	U190625

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	19:12	6.47e7	8.23e7	1.12e7	1.43e7	-----	-----	0.79	
2,3,7,8-TCDD-13C	19:58	6.34e7	8.00e7	1.03e7	1.31e7	-----	-----	0.79	
2,3,7,8-TCDD-37Cl4	19:60	1.36e7		2.25e6		-----	-----		
2,3,7,8-TCDD	19:60	6.78e6	8.65e6	1.05e6	1.30e6	-----	-----	0.78	

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TCDD Detected Peak List

Client ID		Injected By	SMT
Lab ID	CS4-11321-122	Instrument ID	10MSHR06 (U)
Filename	U190625A_10	GC Column ID	1010640
Analyzed	06/25/2019 14:57	ICAL ID	U190625

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	19:11	7.76e7	9.78e7	1.36e7	1.72e7	-----	-----	0.79	
2,3,7,8-TCDD-13C	19:57	7.08e7	9.19e7	1.15e7	1.45e7	-----	-----	0.77	
2,3,7,8-TCDD-37Cl4	19:59	6.60e7		1.08e7		-----	-----		
2,3,7,8-TCDD	19:59	2.65e7	3.42e7	4.28e6	5.64e6	-----	-----	0.78	

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TCDD Detected Peak List

Client ID		Injected By	SMT
Lab ID	CS5-11321-123	Instrument ID	10MSHR06 (U)
Filename	U190625A_09	GC Column ID	1010640
Analyzed	06/25/2019 14:16	ICAL ID	U190625

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	19:11	7.50e7	9.42e7	1.26e7	1.59e7	-----	-----	0.80	
2,3,7,8-TCDD-13C	19:58	7.64e7	9.69e7	1.21e7	1.49e7	-----	-----	0.79	
2,3,7,8-TCDD-37Cl4	19:59	3.50e8		5.46e7		-----	-----		
2,3,7,8-TCDD	19:60	1.41e8	1.84e8	2.27e7	2.90e7	-----	-----	0.77	

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TCDD Detected Peak List

Client ID		Injected By	SMT
Lab ID	CS3/CPM-11321-155	Instrument ID	10MSHR05 (F)
Filename	F190625B_03	GC Column ID	ZB5-MS-629919
Analyzed	06/25/2019 14:43	ICAL ID	F190620

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	12:52	4.82e7	6.14e7	9.44e6	1.19e7	-----	-----	0.79	
2,3,7,8-TCDD-13C	13:26	4.97e7	6.18e7	8.76e6	1.09e7	-----	-----	0.80	
2,3,7,8-TCDD-37Cl4	13:27	1.06e7		1.80e6		-----	-----		
2,3,7,8-TCDD	13:27	6.00e6	7.20e6	9.66e5	1.16e6	-----	-----	0.83	

REPORT OF LABORATORY ANALYSIS

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TCDD Detected Peak List

Client ID		Injected By	SMT
Lab ID	CS3/CPM-11321-158	Instrument ID	10MSHR06 (U)
Filename	U190625B_01	GC Column ID	1010640
Analyzed	06/25/2019 17:02	ICAL ID	U190625

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	19:11	7.16e7	9.00e7	1.21e7	1.52e7	-----	-----	0.80	
2,3,7,8-TCDD-13C	19:58	7.22e7	9.24e7	1.17e7	1.49e7	-----	-----	0.78	
2,3,7,8-TCDD-37Cl4	19:59	1.59e7		2.64e6		-----	-----		
2,3,7,8-TCDD	19:59	7.37e6	9.89e6	1.16e6	1.49e6	-----	-----	0.75	

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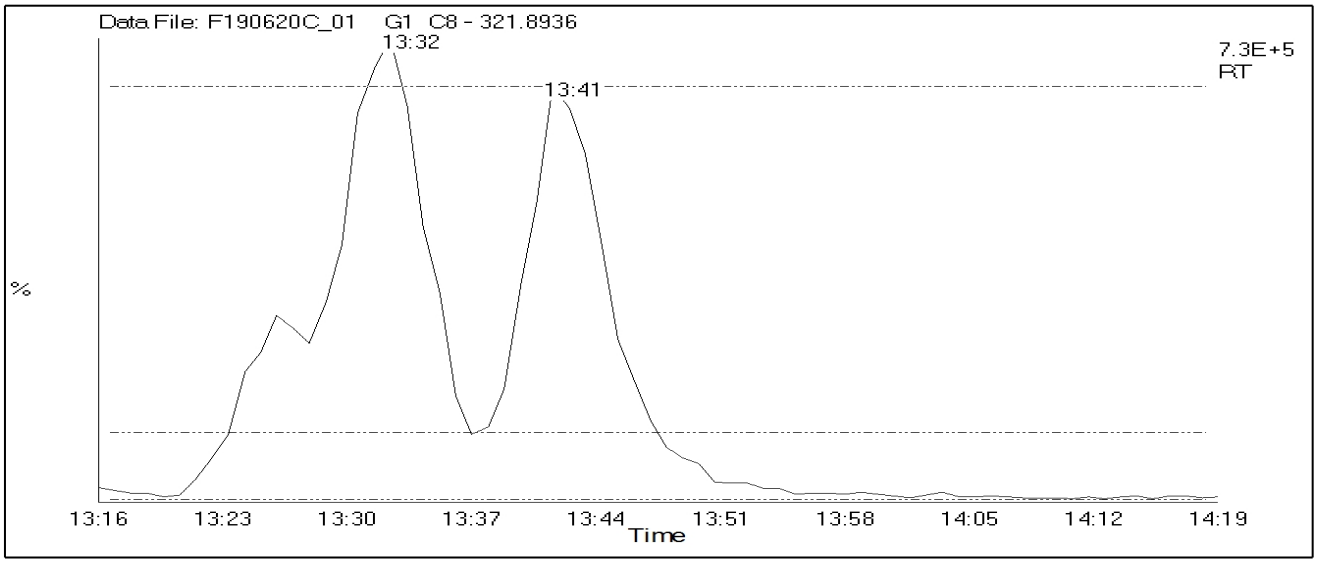
Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID:	CS3/CPM-11321-155	Injected By:	SMT
Raw Data File:	F190620C_01	Instrument ID:	10MSHR05 (F)
Date Analyzed:	6/20/2019	GC Column	ZB5-MS
Time Analyzed:	14:33	GC Column S/N:	ZB5-MS-629919

Resolution: 16.2%



Group	Msss	First Eluter	Last Eluter
TCDF	305.8987	10:18	14:44
PeCDF	341.8567	14:44	22:06
HxCDF	373.8207	24:14	30:23
HpCDF	407.7818	32:14	33:39
OCDF	441.7428	35:35	35:35
TCDD	321.8936	11:15	14:33
PeCDD	357.8517	16:46	21:35
HxCDD	391.8127	26:03	30:02
HpCDD	425.7737	32:33	33:16
OCDD	459.7347	35:32	35:32
1234-TCDD-13	331.9367	13:06	13:06
123789-HxCD	401.8559	30:01	30:01

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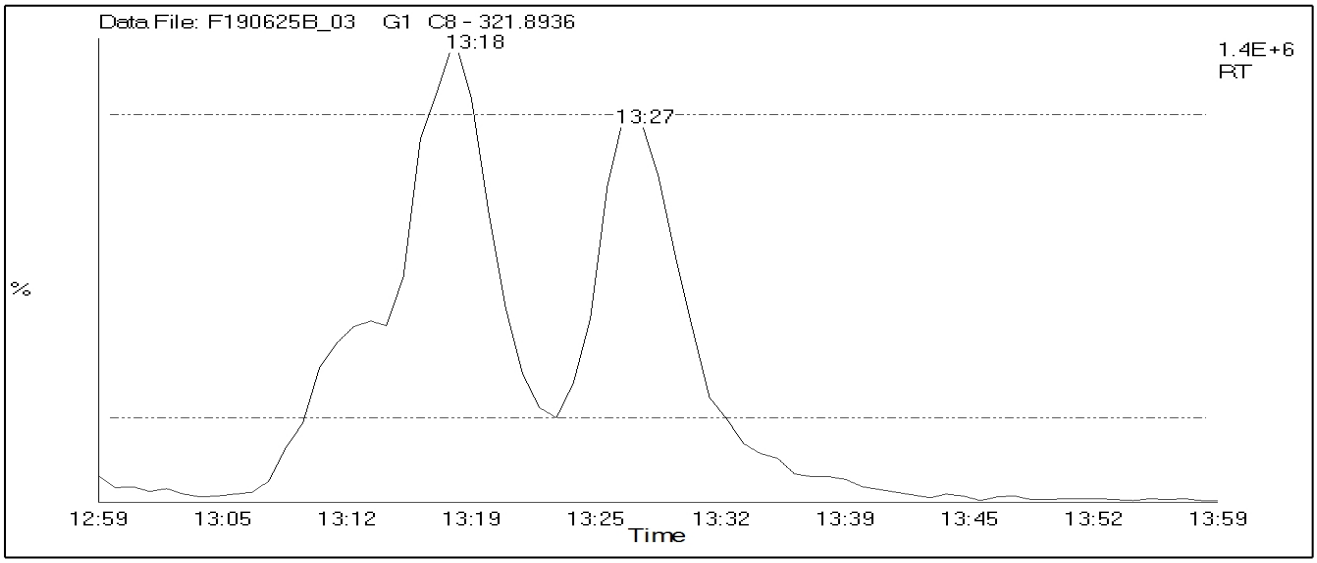
Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID:	CS3/CPM-11321-155	Injected By:	SMT
Raw Data File:	F190625B_03	Instrument ID:	10MSHR05 (F)
Date Analyzed:	6/25/2019	GC Column	ZB5-MS
Time Analyzed:	14:43	GC Column S/N:	ZB5-MS-629919

Resolution: 21.8%



Group	Msss	First Eluter	Last Eluter
TCDF	305.8987	10:07	14:27
PeCDF	341.8567	14:27	21:41
HxCDF	373.8207	23:47	30:10
HpCDF	407.7818	32:05	33:30
OCDF	441.7428	35:28	
TCDD	321.8936	11:03	14:17
PeCDD	357.8517	16:27	21:12
HxCDD	391.8127	25:34	29:49
HpCDD	425.7737	32:25	33:08
OCDD	459.7347	35:24	
1234-TCDD-13	331.9367	12:52	
123789-HxCD	401.8559	29:48	

REPORT OF LABORATORY ANALYSIS

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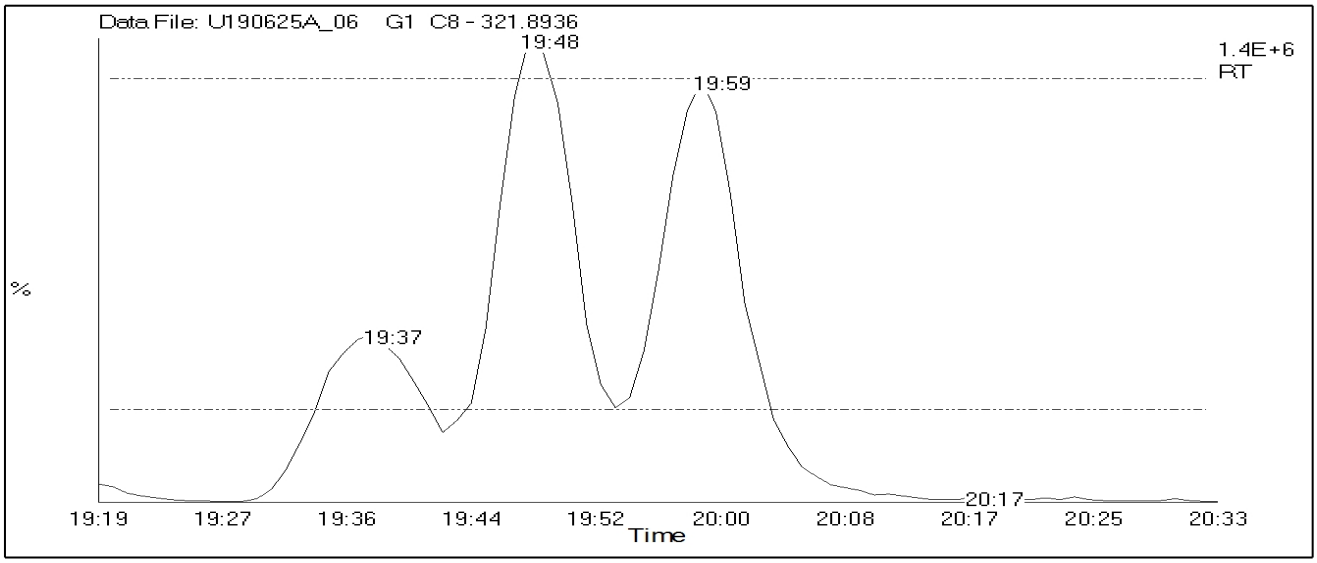
Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID:	CS3/CPM-11321-158	Injected By:	SMT
Raw Data File:	U190625A_06	Instrument ID:	10MSHR06 (U)
Date Analyzed:	6/25/2019	GC Column	ZB-5MS
Time Analyzed:	12:03	GC Column S/N:	1010640

Resolution: 22.0%



Group	Msss	First Eluter	Last Eluter
TCDF	305.8987	15:03	21:33
PeCDF	341.8567	21:26	30:32
HxCDF	373.8207	31:31	34:19
HpCDF	407.7818	35:29	36:40
OCDF	441.7428	38:42	38:42
TCDD	321.8936	16:24	21:17
PeCDD	357.8517	24:21	30:10
HxCDD	391.8127	32:13	34:03
HpCDD	425.7737	35:42	36:16
OCDD	459.7347	38:33	38:33
1234-TCDD-13	331.9367	19:12	19:12
123789-HxCD	401.8559	34:02	34:02

REPORT OF LABORATORY ANALYSIS

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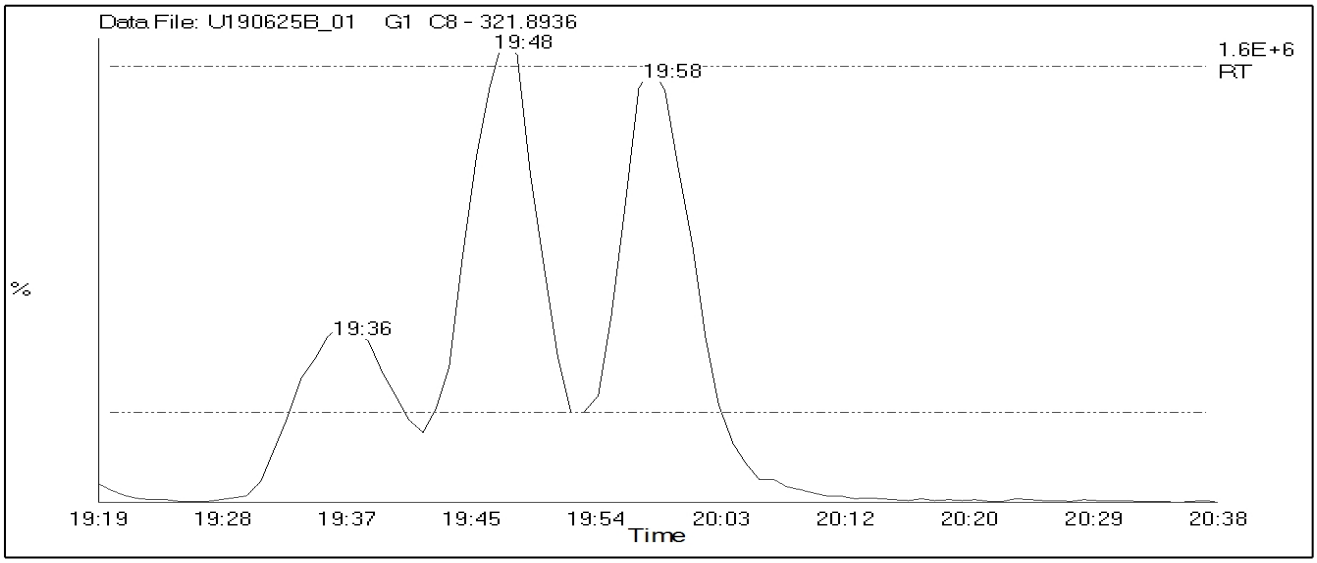
Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID:	CS3/CPM-11321-158	Injected By:	SMT
Raw Data File:	U190625B_01	Instrument ID:	10MSHR06 (U)
Date Analyzed:	6/25/2019	GC Column	ZB-5MS
Time Analyzed:	17:02	GC Column S/N:	1010640

Resolution: 20.7%



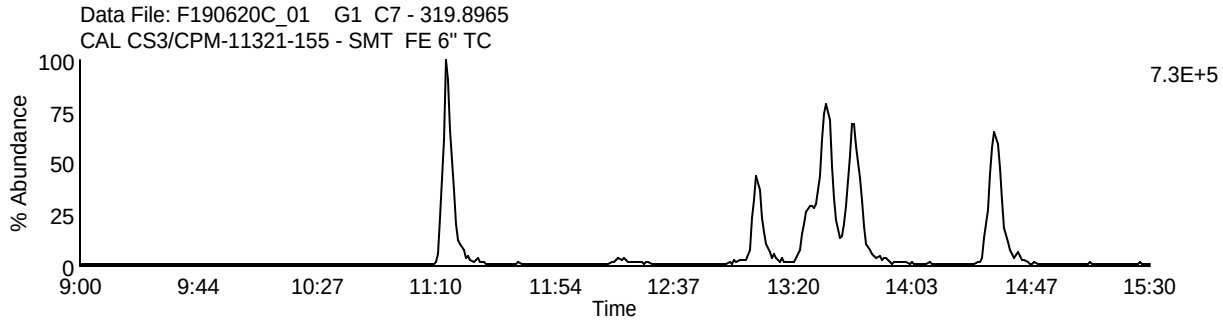
Group	Msss	First Eluter	Last Eluter
TCDF	305.8987	15:01	21:34
PeCDF	341.8567	21:25	30:32
HxCDF	373.8207	31:31	34:19
HpCDF	407.7818	35:28	36:39
OCDF	441.7428	38:41	
TCDD	321.8936	16:24	21:16
PeCDD	357.8517	24:19	30:10
HxCDD	391.8127	32:12	34:03
HpCDD	425.7737	35:42	36:16
OCDD	459.7347	38:33	
1234-TCDD-13	331.9367	19:11	
123789-HxCD	401.8559	34:02	

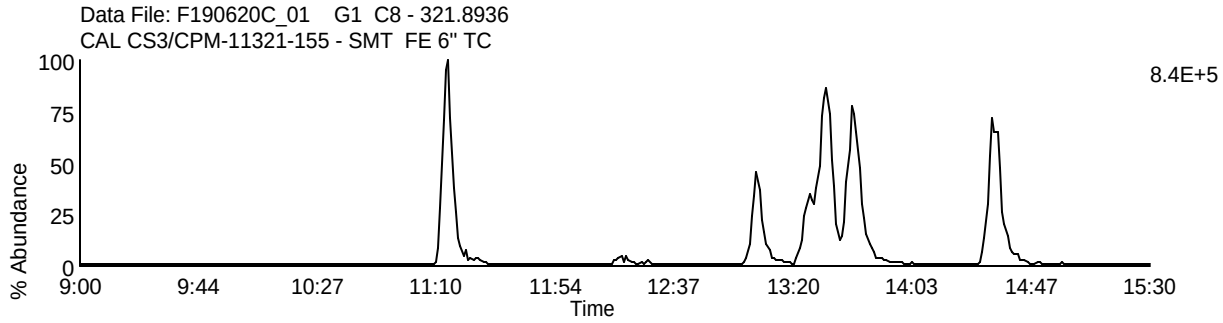
REPORT OF LABORATORY ANALYSIS

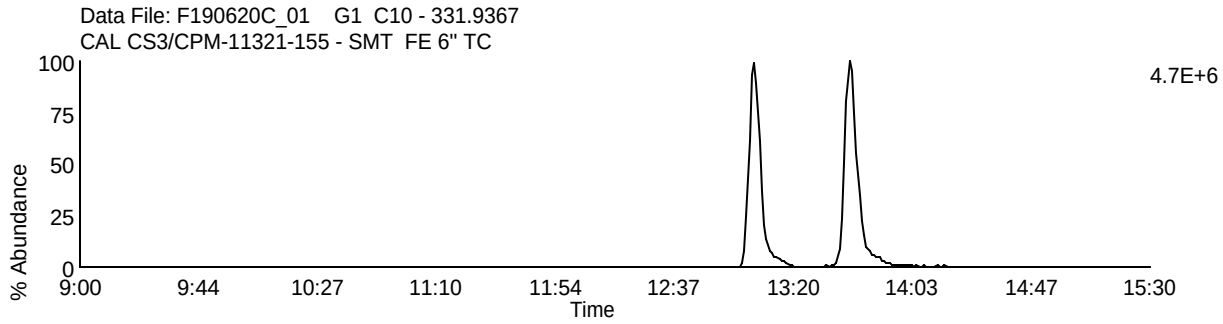
Homologue Group: Tetra Dioxins

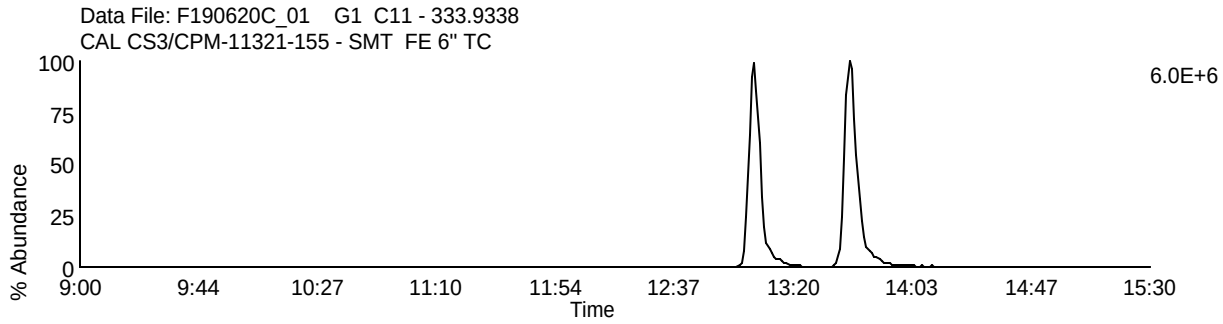
Data File Name: F190620C_01
Date Acquired: 6/20/2019
Sample Description: CAL CS3/CPM-11321-155 - SMT FE 6" TC

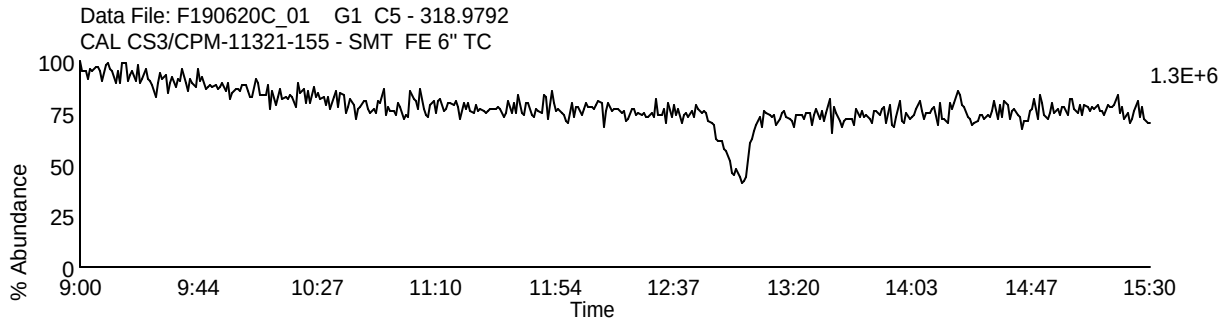
Lab Sample ID: CS3/CPM-11321-155
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)







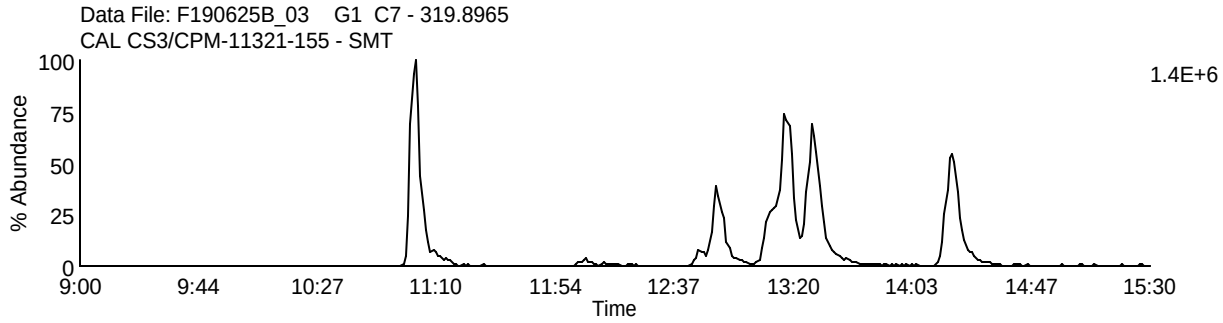


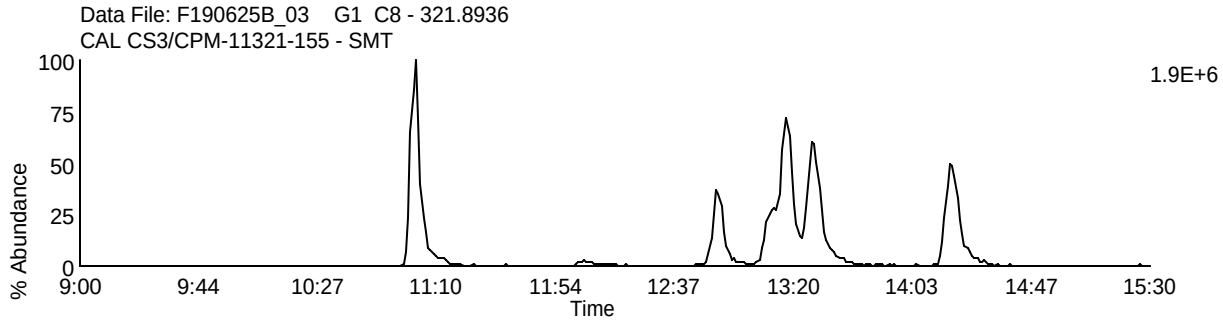


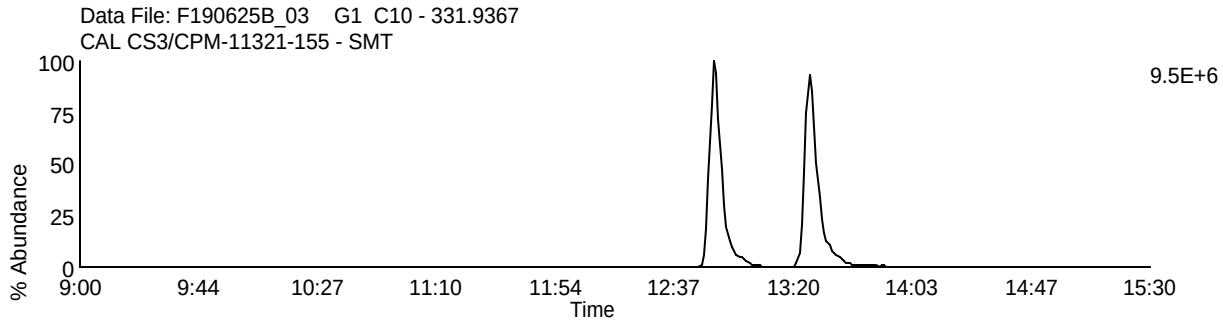
Homologue Group: Tetra Dioxins

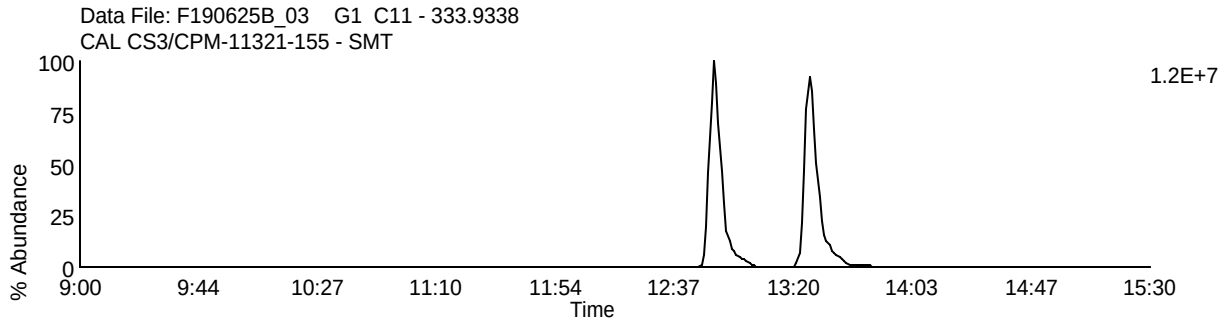
Data File Name: F190625B_03
Date Acquired: 6/25/2019
Sample Description: CAL CS3/CPM-11321-155 - SMT

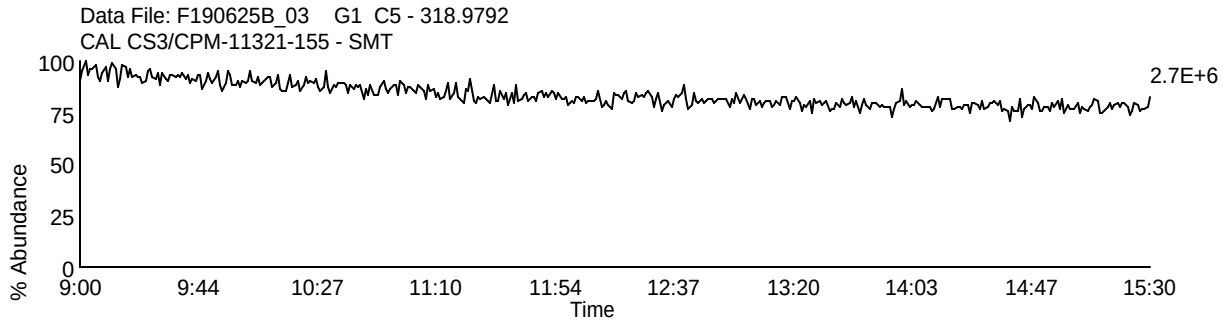
Lab Sample ID: CS3/CPM-11321-155
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)







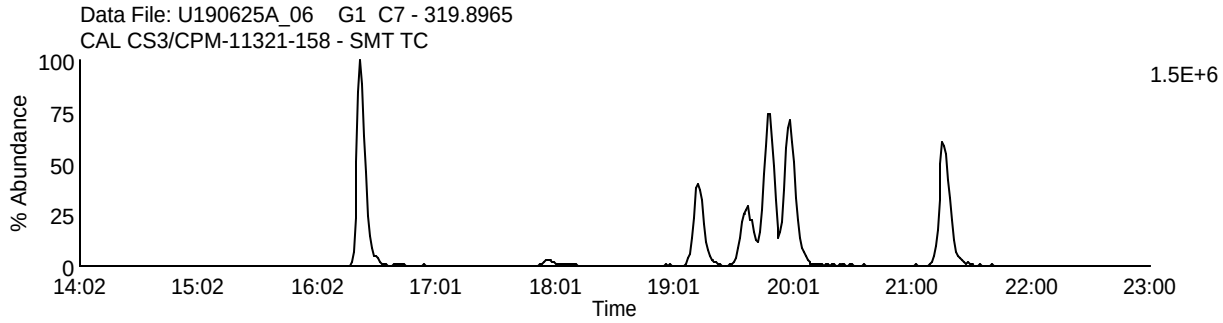


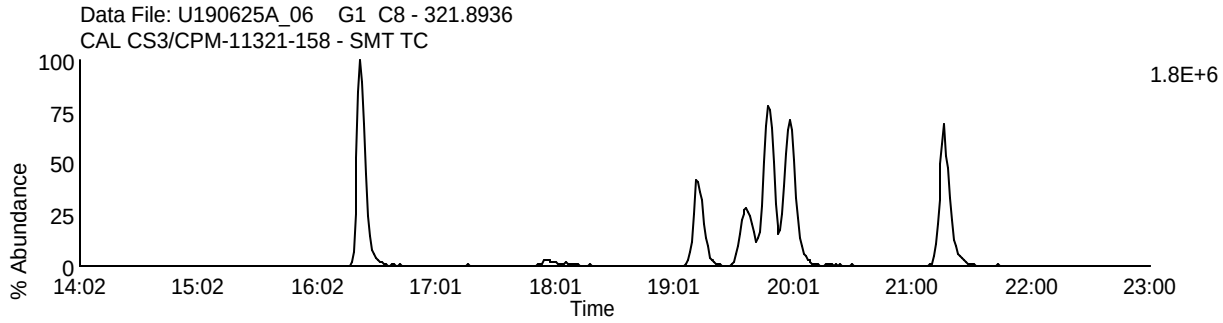


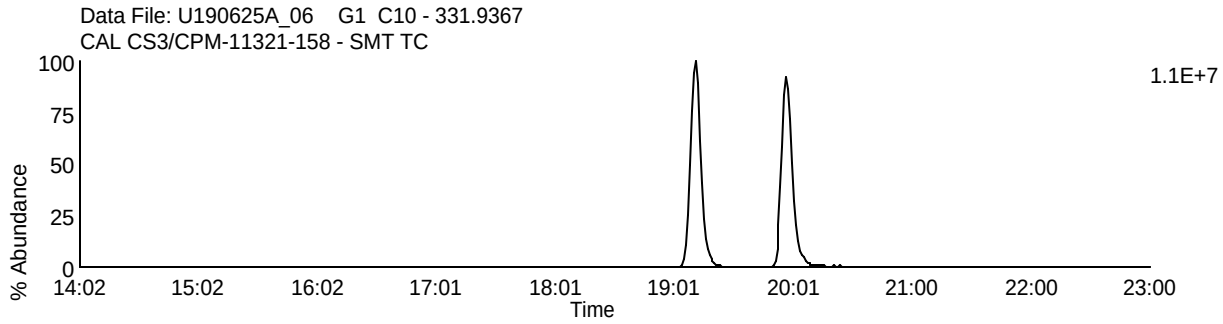
Homologue Group: Tetra Dioxins

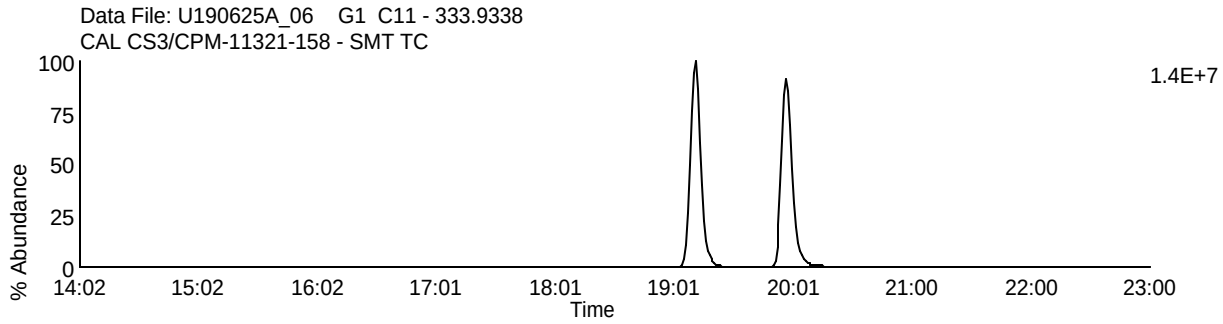
Data File Name: U190625A_06
Date Acquired: 6/25/2019
Sample Description: CAL CS3/CPM-11321-158 - SMT TC

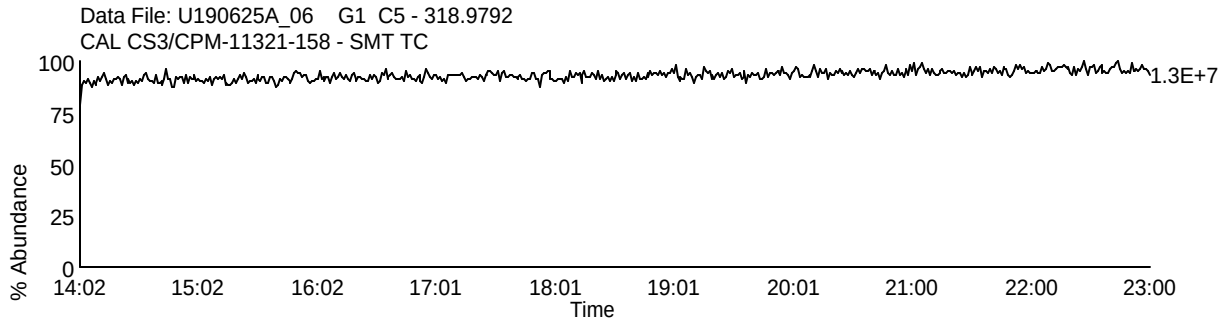
Lab Sample ID: CS3/CPM-11321-158
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)







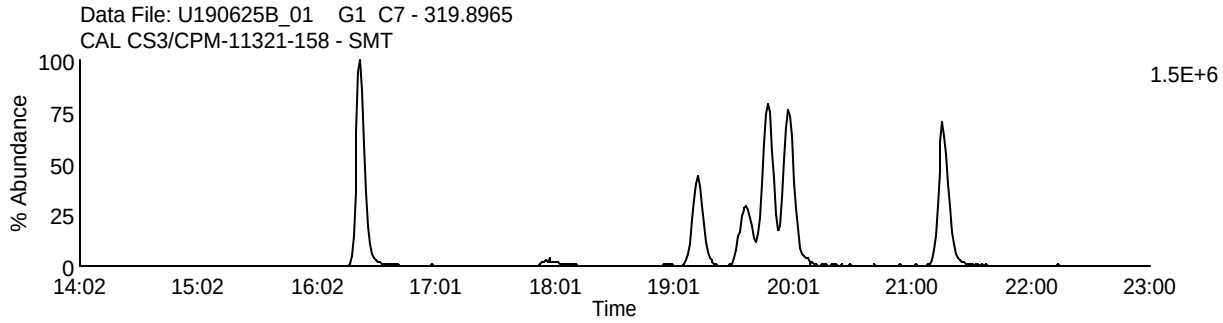


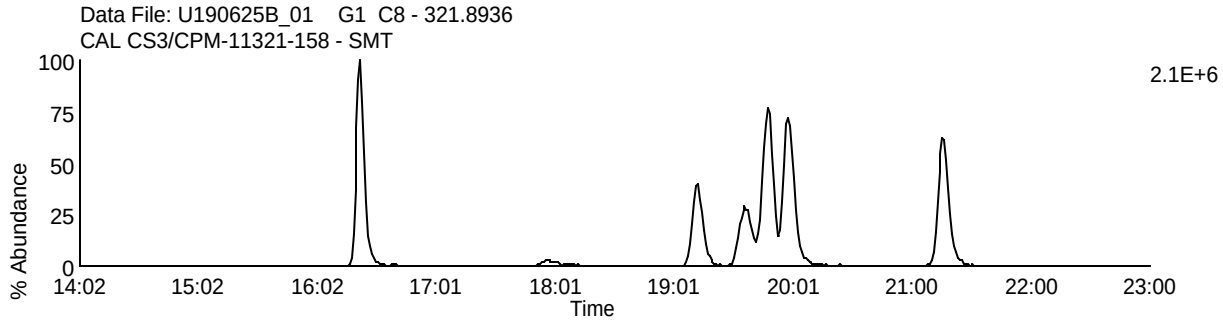


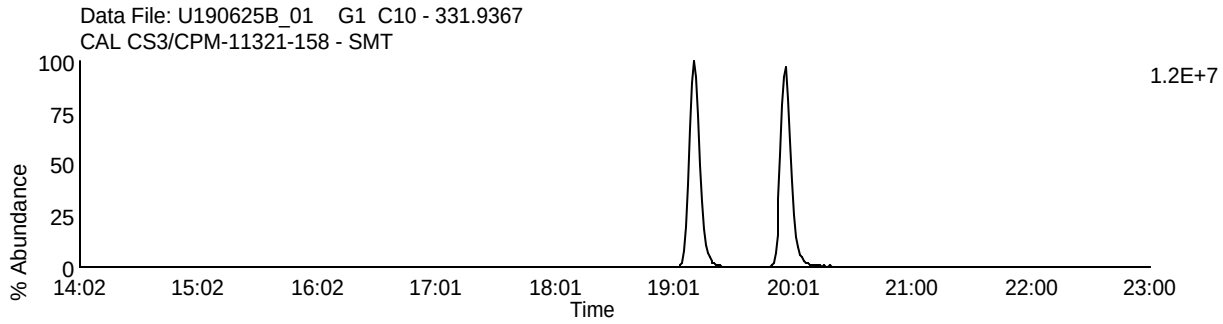
Homologue Group: Tetra Dioxins

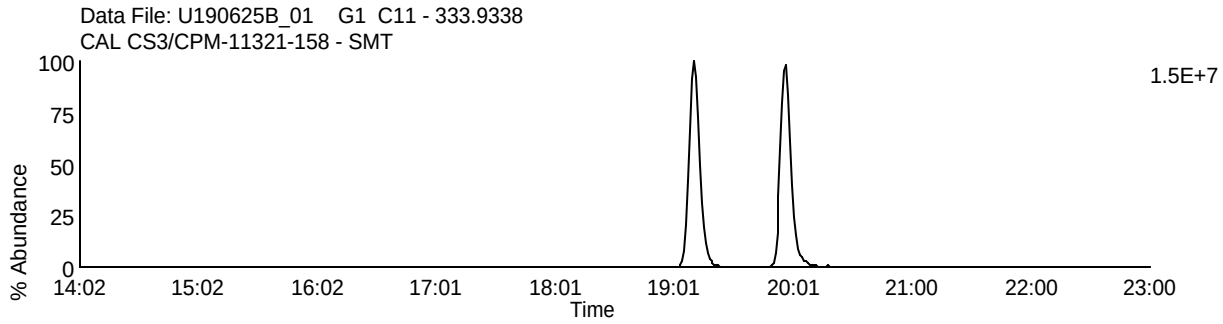
Data File Name: U190625B_01
Date Acquired: 6/25/2019
Sample Description: CAL CS3/CPM-11321-158 - SMT

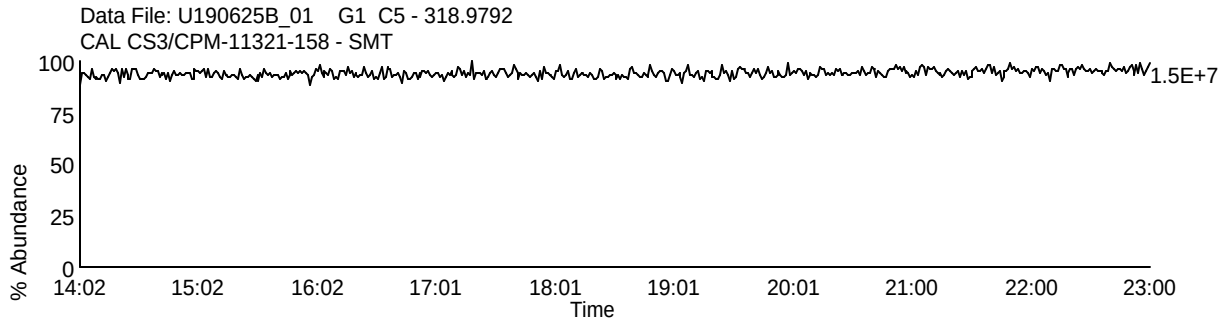
Lab Sample ID: CS3/CPM-11321-158
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

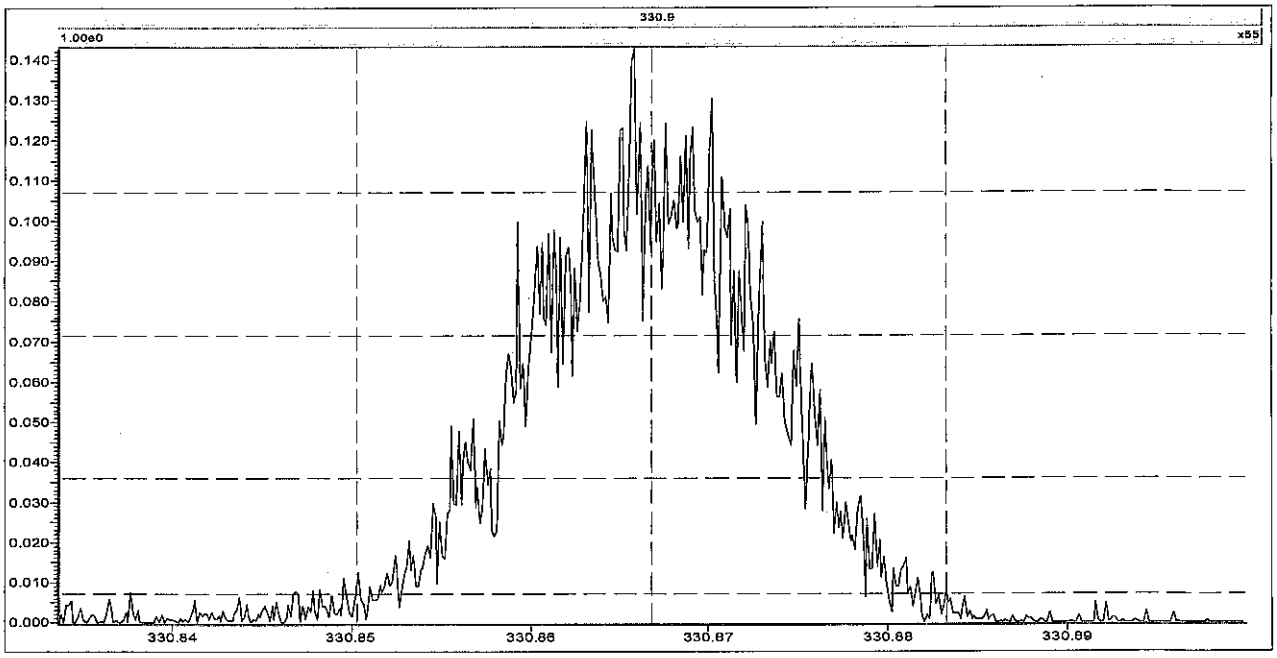










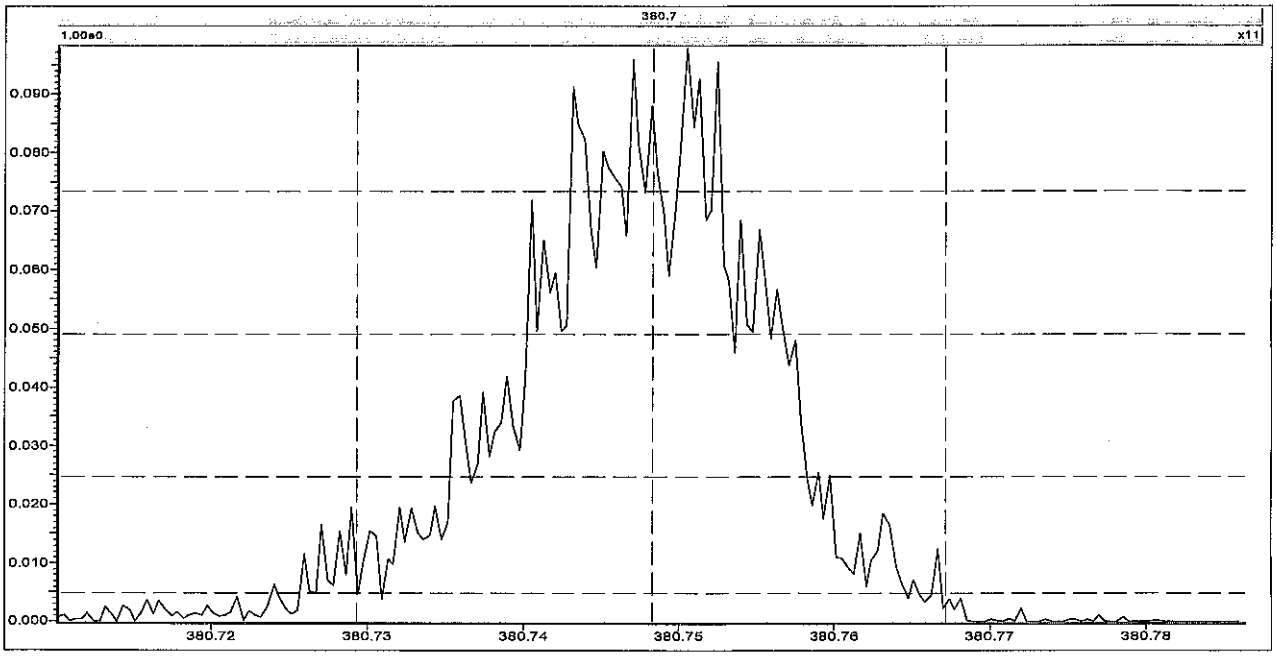


Source (EI+)

Ion Repeller (V)	-4.62
Focus 1	293
Beam Centre	-18.4
Focus 2	4463
Temperature (C)	280
Elec Energy (eV)	35.0
Trap Current (uA)	500.0
Y Deflect 1	-121.1
Z Deflect 1	-19.6
Z Deflect 2	-14.6
Z Focus 2	2490
Z Focus 3	0
Z Deflect 3	-11.4
Y Focus	3383
Rotate 2	-2.2
Curve 2	21.9
Curve 3	4.9
Rotate 3	-33.4
Rotate 4	-49.5
V Acc (V)	7035.81
Magnet Mass	330.9
Source Slit	42.06
Collector Slit	18.02
MIKES Slit	100.00
Alpha	75.00
Detector Voltage	350
Ion Energy	-8.20
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

Engineer
No information



Source (EI+)

Ion Repeller (V)	-4.62
Focus 1	293
Beam Centre	-18.4
Focus 2	4463
Temperature (C)	280
Elec Energy (eV)	35.0
Trap Current (uA)	500.0
Y Deflect 1	-121.1
Z Deflect 1	-19.6
Z Deflect 2	-14.6
Z Focus 2	2490
Z Focus 3	0
Z Deflect 3	-11.4
Y Focus	3383
Rotate 2	-2.2
Curve 2	21.9
Curve 3	4.9
Rotate 3	-33.4
Rotate 4	-49.5
V Acc (V)	7042.14
Magnet Mass	330.9
Source Slit	42.06
Collector Slit	18.02
MIKES Slit	100.00
Alpha	75.00
Detector Voltage	350
Ion Energy	-8.20
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

Engineer
No information

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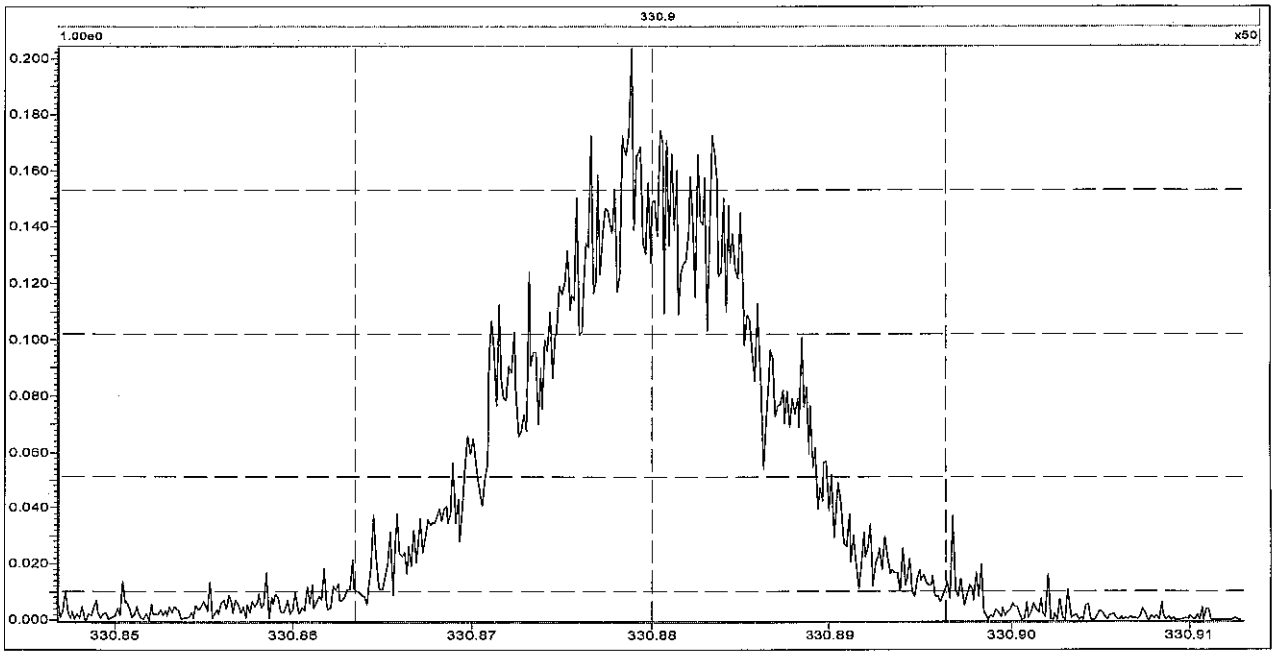

Source (EI+)

Ion Repeller (V)	-6.50
Focus 1	552
Beam Centre	-17.6
Focus 2	4445
Temperature (C)	280
Elec Energy (eV)	35.0
Trap Current (uA)	500.0
Y Deflect 1	-116.2
Z Deflect 1	-22.7
Z Deflect 2	-12.5
Z Focus 2	2350
Z Focus 3	0
Z Deflect 3	-5.4
Y Focus	3344
Rotate 2	-9.5
Curve 2	24.9
Curve 3	6.1
Rotate 3	-15.4
Rotate 4	2.4
V Acc (V)	7038.39
Magnet Mass	330.9
Source Slit	41.66
Collector Slit	17.68
MIKES Slit	100.00
Alpha	75.00
Detector Voltage	350
Ion Energy	-8.20
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

Engineer
No information

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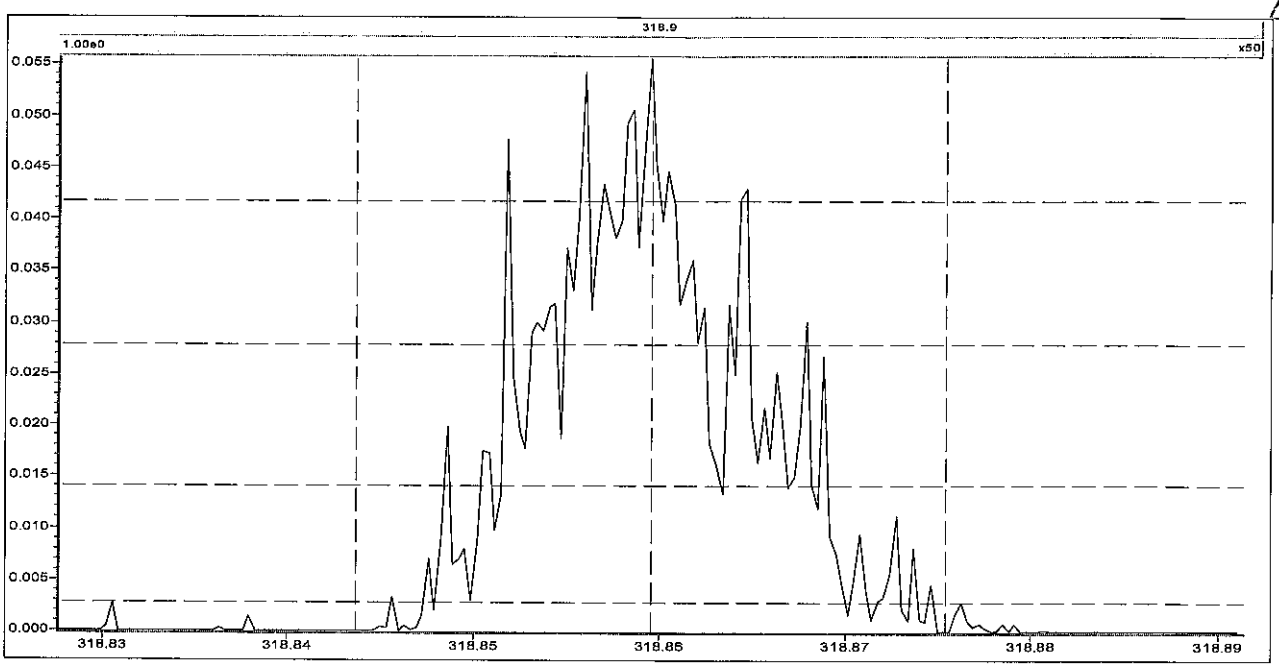

Source (EI+)

Ion Repeller (V)	-6.50
Focus 1	552
Beam Centre	-17.6
Focus 2	4445
Temperature (C)	280
Elec Energy (eV)	35.0
Trap Current (uA)	500.0
Y Deflect 1	-116.2
Z Deflect 1	-22.7
Z Deflect 2	-12.5
Z Focus 2	2350
Z Focus 3	0
Z Deflect 3	-5.4
Y Focus	3344
Rotate 2	-9.5
Curve 2	24.9
Curve 3	6.1
Rotate 3	-15.4
Rotate 4	2.4
V Acc (V)	7038.51
Magnet Mass	330.9
Source Slit	41.66
Collector Slit	17.68
MIKES Slit	100.00
Alpha	75.00
Detector Voltage	350
Ion Energy	-8.20
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

Engineer
No information

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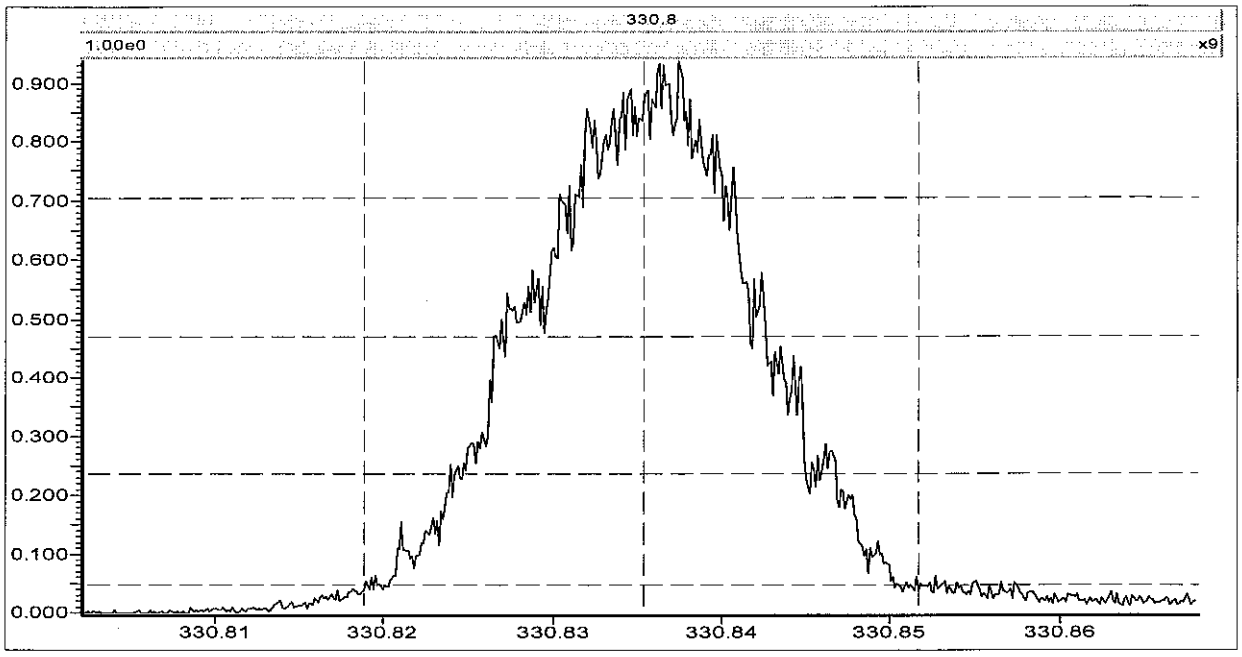

Source (EI+)

Ion Repeller (V)	-5.93
Focus 1	493
Beam Centre	33.4
Focus 2	4520
Temperature (C)	280
Elec Energy (eV)	35.0
Trap Current (uA)	500.0
Y Deflect 1	-48.9
Z Deflect 1	-50.5
Z Deflect 2	-4.3
Z Focus 2	2250
Z Focus 3	0
Z Deflect 3	1.1
Y Focus	3919
Rotate 2	-14.8
Curve 2	-2.9
Curve 3	-8.2
Rotate 3	2.0
Rotate 4	6.3
V Acc (V)	7000.86
Magnet Mass	330.8
Source Slit	19.64
Collector Slit	15.68
MIKES Slit	100.00
Alpha	65.00
Detector Voltage	350
Ion Energy	-20.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

Engineer
No information

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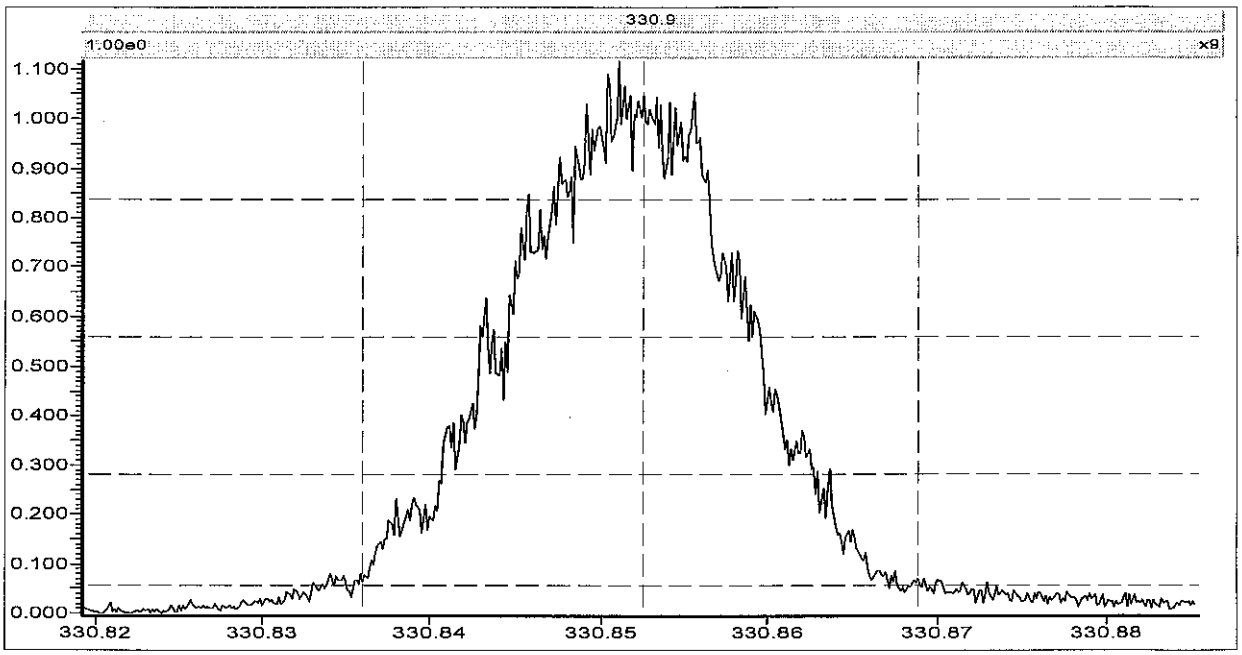

Source (EI+)

Ion Repeller (V)	-5.93
Focus 1	493
Beam Centre	33.4
Focus 2	4520
Temperature (C)	280
Elec Energy (eV)	35.0
Trap Current (uA)	500.0
Y Deflect 1	-48.9
Z Deflect 1	-50.5
Z Deflect 2	-4.3
Z Focus 2	2250
Z Focus 3	0
Z Deflect 3	1.1
Y Focus	3919
Rotate 2	-14.8
Curve 2	-2.9
Curve 3	-8.2
Rotate 3	2.0
Rotate 4	6.3
V Acc (V)	7000.49
Magnet Mass	330.9
Source Slit	19.64
Collector Slit	15.68
MIKES Slit	100.00
Alpha	65.00
Detector Voltage	350
Ion Energy	-20.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

Engineer
No information

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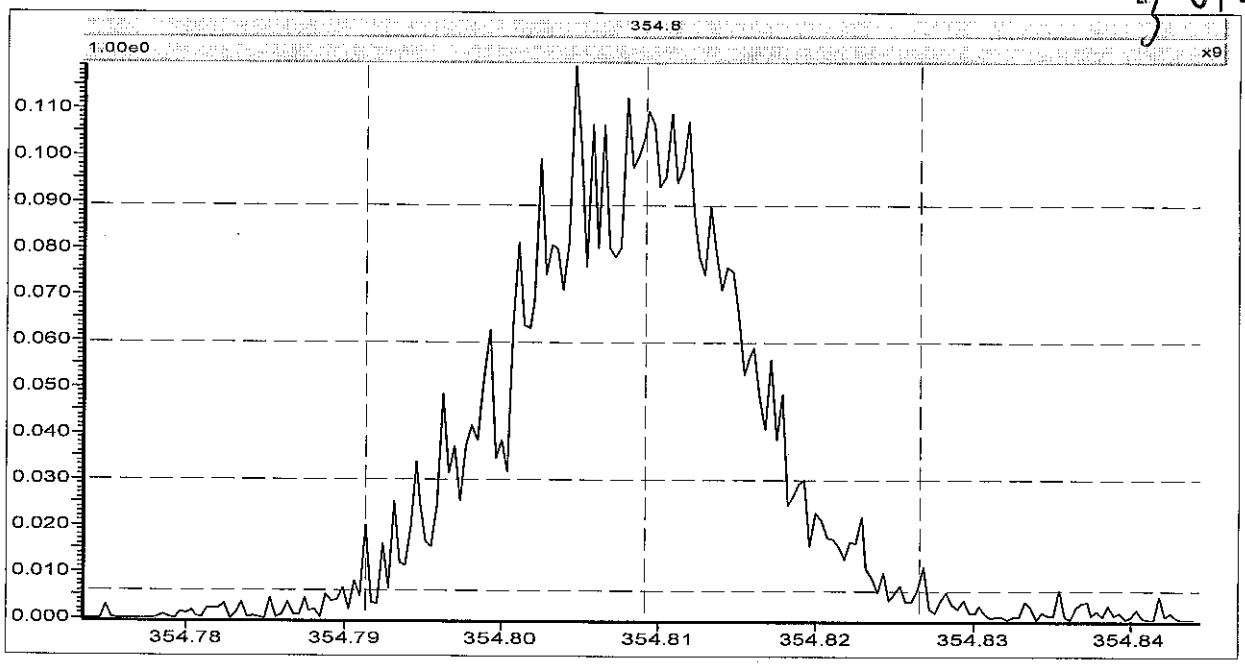
06/26/19

06/26/19



Source (EI+)

Ion Repeller (V)	-5.93
Focus 1	493
Beam Centre	33.4
Focus 2	4520
Temperature (C)	280
Elec Energy (eV)	35.0
Trap Current (uA)	500.0
Y Deflect 1	-48.9
Z Deflect 1	-50.5
Z Deflect 2	-4.3
Z Focus 2	2250
Z Focus 3	0
Z Deflect 3	1.1
Y Focus	3919
Rotate 2	-14.8
Curve 2	-2.9
Curve 3	-8.2
Rotate 3	2.0
Rotate 4	6.3
V Acc (V)	7000.57
Magnet Mass	330.8
Source Slit	19.64
Collector Slit	15.68
MIKES Slit	100.00
Alpha	65.00
Detector Voltage	350
Ion Energy	-20.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

Engineer
No information

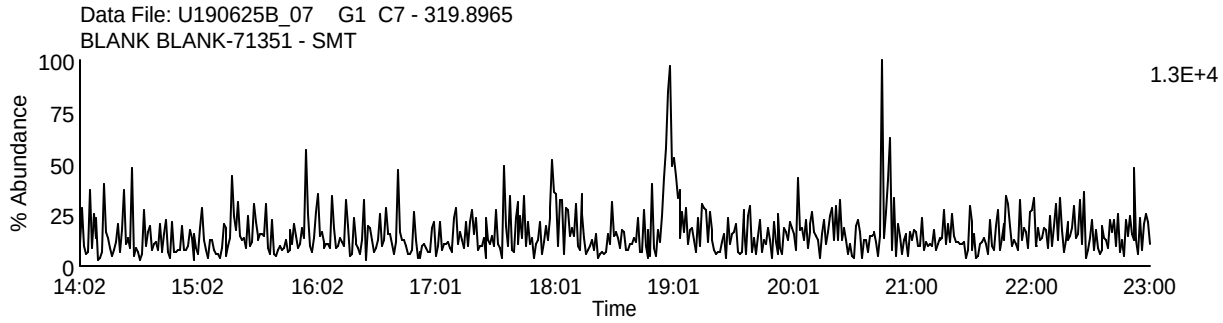
Appendix F

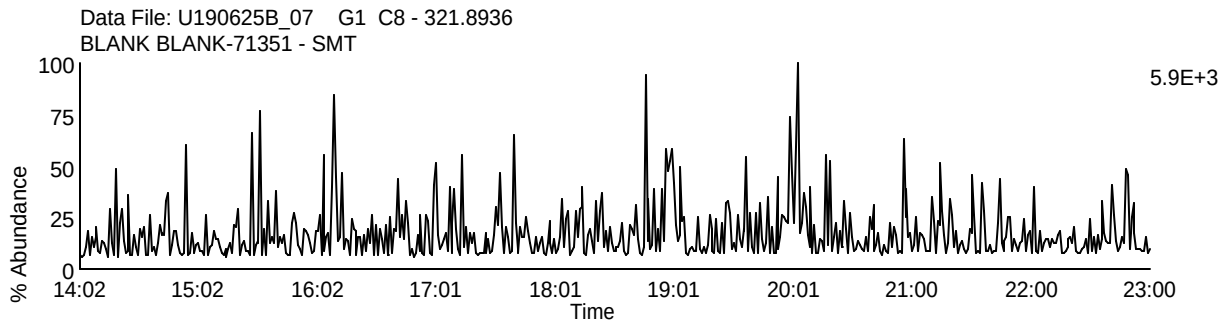
QC Raw Data

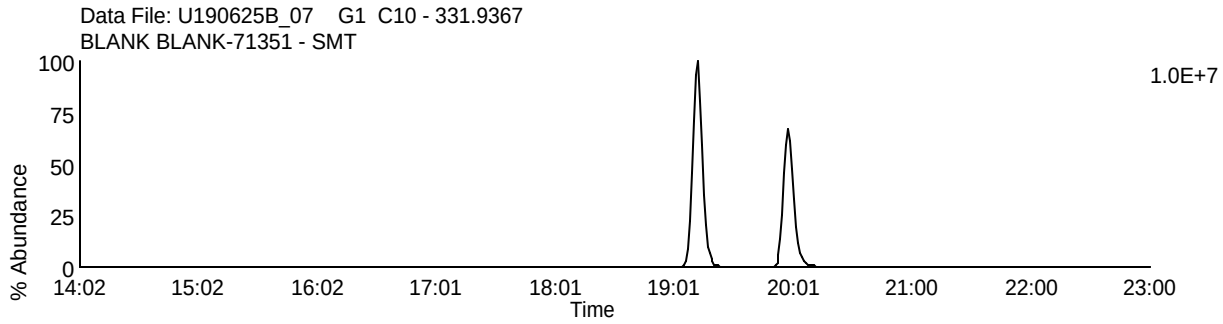
Homologue Group: Tetra Dioxins

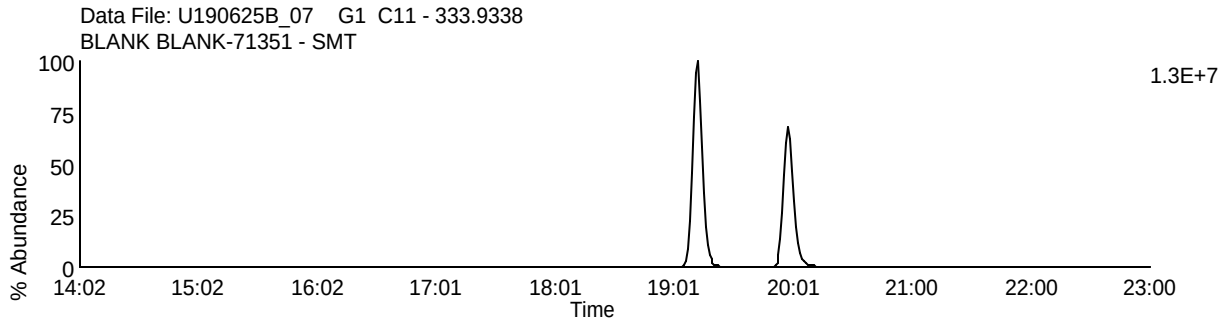
Data File Name: U190625B_07
Date Acquired: 6/25/2019
Sample Description: BLANK BLANK-71351 - SMT

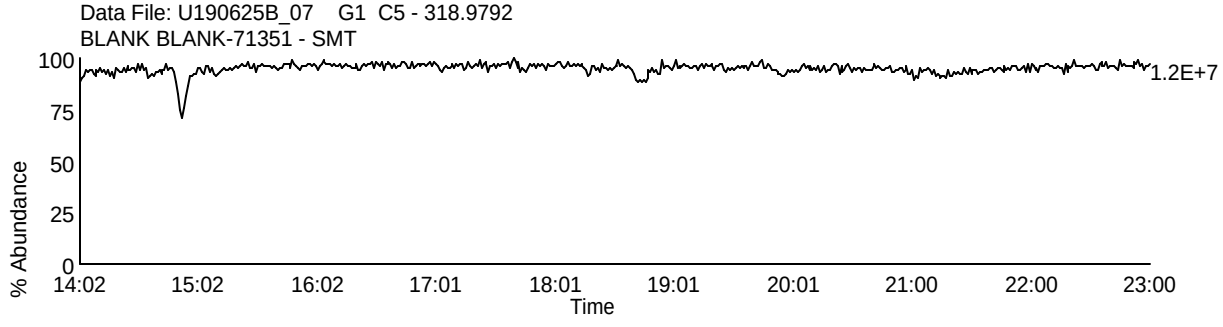
Lab Sample ID: BLANK-71351
Client Sample ID: DFBLKEY
Instrument: 10MSHR06 (U)







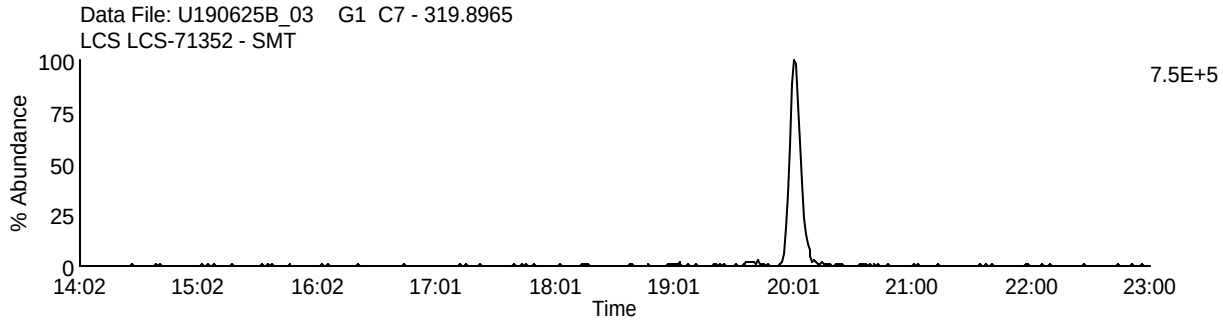


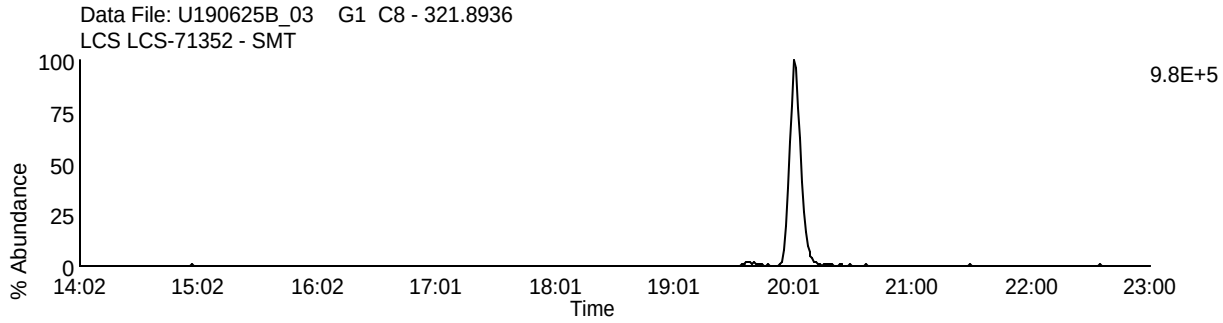


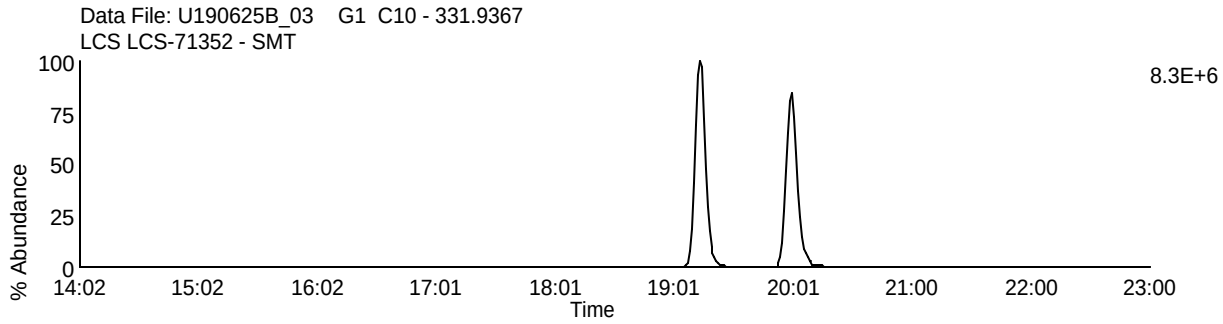
Homologue Group: Tetra Dioxins

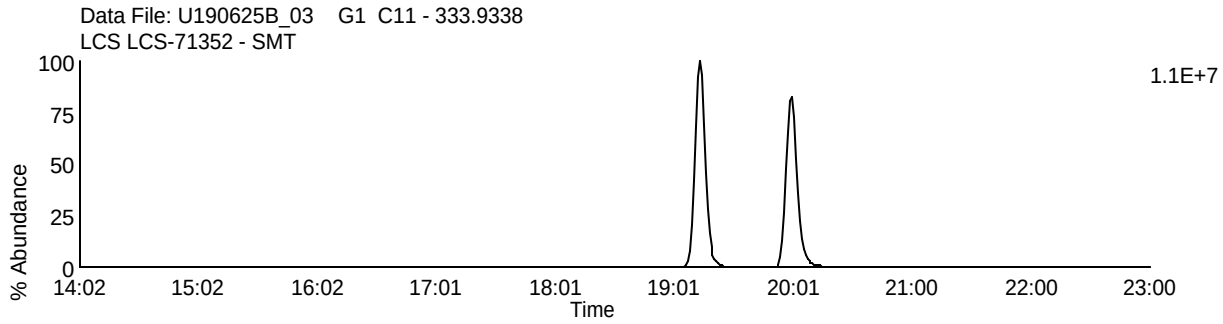
Data File Name: U190625B_03
Date Acquired: 6/25/2019
Sample Description: LCS LCS-71352 - SMT

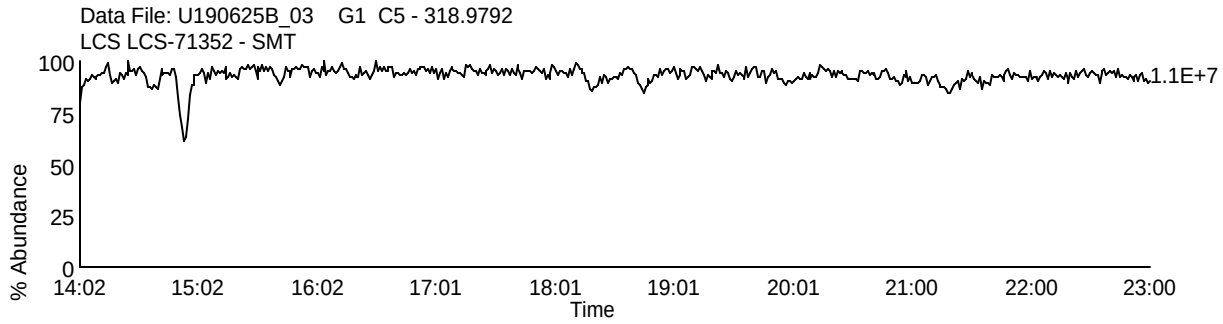
Lab Sample ID: LCS-71352
Client Sample ID: DLCSSK
Instrument: 10MSHR06 (U)







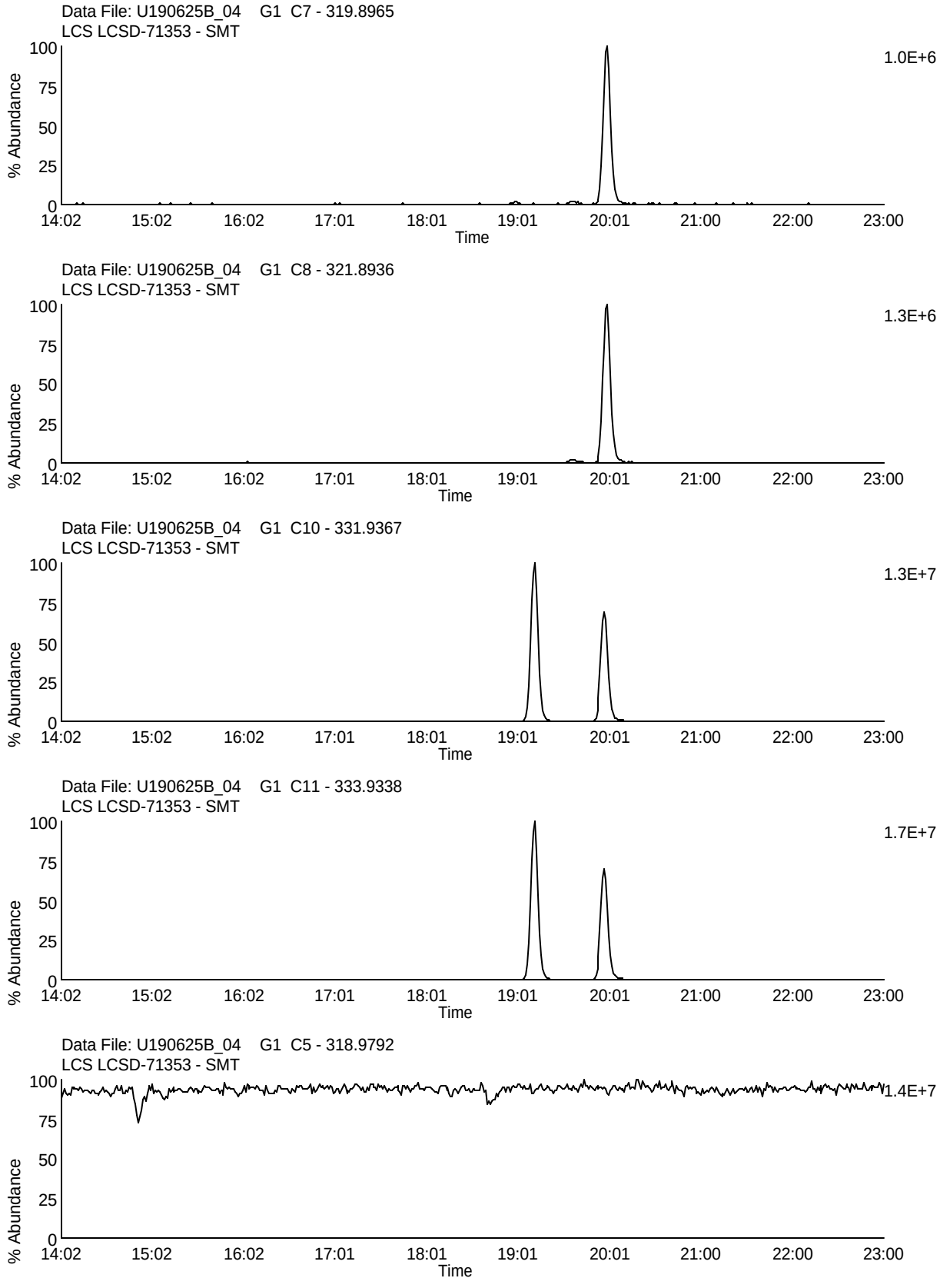




Homologue Group: Tetra Dioxins

Data File Name: U190625B_04
Date Acquired: 6/25/2019
Sample Description: LCS LCSD-71353 - SMT

Lab Sample ID: LCSD-71353
Client Sample ID: DLCSSL
Instrument: 10MSHR06 (U)



Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

TCDD Detected Peak List

Client ID	DFBLKEY	Injected By	SMT
Lab ID	BLANK-71351	Instrument ID	10MSHR06 (U)
Filename	U190625B_07	GC Column ID	1010640
Analyzed	06/25/2019 21:19	ICAL ID	U190625

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	19:13	5.45e7	6.86e7	1.02e7	1.28e7	5.966e3	2.989e3	0.79	
2,3,7,8-TCDD-13C	19:59	3.96e7	4.88e7	6.80e6	8.64e6	6.924e3	7.216e3	0.81	
2,3,7,8-TCDD-37Cl4	20:00	1.24e7		2.11e6		2.369e3	-----		
2,3,7,8-TCDD	19:60	ND	ND	ND	ND	2.410e3	8.322e2		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

TCDD Detected Peak List

Client ID	DLCSSK	Injected By	SMT
Lab ID	LCS-71352	Instrument ID	10MSHR06 (U)
Filename	U190625B_03	GC Column ID	1010640
Analyzed	06/25/2019 18:26	ICAL ID	U190625

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	19:14	4.85e7	6.10e7	8.23e6	1.05e7	-----	-----	0.80	
2,3,7,8-TCDD-13C	20:00	4.33e7	5.45e7	6.95e6	8.68e6	-----	-----	0.79	
2,3,7,8-TCDD-37Cl4	20:02	1.21e7		1.94e6		-----	-----		
2,3,7,8-TCDD	20:01	4.61e6	6.04e6	7.51e5	9.75e5	-----	-----	0.76	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

TCDD Detected Peak List

Client ID	DLCSSL	Injected By	SMT
Lab ID	LCSD-71353	Instrument ID	10MSHR06 (U)
Filename	U190625B_04	GC Column ID	1010640
Analyzed	06/25/2019 19:10	ICAL ID	U190625

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	19:12	6.82e7	8.49e7	1.31e7	1.66e7	-----	-----	0.80	
2,3,7,8-TCDD-13C	19:58	5.02e7	6.41e7	9.06e6	1.16e7	-----	-----	0.78	
2,3,7,8-TCDD-37Cl4	19:60	1.40e7		2.57e6		-----	-----		
2,3,7,8-TCDD	19:60	5.51e6	6.88e6	1.02e6	1.26e6	-----	-----	0.80	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

July 22, 2019

Joe Guarino
Town of Babylon
281 Phelps Lane
North Babylon, NY 11703

RE: Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Dear Joe Guarino:
Enclosed are the analytical results for sample(s) received by the laboratory between June 10, 2019 and June 11, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

REVISION 1: Report re-issued on 7/18/19 for updated qualifiers in the case narrative.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jennifer Aracri
jennifer.aracri@pacelabs.com
(631)694-3040
Project Manager

Enclosures

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

CERTIFICATIONS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Minnesota Certification IDs

1700 Elm Street SE, Minneapolis, MN 55414-2485
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #: MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Certifcation #: via MN 027-053-137
Minnesota Petrofund Certification #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01

Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747
New York Certification #: 10478 Primary Accrediting Body
New Jersey Certification #: NY158
Pennsylvania Certification #: 68-00350
Connecticut Certification #: PH-0435
Maryland Certification #: 208
Rhode Island Certification #: LAO00340
Massachusetts Certification #: M-NY026
New Hampshire Certification #: 2987

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575 Broad Hollow Road
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SAMPLE ANALYTE COUNT

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
7092926001	**NNU PLCRS**	EPA 6010C	JMW	23	PACE-MV
		EPA 7470A	JLN	1	PACE-MV
		EPA 8270D by SIM	STB	2	PASI-M
		EPA 8260C/5030C	KGG	53	PACE-MV
		SM22 2120B	KM1	2	PACE-MV
		SM22 2320B	AK1	1	PACE-MV
		SM22 2340C	AK1	1	PACE-MV
		SM22 2540C	KS1	1	PACE-MV
		SM22 3500-Cr B	KM1	1	PACE-MV
		EPA 410.4	JCA	1	PACE-MV
		SM22 5210B	VNS	1	PACE-MV
		EPA 9034	JM3	1	PACE-MV
		EPA 300.0	BNK	3	PACE-MV
		EPA 351.2	SDO	1	PACE-MV
		EPA 353.2	SDO	2	PACE-MV
		EPA 353.2	SDO	1	PACE-MV
		SM22 4500 NH3 H	BNK	1	PACE-MV
		EPA 9014 Total Cyanide	JM3	1	PACE-MV
		EPA 9060A	KM1	5	PACE-MV
7092926002	**NNU SLCRS**	EPA 6010C	JMW	23	PACE-MV
		EPA 7470A	JLN	1	PACE-MV
		EPA 8270D by SIM	STB	2	PASI-M
		EPA 8260C/5030C	KGG	52	PACE-MV
		SM22 2120B	KM1	2	PACE-MV
		SM22 2320B	AK1	1	PACE-MV
		SM22 2340C	AK1	1	PACE-MV
		SM22 2540C	KS1	1	PACE-MV
		SM22 3500-Cr B	KM1	1	PACE-MV
		EPA 410.4	JCA	1	PACE-MV
		SM22 5210B	VNS	1	PACE-MV
		EPA 9034	JM3	1	PACE-MV
		EPA 300.0	BNK	3	PACE-MV
		EPA 351.2	SDO	1	PACE-MV
		EPA 353.2	SDO	2	PACE-MV
		EPA 353.2	SDO	1	PACE-MV
		SM22 4500 NH3 H	BNK	1	PACE-MV
		EPA 9014 Total Cyanide	JM3	1	PACE-MV

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SAMPLE ANALYTE COUNT

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 9060A	KM1	5	PACE-MV
7092926003	**ONU SLCRS**	EPA 6010C	JMW	23	PACE-MV
		EPA 7470A	JLN	1	PACE-MV
		EPA 8270D by SIM	STB	2	PASI-M
		EPA 8260C/5030C	KGG	50	PACE-MV
		SM22 2120B	KM1	2	PACE-MV
		SM22 2320B	AK1	1	PACE-MV
		SM22 2340C	AK1	1	PACE-MV
		SM22 2540C	KS1	1	PACE-MV
		SM22 3500-Cr B	KM1	1	PACE-MV
		EPA 410.4	JCA	1	PACE-MV
		SM22 5210B	VNS	1	PACE-MV
		EPA 9034	JM3	1	PACE-MV
		EPA 300.0	BNK	3	PACE-MV
		EPA 351.2	SDO	1	PACE-MV
		EPA 353.2	SDO	2	PACE-MV
		EPA 353.2	SDO	1	PACE-MV
		SM22 4500 NH3 H	BNK	1	PACE-MV
		EPA 9014 Total Cyanide	JM3	1	PACE-MV
		EPA 9060A	KM1	5	PACE-MV
7092926004	**STORAGE BLANK**	EPA 8260C/5030C	KGG	50	PACE-MV
7092926005	**SA SLCRS**	EPA 6010C	JMW	23	PACE-MV
		EPA 7470A	JLN	1	PACE-MV
		EPA 8270D by SIM	STB	2	PASI-M
		EPA 8260C/5030C	KGG	51	PACE-MV
		SM22 2120B	KM1	2	PACE-MV
		SM22 2320B	AK1	1	PACE-MV
		SM22 2340C	AK1	1	PACE-MV
		SM22 2540C	KS1	1	PACE-MV
		SM22 3500-Cr B	KM1	1	PACE-MV
		EPA 410.4	JCA	1	PACE-MV
		SM22 5210B	VNS	1	PACE-MV
		EPA 9034	JM3	1	PACE-MV
		EPA 300.0	BNK	3	PACE-MV
		EPA 351.2	SDO	1	PACE-MV
		EPA 353.2	SDO	2	PACE-MV
		EPA 353.2	SDO	1	PACE-MV

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SAMPLE ANALYTE COUNT

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM22 4500 NH3 H	BNK	1	PACE-MV
		EPA 9014 Total Cyanide	JM3	1	PACE-MV
		EPA 9060A	KM1	5	PACE-MV
7092926006	**EQUIPMENT BLANK**	EPA 6010C	JMW	23	PACE-MV
		EPA 7470A	JLN	1	PACE-MV
		EPA 8270D by SIM	STB	2	PASI-M
		EPA 8260C/5030C	KGG	50	PACE-MV
		SM22 2120B	KM1	2	PACE-MV
		SM22 2320B	AK1	1	PACE-MV
		SM22 2340C	AK1	1	PACE-MV
		SM22 2540C	KS1	1	PACE-MV
		SM22 3500-Cr B	KM1	1	PACE-MV
		EPA 410.4	JCA	1	PACE-MV
		SM22 5210B	VNS	1	PACE-MV
		EPA 9034	JM3	1	PACE-MV
		EPA 300.0	BNK	3	PACE-MV
		EPA 351.2	SDO	1	PACE-MV
		EPA 353.2	SDO	2	PACE-MV
		EPA 353.2	SDO	1	PACE-MV
		SM22 4500 NH3 H	BNK	1	PACE-MV
		EPA 9014 Total Cyanide	JM3	1	PACE-MV
		EPA 9060A	KM1	5	PACE-MV
7092926007	**TRIP BLANK**	EPA 8260C/5030C	KGG	50	PACE-MV

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **EPA 6010C**
Description: 6010 MET ICP
Client: Town of Babylon
Date: July 22, 2019

General Information:
5 samples were analyzed for EPA 6010C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3005A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 117595

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7092454017

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 557036)
  - Manganese

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **EPA 7470A**
Description: 7470 Mercury
Client: Town of Babylon
Date: July 22, 2019

General Information:
5 samples were analyzed for EPA 7470A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **EPA 8270D by SIM**
Description: 8270D MSSV 14 Dioxane By SIM
Client: Town of Babylon
Date: July 22, 2019

General Information:
5 samples were analyzed for EPA 8270D by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H2: Extraction or preparation was conducted outside of the recognized method holding time.
- ONU SLCRS (Lab ID: 7092926003)

Sample Preparation:
The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 613318

L2: Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
- LCS (Lab ID: 3314706)
  - 1,4-Dioxane (SIM)
- LCS (Lab ID: 3314707)
  - 1,4-Dioxane (SIM)

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **EPA 8270D by SIM**
Description: 8270D MSSV 14 Dioxane By SIM
Client: Town of Babylon
Date: July 22, 2019

Analyte Comments:

QC Batch: 615153

1j: Reanalysis conducted in excess of EPA method holding time. Reanalysis was required due to over range recoveries in original in hold analysis.

- ONU SLCRS (Lab ID: 7092926003)
  - 1,4-Dioxane-d8 (S)

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: Town of Babylon
Date: July 22, 2019

General Information:
7 samples were analyzed for EPA 8260C/5030C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

QC Batch: 117325

IL: This analyte exceeded secondary source verification criteria low for the initial calibration. The reported results should be considered an estimated value.

- BLANK (Lab ID: 555632)
  - 2-Butanone (MEK)
- DUP (Lab ID: 555693)
  - 2-Butanone (MEK)
- EQUIPMENT BLANK (Lab ID: 7092926006)
  - 2-Butanone (MEK)
- LCS (Lab ID: 555633)
  - 2-Butanone (MEK)
- MS (Lab ID: 555694)
  - 2-Butanone (MEK)
- NNU PLCRS (Lab ID: 7092926001)
  - 2-Butanone (MEK)
- NNU SLCRS (Lab ID: 7092926002)
  - 2-Butanone (MEK)
- ONU SLCRS (Lab ID: 7092926003)
  - 2-Butanone (MEK)
- SA SLCRS (Lab ID: 7092926005)
  - 2-Butanone (MEK)
- STORAGE BLANK (Lab ID: 7092926004)
  - 2-Butanone (MEK)
- TRIP BLANK (Lab ID: 7092926007)
  - 2-Butanone (MEK)

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 117325

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- BLANK (Lab ID: 555632)
  - 2-Hexanone
  - Acetone
  - Tetrachloroethene
- DUP (Lab ID: 555693)

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: Town of Babylon
Date: July 22, 2019

QC Batch: 117325

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- 2-Hexanone
- Acetone
- Tetrachloroethene

- EQUIPMENT BLANK (Lab ID: 7092926006)
  - 2-Hexanone
  - Acetone
  - Tetrachloroethene
- LCS (Lab ID: 555633)
  - 2-Hexanone
  - Acetone
  - Tetrachloroethene
- MS (Lab ID: 555694)
  - 2-Hexanone
  - Acetone
  - Tetrachloroethene
- NNU PLCRS (Lab ID: 7092926001)
  - 2-Hexanone
  - Acetone
  - Tetrachloroethene
- NNU SLCRS (Lab ID: 7092926002)
  - 2-Hexanone
  - Acetone
  - Tetrachloroethene
- ONU SLCRS (Lab ID: 7092926003)
  - 2-Hexanone
  - Acetone
  - Tetrachloroethene
- SA SLCRS (Lab ID: 7092926005)
  - 2-Hexanone
  - Acetone
  - Tetrachloroethene
- STORAGE BLANK (Lab ID: 7092926004)
  - 2-Hexanone
  - Acetone
  - Tetrachloroethene
- TRIP BLANK (Lab ID: 7092926007)
  - 2-Hexanone
  - Acetone
  - Tetrachloroethene

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: Town of Babylon
Date: July 22, 2019

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **SM22 2120B**
Description: 2120B W Apparent Color
Client: Town of Babylon
Date: July 22, 2019

General Information:
5 samples were analyzed for SM22 2120B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **SM22 2320B**
Description: 2320B Alkalinity
Client: Town of Babylon
Date: July 22, 2019

General Information:
5 samples were analyzed for SM22 2320B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **SM22 2340C**
Description: 2340C Hardness, Total
Client: Town of Babylon
Date: July 22, 2019

General Information:
5 samples were analyzed for SM22 2340C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **SM22 2540C**
Description: 2540C Total Dissolved Solids
Client: Town of Babylon
Date: July 22, 2019

General Information:
5 samples were analyzed for SM22 2540C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 117745

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7092852006,7092927004

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 557801)
  - Total Dissolved Solids

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: 118003

D6: The precision between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 559705)
  - Total Dissolved Solids

Additional Comments:

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **SM22 3500-Cr B**
Description: Chromium, Hexavalent
Client: Town of Babylon
Date: July 22, 2019

General Information:
5 samples were analyzed for SM22 3500-Cr B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **EPA 410.4**
Description: 410.4 COD
Client: Town of Babylon
Date: July 22, 2019

General Information:
5 samples were analyzed for EPA 410.4. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 410.4 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: 117776

D6: The precision between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 557835)
  - Chemical Oxygen Demand

Additional Comments:

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **SM22 5210B**
Description: 5210B BOD, 5 day
Client: Town of Babylon
Date: July 22, 2019

General Information:
5 samples were analyzed for SM22 5210B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with SM22 5210B with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **EPA 9034**
Description: 9034 Sulfide, Titration
Client: Town of Babylon
Date: July 22, 2019

General Information:
5 samples were analyzed for EPA 9034. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 9030B with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Town of Babylon
Date: July 22, 2019

General Information:
5 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: 119376

D6: The precision between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 567395)
  - Chloride
  - Sulfate

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **EPA 351.2**
Description: 351.2 Total Kjeldahl Nitrogen
Client: Town of Babylon
Date: July 22, 2019

General Information:
5 samples were analyzed for EPA 351.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 351.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 119268

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7092926001,7093723002

M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

- MS (Lab ID: 566777)
  - Nitrogen, Kjeldahl, Total

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: 119268

D6: The precision between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 566780)
  - Nitrogen, Kjeldahl, Total

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2/NO3 unpres
Client: Town of Babylon
Date: July 22, 2019

General Information:
5 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 117328

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7093035001,7093139001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 555675)
  - Nitrate-Nitrite (as N)

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
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Melville, NY 11747
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PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2
Client: Town of Babylon
Date: July 22, 2019

General Information:
5 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 117107

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7092854001,7092926001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 554581)
  - Nitrite as N

QC Batch: 117321

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7092953001,7093040001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 555464)
  - Nitrite as N
- MS (Lab ID: 555466)
  - Nitrite as N

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
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PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **SM22 4500 NH3 H**
Description: 4500 Ammonia Water
Client: Town of Babylon
Date: July 22, 2019

General Information:
5 samples were analyzed for SM22 4500 NH3 H. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 119281

B: Analyte was detected in the associated method blank.
- BLANK for HBN 119281 [WETA/191 (Lab ID: 566889)
  - Nitrogen, Ammonia

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 119281

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7093468001

M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
- MS (Lab ID: 566891)
  - Nitrogen, Ammonia

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: 119281

D6: The precision between the sample and sample duplicate exceeded laboratory control limits.
- DUP (Lab ID: 566892)
  - Nitrogen, Ammonia

Additional Comments:

Pace Analytical Services, LLC
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Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **EPA 9014 Total Cyanide**
Description: 9014 Cyanide, Total
Client: Town of Babylon
Date: July 22, 2019

General Information:
5 samples were analyzed for EPA 9014 Total Cyanide. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 9010C with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Method: **EPA 9060A**
Description: 9060A TOC as NPOC
Client: Town of Babylon
Date: July 22, 2019

General Information:
5 samples were analyzed for EPA 9060A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 118775

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7092926001

M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

- MS (Lab ID: 564529)
  - Mean Total Organic Carbon
  - Total Organic Carbon

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: NNU PLCRS **Lab ID: 7092926001** Collected: 06/10/19 13:10 Received: 06/10/19 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A							
Aluminum	**507**	ug/L	200	1	06/13/19 09:04	06/24/19 21:28	7429-90-5	
Antimony	**<60.0**	ug/L	60.0	1	06/13/19 09:04	06/24/19 21:28	7440-36-0	
Arsenic	**<200**	ug/L	200	20	06/13/19 09:04	06/25/19 15:04	7440-38-2	
Barium	**2740**	ug/L	200	1	06/13/19 09:04	06/24/19 21:28	7440-39-3	
Beryllium	**2.3J**	ug/L	100	20	06/13/19 09:04	06/25/19 15:04	7440-41-7	
Boron	**5280**	ug/L	50.0	1	06/13/19 09:04	06/24/19 21:28	7440-42-8	
Cadmium	**<50.0**	ug/L	50.0	20	06/13/19 09:04	06/25/19 15:04	7440-43-9	
Calcium	**12400000**	ug/L	4000	20	06/13/19 09:04	06/25/19 15:04	7440-70-2	
Chromium	**69.8**	ug/L	10.0	1	06/13/19 09:04	06/24/19 21:28	7440-47-3	
Cobalt	**9.8J**	ug/L	50.0	1	06/13/19 09:04	06/24/19 21:28	7440-48-4	
Copper	**8.1J**	ug/L	25.0	1	06/13/19 09:04	06/24/19 21:28	7440-50-8	
Iron	**452**	ug/L	20.0	1	06/13/19 09:04	06/24/19 21:28	7439-89-6	
Lead	**71.6**	ug/L	5.0	1	06/13/19 09:04	06/24/19 21:28	7439-92-1	
Magnesium	**3490**	ug/L	200	1	06/13/19 09:04	06/24/19 21:28	7439-95-4	
Manganese	**136**	ug/L	10.0	1	06/13/19 09:04	06/24/19 21:28	7439-96-5	
Nickel	**<40.0**	ug/L	40.0	1	06/13/19 09:04	06/24/19 21:28	7440-02-0	
Potassium	**4900000**	ug/L	100000	20	06/13/19 09:04	06/25/19 15:04	7440-09-7	
Selenium	**167J**	ug/L	200	20	06/13/19 09:04	06/25/19 15:04	7782-49-2	
Silver	**<10.0**	ug/L	10.0	1	06/13/19 09:04	06/24/19 21:28	7440-22-4	
Sodium	**12600000**	ug/L	100000	20	06/13/19 09:04	06/25/19 15:04	7440-23-5	
Thallium	**23.5**	ug/L	10.0	1	06/13/19 09:04	06/24/19 21:28	7440-28-0	
Vanadium	**<50.0**	ug/L	50.0	1	06/13/19 09:04	06/24/19 21:28	7440-62-2	
Zinc	**121J**	ug/L	400	20	06/13/19 09:04	06/25/19 15:04	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	**0.13J**	ug/L	0.20	1	06/21/19 10:50	06/21/19 16:31	7439-97-6	
8270D MSSV 14 Dioxane By SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510							
1,4-Dioxane (SIM)	**4.8**	ug/L	0.25	1	06/17/19 12:55	06/21/19 13:28	123-91-1	
Surrogates								
1,4-Dioxane-d8 (S)	48	%.	30-125	1	06/17/19 12:55	06/21/19 13:28		
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Acetone	**110**	ug/L	5.0	1		06/12/19 01:01	67-64-1	CL
Acrylonitrile	**<1.0**	ug/L	1.0	1		06/12/19 01:01	107-13-1	
Benzene	**<1.0**	ug/L	1.0	1		06/12/19 01:01	71-43-2	
Bromochloromethane	**<1.0**	ug/L	1.0	1		06/12/19 01:01	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		06/12/19 01:01	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		06/12/19 01:01	75-25-2	
Bromomethane	**<1.0**	ug/L	1.0	1		06/12/19 01:01	74-83-9	
2-Butanone (MEK)	**6.2**	ug/L	5.0	1		06/12/19 01:01	78-93-3	IL
Carbon disulfide	**<1.0**	ug/L	1.0	1		06/12/19 01:01	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		06/12/19 01:01	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		06/12/19 01:01	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		06/12/19 01:01	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		06/12/19 01:01	67-66-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: NNU PLCRS **Lab ID: 7092926001** Collected: 06/10/19 13:10 Received: 06/10/19 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Chloromethane	**<1.0**	ug/L	1.0	1		06/12/19 01:01	74-87-3	
1,2-Dibromo-3-chloropropane	**<1.0**	ug/L	1.0	1		06/12/19 01:01	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		06/12/19 01:01	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		06/12/19 01:01	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		06/12/19 01:01	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/12/19 01:01	95-50-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/12/19 01:01	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1		06/12/19 01:01	110-57-6	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		06/12/19 01:01	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		06/12/19 01:01	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		06/12/19 01:01	75-35-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/12/19 01:01	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/12/19 01:01	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/12/19 01:01	78-87-5	
cis-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		06/12/19 01:01	10061-01-5	
trans-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		06/12/19 01:01	10061-02-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/12/19 01:01	100-41-4	
2-Hexanone	**<5.0**	ug/L	5.0	1		06/12/19 01:01	591-78-6	CL
Iodomethane	**<1.0**	ug/L	1.0	1		06/12/19 01:01	74-88-4	
Methylene Chloride	**<1.0**	ug/L	1.0	1		06/12/19 01:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	**2.5J**	ug/L	5.0	1		06/12/19 01:01	108-10-1	
Styrene	**<1.0**	ug/L	1.0	1		06/12/19 01:01	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/12/19 01:01	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/12/19 01:01	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		06/12/19 01:01	127-18-4	CL
Toluene	**<1.0**	ug/L	1.0	1		06/12/19 01:01	108-88-3	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		06/12/19 01:01	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		06/12/19 01:01	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		06/12/19 01:01	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		06/12/19 01:01	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		06/12/19 01:01	96-18-4	
Vinyl acetate	**<1.0**	ug/L	1.0	1		06/12/19 01:01	108-05-4	
Vinyl chloride	**<1.0**	ug/L	1.0	1		06/12/19 01:01	75-01-4	
Xylene (Total)	**<3.0**	ug/L	3.0	1		06/12/19 01:01	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	103	%	68-153	1		06/12/19 01:01	17060-07-0	
4-Bromofluorobenzene (S)	93	%	79-124	1		06/12/19 01:01	460-00-4	
Toluene-d8 (S)	99	%	69-124	1		06/12/19 01:01	2037-26-5	
Tentatively Identified Compounds								
Methanethiol	**143J**	ug/L		1		06/12/19 01:01	74-93-1	N
Isopropyl Alcohol	**6.5J**	ug/L		1		06/12/19 01:01	67-63-0	N
Silanol, trimethyl-	**12.0J**	ug/L		1		06/12/19 01:01	1066-40-6	N
2120B W Apparent Color	Analytical Method: SM22 2120B							
Apparent Color	**10.0**	units	5.0	1		06/11/19 13:58		
pH	**7.0**	Std. Units	0.10	1		06/11/19 13:58		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: NNU PLCRS **Lab ID: 7092926001** Collected: 06/10/19 13:10 Received: 06/10/19 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM22 2320B							
Alkalinity, Total as CaCO3	**327**	mg/L	1.0	1		06/22/19 00:10		
2340C Hardness, Total	Analytical Method: SM22 2340C							
Tot Hardness asCaCO3 (SM 2340B	**31000**	mg/L	5.0	1		06/24/19 13:46		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C							
Total Dissolved Solids	**79800**	mg/L	40.0	1		06/14/19 11:25		
Chromium, Hexavalent	Analytical Method: SM22 3500-Cr B							
Chromium, Hexavalent	**<0.020**	mg/L	0.020	1		06/11/19 10:54	18540-29-9	
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4							
Chemical Oxygen Demand	**3030**	mg/L	200	1	06/14/19 09:46	06/14/19 12:01		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B							
BOD, 5 day	**861**	mg/L	100	50	06/11/19 15:00	06/16/19 09:46		
9034 Sulfide, Titration	Analytical Method: EPA 9034 Preparation Method: EPA 9030B							
Sulfide	**72.0**	mg/L	2.0	1	06/17/19 07:56	06/17/19 14:27		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Bromide	**926**	mg/L	100	200		06/26/19 20:01	24959-67-9	
Chloride	**<2.0**	mg/L	2.0	1		06/26/19 19:45	16887-00-6	
Sulfate	**15.6**	mg/L	5.0	1		06/26/19 19:45	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**97.9**	mg/L	5.0	10	06/25/19 13:02	06/26/19 07:54	7727-37-9	M6
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrate as N	**0.034J**	mg/L	0.050	1		06/10/19 22:45	14797-55-8	
Nitrate-Nitrite (as N)	**<0.050**	mg/L	0.050	1		06/10/19 22:45	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2							
Nitrite as N	**<0.050**	mg/L	0.050	1		06/10/19 21:00	14797-65-0	M1
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H							
Nitrogen, Ammonia	**109**	mg/L	10.0	100		06/25/19 14:12	7664-41-7	
9014 Cyanide, Total	Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C							
Cyanide	**3.4J**	ug/L	10.0	1	06/18/19 07:57	06/18/19 15:20	57-12-5	
9060A TOC as NPOC	Analytical Method: EPA 9060A							
Total Organic Carbon	**291**	mg/L	6.0	6		06/21/19 15:00	7440-44-0	M6
Total Organic Carbon	**281**	mg/L	6.0	6		06/21/19 15:00	7440-44-0	M6
Total Organic Carbon	**277**	mg/L	6.0	6		06/21/19 15:00	7440-44-0	M6

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: NNU PLCRS **Lab ID: 7092926001** Collected: 06/10/19 13:10 Received: 06/10/19 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9060A TOC as NPOC	Analytical Method: EPA 9060A							
Total Organic Carbon	**276**	mg/L	6.0	6		06/21/19 15:00	7440-44-0	M6
Mean Total Organic Carbon	**278**	mg/L	6.0	6		06/21/19 15:00	7440-44-0	M6

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: NNU SLCRS **Lab ID: 7092926002** Collected: 06/10/19 13:25 Received: 06/10/19 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A							
Aluminum	**<200**	ug/L	200	1	06/13/19 09:04	06/24/19 21:33	7429-90-5	
Antimony	**<60.0**	ug/L	60.0	1	06/13/19 09:04	06/24/19 21:33	7440-36-0	
Arsenic	**<200**	ug/L	200	20	06/13/19 09:04	06/25/19 15:06	7440-38-2	
Barium	**2070**	ug/L	200	1	06/13/19 09:04	06/24/19 21:33	7440-39-3	
Beryllium	**2.2J**	ug/L	100	20	06/13/19 09:04	06/25/19 15:06	7440-41-7	
Boron	**4680**	ug/L	50.0	1	06/13/19 09:04	06/24/19 21:33	7440-42-8	
Cadmium	**<50.0**	ug/L	50.0	20	06/13/19 09:04	06/25/19 15:06	7440-43-9	
Calcium	**11400000**	ug/L	4000	20	06/13/19 09:04	06/25/19 15:06	7440-70-2	
Chromium	**94.0**	ug/L	10.0	1	06/13/19 09:04	06/24/19 21:33	7440-47-3	
Cobalt	**6.7J**	ug/L	50.0	1	06/13/19 09:04	06/24/19 21:33	7440-48-4	
Copper	**<25.0**	ug/L	25.0	1	06/13/19 09:04	06/24/19 21:33	7440-50-8	
Iron	**204**	ug/L	20.0	1	06/13/19 09:04	06/24/19 21:33	7439-89-6	
Lead	**61.8**	ug/L	5.0	1	06/13/19 09:04	06/24/19 21:33	7439-92-1	
Magnesium	**3630**	ug/L	200	1	06/13/19 09:04	06/24/19 21:33	7439-95-4	
Manganese	**425**	ug/L	10.0	1	06/13/19 09:04	06/24/19 21:33	7439-96-5	
Nickel	**<40.0**	ug/L	40.0	1	06/13/19 09:04	06/24/19 21:33	7440-02-0	
Potassium	**4340000**	ug/L	100000	20	06/13/19 09:04	06/25/19 15:06	7440-09-7	
Selenium	**204**	ug/L	200	20	06/13/19 09:04	06/25/19 15:06	7782-49-2	
Silver	**<10.0**	ug/L	10.0	1	06/13/19 09:04	06/24/19 21:33	7440-22-4	
Sodium	**10700000**	ug/L	100000	20	06/13/19 09:04	06/25/19 15:06	7440-23-5	
Thallium	**28.9**	ug/L	10.0	1	06/13/19 09:04	06/24/19 21:33	7440-28-0	
Vanadium	**<50.0**	ug/L	50.0	1	06/13/19 09:04	06/24/19 21:33	7440-62-2	
Zinc	**98.8J**	ug/L	400	20	06/13/19 09:04	06/25/19 15:06	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	**<0.20**	ug/L	0.20	1	06/21/19 10:50	06/21/19 16:32	7439-97-6	
8270D MSSV 14 Dioxane By SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510							
1,4-Dioxane (SIM)	**2.1**	ug/L	0.25	1	06/17/19 12:55	06/21/19 13:48	123-91-1	
Surrogates								
1,4-Dioxane-d8 (S)	50	%.	30-125	1	06/17/19 12:55	06/21/19 13:48		
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Acetone	**224**	ug/L	10.0	2		06/13/19 21:17	67-64-1	CL
Acrylonitrile	**<1.0**	ug/L	1.0	1		06/12/19 00:43	107-13-1	
Benzene	**<1.0**	ug/L	1.0	1		06/12/19 00:43	71-43-2	
Bromochloromethane	**<1.0**	ug/L	1.0	1		06/12/19 00:43	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		06/12/19 00:43	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		06/12/19 00:43	75-25-2	
Bromomethane	**<1.0**	ug/L	1.0	1		06/12/19 00:43	74-83-9	
2-Butanone (MEK)	**24.1**	ug/L	5.0	1		06/12/19 00:43	78-93-3	IL
Carbon disulfide	**1.0**	ug/L	1.0	1		06/12/19 00:43	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		06/12/19 00:43	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		06/12/19 00:43	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:43	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		06/12/19 00:43	67-66-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: NNU SLCRS **Lab ID: 7092926002** Collected: 06/10/19 13:25 Received: 06/10/19 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Chloromethane	**<1.0**	ug/L	1.0	1		06/12/19 00:43	74-87-3	
1,2-Dibromo-3-chloropropane	**<1.0**	ug/L	1.0	1		06/12/19 00:43	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		06/12/19 00:43	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		06/12/19 00:43	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		06/12/19 00:43	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/12/19 00:43	95-50-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/12/19 00:43	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1		06/12/19 00:43	110-57-6	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:43	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:43	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		06/12/19 00:43	75-35-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/12/19 00:43	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/12/19 00:43	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/12/19 00:43	78-87-5	
cis-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		06/12/19 00:43	10061-01-5	
trans-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		06/12/19 00:43	10061-02-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/12/19 00:43	100-41-4	
2-Hexanone	**<5.0**	ug/L	5.0	1		06/12/19 00:43	591-78-6	CL
Iodomethane	**<1.0**	ug/L	1.0	1		06/12/19 00:43	74-88-4	
Methylene Chloride	**<1.0**	ug/L	1.0	1		06/12/19 00:43	75-09-2	
4-Methyl-2-pentanone (MIBK)	**4.9J**	ug/L	5.0	1		06/12/19 00:43	108-10-1	
Styrene	**<1.0**	ug/L	1.0	1		06/12/19 00:43	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:43	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:43	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		06/12/19 00:43	127-18-4	CL
Toluene	**<1.0**	ug/L	1.0	1		06/12/19 00:43	108-88-3	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:43	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:43	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		06/12/19 00:43	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		06/12/19 00:43	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		06/12/19 00:43	96-18-4	
Vinyl acetate	**<1.0**	ug/L	1.0	1		06/12/19 00:43	108-05-4	
Vinyl chloride	**<1.0**	ug/L	1.0	1		06/12/19 00:43	75-01-4	
Xylene (Total)	**<3.0**	ug/L	3.0	1		06/12/19 00:43	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	104	%	68-153	1		06/12/19 00:43	17060-07-0	
4-Bromofluorobenzene (S)	94	%	79-124	1		06/12/19 00:43	460-00-4	
Toluene-d8 (S)	103	%	69-124	1		06/12/19 00:43	2037-26-5	
Tentatively Identified Compounds								
Methanethiol	**31.8J**	ug/L		1		06/12/19 00:43	74-93-1	N
Silanol, trimethyl-	**12.9J**	ug/L		1		06/12/19 00:43	1066-40-6	N
2120B W Apparent Color	Analytical Method: SM22 2120B							
Apparent Color	**10.0**	units	5.0	1		06/11/19 13:58		
pH	**7.0**	Std. Units	0.10	1		06/11/19 13:58		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: NNU SLCRS **Lab ID: 7092926002** Collected: 06/10/19 13:25 Received: 06/10/19 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity	Analytical Method: SM22 2320B							
Alkalinity, Total as CaCO3	**217**	mg/L	1.0	1		06/22/19 00:23		
2340C Hardness, Total	Analytical Method: SM22 2340C							
Tot Hardness asCaCO3 (SM 2340B	**29000**	mg/L	5.0	1		06/24/19 13:46		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C							
Total Dissolved Solids	**69700**	mg/L	40.0	1		06/14/19 11:25		
Chromium, Hexavalent	Analytical Method: SM22 3500-Cr B							
Chromium, Hexavalent	**<0.020**	mg/L	0.020	1		06/11/19 10:54	18540-29-9	
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4							
Chemical Oxygen Demand	**2440**	mg/L	100	1	06/14/19 09:46	06/14/19 12:01		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B							
BOD, 5 day	**254**	mg/L	200	100	06/11/19 15:00	06/16/19 09:48		
9034 Sulfide, Titration	Analytical Method: EPA 9034 Preparation Method: EPA 9030B							
Sulfide	**72.0**	mg/L	2.0	1	06/17/19 07:56	06/17/19 14:27		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Bromide	**732**	mg/L	100	200		06/26/19 20:52	24959-67-9	
Chloride	**<2.0**	mg/L	2.0	1		06/26/19 20:35	16887-00-6	
Sulfate	**<5.0**	mg/L	5.0	1		06/26/19 20:35	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**56.9**	mg/L	5.0	10	06/25/19 13:02	06/26/19 07:57	7727-37-9	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrate as N	**0.026J**	mg/L	0.050	1		06/10/19 22:49	14797-55-8	
Nitrate-Nitrite (as N)	**<0.050**	mg/L	0.050	1		06/10/19 22:49	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2							
Nitrite as N	**<0.050**	mg/L	0.050	1		06/10/19 21:06	14797-65-0	
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H							
Nitrogen, Ammonia	**93.7**	mg/L	10.0	100		06/25/19 14:13	7664-41-7	
9014 Cyanide, Total	Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C							
Cyanide	**41.9**	ug/L	10.0	1	06/18/19 07:57	06/18/19 15:22	57-12-5	
9060A TOC as NPOC	Analytical Method: EPA 9060A							
Total Organic Carbon	**106**	mg/L	3.0	3		06/21/19 16:43	7440-44-0	
Total Organic Carbon	**104**	mg/L	3.0	3		06/21/19 16:43	7440-44-0	
Total Organic Carbon	**104**	mg/L	3.0	3		06/21/19 16:43	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: NNU SLCRS **Lab ID: 7092926002** Collected: 06/10/19 13:25 Received: 06/10/19 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9060A TOC as NPOC	Analytical Method: EPA 9060A							
Total Organic Carbon	**103**	mg/L	3.0	3		06/21/19 16:43	7440-44-0	
Mean Total Organic Carbon	**103**	mg/L	3.0	3		06/21/19 16:43	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
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ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: ONU SLCRS **Lab ID: 7092926003** Collected: 06/10/19 13:45 Received: 06/10/19 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A							
Aluminum	**<200**	ug/L	200	1	06/13/19 09:04	06/24/19 21:39	7429-90-5	
Antimony	**<60.0**	ug/L	60.0	1	06/13/19 09:04	06/24/19 21:39	7440-36-0	
Arsenic	**<200**	ug/L	200	20	06/13/19 09:04	06/25/19 15:09	7440-38-2	
Barium	**2770**	ug/L	200	1	06/13/19 09:04	06/24/19 21:39	7440-39-3	
Beryllium	**<5.0**	ug/L	5.0	1	06/13/19 09:04	06/24/19 21:39	7440-41-7	
Boron	**494**	ug/L	50.0	1	06/13/19 09:04	06/24/19 21:39	7440-42-8	
Cadmium	**<50.0**	ug/L	50.0	20	06/13/19 09:04	06/25/19 15:09	7440-43-9	
Calcium	**5140000**	ug/L	4000	20	06/13/19 09:04	06/25/19 15:09	7440-70-2	
Chromium	**7.1J**	ug/L	10.0	1	06/13/19 09:04	06/24/19 21:39	7440-47-3	
Cobalt	**<50.0**	ug/L	50.0	1	06/13/19 09:04	06/24/19 21:39	7440-48-4	
Copper	**<25.0**	ug/L	25.0	1	06/13/19 09:04	06/24/19 21:39	7440-50-8	
Iron	**31800**	ug/L	20.0	1	06/13/19 09:04	06/24/19 21:39	7439-89-6	
Lead	**31.1**	ug/L	5.0	1	06/13/19 09:04	06/24/19 21:39	7439-92-1	
Magnesium	**192000**	ug/L	200	1	06/13/19 09:04	06/24/19 21:39	7439-95-4	
Manganese	**41800**	ug/L	200	20	06/13/19 09:04	06/25/19 15:09	7439-96-5	
Nickel	**<40.0**	ug/L	40.0	1	06/13/19 09:04	06/24/19 21:39	7440-02-0	
Potassium	**1560000**	ug/L	100000	20	06/13/19 09:04	06/25/19 15:09	7440-09-7	
Selenium	**<200**	ug/L	200	20	06/13/19 09:04	06/25/19 15:09	7782-49-2	
Silver	**4.8J**	ug/L	10.0	1	06/13/19 09:04	06/24/19 21:39	7440-22-4	
Sodium	**4560000**	ug/L	100000	20	06/13/19 09:04	06/25/19 15:09	7440-23-5	
Thallium	**79.8**	ug/L	10.0	1	06/13/19 09:04	06/24/19 21:39	7440-28-0	
Vanadium	**<50.0**	ug/L	50.0	1	06/13/19 09:04	06/24/19 21:39	7440-62-2	
Zinc	**<20.0**	ug/L	20.0	1	06/13/19 09:04	06/24/19 21:39	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	**<0.20**	ug/L	0.20	1	06/21/19 10:50	06/21/19 16:34	7439-97-6	
8270D MSSV 14 Dioxane By SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510							
1,4-Dioxane (SIM)	**21.0**	ug/L	0.50	1	06/24/19 17:46	06/25/19 12:17	123-91-1	H2
Surrogates								
1,4-Dioxane-d8 (S)	57	%.	30-125	1	06/24/19 17:46	06/25/19 12:17		1j
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Acetone	**<5.0**	ug/L	5.0	1		06/12/19 00:25	67-64-1	CL
Acrylonitrile	**<1.0**	ug/L	1.0	1		06/12/19 00:25	107-13-1	
Benzene	**<1.0**	ug/L	1.0	1		06/12/19 00:25	71-43-2	
Bromochloromethane	**<1.0**	ug/L	1.0	1		06/12/19 00:25	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		06/12/19 00:25	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		06/12/19 00:25	75-25-2	
Bromomethane	**<1.0**	ug/L	1.0	1		06/12/19 00:25	74-83-9	
2-Butanone (MEK)	**<5.0**	ug/L	5.0	1		06/12/19 00:25	78-93-3	IL
Carbon disulfide	**<1.0**	ug/L	1.0	1		06/12/19 00:25	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		06/12/19 00:25	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		06/12/19 00:25	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:25	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		06/12/19 00:25	67-66-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: ONU SLCRS **Lab ID: 7092926003** Collected: 06/10/19 13:45 Received: 06/10/19 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Chloromethane	**<1.0**	ug/L	1.0	1		06/12/19 00:25	74-87-3	
1,2-Dibromo-3-chloropropane	**<1.0**	ug/L	1.0	1		06/12/19 00:25	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		06/12/19 00:25	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		06/12/19 00:25	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		06/12/19 00:25	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/12/19 00:25	95-50-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/12/19 00:25	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1		06/12/19 00:25	110-57-6	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:25	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:25	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		06/12/19 00:25	75-35-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/12/19 00:25	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/12/19 00:25	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/12/19 00:25	78-87-5	
cis-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		06/12/19 00:25	10061-01-5	
trans-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		06/12/19 00:25	10061-02-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/12/19 00:25	100-41-4	
2-Hexanone	**<5.0**	ug/L	5.0	1		06/12/19 00:25	591-78-6	CL
Iodomethane	**<1.0**	ug/L	1.0	1		06/12/19 00:25	74-88-4	
Methylene Chloride	**<1.0**	ug/L	1.0	1		06/12/19 00:25	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<5.0**	ug/L	5.0	1		06/12/19 00:25	108-10-1	
Styrene	**<1.0**	ug/L	1.0	1		06/12/19 00:25	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:25	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:25	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		06/12/19 00:25	127-18-4	CL
Toluene	**<1.0**	ug/L	1.0	1		06/12/19 00:25	108-88-3	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:25	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:25	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		06/12/19 00:25	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		06/12/19 00:25	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		06/12/19 00:25	96-18-4	
Vinyl acetate	**<1.0**	ug/L	1.0	1		06/12/19 00:25	108-05-4	
Vinyl chloride	**<1.0**	ug/L	1.0	1		06/12/19 00:25	75-01-4	
Xylene (Total)	**<3.0**	ug/L	3.0	1		06/12/19 00:25	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	105	%	68-153	1		06/12/19 00:25	17060-07-0	
4-Bromofluorobenzene (S)	96	%	79-124	1		06/12/19 00:25	460-00-4	
Toluene-d8 (S)	101	%	69-124	1		06/12/19 00:25	2037-26-5	
2120B W Apparent Color	Analytical Method: SM22 2120B							
Apparent Color	**10.0**	units	5.0	1		06/11/19 13:58		
pH	**7.0**	Std. Units	0.10	1		06/11/19 13:58		
2320B Alkalinity	Analytical Method: SM22 2320B							
Alkalinity, Total as CaCO3	**245**	mg/L	1.0	1		06/22/19 00:35		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: ONU SLCRS **Lab ID: 7092926003** Collected: 06/10/19 13:45 Received: 06/10/19 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2340C Hardness, Total	Analytical Method: SM22 2340C							
Tot Hardness asCaCO3 (SM 2340B	**14200**	mg/L	5.0	1		06/24/19 14:01		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C							
Total Dissolved Solids	**29900**	mg/L	40.0	1		06/14/19 11:26		
Chromium, Hexavalent	Analytical Method: SM22 3500-Cr B							
Chromium, Hexavalent	**<0.020**	mg/L	0.020	1		06/11/19 10:54	18540-29-9	
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4							
Chemical Oxygen Demand	**653**	mg/L	100	1	06/14/19 09:46	06/14/19 12:01		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B							
BOD, 5 day	**4.4**	mg/L	4.0	2	06/11/19 15:00	06/16/19 09:50		
9034 Sulfide, Titration	Analytical Method: EPA 9034 Preparation Method: EPA 9030B							
Sulfide	**8.0**	mg/L	2.0	1	06/17/19 07:56	06/17/19 14:27		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Bromide	**271**	mg/L	100	200		06/26/19 22:15	24959-67-9	
Chloride	**20400**	mg/L	2000	1000		06/27/19 19:21	16887-00-6	
Sulfate	**197**	mg/L	50.0	10		06/26/19 21:25	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**27.1**	mg/L	5.0	10	06/25/19 13:02	06/26/19 07:58	7727-37-9	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrate as N	**0.018J**	mg/L	0.050	1		06/10/19 22:50	14797-55-8	
Nitrate-Nitrite (as N)	**<0.050**	mg/L	0.050	1		06/10/19 22:50	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2							
Nitrite as N	**<0.050**	mg/L	0.050	1		06/10/19 21:07	14797-65-0	
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H							
Nitrogen, Ammonia	**28.7**	mg/L	2.5	25		06/25/19 14:15	7664-41-7	
9014 Cyanide, Total	Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C							
Cyanide	**4.0J**	ug/L	10.0	1	06/18/19 07:57	06/18/19 15:23	57-12-5	
9060A TOC as NPOC	Analytical Method: EPA 9060A							
Total Organic Carbon	**18.4**	mg/L	1.0	1		06/21/19 17:00	7440-44-0	
Total Organic Carbon	**18.7**	mg/L	1.0	1		06/21/19 17:00	7440-44-0	
Total Organic Carbon	**18.6**	mg/L	1.0	1		06/21/19 17:00	7440-44-0	
Total Organic Carbon	**18.6**	mg/L	1.0	1		06/21/19 17:00	7440-44-0	
Mean Total Organic Carbon	**18.6**	mg/L	1.0	1		06/21/19 17:00	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: STORAGE BLANK **Lab ID: 7092926004** Collected: 06/10/19 13:45 Received: 06/10/19 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Acetone	**<5.0**	ug/L	5.0	1		06/11/19 23:49	67-64-1	CL
Acrylonitrile	**<1.0**	ug/L	1.0	1		06/11/19 23:49	107-13-1	
Benzene	**<1.0**	ug/L	1.0	1		06/11/19 23:49	71-43-2	
Bromochloromethane	**<1.0**	ug/L	1.0	1		06/11/19 23:49	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		06/11/19 23:49	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		06/11/19 23:49	75-25-2	
Bromomethane	**<1.0**	ug/L	1.0	1		06/11/19 23:49	74-83-9	
2-Butanone (MEK)	**<5.0**	ug/L	5.0	1		06/11/19 23:49	78-93-3	IL
Carbon disulfide	**<1.0**	ug/L	1.0	1		06/11/19 23:49	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		06/11/19 23:49	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		06/11/19 23:49	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:49	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		06/11/19 23:49	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		06/11/19 23:49	74-87-3	
1,2-Dibromo-3-chloropropane	**<1.0**	ug/L	1.0	1		06/11/19 23:49	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		06/11/19 23:49	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		06/11/19 23:49	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		06/11/19 23:49	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/11/19 23:49	95-50-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/11/19 23:49	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1		06/11/19 23:49	110-57-6	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:49	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:49	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		06/11/19 23:49	75-35-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/11/19 23:49	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/11/19 23:49	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/11/19 23:49	78-87-5	
cis-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		06/11/19 23:49	10061-01-5	
trans-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		06/11/19 23:49	10061-02-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/11/19 23:49	100-41-4	
2-Hexanone	**<5.0**	ug/L	5.0	1		06/11/19 23:49	591-78-6	CL
Iodomethane	**<1.0**	ug/L	1.0	1		06/11/19 23:49	74-88-4	
Methylene Chloride	**<1.0**	ug/L	1.0	1		06/11/19 23:49	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<5.0**	ug/L	5.0	1		06/11/19 23:49	108-10-1	
Styrene	**<1.0**	ug/L	1.0	1		06/11/19 23:49	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:49	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:49	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		06/11/19 23:49	127-18-4	CL
Toluene	**<1.0**	ug/L	1.0	1		06/11/19 23:49	108-88-3	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:49	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:49	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		06/11/19 23:49	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		06/11/19 23:49	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		06/11/19 23:49	96-18-4	
Vinyl acetate	**<1.0**	ug/L	1.0	1		06/11/19 23:49	108-05-4	
Vinyl chloride	**<1.0**	ug/L	1.0	1		06/11/19 23:49	75-01-4	
Xylene (Total)	**<3.0**	ug/L	3.0	1		06/11/19 23:49	1330-20-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: STORAGE BLANK **Lab ID: 7092926004** Collected: 06/10/19 13:45 Received: 06/10/19 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%	68-153	1		06/11/19 23:49	17060-07-0	
4-Bromofluorobenzene (S)	95	%	79-124	1		06/11/19 23:49	460-00-4	
Toluene-d8 (S)	99	%	69-124	1		06/11/19 23:49	2037-26-5	

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: SA SLCRS **Lab ID: 7092926005** Collected: 06/11/19 10:15 Received: 06/11/19 15:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A							
Aluminum	**13500**	ug/L	200	1	06/13/19 09:04	06/24/19 22:43	7429-90-5	
Antimony	**76.5**	ug/L	60.0	1	06/13/19 09:04	06/24/19 22:43	7440-36-0	
Arsenic	**59.9**	ug/L	10.0	1	06/13/19 09:04	06/24/19 22:43	7440-38-2	
Barium	**481**	ug/L	200	1	06/13/19 09:04	06/24/19 22:43	7440-39-3	
Beryllium	**<5.0**	ug/L	5.0	1	06/13/19 09:04	06/24/19 22:43	7440-41-7	
Boron	**480**	ug/L	50.0	1	06/13/19 09:04	06/24/19 22:43	7440-42-8	
Cadmium	**12.5**	ug/L	2.5	1	06/13/19 09:04	06/24/19 22:43	7440-43-9	
Calcium	**1760000**	ug/L	4000	20	06/13/19 09:04	06/25/19 15:11	7440-70-2	
Chromium	**98.9**	ug/L	10.0	1	06/13/19 09:04	06/24/19 22:43	7440-47-3	
Cobalt	**10.5J**	ug/L	50.0	1	06/13/19 09:04	06/24/19 22:43	7440-48-4	
Copper	**360**	ug/L	25.0	1	06/13/19 09:04	06/24/19 22:43	7440-50-8	
Iron	**210000**	ug/L	20.0	1	06/13/19 09:04	06/24/19 22:43	7439-89-6	
Lead	**279**	ug/L	5.0	1	06/13/19 09:04	06/24/19 22:43	7439-92-1	
Magnesium	**103000**	ug/L	200	1	06/13/19 09:04	06/24/19 22:43	7439-95-4	
Manganese	**8440**	ug/L	10.0	1	06/13/19 09:04	06/24/19 22:43	7439-96-5	
Nickel	**69.0**	ug/L	40.0	1	06/13/19 09:04	06/24/19 22:43	7440-02-0	
Potassium	**486000**	ug/L	100000	20	06/13/19 09:04	06/25/19 15:11	7440-09-7	
Selenium	**<10.0**	ug/L	10.0	1	06/13/19 09:04	06/24/19 22:43	7782-49-2	
Silver	**4.3J**	ug/L	10.0	1	06/13/19 09:04	06/24/19 22:43	7440-22-4	
Sodium	**1330000**	ug/L	100000	20	06/13/19 09:04	06/25/19 15:11	7440-23-5	
Thallium	**27.6**	ug/L	10.0	1	06/13/19 09:04	06/24/19 22:43	7440-28-0	
Vanadium	**22.6J**	ug/L	50.0	1	06/13/19 09:04	06/24/19 22:43	7440-62-2	
Zinc	**1870**	ug/L	20.0	1	06/13/19 09:04	06/24/19 22:43	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	**1.2**	ug/L	0.20	1	06/21/19 10:50	06/21/19 16:36	7439-97-6	
8270D MSSV 14 Dioxane By SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510							
1,4-Dioxane (SIM)	**0.88**	ug/L	0.25	1	06/17/19 12:55	06/21/19 16:44	123-91-1	
Surrogates								
1,4-Dioxane-d8 (S)	42	%.	30-125	1	06/17/19 12:55	06/21/19 16:44		
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Acetone	**1.6J**	ug/L	5.0	1		06/12/19 00:07	67-64-1	CL
Acrylonitrile	**<1.0**	ug/L	1.0	1		06/12/19 00:07	107-13-1	
Benzene	**<1.0**	ug/L	1.0	1		06/12/19 00:07	71-43-2	
Bromochloromethane	**<1.0**	ug/L	1.0	1		06/12/19 00:07	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		06/12/19 00:07	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		06/12/19 00:07	75-25-2	
Bromomethane	**<1.0**	ug/L	1.0	1		06/12/19 00:07	74-83-9	
2-Butanone (MEK)	**<5.0**	ug/L	5.0	1		06/12/19 00:07	78-93-3	IL
Carbon disulfide	**<1.0**	ug/L	1.0	1		06/12/19 00:07	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		06/12/19 00:07	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		06/12/19 00:07	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:07	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		06/12/19 00:07	67-66-3	

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: SA SLCRS **Lab ID: 7092926005** Collected: 06/11/19 10:15 Received: 06/11/19 15:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Chloromethane	**<1.0**	ug/L	1.0	1		06/12/19 00:07	74-87-3	
1,2-Dibromo-3-chloropropane	**<1.0**	ug/L	1.0	1		06/12/19 00:07	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		06/12/19 00:07	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		06/12/19 00:07	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		06/12/19 00:07	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/12/19 00:07	95-50-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/12/19 00:07	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1		06/12/19 00:07	110-57-6	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:07	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:07	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		06/12/19 00:07	75-35-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/12/19 00:07	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/12/19 00:07	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/12/19 00:07	78-87-5	
cis-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		06/12/19 00:07	10061-01-5	
trans-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		06/12/19 00:07	10061-02-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/12/19 00:07	100-41-4	
2-Hexanone	**<5.0**	ug/L	5.0	1		06/12/19 00:07	591-78-6	CL
Iodomethane	**<1.0**	ug/L	1.0	1		06/12/19 00:07	74-88-4	
Methylene Chloride	**<1.0**	ug/L	1.0	1		06/12/19 00:07	75-09-2	
4-Methyl-2-pentanone (MIBK)	**85.7**	ug/L	5.0	1		06/12/19 00:07	108-10-1	
Styrene	**<1.0**	ug/L	1.0	1		06/12/19 00:07	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:07	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:07	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		06/12/19 00:07	127-18-4	CL
Toluene	**<1.0**	ug/L	1.0	1		06/12/19 00:07	108-88-3	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:07	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		06/12/19 00:07	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		06/12/19 00:07	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		06/12/19 00:07	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		06/12/19 00:07	96-18-4	
Vinyl acetate	**<1.0**	ug/L	1.0	1		06/12/19 00:07	108-05-4	
Vinyl chloride	**<1.0**	ug/L	1.0	1		06/12/19 00:07	75-01-4	
Xylene (Total)	**<3.0**	ug/L	3.0	1		06/12/19 00:07	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%	68-153	1		06/12/19 00:07	17060-07-0	
4-Bromofluorobenzene (S)	97	%	79-124	1		06/12/19 00:07	460-00-4	
Toluene-d8 (S)	103	%	69-124	1		06/12/19 00:07	2037-26-5	
Tentatively Identified Compounds								
4-Bromo-2,5-dimethoxyamp	**10.1J**	ug/L		1		06/12/19 00:07	32156-26-6	N
2120B W Apparent Color	Analytical Method: SM22 2120B							
Apparent Color	**75.0**	units	25.0	5		06/12/19 14:32		
pH	**7.0**	Std. Units	0.10	5		06/12/19 14:32		
2320B Alkalinity	Analytical Method: SM22 2320B							
Alkalinity, Total as CaCO3	**183**	mg/L	1.0	1		06/22/19 02:32		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: SA SLCRS **Lab ID: 7092926005** Collected: 06/11/19 10:15 Received: 06/11/19 15:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2340C Hardness, Total	Analytical Method: SM22 2340C							
Tot Hardness asCaCO3 (SM 2340B	**4000**	mg/L	5.0	1		06/24/19 15:16		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C							
Total Dissolved Solids	**9360**	mg/L	20.0	1		06/17/19 10:20		
Chromium, Hexavalent	Analytical Method: SM22 3500-Cr B							
Chromium, Hexavalent	**<0.020**	mg/L	0.020	1		06/12/19 07:39	18540-29-9	
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4							
Chemical Oxygen Demand	**710**	mg/L	10.0	1	06/19/19 09:15	06/19/19 11:38		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B							
BOD, 5 day	**50.8**	mg/L	10.0	5	06/12/19 12:20	06/17/19 12:30		
9034 Sulfide, Titration	Analytical Method: EPA 9034 Preparation Method: EPA 9030B							
Sulfide	**6.4**	mg/L	2.0	1	06/17/19 07:56	06/17/19 14:27		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Bromide	**67.7**	mg/L	12.5	25		06/26/19 22:32	24959-67-9	
Chloride	**5830**	mg/L	400	200		06/26/19 22:49	16887-00-6	
Sulfate	**361**	mg/L	125	25		06/26/19 22:32	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**17.0**	mg/L	5.0	10	06/25/19 13:02	06/26/19 07:59	7727-37-9	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrate as N	**0.30**	mg/L	0.050	1		06/11/19 22:41	14797-55-8	
Nitrate-Nitrite (as N)	**0.43**	mg/L	0.050	1		06/11/19 22:41	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2							
Nitrite as N	**0.13**	mg/L	0.050	1		06/11/19 20:31	14797-65-0	
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H							
Nitrogen, Ammonia	**4.7**	mg/L	0.10	1		06/25/19 14:16	7664-41-7	
9014 Cyanide, Total	Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C							
Cyanide	**3.4J**	ug/L	10.0	1	06/18/19 07:57	06/18/19 15:24	57-12-5	
9060A TOC as NPOC	Analytical Method: EPA 9060A							
Total Organic Carbon	**8.9**	mg/L	1.0	1		06/21/19 17:17	7440-44-0	
Total Organic Carbon	**8.8**	mg/L	1.0	1		06/21/19 17:17	7440-44-0	
Total Organic Carbon	**8.7**	mg/L	1.0	1		06/21/19 17:17	7440-44-0	
Total Organic Carbon	**8.8**	mg/L	1.0	1		06/21/19 17:17	7440-44-0	
Mean Total Organic Carbon	**8.8**	mg/L	1.0	1		06/21/19 17:17	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: EQUIPMENT BLANK **Lab ID: 7092926006** Collected: 06/11/19 10:40 Received: 06/11/19 15:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A							
Aluminum	**<200**	ug/L	200	1	06/13/19 09:04	06/24/19 22:48	7429-90-5	
Antimony	**<60.0**	ug/L	60.0	1	06/13/19 09:04	06/24/19 22:48	7440-36-0	
Arsenic	**<10.0**	ug/L	10.0	1	06/13/19 09:04	06/24/19 22:48	7440-38-2	
Barium	**<200**	ug/L	200	1	06/13/19 09:04	06/24/19 22:48	7440-39-3	
Beryllium	**<5.0**	ug/L	5.0	1	06/13/19 09:04	06/24/19 22:48	7440-41-7	
Boron	**<50.0**	ug/L	50.0	1	06/13/19 09:04	06/24/19 22:48	7440-42-8	
Cadmium	**<2.5**	ug/L	2.5	1	06/13/19 09:04	06/24/19 22:48	7440-43-9	
Calcium	**165J**	ug/L	200	1	06/13/19 09:04	06/24/19 22:48	7440-70-2	
Chromium	**<10.0**	ug/L	10.0	1	06/13/19 09:04	06/24/19 22:48	7440-47-3	
Cobalt	**<50.0**	ug/L	50.0	1	06/13/19 09:04	06/24/19 22:48	7440-48-4	
Copper	**<25.0**	ug/L	25.0	1	06/13/19 09:04	06/24/19 22:48	7440-50-8	
Iron	**21.8**	ug/L	20.0	1	06/13/19 09:04	06/24/19 22:48	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	06/13/19 09:04	06/24/19 22:48	7439-92-1	
Magnesium	**<200**	ug/L	200	1	06/13/19 09:04	06/24/19 22:48	7439-95-4	
Manganese	**<10.0**	ug/L	10.0	1	06/13/19 09:04	06/24/19 22:48	7439-96-5	
Nickel	**<40.0**	ug/L	40.0	1	06/13/19 09:04	06/24/19 22:48	7440-02-0	
Potassium	**<5000**	ug/L	5000	1	06/13/19 09:04	06/24/19 22:48	7440-09-7	
Selenium	**<10.0**	ug/L	10.0	1	06/13/19 09:04	06/24/19 22:48	7782-49-2	
Silver	**<10.0**	ug/L	10.0	1	06/13/19 09:04	06/24/19 22:48	7440-22-4	
Sodium	**<5000**	ug/L	5000	1	06/13/19 09:04	06/24/19 22:48	7440-23-5	
Thallium	**<10.0**	ug/L	10.0	1	06/13/19 09:04	06/24/19 22:48	7440-28-0	
Vanadium	**<50.0**	ug/L	50.0	1	06/13/19 09:04	06/24/19 22:48	7440-62-2	
Zinc	**<20.0**	ug/L	20.0	1	06/13/19 09:04	06/24/19 22:48	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	**<0.20**	ug/L	0.20	1	06/21/19 10:50	06/21/19 16:42	7439-97-6	
8270D MSSV 14 Dioxane By SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510							
1,4-Dioxane (SIM)	**<0.25**	ug/L	0.25	1	06/17/19 12:55	06/21/19 17:04	123-91-1	
Surrogates								
1,4-Dioxane-d8 (S)	46	%.	30-125	1	06/17/19 12:55	06/21/19 17:04		
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Acetone	**<5.0**	ug/L	5.0	1		06/11/19 23:31	67-64-1	CL
Acrylonitrile	**<1.0**	ug/L	1.0	1		06/11/19 23:31	107-13-1	
Benzene	**<1.0**	ug/L	1.0	1		06/11/19 23:31	71-43-2	
Bromochloromethane	**<1.0**	ug/L	1.0	1		06/11/19 23:31	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		06/11/19 23:31	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		06/11/19 23:31	75-25-2	
Bromomethane	**<1.0**	ug/L	1.0	1		06/11/19 23:31	74-83-9	
2-Butanone (MEK)	**<5.0**	ug/L	5.0	1		06/11/19 23:31	78-93-3	IL
Carbon disulfide	**<1.0**	ug/L	1.0	1		06/11/19 23:31	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		06/11/19 23:31	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		06/11/19 23:31	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:31	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		06/11/19 23:31	67-66-3	

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
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ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: EQUIPMENT BLANK **Lab ID: 7092926006** Collected: 06/11/19 10:40 Received: 06/11/19 15:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Chloromethane	**<1.0**	ug/L	1.0	1		06/11/19 23:31	74-87-3	
1,2-Dibromo-3-chloropropane	**<1.0**	ug/L	1.0	1		06/11/19 23:31	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		06/11/19 23:31	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		06/11/19 23:31	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		06/11/19 23:31	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/11/19 23:31	95-50-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/11/19 23:31	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1		06/11/19 23:31	110-57-6	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:31	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:31	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		06/11/19 23:31	75-35-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/11/19 23:31	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/11/19 23:31	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/11/19 23:31	78-87-5	
cis-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		06/11/19 23:31	10061-01-5	
trans-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		06/11/19 23:31	10061-02-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/11/19 23:31	100-41-4	
2-Hexanone	**<5.0**	ug/L	5.0	1		06/11/19 23:31	591-78-6	CL
Iodomethane	**<1.0**	ug/L	1.0	1		06/11/19 23:31	74-88-4	
Methylene Chloride	**<1.0**	ug/L	1.0	1		06/11/19 23:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<5.0**	ug/L	5.0	1		06/11/19 23:31	108-10-1	
Styrene	**<1.0**	ug/L	1.0	1		06/11/19 23:31	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:31	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:31	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		06/11/19 23:31	127-18-4	CL
Toluene	**<1.0**	ug/L	1.0	1		06/11/19 23:31	108-88-3	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:31	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:31	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		06/11/19 23:31	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		06/11/19 23:31	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		06/11/19 23:31	96-18-4	
Vinyl acetate	**<1.0**	ug/L	1.0	1		06/11/19 23:31	108-05-4	
Vinyl chloride	**<1.0**	ug/L	1.0	1		06/11/19 23:31	75-01-4	
Xylene (Total)	**<3.0**	ug/L	3.0	1		06/11/19 23:31	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%	68-153	1		06/11/19 23:31	17060-07-0	
4-Bromofluorobenzene (S)	96	%	79-124	1		06/11/19 23:31	460-00-4	
Toluene-d8 (S)	99	%	69-124	1		06/11/19 23:31	2037-26-5	
2120B W Apparent Color	Analytical Method: SM22 2120B							
Apparent Color	**<5.0**	units	5.0	1		06/12/19 14:32		
pH	**6.5**	Std. Units	0.10	1		06/12/19 14:32		
2320B Alkalinity	Analytical Method: SM22 2320B							
Alkalinity, Total as CaCO3	**<1.0**	mg/L	1.0	1		06/22/19 02:38		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: EQUIPMENT BLANK **Lab ID: 7092926006** Collected: 06/11/19 10:40 Received: 06/11/19 15:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2340C Hardness, Total	Analytical Method: SM22 2340C							
Tot Hardness asCaCO3 (SM 2340B	**<5.0**	mg/L	5.0	1		06/24/19 15:16		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C							
Total Dissolved Solids	**31.0**	mg/L	10.0	1		06/17/19 10:21		
Chromium, Hexavalent	Analytical Method: SM22 3500-Cr B							
Chromium, Hexavalent	**<0.020**	mg/L	0.020	1		06/12/19 07:39	18540-29-9	
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4							
Chemical Oxygen Demand	**<10.0**	mg/L	10.0	1	06/19/19 09:15	06/19/19 11:39		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B							
BOD, 5 day	**1.0J**	mg/L	2.0	1	06/12/19 12:19	06/17/19 12:16		
9034 Sulfide, Titration	Analytical Method: EPA 9034 Preparation Method: EPA 9030B							
Sulfide	**6.4**	mg/L	2.0	1	06/17/19 07:56	06/17/19 14:28		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Bromide	**0.021J**	mg/L	0.50	1		06/26/19 23:05	24959-67-9	
Chloride	**1.1J**	mg/L	2.0	1		06/26/19 23:05	16887-00-6	
Sulfate	**<5.0**	mg/L	5.0	1		06/26/19 23:05	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**0.30**	mg/L	0.10	1	06/25/19 13:02	06/26/19 08:37	7727-37-9	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrate as N	**<0.050**	mg/L	0.050	1		06/11/19 22:42	14797-55-8	
Nitrate-Nitrite (as N)	**<0.050**	mg/L	0.050	1		06/11/19 22:42	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2							
Nitrite as N	**<0.050**	mg/L	0.050	1		06/11/19 20:32	14797-65-0	
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H							
Nitrogen, Ammonia	**0.027J**	mg/L	0.10	1		06/25/19 14:19	7664-41-7	B
9014 Cyanide, Total	Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C							
Cyanide	**4.6J**	ug/L	10.0	1	06/18/19 07:57	06/18/19 15:25	57-12-5	
9060A TOC as NPOC	Analytical Method: EPA 9060A							
Total Organic Carbon	**<1.0**	mg/L	1.0	1		06/21/19 17:29	7440-44-0	
Total Organic Carbon	**<1.0**	mg/L	1.0	1		06/21/19 17:29	7440-44-0	
Total Organic Carbon	**<1.0**	mg/L	1.0	1		06/21/19 17:29	7440-44-0	
Total Organic Carbon	**<1.0**	mg/L	1.0	1		06/21/19 17:29	7440-44-0	
Mean Total Organic Carbon	**<1.0**	mg/L	1.0	1		06/21/19 17:29	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
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ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: TRIP BLANK **Lab ID: 7092926007** Collected: 06/11/19 00:00 Received: 06/11/19 15:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Acetone	**<5.0**	ug/L	5.0	1		06/11/19 23:14	67-64-1	CL
Acrylonitrile	**<1.0**	ug/L	1.0	1		06/11/19 23:14	107-13-1	
Benzene	**<1.0**	ug/L	1.0	1		06/11/19 23:14	71-43-2	
Bromochloromethane	**<1.0**	ug/L	1.0	1		06/11/19 23:14	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		06/11/19 23:14	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		06/11/19 23:14	75-25-2	
Bromomethane	**<1.0**	ug/L	1.0	1		06/11/19 23:14	74-83-9	
2-Butanone (MEK)	**<5.0**	ug/L	5.0	1		06/11/19 23:14	78-93-3	IL
Carbon disulfide	**<1.0**	ug/L	1.0	1		06/11/19 23:14	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		06/11/19 23:14	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		06/11/19 23:14	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:14	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		06/11/19 23:14	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		06/11/19 23:14	74-87-3	
1,2-Dibromo-3-chloropropane	**<1.0**	ug/L	1.0	1		06/11/19 23:14	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		06/11/19 23:14	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		06/11/19 23:14	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		06/11/19 23:14	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/11/19 23:14	95-50-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/11/19 23:14	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1		06/11/19 23:14	110-57-6	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:14	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:14	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		06/11/19 23:14	75-35-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/11/19 23:14	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/11/19 23:14	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/11/19 23:14	78-87-5	
cis-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		06/11/19 23:14	10061-01-5	
trans-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		06/11/19 23:14	10061-02-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/11/19 23:14	100-41-4	
2-Hexanone	**<5.0**	ug/L	5.0	1		06/11/19 23:14	591-78-6	CL
Iodomethane	**<1.0**	ug/L	1.0	1		06/11/19 23:14	74-88-4	
Methylene Chloride	**<1.0**	ug/L	1.0	1		06/11/19 23:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<5.0**	ug/L	5.0	1		06/11/19 23:14	108-10-1	
Styrene	**<1.0**	ug/L	1.0	1		06/11/19 23:14	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:14	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:14	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		06/11/19 23:14	127-18-4	CL
Toluene	**<1.0**	ug/L	1.0	1		06/11/19 23:14	108-88-3	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:14	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		06/11/19 23:14	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		06/11/19 23:14	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		06/11/19 23:14	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		06/11/19 23:14	96-18-4	
Vinyl acetate	**<1.0**	ug/L	1.0	1		06/11/19 23:14	108-05-4	
Vinyl chloride	**<1.0**	ug/L	1.0	1		06/11/19 23:14	75-01-4	
Xylene (Total)	**<3.0**	ug/L	3.0	1		06/11/19 23:14	1330-20-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Sample: TRIP BLANK **Lab ID: 7092926007** Collected: 06/11/19 00:00 Received: 06/11/19 15:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%	68-153	1		06/11/19 23:14	17060-07-0	
4-Bromofluorobenzene (S)	99	%	79-124	1		06/11/19 23:14	460-00-4	
Toluene-d8 (S)	100	%	69-124	1		06/11/19 23:14	2037-26-5	

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 118860 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926005, 7092926006

METHOD BLANK: 564840 Matrix: Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926005, 7092926006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.20	0.20	06/21/19 15:50	

LABORATORY CONTROL SAMPLE: 564841

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	1	0.99	99	80-120	

MATRIX SPIKE SAMPLE: 564842

Parameter	Units	7091639001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	<0.20	1	1.1	107	75-125	

SAMPLE DUPLICATE: 564843

Parameter	Units	7091639001 Result	Dup Result	RPD	Qualifiers
Mercury	ug/L	<0.20	<0.20		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
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(631)694-3040

QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 117595 Analysis Method: EPA 6010C
QC Batch Method: EPA 3005A Analysis Description: 6010 MET Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926005, 7092926006

METHOD BLANK: 557033 Matrix: Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926005, 7092926006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	<200	200	06/24/19 21:17	
Antimony	ug/L	<60.0	60.0	06/24/19 21:17	
Arsenic	ug/L	<10.0	10.0	06/24/19 21:17	
Barium	ug/L	<200	200	06/24/19 21:17	
Beryllium	ug/L	<5.0	5.0	06/24/19 21:17	
Boron	ug/L	<50.0	50.0	06/24/19 21:17	
Cadmium	ug/L	<2.5	2.5	06/24/19 21:17	
Calcium	ug/L	<200	200	06/24/19 21:17	
Chromium	ug/L	<10.0	10.0	06/24/19 21:17	
Cobalt	ug/L	<50.0	50.0	06/24/19 21:17	
Copper	ug/L	<25.0	25.0	06/24/19 21:17	
Iron	ug/L	<20.0	20.0	06/24/19 21:17	
Lead	ug/L	<5.0	5.0	06/24/19 21:17	
Magnesium	ug/L	<200	200	06/24/19 21:17	
Manganese	ug/L	<10.0	10.0	06/24/19 21:17	
Nickel	ug/L	<40.0	40.0	06/24/19 21:17	
Potassium	ug/L	<5000	5000	06/24/19 21:17	
Selenium	ug/L	<10.0	10.0	06/24/19 21:17	
Silver	ug/L	<10.0	10.0	06/24/19 21:17	
Sodium	ug/L	<5000	5000	06/24/19 21:17	
Thallium	ug/L	<10.0	10.0	06/24/19 21:17	
Vanadium	ug/L	<50.0	50.0	06/24/19 21:17	
Zinc	ug/L	<20.0	20.0	06/24/19 21:17	

LABORATORY CONTROL SAMPLE: 557034

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	5000	5000	100	80-120	
Antimony	ug/L	750	785	105	80-120	
Arsenic	ug/L	500	513	103	80-120	
Barium	ug/L	500	522	104	80-120	
Beryllium	ug/L	50	53.9	108	80-120	
Boron	ug/L	2500	2580	103	80-120	
Cadmium	ug/L	50	52.6	105	80-120	
Calcium	ug/L	25000	26600	106	80-120	
Chromium	ug/L	250	260	104	80-120	
Cobalt	ug/L	500	518	104	80-120	
Copper	ug/L	250	262	105	80-120	
Iron	ug/L	2000	2120	106	80-120	
Lead	ug/L	500	531	106	80-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

LABORATORY CONTROL SAMPLE: 557034

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Magnesium	ug/L	25000	26200	105	80-120	
Manganese	ug/L	250	265	106	80-120	
Nickel	ug/L	250	262	105	80-120	
Potassium	ug/L	50000	50600	101	80-120	
Selenium	ug/L	750	773	103	80-120	
Silver	ug/L	250	252	101	80-120	
Sodium	ug/L	50000	50700	101	80-120	
Thallium	ug/L	750	784	105	80-120	
Vanadium	ug/L	500	520	104	80-120	
Zinc	ug/L	1000	1040	104	80-120	

MATRIX SPIKE SAMPLE: 557036

Parameter	Units	7092454017 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	<200	5000	4850	97	75-125	
Antimony	ug/L	<60.0	750	752	100	75-125	
Arsenic	ug/L	<10.0	500	500	100	75-125	
Barium	ug/L	45.5J	500	551	101	75-125	
Beryllium	ug/L	<5.0	50	52.2	104	75-125	
Boron	ug/L	146	2500	2600	98	75-125	
Cadmium	ug/L	<2.5	50	50.6	101	75-125	
Calcium	ug/L	12000	25000	36600	98	75-125	
Chromium	ug/L	<10.0	250	242	97	75-125	
Cobalt	ug/L	<50.0	500	494	98	75-125	
Copper	ug/L	7.2J	250	258	100	75-125	
Iron	ug/L	13.6J	2000	2000	99	75-125	
Lead	ug/L	<5.0	500	523	105	75-125	
Magnesium	ug/L	5640	25000	30700	100	75-125	
Manganese	ug/L	2120	250	2440	130	75-125	M1
Nickel	ug/L	<40.0	250	252	100	75-125	
Potassium	ug/L	5660	50000	50300	89	75-125	
Selenium	ug/L	<10.0	750	760	101	75-125	
Silver	ug/L	<10.0	250	237	95	75-125	
Sodium	ug/L	35000	50000	80000	90	75-125	
Thallium	ug/L	<10.0	750	762	101	75-125	
Vanadium	ug/L	<50.0	500	496	99	75-125	
Zinc	ug/L	<20.0	1000	1000	99	75-125	

SAMPLE DUPLICATE: 557035

Parameter	Units	7092454017 Result	Dup Result	RPD	Qualifiers
Aluminum	ug/L	<200	<200		
Antimony	ug/L	<60.0	<60.0		
Arsenic	ug/L	<10.0	<10.0		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

SAMPLE DUPLICATE: 557035

Parameter	Units	7092454017 Result	Dup Result	RPD	Qualifiers
Barium	ug/L	45.5J	47.1J		
Beryllium	ug/L	<5.0	0.078J		
Boron	ug/L	146	150	2	
Cadmium	ug/L	<2.5	<2.5		
Calcium	ug/L	12000	12000	0	
Chromium	ug/L	<10.0	<10.0		
Cobalt	ug/L	<50.0	<50.0		
Copper	ug/L	7.2J	<25.0		
Iron	ug/L	13.6J	<20.0		
Lead	ug/L	<5.0	<5.0		
Magnesium	ug/L	5640	5810	3	
Manganese	ug/L	2120	2280	7	
Nickel	ug/L	<40.0	<40.0		
Potassium	ug/L	5660	3810J		
Selenium	ug/L	<10.0	<10.0		
Silver	ug/L	<10.0	<10.0		
Sodium	ug/L	35000	36100	3	
Thallium	ug/L	<10.0	<10.0		
Vanadium	ug/L	<50.0	<50.0		
Zinc	ug/L	<20.0	5.8J		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 117325 Analysis Method: EPA 8260C/5030C
QC Batch Method: EPA 8260C/5030C Analysis Description: 8260 MSV
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926004, 7092926005, 7092926006, 7092926007

METHOD BLANK: 555632 Matrix: Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926004, 7092926005, 7092926006, 7092926007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<1.0	1.0	06/11/19 20:37	
1,1,1-Trichloroethane	ug/L	<1.0	1.0	06/11/19 20:37	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	1.0	06/11/19 20:37	
1,1,2-Trichloroethane	ug/L	<1.0	1.0	06/11/19 20:37	
1,1-Dichloroethane	ug/L	<1.0	1.0	06/11/19 20:37	
1,1-Dichloroethene	ug/L	<1.0	1.0	06/11/19 20:37	
1,2,3-Trichloropropane	ug/L	<1.0	1.0	06/11/19 20:37	
1,2-Dibromo-3-chloropropane	ug/L	<1.0	1.0	06/11/19 20:37	
1,2-Dibromoethane (EDB)	ug/L	<1.0	1.0	06/11/19 20:37	
1,2-Dichlorobenzene	ug/L	<1.0	1.0	06/11/19 20:37	
1,2-Dichloroethane	ug/L	<1.0	1.0	06/11/19 20:37	
1,2-Dichloropropane	ug/L	<1.0	1.0	06/11/19 20:37	
1,4-Dichlorobenzene	ug/L	<1.0	1.0	06/11/19 20:37	
2-Butanone (MEK)	ug/L	<5.0	5.0	06/11/19 20:37	IL
2-Hexanone	ug/L	<5.0	5.0	06/11/19 20:37	CL
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	5.0	06/11/19 20:37	
Acetone	ug/L	<5.0	5.0	06/11/19 20:37	CL
Acrylonitrile	ug/L	<1.0	1.0	06/11/19 20:37	
Benzene	ug/L	<1.0	1.0	06/11/19 20:37	
Bromochloromethane	ug/L	<1.0	1.0	06/11/19 20:37	
Bromodichloromethane	ug/L	<1.0	1.0	06/11/19 20:37	
Bromoform	ug/L	<1.0	1.0	06/11/19 20:37	
Bromomethane	ug/L	<1.0	1.0	06/11/19 20:37	
Carbon disulfide	ug/L	<1.0	1.0	06/11/19 20:37	
Carbon tetrachloride	ug/L	<1.0	1.0	06/11/19 20:37	
Chlorobenzene	ug/L	<1.0	1.0	06/11/19 20:37	
Chloroethane	ug/L	<1.0	1.0	06/11/19 20:37	
Chloroform	ug/L	<1.0	1.0	06/11/19 20:37	
Chloromethane	ug/L	<1.0	1.0	06/11/19 20:37	
cis-1,2-Dichloroethene	ug/L	<1.0	1.0	06/11/19 20:37	
cis-1,3-Dichloropropene	ug/L	<1.0	1.0	06/11/19 20:37	
Dibromochloromethane	ug/L	<1.0	1.0	06/11/19 20:37	
Dibromomethane	ug/L	<1.0	1.0	06/11/19 20:37	
Ethylbenzene	ug/L	<1.0	1.0	06/11/19 20:37	
Iodomethane	ug/L	<1.0	1.0	06/11/19 20:37	
Methylene Chloride	ug/L	<1.0	1.0	06/11/19 20:37	
Styrene	ug/L	<1.0	1.0	06/11/19 20:37	
Tetrachloroethene	ug/L	<1.0	1.0	06/11/19 20:37	CL
Toluene	ug/L	<1.0	1.0	06/11/19 20:37	
trans-1,2-Dichloroethene	ug/L	<1.0	1.0	06/11/19 20:37	
trans-1,3-Dichloropropene	ug/L	<1.0	1.0	06/11/19 20:37	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

METHOD BLANK: 555632 Matrix: Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926004, 7092926005, 7092926006, 7092926007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,4-Dichloro-2-butene	ug/L	<1.0	1.0	06/11/19 20:37	
Trichloroethene	ug/L	<1.0	1.0	06/11/19 20:37	
Trichlorofluoromethane	ug/L	<1.0	1.0	06/11/19 20:37	
Vinyl acetate	ug/L	<1.0	1.0	06/11/19 20:37	
Vinyl chloride	ug/L	<1.0	1.0	06/11/19 20:37	
Xylene (Total)	ug/L	<3.0	3.0	06/11/19 20:37	
1,2-Dichloroethane-d4 (S)	%	100	68-153	06/11/19 20:37	
4-Bromofluorobenzene (S)	%	95	79-124	06/11/19 20:37	
Toluene-d8 (S)	%	99	69-124	06/11/19 20:37	

LABORATORY CONTROL SAMPLE: 555633

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	52.8	106	74-113	
1,1,1-Trichloroethane	ug/L	50	47.4	95	65-118	
1,1,2,2-Tetrachloroethane	ug/L	50	52.8	106	74-121	
1,1,2-Trichloroethane	ug/L	50	48.2	96	80-117	
1,1-Dichloroethane	ug/L	50	50.6	101	83-151	
1,1-Dichloroethene	ug/L	50	46.8	94	45-146	
1,2,3-Trichloropropane	ug/L	50	52.1	104	71-123	
1,2-Dibromo-3-chloropropane	ug/L	50	50.7	101	74-119	
1,2-Dibromoethane (EDB)	ug/L	50	47.6	95	83-115	
1,2-Dichlorobenzene	ug/L	50	46.9	94	74-113	
1,2-Dichloroethane	ug/L	50	49.9	100	74-129	
1,2-Dichloropropane	ug/L	50	50.1	100	75-117	
1,4-Dichlorobenzene	ug/L	50	46.7	93	71-113	
2-Butanone (MEK)	ug/L	50	49.8	100	44-162	IL
2-Hexanone	ug/L	50	49.6	99	32-183	CL
4-Methyl-2-pentanone (MIBK)	ug/L	50	47.5	95	69-132	
Acetone	ug/L	50	48.5	97	23-188	CL
Acrylonitrile	ug/L	50	49.3	99	59-148	
Benzene	ug/L	50	50.4	101	73-119	
Bromochloromethane	ug/L	50	49.6	99	81-116	
Bromodichloromethane	ug/L	50	51.1	102	78-117	
Bromoform	ug/L	50	47.4	95	65-122	
Bromomethane	ug/L	50	46.9	94	52-147	
Carbon disulfide	ug/L	50	47.0	94	41-144	
Carbon tetrachloride	ug/L	50	54.1	108	59-120	
Chlorobenzene	ug/L	50	48.6	97	75-113	
Chloroethane	ug/L	50	48.4	97	49-151	
Chloroform	ug/L	50	51.1	102	72-122	
Chloromethane	ug/L	50	46.3	93	46-144	
cis-1,2-Dichloroethene	ug/L	50	50.3	101	72-121	
cis-1,3-Dichloropropene	ug/L	50	49.4	99	78-116	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

LABORATORY CONTROL SAMPLE: 555633

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dibromochloromethane	ug/L	50	56.8	114	70-120	
Dibromomethane	ug/L	50	47.1	94	75-125	
Ethylbenzene	ug/L	50	49.0	98	70-113	
Iodomethane	ug/L	50	47.3	95	61-144	
Methylene Chloride	ug/L	50	44.0	88	61-142	
Styrene	ug/L	50	48.9	98	72-118	
Tetrachloroethene	ug/L	50	43.1	86	60-128	CL
Toluene	ug/L	50	49.2	98	72-119	
trans-1,2-Dichloroethene	ug/L	50	48.1	96	56-142	
trans-1,3-Dichloropropene	ug/L	50	50.4	101	79-116	
trans-1,4-Dichloro-2-butene	ug/L	50	52.3	105	71-121	
Trichloroethene	ug/L	50	48.0	96	69-117	
Trichlorofluoromethane	ug/L	50	50.4	101	27-173	
Vinyl acetate	ug/L	50	54.4	109	20-158	
Vinyl chloride	ug/L	50	49.9	100	43-143	
Xylene (Total)	ug/L	150	146	97	71-109	
1,2-Dichloroethane-d4 (S)	%			99	68-153	
4-Bromofluorobenzene (S)	%			99	79-124	
Toluene-d8 (S)	%			104	69-124	

MATRIX SPIKE SAMPLE: 555694

Parameter	Units	7092092005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.22	50	41.0	82	74-113	
1,1,1-Trichloroethane	ug/L	<0.22	50	41.3	83	65-118	
1,1,2,2-Tetrachloroethane	ug/L	<0.32	50	47.1	94	74-121	
1,1,2-Trichloroethane	ug/L	<0.23	50	42.5	85	80-117	
1,1-Dichloroethane	ug/L	<0.19	50	43.6	87	83-151	
1,1-Dichloroethene	ug/L	<0.23	50	41.4	83	45-146	
1,2,3-Trichloropropane	ug/L	<0.28	50	46.1	92	71-123	
1,2-Dibromo-3-chloropropane	ug/L	<0.47	50	43.3	87	74-119	
1,2-Dibromoethane (EDB)	ug/L	<0.24	50	41.9	84	83-115	
1,2-Dichlorobenzene	ug/L	<0.17	50	37.9	76	74-113	
1,2-Dichloroethane	ug/L	<0.19	50	42.9	86	74-129	
1,2-Dichloropropane	ug/L	<0.43	50	43.3	87	75-117	
1,4-Dichlorobenzene	ug/L	<0.25	50	37.9	76	71-113	
2-Butanone (MEK)	ug/L	<1.3	50	37.8	76	44-162	IL
2-Hexanone	ug/L	<0.60	50	37.7	75	32-183	CL
4-Methyl-2-pentanone (MIBK)	ug/L	<0.39	50	43.1	86	69-132	
Acetone	ug/L	<1.6	50	26.1	50	23-188	CL
Acrylonitrile	ug/L	<0.29	50	43.0	86	59-148	
Benzene	ug/L	0.62J	50	43.8	86	73-119	
Bromochloromethane	ug/L	<0.18	50	40.5	81	81-116	
Bromodichloromethane	ug/L	<0.22	50	43.9	88	78-117	
Bromoform	ug/L	<0.43	50	38.6	77	65-122	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

MATRIX SPIKE SAMPLE: 555694

Parameter	Units	7092092005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/L	<0.43	50	32.6	65	52-147	
Carbon disulfide	ug/L	<0.25	50	41.8	84	41-144	
Carbon tetrachloride	ug/L	<0.20	50	43.9	88	59-120	
Chlorobenzene	ug/L	<0.18	50	38.2	76	75-113	
Chloroethane	ug/L	<0.35	50	42.6	85	49-151	
Chloroform	ug/L	<0.20	50	42.1	84	72-122	
Chloromethane	ug/L	<0.20	50	38.7	77	46-144	
cis-1,2-Dichloroethene	ug/L	<0.24	50	41.8	84	72-121	
cis-1,3-Dichloropropene	ug/L	<0.26	50	42.2	84	78-116	
Dibromochloromethane	ug/L	<0.29	50	46.9	94	70-120	
Dibromomethane	ug/L	<0.24	50	42.9	86	75-125	
Ethylbenzene	ug/L	<0.16	50	37.2	74	70-113	
Iodomethane	ug/L	<0.58	50	36.7	73	61-144	
Methylene Chloride	ug/L	<0.30	50	40.6	81	61-142	
Styrene	ug/L	<0.22	50	38.6	77	72-118	
Tetrachloroethene	ug/L	<0.28	50	32.1	64	60-128	CL
Toluene	ug/L	<0.20	50	42.3	85	72-119	
trans-1,2-Dichloroethene	ug/L	<0.19	50	42.0	84	56-142	
trans-1,3-Dichloropropene	ug/L	<0.36	50	42.5	85	79-116	
trans-1,4-Dichloro-2-butene	ug/L	<0.54	50	42.0	84	71-121	
Trichloroethene	ug/L	<0.22	50	41.7	83	69-117	
Trichlorofluoromethane	ug/L	<0.12	50	41.9	84	27-173	
Vinyl acetate	ug/L	<0.28	50	42.6	85	20-158	
Vinyl chloride	ug/L	<0.33	50	42.0	84	43-143	
Xylene (Total)	ug/L	<0.18	150	112	75	71-109	
1,2-Dichloroethane-d4 (S)	%				102	68-153	
4-Bromofluorobenzene (S)	%				95	79-124	
Toluene-d8 (S)	%				101	69-124	

SAMPLE DUPLICATE: 555693

Parameter	Units	7092092003 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.22	<1.0		
1,1,1-Trichloroethane	ug/L	<0.22	<1.0		
1,1,2,2-Tetrachloroethane	ug/L	<0.32	<1.0		
1,1,2-Trichloroethane	ug/L	<0.23	<1.0		
1,1-Dichloroethane	ug/L	<0.19	<1.0		
1,1-Dichloroethene	ug/L	<0.23	<1.0		
1,2,3-Trichloropropane	ug/L	<0.28	<1.0		
1,2-Dibromo-3-chloropropane	ug/L	<0.47	<1.0		
1,2-Dibromoethane (EDB)	ug/L	<0.24	<1.0		
1,2-Dichlorobenzene	ug/L	<0.17	<1.0		
1,2-Dichloroethane	ug/L	<0.19	<1.0		
1,2-Dichloropropane	ug/L	<0.43	<1.0		
1,4-Dichlorobenzene	ug/L	<0.25	<1.0		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

SAMPLE DUPLICATE: 555693

Parameter	Units	7092092003 Result	Dup Result	RPD	Qualifiers
2-Butanone (MEK)	ug/L	<1.3	<5.0		IL
2-Hexanone	ug/L	<0.60	<5.0		CL
4-Methyl-2-pentanone (MIBK)	ug/L	<0.39	<5.0		
Acetone	ug/L	2.4J	2.2J		CL
Acrylonitrile	ug/L	<0.29	<1.0		
Benzene	ug/L	2.7	2.9	9	
Bromochloromethane	ug/L	<0.18	<1.0		
Bromodichloromethane	ug/L	<0.22	<1.0		
Bromoform	ug/L	<0.43	<1.0		
Bromomethane	ug/L	<0.43	<1.0		
Carbon disulfide	ug/L	<0.25	<1.0		
Carbon tetrachloride	ug/L	<0.20	<1.0		
Chlorobenzene	ug/L	<0.18	<1.0		
Chloroethane	ug/L	<0.35	<1.0		
Chloroform	ug/L	<0.20	<1.0		
Chloromethane	ug/L	<0.20	<1.0		
cis-1,2-Dichloroethene	ug/L	<0.24	<1.0		
cis-1,3-Dichloropropene	ug/L	<0.26	<1.0		
Dibromochloromethane	ug/L	<0.29	<1.0		
Dibromomethane	ug/L	<0.24	<1.0		
Ethylbenzene	ug/L	4.3	4.5	4	
Iodomethane	ug/L	<0.58	<1.0		
Methylene Chloride	ug/L	<0.30	<1.0		
Styrene	ug/L	<0.22	<1.0		
Tetrachloroethene	ug/L	<0.28	<1.0		CL
Toluene	ug/L	19.3	20.4	6	
trans-1,2-Dichloroethene	ug/L	<0.19	<1.0		
trans-1,3-Dichloropropene	ug/L	<0.36	<1.0		
trans-1,4-Dichloro-2-butene	ug/L	<0.54	<1.0		
Trichloroethene	ug/L	<0.22	<1.0		
Trichlorofluoromethane	ug/L	<0.12	<1.0		
Vinyl acetate	ug/L	<0.28	<1.0		
Vinyl chloride	ug/L	<0.33	<1.0		
Xylene (Total)	ug/L	26.0	25.8	1	
1,2-Dichloroethane-d4 (S)	%	96	100		
4-Bromofluorobenzene (S)	%	93	93		
Toluene-d8 (S)	%	97	96		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Melville, NY 11747
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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 613318 Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3510 Analysis Description: 8270D Water 14 Dioxane by SIM
Associated Lab Samples: 7092926001, 7092926002, 7092926005, 7092926006

METHOD BLANK: 3314241 Matrix: Water
Associated Lab Samples: 7092926001, 7092926002, 7092926005, 7092926006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (SIM)	ug/L	<0.25	0.25	06/21/19 11:31	
1,4-Dioxane-d8 (S)	%.	39	30-125	06/21/19 11:31	

LABORATORY CONTROL SAMPLE & LCSD: 3314242 3314243

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,4-Dioxane (SIM)	ug/L	10	7.8	7.3	78	73	40-125	6	20	
1,4-Dioxane-d8 (S)	%.				39	46	30-125			

LABORATORY CONTROL SAMPLE: 3314706

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (SIM)	ug/L	10	0.22J	2	40-125	L2
1,4-Dioxane-d8 (S)	%.			44	30-125	

LABORATORY CONTROL SAMPLE: 3314707

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (SIM)	ug/L	10	0.25	3	40-125	L2
1,4-Dioxane-d8 (S)	%.			47	30-125	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 615153
QC Batch Method: EPA 3510
Analysis Method: EPA 8270D by SIM
Analysis Description: 8270D Water 14 Dioxane by SIM
Associated Lab Samples: 7092926003

METHOD BLANK: 3323553 Matrix: Water
Associated Lab Samples: 7092926003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (SIM)	ug/L	<0.25	0.25	06/25/19 11:18	
1,4-Dioxane-d8 (S)	%.	41	30-125	06/25/19 11:18	

LABORATORY CONTROL SAMPLE & LCSD: 3323554 3323555

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,4-Dioxane (SIM)	ug/L	10	8.4	8.0	84	80	40-125	5	20	
1,4-Dioxane-d8 (S)	%.				38	46	30-125			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 117122 Analysis Method: SM22 2120B
QC Batch Method: SM22 2120B Analysis Description: 2120B Color
Associated Lab Samples: 7092926001, 7092926002, 7092926003

METHOD BLANK: 554708 Matrix: Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Apparent Color	units	<5.0	5.0	06/11/19 13:57	

LABORATORY CONTROL SAMPLE: 554709

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Apparent Color	units	40	40.0	100	90-110	

SAMPLE DUPLICATE: 554710

Parameter	Units	7092924001 Result	Dup Result	RPD	Qualifiers
Apparent Color	units	5.0	5.0	0	
pH	Std. Units	6.5	6.5	0	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 117419 Analysis Method: SM22 2120B
QC Batch Method: SM22 2120B Analysis Description: 2120B Color
Associated Lab Samples: 7092926005, 7092926006

METHOD BLANK: 556066 Matrix: Water
Associated Lab Samples: 7092926005, 7092926006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Apparent Color	units	<5.0	5.0	06/12/19 14:31	

LABORATORY CONTROL SAMPLE: 556067

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Apparent Color	units	40	40.0	100	90-110	

SAMPLE DUPLICATE: 556068

Parameter	Units	7092990004 Result	Dup Result	RPD	Qualifiers
Apparent Color	units	5.0	5.0	0	
pH	Std. Units	6.5	6.5	0	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 118942 Analysis Method: SM22 2320B
QC Batch Method: SM22 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926005, 7092926006

METHOD BLANK: 565421 Matrix: Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926005, 7092926006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<1.0	1.0	06/21/19 23:40	

LABORATORY CONTROL SAMPLE: 565422

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	25	26.2	105	85-115	

MATRIX SPIKE SAMPLE: 565424

Parameter	Units	7092454017 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	16.5	25	44.9	114	75-125	

SAMPLE DUPLICATE: 565423

Parameter	Units	7092454017 Result	Dup Result	RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	16.5	16.6	1	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 119111 Analysis Method: SM22 2340C
QC Batch Method: SM22 2340C Analysis Description: 2340C Hardness, Total
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926005, 7092926006

METHOD BLANK: 566027 Matrix: Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926005, 7092926006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	<5.0	5.0	06/24/19 13:46	

LABORATORY CONTROL SAMPLE: 566028

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	100	99.0	99	90-110	

MATRIX SPIKE SAMPLE: 566415

Parameter	Units	7093107008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	40.0	667	700	99	75-125	

SAMPLE DUPLICATE: 566416

Parameter	Units	7093107008 Result	Dup Result	RPD	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	40.0	33.3	18	

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REPORT OF LABORATORY ANALYSIS

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Melville, NY 11747
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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 117745 Analysis Method: SM22 2540C
QC Batch Method: SM22 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 7092926001, 7092926002, 7092926003

METHOD BLANK: 557796 Matrix: Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<10.0	10.0	06/14/19 10:42	

LABORATORY CONTROL SAMPLE: 557797

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	500	516	103	85-115	

MATRIX SPIKE SAMPLE: 557799

Parameter	Units	7092852006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	49.0	300	337	96	75-125	

MATRIX SPIKE SAMPLE: 557801

Parameter	Units	7092927004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	900	600	1660	127	75-125	M1

SAMPLE DUPLICATE: 557798

Parameter	Units	7092852006 Result	Dup Result	RPD	Qualifiers
Total Dissolved Solids	mg/L	49.0	48.0	2	

SAMPLE DUPLICATE: 557800

Parameter	Units	7092927004 Result	Dup Result	RPD	Qualifiers
Total Dissolved Solids	mg/L	900	860	5	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 118003
QC Batch Method: SM22 2540C
Analysis Method: SM22 2540C
Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 7092926005, 7092926006

METHOD BLANK: 559701 Matrix: Water
Associated Lab Samples: 7092926005, 7092926006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<10.0	10.0	06/17/19 09:42	

LABORATORY CONTROL SAMPLE: 559702

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	500	568	114	85-115	

MATRIX SPIKE SAMPLE: 559704

Parameter	Units	7092927006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	596	600	1130	89	75-125	

MATRIX SPIKE SAMPLE: 559706

Parameter	Units	7092454017 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	211	300	490	93	75-125	

SAMPLE DUPLICATE: 559703

Parameter	Units	7092927006 Result	Dup Result	RPD	Qualifiers
Total Dissolved Solids	mg/L	596	602	1	

SAMPLE DUPLICATE: 559705

Parameter	Units	7092454017 Result	Dup Result	RPD	Qualifiers
Total Dissolved Solids	mg/L	211	223	6	D6

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
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(631)694-3040

QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 117155 Analysis Method: SM22 3500-Cr B
QC Batch Method: SM22 3500-Cr B Analysis Description: Chromium, Hexavalent by 3500
Associated Lab Samples: 7092926001, 7092926002, 7092926003

METHOD BLANK: 554814 Matrix: Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	<0.020	0.020	06/11/19 10:54	

LABORATORY CONTROL SAMPLE: 554815

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	0.2	0.20	102	85-115	

MATRIX SPIKE SAMPLE: 554816

Parameter	Units	7092926001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	<0.020	0.2	0.20	102	75-125	

SAMPLE DUPLICATE: 554817

Parameter	Units	7092926001 Result	Dup Result	RPD	Qualifiers
Chromium, Hexavalent	mg/L	<0.020	<0.020		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 117343 Analysis Method: SM22 3500-Cr B
QC Batch Method: SM22 3500-Cr B Analysis Description: Chromium, Hexavalent by 3500
Associated Lab Samples: 7092926005, 7092926006

METHOD BLANK: 555717 Matrix: Water
Associated Lab Samples: 7092926005, 7092926006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	<0.020	0.020	06/12/19 07:38	

LABORATORY CONTROL SAMPLE: 555718

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	0.2	0.21	104	85-115	

MATRIX SPIKE SAMPLE: 555719

Parameter	Units	7093094001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	<0.020	0.2	0.19	93	75-125	

SAMPLE DUPLICATE: 555720

Parameter	Units	7093094001 Result	Dup Result	RPD	Qualifiers
Chromium, Hexavalent	mg/L	<0.020	<0.020		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 117776 Analysis Method: EPA 410.4
QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD
Associated Lab Samples: 7092926001, 7092926002, 7092926003

METHOD BLANK: 557830 Matrix: Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	10.0	06/14/19 11:54	

LABORATORY CONTROL SAMPLE: 557831

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	500	509	102	90-110	

MATRIX SPIKE SAMPLE: 557832

Parameter	Units	7093543001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	10.2	1000	1010	100	90-110	

MATRIX SPIKE SAMPLE: 557834

Parameter	Units	7092454015 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	19.0	1000	969	95	90-110	

SAMPLE DUPLICATE: 557833

Parameter	Units	7093543001 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	10.2	<10.0		

SAMPLE DUPLICATE: 557835

Parameter	Units	7092454015 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	19.0	12.4	42	D6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 118376 Analysis Method: EPA 410.4
QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD
Associated Lab Samples: 7092926005, 7092926006

METHOD BLANK: 562201 Matrix: Water
Associated Lab Samples: 7092926005, 7092926006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	10.0	06/19/19 11:37	

LABORATORY CONTROL SAMPLE: 562202

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	500	531	106	90-110	

MATRIX SPIKE SAMPLE: 562203

Parameter	Units	7093107001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	1000	1010	100	90-110	

MATRIX SPIKE SAMPLE: 562205

Parameter	Units	7093260004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	1000	1050	105	90-110	

SAMPLE DUPLICATE: 562204

Parameter	Units	7093107001 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	<10.0		

SAMPLE DUPLICATE: 562206

Parameter	Units	7093260004 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	<10.0		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 117293 Analysis Method: SM22 5210B
QC Batch Method: SM22 5210B Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 7092926001, 7092926002, 7092926003

METHOD BLANK: 555119 Matrix: Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	<2.0	2.0	06/16/19 09:10	

LABORATORY CONTROL SAMPLE: 555120

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	208	105	84.5-115.4	

SAMPLE DUPLICATE: 555121

Parameter	Units	7092970001 Result	Dup Result	RPD	Qualifiers
BOD, 5 day	mg/L	130	157	18	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 117484 Analysis Method: SM22 5210B
QC Batch Method: SM22 5210B Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 7092926005, 7092926006

METHOD BLANK: 556243 Matrix: Water
Associated Lab Samples: 7092926005, 7092926006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	<2.0	2.0	06/17/19 11:09	

LABORATORY CONTROL SAMPLE: 556244

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	202	102	84.5-115.4	

SAMPLE DUPLICATE: 556245

Parameter	Units	7093205001 Result	Dup Result	RPD	Qualifiers
BOD, 5 day	mg/L	162	160	2	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 118006 Analysis Method: EPA 9034
QC Batch Method: EPA 9030B Analysis Description: 9034 Sulfide Waste Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926005, 7092926006

METHOD BLANK: 559717 Matrix: Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926005, 7092926006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide	mg/L	<2.0	2.0	06/17/19 14:26	

LABORATORY CONTROL SAMPLE: 559718

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	56.1	48.0	86	80-120	

SAMPLE DUPLICATE: 559719

Parameter	Units	7092926001 Result	Dup Result	RPD	Qualifiers
Sulfide	mg/L	72.0	72.0	0	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 119376 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926005, 7092926006

METHOD BLANK: 567390 Matrix: Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926005, 7092926006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Bromide	mg/L	<0.50	0.50	06/26/19 10:06	
Chloride	mg/L	<2.0	2.0	06/26/19 10:06	
Sulfate	mg/L	<5.0	5.0	06/26/19 10:06	

LABORATORY CONTROL SAMPLE: 567391

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	1.0	103	90-110	
Chloride	mg/L	10	10.7	107	90-110	
Sulfate	mg/L	10	10.6	106	90-110	

MATRIX SPIKE SAMPLE: 567392

Parameter	Units	7094103006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	<0.50	1	0.93	92	80-120	
Chloride	mg/L	9.0	10	18.9	99	80-120	
Sulfate	mg/L	<5.0	10	9.7	90	80-120	

MATRIX SPIKE SAMPLE: 567394

Parameter	Units	7094234005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	<0.50	1	1.0	94	80-120	
Chloride	mg/L	34.0	10	43.6	96	80-120	
Sulfate	mg/L	13.6	10	24.0	103	80-120	

SAMPLE DUPLICATE: 567393

Parameter	Units	7094103006 Result	Dup Result	RPD	Qualifiers
Bromide	mg/L	<0.50	<0.50		
Chloride	mg/L	9.0	8.9	1	
Sulfate	mg/L	<5.0	<5.0		

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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

SAMPLE DUPLICATE: 567395

Parameter	Units	7094234005 Result	Dup Result	RPD	Qualifiers
Bromide	mg/L	<0.50	1.0		
Chloride	mg/L	34.0	43.5	25	D6
Sulfate	mg/L	13.6	23.8	54	D6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 119268 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926005, 7092926006

METHOD BLANK: 566775 Matrix: Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926005, 7092926006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	<0.10	0.10	06/26/19 07:51	

LABORATORY CONTROL SAMPLE: 566776

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4	4.0	99	90-110	

MATRIX SPIKE SAMPLE: 566777

Parameter	Units	7092926001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	97.9	20	94.6	-16	90-110	M6

MATRIX SPIKE SAMPLE: 566779

Parameter	Units	7093723002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4.7	4	9.1	110	90-110	

SAMPLE DUPLICATE: 566778

Parameter	Units	7092926001 Result	Dup Result	RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	97.9	91.2	7	

SAMPLE DUPLICATE: 566780

Parameter	Units	7093723002 Result	Dup Result	RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4.7	3.8	22	D6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 117107 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrite, Unpres.
Associated Lab Samples: 7092926001, 7092926002, 7092926003

METHOD BLANK: 554577 Matrix: Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrite as N	mg/L	<0.050	0.050	06/10/19 20:42	

LABORATORY CONTROL SAMPLE: 554578

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	1	1.0	102	90-110	

MATRIX SPIKE SAMPLE: 554579

Parameter	Units	7092854001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	0.5	0.48	95	90-110	

MATRIX SPIKE SAMPLE: 554581

Parameter	Units	7092926001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	0.5	0.18	37	90-110	M1

SAMPLE DUPLICATE: 554580

Parameter	Units	7092854001 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

SAMPLE DUPLICATE: 554582

Parameter	Units	7092926001 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 117321
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrite, Unpres.
Associated Lab Samples: 7092926005, 7092926006

METHOD BLANK: 555462 Matrix: Water
Associated Lab Samples: 7092926005, 7092926006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrite as N	mg/L	<0.050	0.050	06/11/19 19:58	

LABORATORY CONTROL SAMPLE: 555463

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	1	1.0	104	90-110	

MATRIX SPIKE SAMPLE: 555464

Parameter	Units	7092953001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	0.5	0.64	129	90-110	M1

MATRIX SPIKE SAMPLE: 555466

Parameter	Units	7093040001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	0.5	0.64	128	90-110	M1

SAMPLE DUPLICATE: 555465

Parameter	Units	7092953001 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

SAMPLE DUPLICATE: 555467

Parameter	Units	7093040001 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 117111 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate, Unpres.
Associated Lab Samples: 7092926001, 7092926002, 7092926003

METHOD BLANK: 554669 Matrix: Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	0.050	06/10/19 22:25	

LABORATORY CONTROL SAMPLE: 554670

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	1	1.0	103	90-110	

MATRIX SPIKE SAMPLE: 554671

Parameter	Units	7092927001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	6.0	5	10.8	95	90-110	

MATRIX SPIKE SAMPLE: 554673

Parameter	Units	7092854001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	4.3	5	9.5	102	90-110	

SAMPLE DUPLICATE: 554672

Parameter	Units	7092927001 Result	Dup Result	RPD	Qualifiers
Nitrate-Nitrite (as N)	mg/L	6.0	5.7	5	

SAMPLE DUPLICATE: 554674

Parameter	Units	7092854001 Result	Dup Result	RPD	Qualifiers
Nitrate-Nitrite (as N)	mg/L	4.3	4.3	1	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 117328
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate, Unpres.
Associated Lab Samples: 7092926005, 7092926006

METHOD BLANK: 555671 Matrix: Water
Associated Lab Samples: 7092926005, 7092926006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	0.050	06/11/19 22:25	

LABORATORY CONTROL SAMPLE: 555672

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	1	1.0	102	90-110	

MATRIX SPIKE SAMPLE: 555673

Parameter	Units	7093035001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	4.0	5	8.5	91	90-110	

MATRIX SPIKE SAMPLE: 555675

Parameter	Units	7093139001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	0.69	0.5	1.1	86	90-110	M1

SAMPLE DUPLICATE: 555674

Parameter	Units	7093035001 Result	Dup Result	RPD	Qualifiers
Nitrate-Nitrite (as N)	mg/L	4.0	4.0	1	

SAMPLE DUPLICATE: 555676

Parameter	Units	7093139001 Result	Dup Result	RPD	Qualifiers
Nitrate-Nitrite (as N)	mg/L	0.69	0.69	1	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 119281 Analysis Method: SM22 4500 NH3 H
QC Batch Method: SM22 4500 NH3 H Analysis Description: 4500 Ammonia
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926005, 7092926006

METHOD BLANK: 566889 Matrix: Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926005, 7092926006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	0.036J	0.10	06/25/19 14:09	

LABORATORY CONTROL SAMPLE: 566890

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1	1.0	101	90-110	

MATRIX SPIKE SAMPLE: 566891

Parameter	Units	7093468001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	22.4	10	29.0	67	75-125	M6

SAMPLE DUPLICATE: 566892

Parameter	Units	7093468001 Result	Dup Result	RPD	Qualifiers
Nitrogen, Ammonia	mg/L	22.4	17.7	23	D6

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REPORT OF LABORATORY ANALYSIS

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Melville, NY 11747
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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 118162 Analysis Method: EPA 9014 Total Cyanide
QC Batch Method: EPA 9010C Analysis Description: 9014 Cyanide, Total
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926005, 7092926006

METHOD BLANK: 560795 Matrix: Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926005, 7092926006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	ug/L	<10.0	10.0	06/18/19 15:19	

LABORATORY CONTROL SAMPLE: 560796

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	ug/L	75	67.0	89	85-115	

MATRIX SPIKE SAMPLE: 560797

Parameter	Units	7092926001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	ug/L	3.4J	100	82.7	79	75-125	

SAMPLE DUPLICATE: 560798

Parameter	Units	7092926001 Result	Dup Result	RPD	Qualifiers
Cyanide	ug/L	3.4J	4.0J		

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REPORT OF LABORATORY ANALYSIS

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Melville, NY 11747
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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

QC Batch: 118775 Analysis Method: EPA 9060A
QC Batch Method: EPA 9060A Analysis Description: 9060 TOC
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926005, 7092926006

METHOD BLANK: 564526 Matrix: Water
Associated Lab Samples: 7092926001, 7092926002, 7092926003, 7092926005, 7092926006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mean Total Organic Carbon	mg/L	<1.0	1.0	06/21/19 14:06	
Total Organic Carbon	mg/L	<1.0	1.0	06/21/19 14:06	
Total Organic Carbon	mg/L	<1.0	1.0	06/21/19 14:06	
Total Organic Carbon	mg/L	<1.0	1.0	06/21/19 14:06	
Total Organic Carbon	mg/L	<1.0	1.0	06/21/19 14:06	

LABORATORY CONTROL SAMPLE: 564527

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mean Total Organic Carbon	mg/L	10	9.2	92	85-115	
Total Organic Carbon	mg/L	10	9.2	92	85-115	
Total Organic Carbon	mg/L	10	9.2	92	85-115	
Total Organic Carbon	mg/L	10	9.1	91	85-115	
Total Organic Carbon	mg/L	10	9.2	92	85-115	

MATRIX SPIKE SAMPLE: 564529

Parameter	Units	7092926001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mean Total Organic Carbon	mg/L	278	10	280	27	75-125	M6
Total Organic Carbon	mg/L	276	10	282	53	75-125	M6
Total Organic Carbon	mg/L	281	10	280	-10	75-125	M6
Total Organic Carbon	mg/L	291	10	291	-5	75-125	M6
Total Organic Carbon	mg/L	277	10	279	17	75-125	M6

SAMPLE DUPLICATE: 564528

Parameter	Units	7092926001 Result	Dup Result	RPD	Qualifiers
Mean Total Organic Carbon	mg/L	278	276	1	
Total Organic Carbon	mg/L	291	287	1	
Total Organic Carbon	mg/L	281	276	2	
Total Organic Carbon	mg/L	277	276	0	
Total Organic Carbon	mg/L	276	278	0	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALIFIERS

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PACE-MV	Pace Analytical Services - Melville
PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

1j	Reanalysis conducted in excess of EPA method holding time. Reanalysis was required due to over range recoveries in original in hold analysis.
B	Analyte was detected in the associated method blank.
CL	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
H2	Extraction or preparation was conducted outside of the recognized method holding time.
IL	This analyte exceeded secondary source verification criteria low for the initial calibration. The reported results should be considered an estimated value.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
N	The reported TIC has an 85% or higher match on a mass spectral library search.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7092926001	**NNU PLCRS**	EPA 3005A	117595	EPA 6010C	117620
7092926002	**NNU SLCRS**	EPA 3005A	117595	EPA 6010C	117620
7092926003	**ONU SLCRS**	EPA 3005A	117595	EPA 6010C	117620
7092926005	**SA SLCRS**	EPA 3005A	117595	EPA 6010C	117620
7092926006	**EQUIPMENT BLANK**	EPA 3005A	117595	EPA 6010C	117620
7092926001	**NNU PLCRS**	EPA 7470A	118860	EPA 7470A	118884
7092926002	**NNU SLCRS**	EPA 7470A	118860	EPA 7470A	118884
7092926003	**ONU SLCRS**	EPA 7470A	118860	EPA 7470A	118884
7092926005	**SA SLCRS**	EPA 7470A	118860	EPA 7470A	118884
7092926006	**EQUIPMENT BLANK**	EPA 7470A	118860	EPA 7470A	118884
7092926001	**NNU PLCRS**	EPA 3510	613318	EPA 8270D by SIM	614673
7092926002	**NNU SLCRS**	EPA 3510	613318	EPA 8270D by SIM	614673
7092926003	**ONU SLCRS**	EPA 3510	615153	EPA 8270D by SIM	615378
7092926005	**SA SLCRS**	EPA 3510	613318	EPA 8270D by SIM	614673
7092926006	**EQUIPMENT BLANK**	EPA 3510	613318	EPA 8270D by SIM	614673
7092926001	**NNU PLCRS**	EPA 8260C/5030C	117325		
7092926002	**NNU SLCRS**	EPA 8260C/5030C	117325		
7092926003	**ONU SLCRS**	EPA 8260C/5030C	117325		
7092926004	**STORAGE BLANK**	EPA 8260C/5030C	117325		
7092926005	**SA SLCRS**	EPA 8260C/5030C	117325		
7092926006	**EQUIPMENT BLANK**	EPA 8260C/5030C	117325		
7092926007	**TRIP BLANK**	EPA 8260C/5030C	117325		
7092926001	**NNU PLCRS**	SM22 2120B	117122		
7092926002	**NNU SLCRS**	SM22 2120B	117122		
7092926003	**ONU SLCRS**	SM22 2120B	117122		
7092926005	**SA SLCRS**	SM22 2120B	117419		
7092926006	**EQUIPMENT BLANK**	SM22 2120B	117419		
7092926001	**NNU PLCRS**	SM22 2320B	118942		
7092926002	**NNU SLCRS**	SM22 2320B	118942		
7092926003	**ONU SLCRS**	SM22 2320B	118942		
7092926005	**SA SLCRS**	SM22 2320B	118942		
7092926006	**EQUIPMENT BLANK**	SM22 2320B	118942		
7092926001	**NNU PLCRS**	SM22 2340C	119111		
7092926002	**NNU SLCRS**	SM22 2340C	119111		
7092926003	**ONU SLCRS**	SM22 2340C	119111		
7092926005	**SA SLCRS**	SM22 2340C	119111		
7092926006	**EQUIPMENT BLANK**	SM22 2340C	119111		
7092926001	**NNU PLCRS**	SM22 2540C	117745		
7092926002	**NNU SLCRS**	SM22 2540C	117745		
7092926003	**ONU SLCRS**	SM22 2540C	117745		
7092926005	**SA SLCRS**	SM22 2540C	118003		
7092926006	**EQUIPMENT BLANK**	SM22 2540C	118003		
7092926001	**NNU PLCRS**	SM22 3500-Cr B	117155		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7092926002	**NNU SLCRS**	SM22 3500-Cr B	117155		
7092926003	**ONU SLCRS**	SM22 3500-Cr B	117155		
7092926005	**SA SLCRS**	SM22 3500-Cr B	117343		
7092926006	**EQUIPMENT BLANK**	SM22 3500-Cr B	117343		
7092926001	**NNU PLCRS**	EPA 410.4	117776	EPA 410.4	117816
7092926002	**NNU SLCRS**	EPA 410.4	117776	EPA 410.4	117816
7092926003	**ONU SLCRS**	EPA 410.4	117776	EPA 410.4	117816
7092926005	**SA SLCRS**	EPA 410.4	118376	EPA 410.4	118422
7092926006	**EQUIPMENT BLANK**	EPA 410.4	118376	EPA 410.4	118422
7092926001	**NNU PLCRS**	SM22 5210B	117293	SM22 5210B	118243
7092926002	**NNU SLCRS**	SM22 5210B	117293	SM22 5210B	118243
7092926003	**ONU SLCRS**	SM22 5210B	117293	SM22 5210B	118243
7092926005	**SA SLCRS**	SM22 5210B	117484	SM22 5210B	118481
7092926006	**EQUIPMENT BLANK**	SM22 5210B	117484	SM22 5210B	118481
7092926001	**NNU PLCRS**	EPA 9030B	118006	EPA 9034	118030
7092926002	**NNU SLCRS**	EPA 9030B	118006	EPA 9034	118030
7092926003	**ONU SLCRS**	EPA 9030B	118006	EPA 9034	118030
7092926005	**SA SLCRS**	EPA 9030B	118006	EPA 9034	118030
7092926006	**EQUIPMENT BLANK**	EPA 9030B	118006	EPA 9034	118030
7092926001	**NNU PLCRS**	EPA 300.0	119376		
7092926002	**NNU SLCRS**	EPA 300.0	119376		
7092926003	**ONU SLCRS**	EPA 300.0	119376		
7092926005	**SA SLCRS**	EPA 300.0	119376		
7092926006	**EQUIPMENT BLANK**	EPA 300.0	119376		
7092926001	**NNU PLCRS**	EPA 351.2	119268	EPA 351.2	119309
7092926002	**NNU SLCRS**	EPA 351.2	119268	EPA 351.2	119309
7092926003	**ONU SLCRS**	EPA 351.2	119268	EPA 351.2	119309
7092926005	**SA SLCRS**	EPA 351.2	119268	EPA 351.2	119309
7092926006	**EQUIPMENT BLANK**	EPA 351.2	119268	EPA 351.2	119309
7092926001	**NNU PLCRS**	EPA 353.2	117111		
7092926002	**NNU SLCRS**	EPA 353.2	117111		
7092926003	**ONU SLCRS**	EPA 353.2	117111		
7092926005	**SA SLCRS**	EPA 353.2	117328		
7092926006	**EQUIPMENT BLANK**	EPA 353.2	117328		
7092926001	**NNU PLCRS**	EPA 353.2	117107		
7092926002	**NNU SLCRS**	EPA 353.2	117107		
7092926003	**ONU SLCRS**	EPA 353.2	117107		
7092926005	**SA SLCRS**	EPA 353.2	117321		
7092926006	**EQUIPMENT BLANK**	EPA 353.2	117321		
7092926001	**NNU PLCRS**	SM22 4500 NH3 H	119281		
7092926002	**NNU SLCRS**	SM22 4500 NH3 H	119281		
7092926003	**ONU SLCRS**	SM22 4500 NH3 H	119281		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LEACHATES BASELINE 360
Pace Project No.: 7092926

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7092926005	**SA SLCRS**	SM22 4500 NH3 H	119281		
7092926006	**EQUIPMENT BLANK**	SM22 4500 NH3 H	119281		
7092926001	**NNU PLCRS**	EPA 9010C	118162	EPA 9014 Total Cyanide	118192
7092926002	**NNU SLCRS**	EPA 9010C	118162	EPA 9014 Total Cyanide	118192
7092926003	**ONU SLCRS**	EPA 9010C	118162	EPA 9014 Total Cyanide	118192
7092926005	**SA SLCRS**	EPA 9010C	118162	EPA 9014 Total Cyanide	118192
7092926006	**EQUIPMENT BLANK**	EPA 9010C	118162	EPA 9014 Total Cyanide	118192
7092926001	**NNU PLCRS**	EPA 9060A	118775		
7092926002	**NNU SLCRS**	EPA 9060A	118775		
7092926003	**ONU SLCRS**	EPA 9060A	118775		
7092926005	**SA SLCRS**	EPA 9060A	118775		
7092926006	**EQUIPMENT BLANK**	EPA 9060A	118775		

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Docu

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

WO#: 7092926

7092926

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Town of Babylon	Report To:	Joe Guarino	Attention:	
Address:	281 Phelps Lane	Copy To:		Company Name:	
North Babylon, NY 11703				Address:	
Email:	jguarino@townofbabylon.com	Purchase Order #:		Pace Quote:	
Phone:	631-422-7640 Fax	Project Name:	Leachates Baseline 360	Pace Project Manager:	jennifer.aracri@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #:	5271 LINES 3 & 6

Regulatory Agency
State / Location
NY

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: Part 360 VOA	TAL Metals +B & Hardness	BOD,Br,Cl,SO4,Color,Cr+6	No2,ALK,TDS	COD,NH3,NO3,TKN,Phenol	TOC	Cyanide	Sulfide	1,4 Dioxane				Residual Chlorine (Y/N)	
	MATRIX: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS																												
1	NNU PLCRS	WT				6/10/19	1310												X	X	X	X	X	X	X	X	X			
2	NNU SLCRS	WT				6/10/19	1325												X	X	X	X	X	X	X	X	X			
3	ONU SLCRS	WT				6/10/19	1345												X	X	X	X	X	X	X	X	X			
4	~~SA SLCRS~~	WT				—	—												X	X	X	X	X	X	X	X	X			
5	~~Equipment Blank~~	WT				—	—												X	X	X	X	X	X	X	X	X			
6	~~Trip Blank~~	WT																	X											
7																														
8																														
9																														
10																														
11																														
12																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Part 360 Baseline Leachates	Brian Nichols/Zion	6/10/19	1500	/Pace	6/10/19	1500	1.9	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brian Nichols

SIGNATURE of SAMPLER: Brian Nichols

DATE Signed: 6-10-19

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Sample Condition Upon Receipt

Pace Analytical

WO#: 7092926
PM: JSA Due Date: 06/24/19
CLIENT: BAB-ECO

Client Name: Town Babylon

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace ☐ Other

Tracking #:

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No Seals intact: ☐ Yes ☑ No

Temperature Blank Present: ☐ Yes ☑ No

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ Ziploc ☐ None ☐ Other

Type of Ice: (Wet) Blue None

Thermometer Used: TH091 Correction Factor: 0.0

☐ Samples on ice, cooling process has begun

Cooler Temperature (°C): 1.9 Cooler Temperature Corrected (°C): 1.9

Date/Time 5035A kits placed in freezer

Temp should be above freezing to 6.0°C

USDA Regulated Soil (☑ N/A, water sample)

Date and Initials of person examining contents: 6/10/19 JP

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ YES ☐ NO

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	☑Yes	☐No		1.
Chain of Custody Filled Out:	☑Yes	☐No		2.
Chain of Custody Relinquished:	☑Yes	☐No		3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No		5.
Short Hold-Time Analysis (<72hr):	☑Yes	☐No		6.
Rush Turn Around Time Requested:	☐Yes	☑No		7.
Sufficient Volume: (Triple volume provided for MS/MSD)	☑Yes	☐No		8.
Correct Containers Used:	☑Yes	☐No		9.
-Pace Containers Used:	☑Yes	☐No		
Containers Intact:	☑Yes	☐No		10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix SL (WT) OIL	☑Yes	☐No		12.
All containers needing preservation have been checked pH paper Lot # HC4634163	☑Yes	☐No	☐N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water) Per Method, VOA pH is checked after analysis	☑Yes	☐No	☐N/A	Initial when completed: / Lot # of added preservative: / Date/Time preservative added:
Samples checked for dechlorination: KI starch test strips Lot # Residual chlorine strips Lot #	☐Yes	☐No	☑N/A	14. Positive for Res. Chlorine? Y N
Headspace in VOA Vials (>6mm):	☐Yes	☑No	☐N/A	15.
Trip Blank Present:	☐Yes	☑No	☐N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if applicable):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

* PM (Project Manager) review is documented electronically in LIMS.

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mu

WO#:7092926
PM: JSA Due Date: 06/24/19
CLIENT: BAB-ECO

Section A
Required Client Information:

Company:	Town of Babylon
Address:	281 Phelps Lane
	North Babylon, NY 11703
Email:	jguarino@townofbabylon.com
Phone:	631-422-7640 Fax:
Requested Due Date:	

Section B
Required Project Information:

Report To:	Joe Guarino
Copy To:	
Purchase Order #:	
Project Name:	Leachates Baseline 360
Project #:	

Section C
Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	jennifer.aracri@pacelabs.com,
Pace Profile #:	5271 LINES 3 & 6

Regulatory Agency
State / Location
NY

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Part 360 VOA	TAL Metals +B & Hardness	BOD,Br,Cl,SO4,Color,Cr+6	No2,ALK,TDS	COD,NH3,NO3,TKN,Phenols	TOC	Cyanide	Sulfide	1,4 Dioxane	Residual Chlorine (Y/N)	
1	~~NNU PLCRS~~	WT				—	—												X	X	X	X	X	X	X	X	X		
2	~~NNU SLCRS~~	WT				—	—												X	X	X	X	X	X	X	X	X		
3	~~ONU SLCRS~~	WT				—	—												X	X	X	X	X	X	X	X	X		
4	SA SLCRS	WT				6/11/19	1015												X	X	X	X	X	X	X	X	X		005
5	Equipment Blank	WT				6/11/19	1040												X	X	X	X	X	X	X	X	X		006
6	Trip Blank	WT				6/11/19	—												X										007
7																													
8																													
9																													
10																													
11																													
12																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Part 360 Baseline Leachates	Brian Nichols \ Zaic	6/11/19	1600	[signature] - PACE LI	6/11/19	15:56	2.6	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brian Nichols

SIGNATURE of SAMPLER: [signature] DATE Signed: 6-11-19

Pace Analytical

Sample Condition Upon Receipt

WO#: 7092926
PM: JSA Due Date: 06/24/19
CLIENT: BAB-ECO

Client Name: Babylon Pr

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace ☐ Other

Tracking #:

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No Seals intact: ☐ Yes ☑ No

Temperature Blank Present: ☐ Yes ☑ No

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ Ziploc ☑ None ☐ Other

Type of Ice: (Wet) Blue None

Thermometer Used: TH091 Correction Factor: +0.2

☐ Samples on ice, cooling process has begun

Cooler Temperature (°C): 2.6 Cooler Temperature Corrected (°C): 2.8

Date/Time 5035A kits placed in freezer

Temp should be above freezing to 6.0°C

USDA Regulated Soil (☑ N/A, water sample) Date and Initials of person examining contents: 6/11/19 SP

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ YES ☐ NO

Did samples orignate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	☑Yes	☐No		1.
Chain of Custody Filled Out:	☑Yes	☐No		2.
Chain of Custody Relinquished:	☑Yes	☐No		3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No		5.
Short Hold Time Analysis (<72hr):	☑Yes	☐No		6.
Rush Turn Around Time Requested:	☐Yes	☑No		7.
Sufficient Volume: (Triple volume provided for MS/MSD	☑Yes	☐No		8.
Correct Containers Used:	☑Yes	☐No		9.
-Pace Containers Used:	☑Yes	☐No		
Containers Intact:	☑Yes	☐No		10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC:	☑Yes	☐No		12.
-Includes date/time/ID/Analysis Matrix SL (WT) OIL				
All containers needing preservation have been checked	☑Yes	☐No	☐N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
pH paper Lot # HC863463				
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NAOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water) Per Method, VOA pH is checked after analysis	☑Yes	☐No	☐N/A	Sample #
				Initial when completed: / Lot # of added preservative: / Date/Time preservative added
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	14.
KI starch test strips Lot #				
Residual chlorine strips Lot #				Positive for Res. Chlorine? Y N
Headspace in VOA Vials (>6mm):	☐Yes	☑No	☐N/A	15.
Trip Blank Present:	☑Yes	☐No	☐N/A	16.
Trip Blank Custody Seals Present	☑Yes	☐No	☐N/A	
Pace Trip Blank Lot # (if applicable):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

* PM (Project Manager) review is documented electronically in LIMS.

ANALYTICAL REPORT

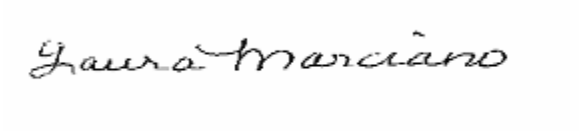
Job Number: 420-155310-1

SDG Number: 7092926

Job Description: Pace Analytical Sevices, Inc.-Mellville

For:
Pace Analytical Mellville
575 Broadhollow Road
Melville, NY 11747

Attention: James Murphy



Laura L Marciano
Customer Service Manager
lmarciano@envirotestlaboratories.com
06/27/2019

cc: Ms. Jen Aracri
Betty Harrison
Accounts Payable
Sophia Sparkes

EnviroTest Laboratories, Inc. Certifications and Approvals: NYSDOH 10142, NJDEP NY015, CTDOPH PH-0554

EXECUTIVE SUMMARY - Detections

Client: Pace Analytical Mellville

Job Number: 420-155310-1
Sdg Number: 7092926

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
420-155310-1	**NNU PLCRS**				
Phenolics, Total Recoverable		0.099	0.050	mg/L	420.4 Rev. 1.0
420-155310-2	**NNU SLCRS**				
Phenolics, Total Recoverable		0.16	0.050	mg/L	420.4 Rev. 1.0

METHOD SUMMARY

Client: Pace Analytical Mellville

Job Number: 420-155310-1
SDG Number: 7092926

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Phenols Semi-Automated	EnvTest	EPA 420.4 Rev. 1.0	
Distillation/Phenolics	EnvTest		Distill/Phenol

Lab References:

EnvTest = EnviroTest

Method References:

EPA = US Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: Pace Analytical Mellville

Job Number: 420-155310-1
SDG Number: 7092926

Method	Analyst	Analyst ID
EPA 420.4 Rev. 1.0	Mastrobuono, Danielle	DM

SAMPLE SUMMARY

Client: Pace Analytical Mellville

Job Number: 420-155310-1
SDG Number: 7092926

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
420-155310-1	NNU PLCRS	Water	06/10/2019 1310	06/14/2019 1015
420-155310-2	NNU SLCRS	Water	06/10/2019 1325	06/14/2019 1015
420-155310-3	ONU SLCRS	Water	06/10/2019 1345	06/14/2019 1015
420-155310-4	SA SLCRS	Water	06/11/2019 1015	06/14/2019 1015
420-155310-5	Equipment Blank	Water	06/11/2019 1040	06/14/2019 1015

SAMPLE RESULTS

General Chemistry

Client Sample ID: **NNU PLCRS**

Lab Sample ID: 420-155310-1
Client Matrix: Water

Date Sampled: 06/10/2019 1310
Date Received: 06/14/2019 1015

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Phenolics, Total Recoverable	0.099		mg/L	0.050	0.050	5.0	420.4 Rev. 1.0
Anly Batch:	Date Analyzed	06/19/2019 1614					
Prep Batch:	Date Prepared:	06/19/2019 0946					

Client Sample ID: **NNU SLCRS**

Lab Sample ID: 420-155310-2
Client Matrix: Water

Date Sampled: 06/10/2019 1325
Date Received: 06/14/2019 1015

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Phenolics, Total Recoverable	0.16		mg/L	0.050	0.050	5.0	420.4 Rev. 1.0
Anly Batch:	Date Analyzed	06/19/2019 1614					
Prep Batch:	Date Prepared:	06/19/2019 0946					

Client Sample ID: **ONU SLCRS**

Lab Sample ID: 420-155310-3
Client Matrix: Water

Date Sampled: 06/10/2019 1345
Date Received: 06/14/2019 1015

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Phenolics, Total Recoverable	0.010	U	mg/L	0.010	0.010	1.0	420.4 Rev. 1.0
Anly Batch:	Date Analyzed	06/19/2019 1551					
Prep Batch:	Date Prepared:	06/19/2019 0946					

Client Sample ID: **SA SLCRS**

Lab Sample ID: 420-155310-4
Client Matrix: Water

Date Sampled: 06/11/2019 1015
Date Received: 06/14/2019 1015

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Phenolics, Total Recoverable	0.010	U	mg/L	0.010	0.010	1.0	420.4 Rev. 1.0
Anly Batch:	Date Analyzed	06/19/2019 1552					
Prep Batch:	Date Prepared:	06/19/2019 0946					

Client Sample ID: **Equipment Blank**

Lab Sample ID: 420-155310-5
Client Matrix: Water

Date Sampled: 06/11/2019 1040
Date Received: 06/14/2019 1015

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Phenolics, Total Recoverable	0.010	U	mg/L	0.010	0.010	1.0	420.4 Rev. 1.0
Anly Batch:	Date Analyzed	06/19/2019 1552					
Prep Batch:	Date Prepared:	06/19/2019 0946					

DATA REPORTING QUALIFIERS

Client: Pace Analytical Mellville

Job Number:
Sdg Number: 7092926

Lab Section	Qualifier	Description
General Chemistry		
	U	Indicates analyzed for but not detected.

The following analytes are Not Part of the ELAP scope of accreditation:

Sulfur, Tungsten, Bicarbonate Alkalinity, 7 Day BOD 5210C, 28 Day BOD, Soluble BOD, Carbon Dioxide, Carbonate Alkalinity, CBOD Soluble, Chlorine, Cyanide (WAD), Ferrous Iron, Ferric Iron, Total Nitrogen, Total Organic Nitrogen, Dissolved Oxygen, pH, Solids (Fixed), Solids (Percent), Solids (Percent Moisture), Solids (Percent Volatile), Solids (Volatile Suspended), Temperature, TKN (Soluble), COD (Soluble), Total Inorganic Carbon, 2-Aminopyridine, 3-Picoline, 1-Methyl-2-pyrrilidinone, Aziridine, Dimethyl sulfoxide, 1-Chlorohexane, 1,2,4,5-Tetramethylbenzene, 4-Ethyl toluene, p-Diethylbenzene, Iron Bacteria, Salmonella, Sulfur Reducing Bacteria, & UOD (Ultimate Oxygen Demand).

The following analytes are Not Part of ELAP Potable Water scope of accreditation:

Ammonia (SM 4500NH3G), TKN (351.2), Phosphorus (365.3), Nitrate-Nitrite (10-107-4-1C, 353.2), m-Xylene & p-Xylene (502.2, 524), o-Xylene (502.2, 524), Sulfide (SM4500SD), Acenaphthene (525.2), Acenaphthylene (525.2), Fluoranthene (525.2), Fluorene (525.2), Phenanthrene (525.2), Anthracene (525.2), Pyrene (525.2), Benzo[a]anthracene (525.2), Benzo[b]fluoranthene (525.2), Benzo[g,h,i]perylene (525.2), Benzo[k]fluoranthene (525.2), Indeno[1,2,3-cd]pyrene (525.2), & Dibenz(a,h)anthracene (525.2).

The following analytes are Not Part of ELAP Solid and Hazardous Waste scope of accreditation:

Ammonia (SM 4500NH3G), TKN (351.2), Phosphorus (365.3), 1,2-Dichloro-1,1,2-trifluoroethane (8260), & Chlorodifluoromethane (8260).

The following analytes are Not Part of ELAP Non Potable Water scope of accreditation:

Dissolved Organic Carbon (5310C), Mecoprop (8151A), MCPA (8151A), Propylene Glycol (8015D).

Definitions and Glossary

Client: Pace Analytical Mellville

Job Number:

Sdg Number: 7092926

Abbreviation	These commonly used abbreviations may or may not be present in this report.
%R	Percent Recovery
DL, RA, RE	Indicates a Dilution, Reanalysis or Reextraction.
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit - an estimate of the minimum amount of a substance that an analytical process can reliably detect. A MDL is analyte- and matrix-specific and may be laboratory-dependent.
ND	Not detected at the reporting limit (or MDL if shown).
QC	Quality Control
RL	Reporting Limit - the minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.
RPD	Relative Percent Difference - a measure of the relative difference between two points.

QUALITY CONTROL RESULTS

Client: Pace Analytical Mellville

Job Number: 420-155310-1
Sdg Number: 7092926

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 420-132681					
LCS 420-132681/28-A	Lab Control Spike	T	Water	Distill/Phenol	
LCS 420-132681/3-A	Lab Control Spike	T	Water	Distill/Phenol	
MB 420-132681/2-A	Method Blank	T	Water	Distill/Phenol	
MB 420-132681/27-A	Method Blank	T	Water	Distill/Phenol	
420-155302-A-2-B DU	Duplicate	T	Water	Distill/Phenol	
420-155302-A-2-C MS	Matrix Spike	T	Water	Distill/Phenol	
420-155308-A-7-B DU	Duplicate	T	Water	Distill/Phenol	
420-155308-A-7-C MS	Matrix Spike	T	Water	Distill/Phenol	
420-155310-1	NNU PLCRS	T	Water	Distill/Phenol	
420-155310-2	NNU SLCRS	T	Water	Distill/Phenol	
420-155310-3	ONU SLCRS	T	Water	Distill/Phenol	
420-155310-4	SA SLCRS	T	Water	Distill/Phenol	
420-155310-5	Equipment Blank	T	Water	Distill/Phenol	
Analysis Batch:420-132707					
LCS 420-132681/28-A	Lab Control Spike	T	Water	420.4 Rev. 1.0	420-132681
LCS 420-132681/3-A	Lab Control Spike	T	Water	420.4 Rev. 1.0	420-132681
MB 420-132681/2-A	Method Blank	T	Water	420.4 Rev. 1.0	420-132681
MB 420-132681/27-A	Method Blank	T	Water	420.4 Rev. 1.0	420-132681
420-155302-A-2-B DU	Duplicate	T	Water	420.4 Rev. 1.0	420-132681
420-155302-A-2-C MS	Matrix Spike	T	Water	420.4 Rev. 1.0	420-132681
420-155308-A-7-B DU	Duplicate	T	Water	420.4 Rev. 1.0	420-132681
420-155308-A-7-C MS	Matrix Spike	T	Water	420.4 Rev. 1.0	420-132681
420-155310-1	NNU PLCRS	T	Water	420.4 Rev. 1.0	420-132681
420-155310-2	NNU SLCRS	T	Water	420.4 Rev. 1.0	420-132681
420-155310-3	ONU SLCRS	T	Water	420.4 Rev. 1.0	420-132681
420-155310-4	SA SLCRS	T	Water	420.4 Rev. 1.0	420-132681
420-155310-5	Equipment Blank	T	Water	420.4 Rev. 1.0	420-132681

Report Basis
T = Total

Surrogate Recovery Report

Lab Sample ID	Client Sample ID

Surrogate	Acceptance Limits

Client: Pace Analytical Mellville

Job Number: 420-155310-1
Sdg Number: 7092926

Method Blank - Batch: 420-132681

Method: 420.4 Rev. 1.0
Preparation: Distill/Phenol

Lab Sample ID:	MB 420-132681/2-A	Analysis Batch:	420-132707	Instrument ID:	Lachat Quikchem 8500 FIA
Client Matrix:	Water	Prep Batch:	420-132681	Lab File ID:	OM_6-19-2019_03-35-07PM.(
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	mL
Date Analyzed:	06/19/2019 1536			Final Weight/Volume:	mL
Date Prepared:	06/19/2019 0946				

Analyte	Result	Qual	RL	RL
Phenolics, Total Recoverable	0.010	U	0.010	0.010

Method Blank - Batch: 420-132681

Method: 420.4 Rev. 1.0
Preparation: Distill/Phenol

Lab Sample ID:	MB 420-132681/27-A	Analysis Batch:	420-132707	Instrument ID:	Lachat Quikchem 8500 FIA
Client Matrix:	Water	Prep Batch:	420-132681	Lab File ID:	OM_6-19-2019_03-35-07PM.(
Dilution:	1.0	Units:	mg/L	Initial Weight/Volume:	mL
Date Analyzed:	06/19/2019 1601			Final Weight/Volume:	mL
Date Prepared:	06/19/2019 0946				

Analyte	Result	Qual	RL	RL
Phenolics, Total Recoverable	0.010	U	0.010	0.010

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

Client: Pace Analytical Mellville

Job Number: 420-155310-1
Sdg Number: 7092926

Lab Control Spike - Batch: 420-132681

Method: 420.4 Rev. 1.0
Preparation: Distill/Phenol

Lab Sample ID: LCS 420-132681/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/19/2019 1537
Date Prepared: 06/19/2019 0946

Analysis Batch: 420-132707
Prep Batch: 420-132681
Units: mg/L

Instrument ID: Lachat Quikchem 8500 FIA
Lab File ID: OM_6-19-2019_03-35-07PM.(
Initial Weight/Volume: mL
Final Weight/Volume: mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Phenolics, Total Recoverable	0.0500	0.055	109	57 - 123	

Lab Control Spike - Batch: 420-132681

Method: 420.4 Rev. 1.0
Preparation: Distill/Phenol

Lab Sample ID: LCS 420-132681/28-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/19/2019 1601
Date Prepared: 06/19/2019 0946

Analysis Batch: 420-132707
Prep Batch: 420-132681
Units: mg/L

Instrument ID: Lachat Quikchem 8500 FIA
Lab File ID: OM_6-19-2019_03-35-07PM.(
Initial Weight/Volume: mL
Final Weight/Volume: mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Phenolics, Total Recoverable	0.0500	0.056	112	57 - 123	

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

Client: Pace Analytical Mellville

Job Number: 420-155310-1
Sdg Number: 7092926

Matrix Spike - Batch: 420-132681

Method: 420.4 Rev. 1.0
Preparation: Distill/Phenol

Lab Sample ID: 420-155302-A-2-C MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/19/2019 1540
Date Prepared: 06/19/2019 0946

Analysis Batch: 420-132707
Prep Batch: 420-132681
Units: mg/L

Instrument ID: Lachat Quikchem 8500 FIA
Lab File ID: OM_6-19-2019_03-35-07PM.(
Initial Weight/Volume: mL
Final Weight/Volume: mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Phenolics, Total Recoverable	0.011	0.0300	0.039	94	55 - 136	

Matrix Spike - Batch: 420-132681

Method: 420.4 Rev. 1.0
Preparation: Distill/Phenol

Lab Sample ID: 420-155308-A-7-C MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/19/2019 1607
Date Prepared: 06/19/2019 0946

Analysis Batch: 420-132707
Prep Batch: 420-132681
Units: mg/L

Instrument ID: Lachat Quikchem 8500 FIA
Lab File ID: OM_6-19-2019_03-35-07PM.(
Initial Weight/Volume: mL
Final Weight/Volume: mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Phenolics, Total Recoverable	0.012	0.0300	0.038	87	55 - 136	

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

Client: Pace Analytical Mellville

Job Number: 420-155310-1
Sdg Number: 7092926

Duplicate - Batch: 420-132681

Method: 420.4 Rev. 1.0
Preparation: Distill/Phenol

Lab Sample ID: 420-155302-A-2-B DU
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/19/2019 1539
Date Prepared: 06/19/2019 0946

Analysis Batch: 420-132707
Prep Batch: 420-132681
Units: mg/L

Instrument ID: Lachat Quikchem 8500 FIA
Lab File ID: OM_6-19-2019_03-35-07PM.(
Initial Weight/Volume: mL
Final Weight/Volume: mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Phenolics, Total Recoverable	0.011	0.011	0	15	

Duplicate - Batch: 420-132681

Method: 420.4 Rev. 1.0
Preparation: Distill/Phenol

Lab Sample ID: 420-155308-A-7-B DU
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/19/2019 1606
Date Prepared: 06/19/2019 0946

Analysis Batch: 420-132707
Prep Batch: 420-132681
Units: mg/L

Instrument ID: Lachat Quikchem 8500 FIA
Lab File ID: OM_6-19-2019_03-35-07PM.(
Initial Weight/Volume: mL
Final Weight/Volume: mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Phenolics, Total Recoverable	0.012	0.012	1	15	

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

Chain of Custody

155310

Pace Analytical®
www.pacelabs.com

Workorder: 7092926 **Workorder Name:** LEACHATES BASELINE 360 **Results Requested By:** 6/24/2019

Report / Invoice To	Subcontract To
Jennifer Aracri Pace Analytical Melville 575 Broad Hollow Road Melville, NY 11747 Phone (631)694-3040 Email: jennifer.aracri@pacelabs.com	EnviroTest Laboratories, Inc. P.O. 7092926JSA 315 Fullerton Avenue Newburgh, NY 12550

State of Sample Origin: NY

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: H2SO4	20.1 Phenolics, Total Recoverable	LAB USE ONLY
1	NNU PLCRS	6/10/2019 13:10	7092926001	Water		X	
2	NNU SLCRS	6/10/2019 13:25	7092926002	Water		X	
3	ONU SLCRS	6/10/2019 13:45	7092926003	Water		X	
4	SA SLCRS	6/11/2019 10:15	7092926005	Water		X	
5	EQUIPMENT BLANK	6/11/2019 10:40	7092926006	Water		X	

Transfers	Released By	Date/Time	Received By	Date/Time
1	[signature]	6/13/19 18:00	[signature]	06/14/19 @
2				10:15
3				

Comments

Need a Category B Package and NY EQuIS EDDs.

Cooler Temperature on Receipt 2.4 °C **Custody Seal** Y or N **Received on Ice** (Y) or N **Samples Intact** (Y) or N

420-155310-B-5
Equipment Blank

Date Sampled. 6/11/2019 420-1350390

FEDEX 1068 0079 3227

LOGIN SAMPLE RECEIPT CHECK LIST

Client: Pace Analytical Mellville

Job Number: 420-155310-1
SDG Number: 7092926

Login Number: **155310**

Question	T/F/NA	Comment
Samples were collected by ETL employee as per SOP-SAM-1	NA	
The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is recorded.	True	2.4 C
Cooler Temp. is within method specified range.(0-6 C PW, 0-8 C NPW, or BAC <10 C	True	
If false, was sample received on ice within 6 hours of collection.	NA	
Based on above criteria cooler temperature is acceptable.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	NA	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	